STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION COMMISSION FOR
THE PURPOSE OF CONSIDERING:

CASE NOS 21528

APPLICATION OF OIL CONSERVATION DIVISION
TO ADOPT 19.15.27 NMAC AND 19.15.28 NMAC, AND
TO AMEND 19.15.7 NMAC, 19.15.18 NMAC, AND
19.15.19 NMAC; STATEWIDE.

REPORTER'S TRANSCRIPT OF VIRTUAL PROCEEDINGS
RULEMAKING HEARING
January 15, 2021
Via Webex Platform
Santa Fe, New Mexico

BEFORE: ADRIENNE SANDOVAL, CHAIRWOMAN
JORDAN KESSLER, COMMISSIONER
DR. THOMAS ENGLER, COMMISSIONER
FELICIA ORTH: HEARING EXAMINER
CHRIS MOANDER, ESQ.

This matter came on for hearing before the New Mexico Oil Conservation Commission on January 21, 2021, via Webex Virtual Platform, hosted by New Mexico Energy, Minerals, and Natural Resources Department.

Reported by: Irene Delgado, NMCCR 253
PAUL BACA PROFESSIONAL COURT REPORTERS
500 Fourth Street, NW, Suite 105
Albuquerque, NM 87102
505-843-9241

APPEARANCES

FOR THE APPLICANT:

ERIC AMES
Assistant General Counsel
1220 S. St. Francis Drive
Santa Fe, NM 87505

FOR NMOGA:

MICHAEL FELDEWERT
ADAM RANKIN
HOLLAND & HART
110 North Guadalupe, Suite 1
Santa Fe, NM 87501
505-954-7286

FOR ENVIRONMENTAL DEFENSE FUND:

ELIZABETH PARANHOS
DELONE LAW, INC.
155 Jennine Place
Boulder, CO 80304
303-442-0610

FOR CENTER FOR CIVIC POLICY, CONSERVATION VOTERS NEW MEXICO, DINE C.A.R.E., EARTHWORKS, NATURAL RESOURCES DEFENSE COUNCIL, SAN JUAN CITIZENS ALLIANCE, SIERRA CLUB, and 350 NEW MEXICO:

TANNIS FOX
ERIK-SCHLENKER-GOODRICH
WESTERN ENVIRONMENTAL LAW CENTER
208 Paseo Del Pueblo Sur, 602
Taos, NM 87571
505-629-0732

and

DAVID R. BAAKE
2131 North Main Street
Las Cruces, NM 88001
575-343-2782

FOR STATE LAND OFFICE:

ARI BIERNOFF
GENERAL COUNSEL
310 Old Santa Fe Trail
Santa Fe, NM 87501

I N D E X

EXHIBITS

HEARING EXAMINER ORTH: All right. Good morning. My name is Felicia Orth, the Hearing Officer appointed by the Oil Conservation Commission to conduct a hearing in 21528.

We are on day ten of the hearing, and this is the 8:30 public comment session. We have two commenters scheduled to speak this morning. The first is Naomi Martinez Parra and the second is Victor Snover.

Mr. Lamkin, would you please unmute the callers so we can see if Ms. Parra is among them.

MR. LAMKIN: Good to go.

HEARING EXAMINER ORTH: Ms. Parra?

MS. PARRA: Yes, good morning.

HEARING EXAMINER ORTH: I can hear you. If you would, please, offer your comment. We have all the Commissioners on the line this morning.

MS. PARRA: Thank you, and good morning everyone. My name is Naomi Martinez Parra, and my apologies, I'm a little bit out of breath. I live in Lordsburg, New Mexico, that's Hidalgo County. I would like to thank the Oil Conservation Commission for the opportunity to speak to you this morning.

I would quickly like to address three issues today. The pollution, of course, during this pandemic, the education and of course cost. So two months ago I was

infected with Covid, however, my health has been compromised, and I, like many New Mexico suffer breathing consequences due to Covid.

And now we have two battles to fight, we have pollution and Covid, both of which can cause pulmonary disease, like mine.

Next, I'm a mother. My daughter is 11 years old, and it's my obligation to protect and advocate for her. It is my duty to make sure that she receives the best education and resources, but because of the venting and the flaring and leaks waste, we are spending over 200 million of natural gas per year in New Mexico.

Of course it's depriving the state of more than 40 million in royalties and tax revenue that could fund our public education, especially because we need a more diversified curriculum during this pandemic. And as a retired special education teacher I understand first hand the resources that are needed.

As a responsible New Mexico I want to be part of the solution for our health, our economy, but most importantly our kids, because their lives have already been disrupted enough. I thank you again for the opportunity this morning, and I apologize for the short wind. Please have a blessed weekend. Thank you.

HEARING EXAMINER ORTH: Thank you very much, Ms.

Parra. Mr. Snover?

MR. SNOVER: Good morning, can you hear me okay?

HEARING EXAMINER ORTH: Yes, very clearly, thank you.

MR. SNOVER: Thank you, thanks for having me. My name is Victor Snover. I live in Aztec, New Mexico, and I'm an elected city commissioner, appointed mayor up here, but beyond that, or in addition to that, I'm a partner, I'm a father, I'm a grandfather three times over, almost four, and I'm a public school teacher as well as an elected official up here in San Juan County.

I support Governor Lujan Grisham's call for leading methane rules, but to achieve that goal the Oil Conservation Commission must strengthen the Oil Conservation Division's proposed methane waste rule to eliminate unnecessary methane waste.

It is, it is my, my belief that we need to achieve three key goals in routine venting and flaring to only allow them when it's necessary for health and safety, require oil and gas companies to capture 98 percent of their methane emissions with the goal of 2026 to reach that, strengthen state reporting and public notice requirements to improve transparency and ensure accountability of oil and gas operations.

It's no secret that methane is a powerful

greenhouse gas that is responsible for approximately a quarter of the climate change we are experiencing today. And like the previous caller said, fold this in with the pandemic that attacks folks that have compromised respiratory systems and you have an even bigger recipe for disaster that was just waiting for us, kind of setting a trap for folks that are already compromised. And then you throw Covid into this breathing environment and it's no wonder our cases are spiking the way they are. I digressed.

Methane is also the primary component of natural gas, which means when methane is wasted, it costs our schools upwards of $43 million in royalties and tax revenues. 2020 New Mexico Climate Strategy Progress and Recommendations Report revealed that the oil and gas sector generates 53 percent of all greenhouse gas emissions in our state, more than twice the amount than previously estimated.

The Climate Strategy Report finds that our current and proposed climate strategies will make a significant dent in our greenhouse gas emissions profiled by 2030, but reaching our target will require renewed ambition and additional action.

So we are asking that the Oil Conservation Commission should approve the proposal before it by requiring what's called green completions to minimize methane emissions () provisions to ensure the flares stay

lit more properly at all times preventing methane from being vented, requiring operators to immediately notify folks in the communities at risk where methane releases threaten public health, safety or environment, denying permits to drill new wells if operators are out of compliance with gas capture requirements.

I liken that to, if I have a car in a garage and they do shoddy repairs, and then I buy a new car, I'm sure as heck not going to bring it back to them to do it again if they are not doing it right the first time. Why is this industry any different? It still puts people's lives and health at risk. If they are not doing it right, why should we let them carry on doing the same thing improperly over and over again? It makes no sense.

And I know I'm running out of time, but finally since nearly 70 percent of oil and gas methane pollution in New Mexico occurs through leaks, it's critical that the New Mexico Environment Department adopt a rule to hold polluters accountable across the oil and gas supply chain.

NMED's draft rule fails to protect public health and our climate by exempting 95 percent of wells from regulation across the state from oversight basically () repair requirements. I mean, if you are driving down the street, and you might have one person that's throwing trash out of the window, and you let 95 out of 100 throw trash,

you continue to let them operate, they have no incentive to do the right thing and to follow the rules and stop their practices.

We have a methane and waste pollution problem. It's causing our schools millions in revenue. We can't afford to give up those millions of dollars in revenue. Like I said, I'm a public school teacher. You don't have money in many cases to buy the supplies that we need to do our jobs. We are leaving money, unnecessarily leaving money on the table in a state that consistently ranks in the bottom tier of public education and health. It's inexcusable, and we have an opportunity to do something here.

And I'm urging our folks in Santa Fe, the Lujan Grisham administration, with your organization, to toughen these rules up. You have a window to do something really good for this state and our citizens, and I urge you to reconsider and to toughen this rule up.

I appreciate the time, and I hope you guys have a great weekend. I know it's been a long ten days of hearings, and I'm sure you have been hearing it all, but I really do appreciate kind of hanging in there with everybody and for what you guys do, I know it's not easy. So thank you so much. I appreciate the time, and have a wonderful weekend. Enjoy your holiday weekend.

HEARING EXAMINER ORTH: Thank you very much, Mr. Snover. Mr. Lamkin, I believe we reached the end of the commenters unless another commenter has reached out to you through chat?

MR. LAMKIN: I haven't seen anything.

HEARING EXAMINER ORTH: All right. At this time, based on the late, late breaking submission, rebuttal by the Division, and the other parties' need for a little bit of time this morning to review those rebuttal submissions, we are going to take a break until 11 a.m..

When we return at 11, we will hear from the Division's witnesses around that submission, and we may potentially hear rebuttal from the other parties following that, but that's not clear yet, and of course we will talk about any potential post hearing process at that time.

Madam Chair, is there anything else we can talk about before we take a break? I would direct the Commissioner's attention to the most recent submission from OCD which is from this morning rather than from last night. I believe they added page numbers.

CHAIRWOMAN SANDOVAL: No, I don't think I have anything additional, Ms. Orth. We'll reconvene at 11.

HEARING EXAMINER ORTH: Thank you all very much .

(Recessed until 11 a.m.)

HEARING EXAMINER ORTH: Good morning, everyone.

My name is Felicia Orth. We are on day ten of the hearing in this matter case 21528. This morning we accepted two public commenters and broke until 11 as requested by counsel, collectively. We will hear from the Division this morning in relation to their rebuttal exhibits, let's do a sound check first.

Mr. Ames?

MR. AMES: Good morning, Madam Chair, Eric Ames for OCD.

HEARING EXAMINER ORTH: Okay, thank you.

MR. AMES: Madam Hearing Officer, excuse me, and Madam Chair.

HEARING EXAMINER ORTH: Mr. Feldewert?

MR. FELDEWERT: Madam Hearing Officer, Members of the Commission, fellow Counsel, can you hear me okay?

HEARING EXAMINER ORTH: Yes.

MR. FELDEWERT: Madam Hearing Officer, thank you very much for the break this morning and last night.

HEARING EXAMINER ORTH: I had to turn away from listening to sea shanties to do that.

MR. FELDEWERT: And I know Mr. Ames and his group worked as hard as they could to get it out as soon as they could, so we will make the most of the situation and hopefully ready to proceed.

HEARING EXAMINER ORTH: Terrific, Mr. Feldewert.

Mr. Biernoff?

MR. BIERNOFF: Good morning, Madam Hearing Officer, Commissioners and Counsel.

HEARING EXAMINER ORTH: Good morning. Ms. Fox?

MS. FOX: Good morning, Madam Hearing Officer, Commissioners, and I echo Mr. Feldewert's thanks for your late night reprieve for us to look at OCD's submission.

HEARING EXAMINER ORTH: Thank you. And Ms. Paranhos?

MS. PARANHOS: Good morning, Madam Hearing Officer.

HEARING EXAMINER ORTH: Good morning. So let's see. Irene, can you hear us?

REPORTER: I'm good to go.

HEARING EXAMINER ORTH: Terrific. Thank you very much. Anything before we invite Mr. Ames to call or recall his first witness?

MR. AMES: Yes, Madam Hearing Officer. With respect to our rebuttal, I would like to make a brief comments to begin in the request.

OCD intends to the present two witnesses for rebuttal testimony. Last night we filed and served exhibits 4C and 4D, which is a full written account of our rebuttal testimony. This morning we filed and served revised versions of those exhibits. I added lines, numbers for the

lines and pages. There were no other changes to those exhibits.

These exhibits reflect the considerable effort by the Oil Conservation Division given the volume of work and unexpectedly short period of time to do it in, and we appreciate the understanding and response of the parties and their counsel to the situation.

Now each witness will address a few of the items in the exhibits and then stand for cross. And the exhibits identified the witness best suited to address each line item on the spreadsheets.

However, I would like to take this opportunity to again request permission to call the witnesses individually for direct and to present them as a panel for cross. I'm aware that this deviates from how we have been doing this in this hearing, however I think there are some distinct advantages to doing it and relatively few disadvantages.

With respect to the advantages, as you can see there are quite a few items on the spreadsheet. There are at least 150 altogether, and there is some duplication between the two parts so it's probably more like 120 unique items, let's say.

These witnesses have a depth of knowledge on many of these -- or they share a depth of knowledge on many of please items, and they have different perspectives based on

their education, experience and employment. We've -- you know, the identified witnesses may very well defer to the other to answer a particular question or to elaborate on a particular topic.

And OCD believes that it would facilitate useful response for the Commission and to the parties if the witnesses could stand for cross as a panel. And of course it would avoid the necessity of having to recall witnesses to address issues left unaddressed by the questioned witness.

On the other hand, OCD does not see any apparent downside to the panel approach. The fears about conducting this hearing on a virtual platform have largely proved unfounded. There have been minor technical issues, but no issues with multiple people and multiple person, counsel and parties participating in a discussion.

It's clear that multiple persons can be online, on screen, and available to address questions on request, and therefore I renew our request, our initial request for permission to present the witnesses on rebuttal as a panel.

Thank you.

HEARING EXAMINER ORTH: Thank you, Mr. Ames. Let me ask if there are objections from other counsel around the Division presenting Mr. Bolander and Mr. Powell as a panel for cross-examination?

MR. FELDEWERT: Yes, Madam Hearing Officer, I do -- I do not believe that is appropriate. Number one, we have already addressed this in a prehearing filing and had a ruling from -- on this very topic, and for sound reasons, which are, in my mind, equally applicable here.

Each witness needs to stand on their own areas of testimony. And Mr. -- and OCD Exhibit 4C and 4D don't identify two witnesses attributable to the rebuttal testimony. They identify a particular witness as the witness for a particular topic. And that is how it's going to be in the record.

As a result it is that witness that needs to be able to substantiate what they purport to have as their testimony on this exhibit. And so it's inappropriate, for example, to have Mr. Powell testify about a statement on this exhibit that is attributed to Mr. Bolander, and vice versa.

They need to stand on their own and they need to substantiate and stand for cross-examination on these statements that they have attributed to themselves.

HEARING EXAMINER ORTH: All right. Thank you, Mr. Feldewert. Mr. Biernoff?

MR. BIERNOFF: Madam Hearing Officer, from our point of view, the presentation approach outlined by counsel for the Oil Conservation Division is sound, is designed to

promote efficiency, and really does not detract from any substantive play from any party's ability to get testimony, to get information from the Division.

I think at this point every party has had an ample opportunity to not only put on his own case, but also the question of the other party's witnesses. And I think at this point in the proceeding its an appropriate suggestion that Mr. Ames made.

HEARING EXAMINER ORTH: Ms. Fox?

MS. FOX: Thank you, Madam Hearing Officer. We don't have any objection to the proposed procedure. And as to Mr. Feldewert's point about being able to question a particular witness on a particular topic identified in this summary that Mr. Ames provided, counsel would still be permitted to initially -- and we talked about this previously when we talked about this procedure before -- counsel would still be able to look at the summary, see that the testimony is attributed to one witness or not, and initially ask that witness, you know, if they can substantiate the testimony set forth in this summary.

And, if they can't, you know, that, that goes to that witness' credibility for sure. And so that ability of counsel is not disabled by this technique, which we do think would be efficient, more efficient at this point in the process.

We would only request permission to allow both Mr. Baake and myself to ask questions of both witnesses because Mr. Baake and I have divided up witnesses, we divided up areas of expertise, and this document, of course, covers, you know, the entire proceeding and we have had a very short amount of time to prepare. And so we would just ask permission if both witnesses are ready to go, that both of us can be prepared to ask cross.

HEARING EXAMINER ORTH: Thank you. Ms. Paranhos.

MS. PARANHOS: Thank you, Madam Hearing Officer, I fully support OCD's proposal here. It sounds like it will be a very efficient way to move expeditiously through OCD's rebuttal. That's all I have to say on that one.

HEARING EXAMINER ORTH: All right, thank you. Madam Chair, how would you like me to address this? I understand the Commission earlier did not grant that request. I suspect I may be a bigger fan of panels for technical witnesses than some. I have seen them work really well, although I think they are misunderstood sometimes, in particular at this point in the cross. Would you like me to poll the Commissioners, would you like to poll the Commissioners yourself? What would you like?

CHAIRWOMAN SANDOVAL: I would be interested in hearing what the other Commissioners say, and I will happy to state where I am.

HEARING EXAMINER ORTH: All right. Commissioner Engler?

COMMISSIONER ENGLER: I'm fine with Mr. Ames' suggestion of a panel. Thank you.

HEARING EXAMINER ORTH: Commissioner Kessler?

COMMISSIONER KESSLER: I don't have strong feelings one way or the other. I'm glad we didn't do the panel during direct, but I don't have strong feelings on cross.

HEARING EXAMINER ORTH: Madam Chair?

CHAIRWOMAN SANDOVAL: I'm open to the panel option. I think I agree with Commissioner Kessler, you know, I think the earlier proposal was different and would have been different during direct. But at this point, it seems like the panel may be the most efficient method and be the easiest way for the Commissioners to get the remaining information that we may need.

HEARING EXAMINER ORTH: All right. Thank you. In that case, Mr. Ames, your request is granted. And, Ms. Fox, I believe as a logical extension of that ruling, that you and Mr. Baake may both cross-examine the panel and I, I probably don't need to issue this warning, but if you would avoid asking duplicative questions.

All right. Mr. Ames, whenever you're ready.

MR. AMES: Thank you. OCD calls Brandon Powell.

HEARING EXAMINER ORTH: Mr. Powell is still under oath.

MR. AMES: Hello, Brandon. I can't see you. Are you with us?

MR. POWELL: I believe so. Can you hear me and see me now?

MR. AMES: Can hear you, can't see you.

MR. POWELL: Let me see if it will work. Can y'all still hear me if my computer just froze?

MR. AMES: This is one of those technical issues which I just downplayed.

MR. POWELL: My computer froze. I'm going have to have to jump out and jump back in. I apologize.

MR. FELDEWERT: Mr. Ames, you jinxed yourself in pointing out that we have had no technical difficulties with our witnesses.

MR. AMES: I will say, if technical difficulties persist, we will be happy to revert to the prior form of presentation, but as I say --

CHAIRWOMAN SANDOVAL: I can see him.

MR. AMES: Great.

BRANDON POWELL

(Previously sworn, testified as follows:)

DIRECT REBUTTAL EXAMINATION

BY MR. AMES:

Q. So please state your name for the record again and spell it for the court reporter?

A. Brandon Powell. B-r-a-n-d-o-n, Powell P-o-w-e-l-l.

Q. And Brandon, you are the engineering chief for OCD; is that correct?

A. That is correct.

Q. Did you previously testify in this hearing?

A. Yes, I did.

Q. Has OCD prepared rebuttal testimony?

A. Yes, we have.

Q. Have we prepared a written form of that testimony?

A. Yes, we have.

Q. And what form is that?

A. We have prepared a spreadsheet to go over all the items we haven't taken, and we've also prepared a short PowerPoint to illustrate some of the items that we show on the spreadsheet.

Q. To orient the Commission to the spreadsheets -- let me ask you this first. The spreadsheets were served on

the other parties yesterday evening?

A. That is correct.

Q. So let's orient the Commission to the spreadsheets. How many spreadsheets are there?

A. There are two.

Q. And how are they presented? What are they labeled, for instance?

A. So they are presented as Exhibit 4C, which covers Part 27, and Exhibit 4D, which covers Part 28.

Q. And how are they arranged?

A. They are arranged -- let me pull it up so I can talk to it. They are arranged showing the line item on the left, the citation of the rule that's being discussed, which party presented the information, which topic it related to, which proposed modification they were requesting, the OCD's position on that topic, and the OCD witness best attributed to discuss it.

Q. Thank you. Now if I understand correctly, you are going to present testimony on a few of the items on those spreadsheets; is that right?

A. That is correct.

Q. And then stand for cross on the balance of it, the balance of the spreadsheets?

A. Yes, sir.

Q. All right. So let's start with some items on

which the Commission -- excuse me -- on which the Division found the testimony of the other parties compelling and agrees to make some changes. So if you would, please start. I believe your first line item might be Line 22 on the Part 27 spreadsheet; is that right?

A. It's actually not lined for me, too, but it is in the PowerPoint spreadsheet. Let me pull that up.

Q. Then I will let you take it from here.

A. So I've got two slides to share. It should be up now. So the first two slides will go over Line 43 and 70. We agreed to modifications for these lines. Specifically this covers the maximize flare combustion efficiency, and also adds components around representative in the reporting. Jim Bolander will go through this more extensively in his testimony on these two slides.

The next slide goes over Lines 85 and 87, specifically in the reporting categories. And there will be some proposed changes to the other category in the waste reporting, and also some changes to the royalty reporting, interest reporting, and I will go through those further through my testimony.

Q. Thank you. So now are we ready to move on to Line Item 22?

A. Yes, sir. So that's the -- so to orient, I will start with the PowerPoint. The Line 22 we are specifically

looking at the provision where the Division is requiring flare versus venting. And I just wanted to call the Commission's attention to this that this was already in rule, this intent.

In 19.15.18.12 where it currently has a statement that the operator shall burn all gas produced if not used under the casinghead gas provision for venting and flaring.

I would also point out while we are on this slide and this rule, there was some discussion previously around volumes that are being reported at 50 MCF versus any volume, and I think that was specifically -- should have been specifically related to the 129 and 141. For 115 reporting and now what we are going to have under 115 B as proposed, it would not have a minimum volume of 50 MCF, and that is currently in the rule as well under that same provision and report the estimated volume on a C-115.

This relates to gas that has been exempted from the subsection, so there is not a limit requirement on that gas. As a reminder, the rule in this dates back to 1972.

Q. Brandon, are you prepared to move on to the next slide, I believe it's Line 37; is that correct?

A. Yes, and I'm going to swat -- switch over to the spreadsheet for this one. Let me make sure I've got the right exhibit up. I apologize.

Q. There you go.

CHAIRWOMAN SANDOVAL: Were the slides sent over, or was it just the spreadsheets that were sent over?

MR. AMES: Madam Chair, just the spreadsheets. We will move to introduce the PowerPoint as a demonstrative aid at the conclusion of our presentation.

CHAIRWOMAN SANDOVAL: Okay. Thank you.

Q. So Brandon, with respect to Line 37, this concerns the Bradenhead test exception. What is the, where does OCD stand on this issue?

A. So the OCD on this one, because it was addressed in testimony, we wanted to just reiterate the processes in New Mexico on these. I think there is a couple of points that should be pointed out. First off, during a Bradenhead test, the intent is never to vent the tubing or the production casing anulus. So the production stream is never intended to actually be vented to atmosphere.

What this does is this tests the intermediate anulus if applicable and surface anulus as applicable, which are protection zones for the well to see if there is any commingling of gas between those and the production string or other issues identified in the well.

Typically this test lasts up to 30 minutes per string, so if there is multiple strings this test could be upwards of an hour and a half long if there is issues identified. And this is an extremely important test not to

change as it detects mechanical integrity in the well passively without the use of additional equipment, rigs, those kinds of things.

Q. Okay. Thank you. Let's move to Item 54, Part 27 spreadsheet, and this item concerns AVOs. What do you have to say about this?

A. So there is a lot of information here, but I think the main points we wanted to point out is, one, I think there was some misconception of what we were looking for in this provision. I think previous testimony noted Colorado just had some check boxes, that it was an audio-visual and olfactory check, three checkmarks and then a report if anything is found, that's really what is intended for us as far as the inspections.

We feel that the operators are already doing these inspections as testimony identified, already identifying that if there is provisions -- and I should say operators, prudent operators are already doing this. We just want the ability to go ahead and check those records if we find something to ensure it wasn't something longstanding and that these inspections are being done properly.

Q. Thank you. Let's move to Item 85.

A. Before we move to 85, I believe I have a slide 77.

Q. Oh, yes, I'm sorry. Slide -- Item 77, C-115s

and C-115 Bs; correct?

A. That is correct.

Q. Okay. Please continue.

A. So let me get to that real quick.

So again I think there was some misconceptions or maybe we weren't as clear as we needed to be on the 115 B versus the 115. So we put together this slide to illustrate some of our concerns.

In the table on the left are three current property IDs in New Mexico. What these are are property ID codes where the reporting goes against one code for multiple wells in a single property. There is four here. The C-115 is in a production accounting form based on the concept of taxable property. Making substantial changes to this form could adversely affect SLO and TRD.

The multiple operators report multiple wells on these 115s. An example of this, in this table for four properties, there are roughly 1791 wells, with an unknown number of associated facilities. OCD can't use the data in these 115s to identify venting and flaring related to specific wells or specific facilities, it's just lumped in a total property.

Operators can't use the data on these 115s to identify patterns and solutions to venting and flaring from specific wells and facilities. OCD's proposed rule did not

expressly state that the C-115 B requires reporting on a single well or single facility, but OCD clearly conveyed its intent to require reporting on this basis.

To resolve that, the Division is going to propose new language in Part 27 in 19.15.27.8.G(2). So this still addresses Line 77, if anybody needs to reference.

So what we did is we added in the reporting section that the operator shall report for each well or each facility the volume of vented and natural gas and the volume of flared natural gas, that way our intent is clear that we want it for each well or each facility, that way we can link it back to a specific item in time.

Q. Thank you, Brandon. Are we ready to move down to 85?

A. Yes.

Q. So Item 85 concerns 8.G(2)(m), the "other" category for reporting. What's the Division's position now?

A. So the Division, after listening to testimony, it was evident that there was confusion over this other category and ability to link things in that we previously removed as they weren't waste or couldn't be accurately reported, so we really wanted to identify some boundaries on the other. The other is to identify waste categories that could be occurring or that the Division could identify in the future.

So we added language to (m) for other waste as defined in 19.15.2 NMAC that is not described above.

Q. Thank you. Let's move on to Item 87, which is the royalty owner reporting provision in 8.G(4).

A. Okay. So I'm Item 87 for the royalty provision, this is one that we identified that we are making some modifications to after listening to testimony. We are looking at adding language that the beginning of this reporting is, we are asking that it be started January 2022 to allow operators some time to identify how they are going to perform this reporting.

We also additionally agree with NMOGA that overriding royalty interest owners do not require this reporting and will exempt them from this requirement.

Q. Great. And let's go to Item 95, which concerns reporting releases that include liquids.

A. Okay. And we have a slide on this one as well, and it's going to expand into a bigger topic. I think there was some confusion in this one, which is why NMOGA was proposing to delete the 141. So we've got some additional language that will cover this as well in our PowerPoint. Let me pull that back up.

So again, I think there was confusion of the Division's intent on this one. We were looking at using the 129 in lieu of the 141 for releases that only included gas.

And then we were looking at using a 141 in lieu of 129 for releases that may include fluids because there will be some remediation efforts in those.

So because of that, we are actually proposing two different modifications to our proposed rule. The first one being in 19.15.27.8.G(1)(a), we discovered we inadvertently left out language allowing that the 129 be used in lieu of the 141 in this portion.

So in blue we are proposing to add this language here, that in lieu of -- filing a form 129 in lieu of a C-141 except as provided by Subparagraph D of Paragraph 1 of Subsection G of 19.15.27.A NMAC.

The next proposal is in that Subparagraph D, to ensure clarify, we are clarifying it's for a release which includes liquids during venting and flaring, that the operator will file the 141 instead of the 129. I believe the way NMOGA was phrasing it, they were confused in our intent that an operator would file the 129 for the gas and the 141 for the liquids portion. That wasn't our intent. Our intent was filing one form, which if liquids are included would be the 141 which would include both the gas and the liquids.

And I think that would have a direct effect on the implementation of 95 as I think it clarifies that the 141 would still be applicable.

Q. Thank you, Brandon. Let's move over to Part 28. I believe that you wanted to address the issue of the GIS layer.

A. Yes. I think there was some confusion of our intent, or I want to ensure that our intent is clarified. I think there was some suggestion that we could take releases that are reported to us and apply this ourselves in lieu of cementing a GIS flare for this information.

And just to clarify, I don't think this is possible, one, because the pipelines could have confidential requested on it, so it wouldn't be available to the public, and we wouldn't be able to map those incidents directly to that line.

And, two, we can't do it simply off of location because there may be a pipeline corridor including multiple pipelines where if you plotted just the single points, it doesn't show you which one of those multiple pipelines it's linked to. Or you could have a pipeline that's a couple of miles long, or you may have multiple releases on that single pipeline that you wouldn't be able to differentiate that it was on that single pipeline, it could look like it's from different sources when it's from a single source.

Q. Thank you, Brandon.

MR. AMES: OCD now calls Jim Bolander.

HEARING EXAMINER ORTH: Mr. Bolander is still

under oath.

JIM BOLANDER

(Previously sworn, testified as follows:)

DIRECT REBUTTAL EXAMINATION

BY MR. AMES:

Q. Jim, are you there?

A. Yes.

Q. Great. Could you please state your full name for the record and spell it for the court reporter?

A. James Bolander. Last name is B-o-l-a-n-d-e-r.

Q. And Jim, you testified earlier in this proceeding on behalf of OCD?

A. Yes, I did.

Q. Great. Why don't we jump right in. You have a number of items that you are going to address. Let's start with Part 27, Item 3 regarding phase definitions. What is that?

A. Yeah, so --

Q. Go ahead, please.

A. I'm sorry, Eric. What I would like to do here is address every one to three particular definitions that I will talk about, because we have to talk about all three relative to this particular, and that would be Line 3 with the Citation 7.D for completion operations, Line 13, which is 7.P for production operations, and Line 14, which is 7.Q

for separation flowback.

The way our current language works with those three definitions, completion operations defines when completion starts and then states that completion ends at the end of separation flowback.

If we, you know, move to the separation flowback stage, which is Line 14, you know, it states that separation flowback begins, you know, when separation is feasibly possible and ends at a time frame of 30 days.

And then Line 13, which is 7.P for production operation begins at day 31 and then concludes at the end of the life of the well.

Toward this, NMOGA had recommended that at the end of the separation flowback, that a new term be start up of production, which basically states that start up of production begins with initial flowback and concludes with continuous recoverable -- recovery of saleable gas from the beginning of completion until there is continuous recovery of any crude condensate or water produced.

The concern that OCD has in this is that there is no delineation point made from one phase, completion, versus to the next of production. This is key in our regulation as each of these phases, completion and production, are spelled out in Sections 27.8.C for completion operation, and 27.8.D for production operations, in terms of key exceptions for

the rule.

I would also like to point out that the existing language in 19.15.18.12 under casinghead gas, the production operation is defined by a time frame of 60 days.

OCD feels like with our provisions that we have added for offset gas which allow for additional completion time and for exploration well, that any additional time past the 30 days (unclear) capture.

Now I would like to move to Line 26, Eric.

Q. Sorry, Jim, I was on mute. Let's move on to Line 26, which deals with 8.C(1) of WELC's and EDF's proposal for reduced emission completions.

A. Yes, thank you. The current language in the current draft follows existing EPA Quad O and Quad Oa language for completion flowback, specifically the initial flowback stage and how you move from initial flowback to separation stage.

The proposed language from WELC and EDF proposes language from Colorado, specifically the Air Quality Control Division and also reference and COG'S recent (unclear).

REPORTER: Can you repeat that response? You were cutting out.

A. (Unclear.)

Q. Jim, Jim, Jim. Hold on a second. The court reporter didn't catch some of what you were saying.

MR. AMES: So, Irene, could you let Jim know where to start.

REPORTER: (Orients witness.)

A. Okay. I will move one step back. In the WELC EDF proposed language, they are referencing Colorado language from the Air Quality Control Division which would also reference by the Colorado Oil and Gas Commission, which requires capture of natural gas during initial flowback and sent to a flare or control device.

EDF expert Tom Alexander indicated this can be performed in most cases, and the examples that he cited were primarily gas fields. And he did also state that in the required language there is design for appropriate pressure relief systems.

OCD recommends retaining the current language, you know, and with the performance standard that we have set forth in 27.8.E(1) on design of separation equipment to ensure wells placed and into separation phase as soon as possible to minimize the time during initial flowback.

As highlighted in our exhibit, our concerns are three-fold; one, feasibility. Primarily, due to flow conditions in certain types of wells resulting in slug flow which prevent the capture of gas.

Second is the safety issue which depends on correct design to present over-pressurization.

And third, we feel like there is a well type perspective on being able to successfully do this.

As Tom mentioned in his example, the three cases were primarily gas fields. I can concur with Tom on the Fayetteville Shale. I have intimate knowledge of our completions during that time frame and can say that what we primarily did was we up-sized our production separators to be able to handle the large volumes of fluid during early flowback, therefore, we were able to reduce the initial flowback from days to hours.

And subsequent reports either to EPA would show that we were able to increase production by 16 million cubic feet per average well during this technique. Our concern with full wells is that, one, the high rates that will be flowing back which could cause -- which could inherently cause issues due to over-pressurization, as well as with the high volumes of fluid and flood flow the feasibility of capturing during this stage. Therefore we recommend that our current language as a holistic issue be kept as is.

Q. Thank you, Jim. Let's move to Item 43, which concerns Section 8.E(3), and the language for flare performance standards. Thank you.

A. Thank you, Eric. Just moving to my hand copy because it's easier for me to read. And in this we are talking about flare performance standards, and in the

current language, OCD required complete and continuous combustion.

NMOGA has recommended that the language be changed to ensure proper combustion of gases. OCD understands that current language may imply 100 percent combustion which was not the intent of our language. But we are concerned that proper combustion has no defined acceptable range of efficiency.

What OCD would like to offer is to change the phrase to that maximizes flare combustion efficiency. This language in research was pulled from World Bank, from their website in which they just discuss their no -- their zero flaring recommendation.

Q. Thank you, Jim. Let's move on to Item 70, which is a very long citation. It is Section 8.G(1)(b) Roman numeral iv, and it concerns the nature of the gas analysis that is required. Could you explain OCD's position on this?

A. Yes. Our original language was to specify compositional analysis of vented and flared gas. And the reason being, and it was stated in testimony, you know, for, for many of us in the industry when we talk about pulling a gas sample, we know exactly what we are looking for in terms of that, and compositional analysis is typically the first -- it's what we think of, but we wanted to be clear that that's what our intent was.

NMOGA recommended that we change compositional to representative. During the hearing, Commissioner Engler made a recommendation to put some sideboards around representative. And what we would like to propose is that language be added to this section, that representative of the well or facility, and hope that this may clarify that what we are not looking for is, you know, during an emergency or malfunction, is for operators to go out and attempt to obtain a gas sample. But if they have a representative sample from that well or from that facility, that is what we are really looking for to give us an estimate of what type of event is occurring.

Q. Thank you, Jim. Let's move on to Item 79, which is Section H -- excuse me -- Section 8.G(2)(d)(e) and (f). This concerns NMOGA's proposal to delete certain categories, certain low pressure categories from the reporting requirement. What is OCD's position on this proposal by NMOGA?

A. Okay. Our explanation is quite long, and I'm sure I will probably get a little wordy as well here.

NMOGA has recommended that we delete three categories in this particular section right here, and that was d, e and f for downhole maintenance, manual liquid unloading, and uncontrolled storage tanks.

Our current draft includes these categories to be

recorded and also to be counted toward gas loss. NMOGA's recommendation is that they be deleted due to the accuracy of estimated volumes, and they are also considered low pressure and should not be considered waste.

OCD recommends that these categories remain, and that there are valid estimation methods used by (unclear).

(Audio difficulties.)

HEARING EXAMINER ORTH: Excuse me. I'm sorry.

A. The definition --

HEARING EXAMINER ORTH: Mr. Bolander?

A. -- is considered waste --

HEARING EXAMINER ORTH: Mr. Bolander, hold on a second.

MR. AMES: Jim. Jim. Jim. Jim.

A. In addition.

Q. Jim, let me pause.

HEARING EXAMINER ORTH: I don't think he can hear us for some reason. Mr. Bolander, I'm sorry, you are breaking up.

THE WITNESS: Yes.

HEARING EXAMINER ORTH: Sometimes it's the ambient noise from Mr. Ames.

THE WITNESS: Hello? Would it help if I took the the video off?

HEARING EXAMINER ORTH: I think two things would

help, if you took the video off and if Mr. Ames would consistently mute while you are speaking.

THE WITNESS: I took my video off, if that helps. Is that better?

HEARING EXAMINER ORTH: It is better. Irene, would you tell us where we --

REPORTER: (Reorienting witness.)

A. So almost starting over, so please bear with me. Am I coming through clear now?

HEARING EXAMINER ORTH: Yes, you are. If you would start over, that would be terrific. Thank you.

A. Okay. Thank you. This particular category, reporting the three categories d, e and f represent downhole maintenance, manual liquid unloading, and uncontrolled storage tanks. OCD's current draft includes these categories be recorded and also be counted towards gas loss.

NMOGA recommends that these sources be deleted due to accuracy of estimated volumes and also considered low pressure and should not be considered waste. OCD recommends that these categories remain in the rule. We feel like there are valid estimation methods that can be used by operators, and that in many -- and in these categories there is potential for excess emissions which is considered waste.

In addition, OCD has the authority to require reporting in order to prevent waste that is now in the

present, and also in the future, and to understand what event -- what volumes of venting and flaring are occurring at wellsite facilities and in the state.

I will admit, over the last couple of days there was much debate over the accuracy of these categories presented by all parties. I would like to address a couple of the categories, the first being manual liquid unloading. And I would like to reference OCD's Exhibit 46, which is the United Nations Climate and Clean Air Coalition Technical Guidance Document Number 7, Well Venting for Liquid Unloading.

This was a coalition of industry experts from around the world evaluating methane sources within oil and gas industry that came out with a set of technical guidance documents to guide these operators in reducing their emissions. My company, Southwestern Energy, was one of the companies participating in this.

In this document it cites the use of engineering calculations found at EPA Subpart W 98.233 as a valid methodology. And in addition to that, the technical guidance document cites two other sources as references. The first is a 2012 report by API and ANGA characterizing pivotal sources of methane emissions from natural gas production in which API and ANGA used engineering calculations, along with actual well data submitted by

companies to compare to EPA's data.

In addition, there is a reference to an EPA Natural Gas Star Report by Anadarko which highlights their best management practices for various technologies including plunger lift versus manual unloading, and which, in their document, or in their presentation they utilize the engineering calculations to highlight the production uplift and economics of moving away from manual unloading to plunger lift.

The second category I would like to highlight is uncontrolled storage tanks. It has been highlighted by stakeholders that there are methods to estimate controlled storage tanks of the volumes of venting and flaring. The use of modeling software such as ProMax and ENP Tanks are used in permitting, but also I would like to highlight how they are also used in design of the facilities.

First they are used in the design of separation stages, you know, which is most successful and being able to stabilize the hydrocarbons to improve surface recovery of liquids but also minimize flashing; and, second, the design of the control equipment, such as vapor recovery unit to capture natural gas for disposition.

Utilizing these softwares allow engineers to design vapor recovery units to capture, compress the natural gas and put into sale. As a reference to this, and with all

the testimony that we have heard, OCD also has Exhibit 45, which is another UN Climate and Clean Air Coalition Technical Guidance Document Number 6 on unstabilized storage tanks which highlights much of what's been discussed, as well as the methane guiding principles on flaring which highlights the need for potential two stages of separation to minimize flashing.

Eric, I think we are ready to move to Part 28.

Q. Yes, let's go -- thank you, Jim. Let's move on to Part 28. I can't see you, but I didn't have a visual cue, so thank you. So let's move to Part 28. We are going to talk about Line 17 which concern operations plan, operations planning, and it's 8.C(1) in Part 28.

A. Yes. 28.C or Part 28 or Part 28.C references operations performance standards for natural gas gathering systems. C(1) is the requirement for midstream operators to provide an operations plan to the Division that is designed to minimize waste of natural gas from a natural gas gathering system.

NMOGA recommends that this plan be modified to become a mitigation plan filed by operators when they become out of compliance with the natural gas capture requirements.

OCD feels that its approach is to manage and minimize waste, and that our approach is a proactive approach, and that an operations plan, which may include

multiple components as suggested by OCD engages a company across multiple chains to manage and operate a gathering system to minimize waste and feel like a more proactive approach up front is warranted more so than a mitigation plan after issues have been identified.

And that concludes my comments, Eric.

Q. Thank you, Jim.

MR. AMES: That concludes our direct rebuttal testimony. And I would move the admission of OCD Exhibits 4C and 4D.

HEARING EXAMINER ORTH: Thank you, Mr. Ames. Let me pause for a moment and see if there are any objections.

(No audible response.)

HEARING EXAMINER ORTH: OCD Exhibits 4C and 4D admitted.

(Exhibits 4C and 4D admitted.)

MR. AMES: We also move the admission of OCD Exhibit 4E, which is demonstrative aid, and I have sent that to the Commission and all parties a bit earlier.

HEARING EXAMINER ORTH: Okay, thank you. Objection to the demonstrative aid?

(No audible response.)

HEARING EXAMINER ORTH: 4E is admitted.

(Exhibit 4E admitted.)

MR. AMES: Thank you. The witnesses are now

available for cross.

HEARING EXAMINER ORTH: All right, thank you. Mr. Feldewert, do you have questions of Mr. Powell or Mr. Bolander based on their testimony -- oh, Ms. Fox is raising her hand. Ms. Fox?

MS. FOX: Thank you, Madam Hearing Officer, may we have ten minutes after this testimony to develop, to just dot our i's and cross our t's on cross since this is so hurried? You are muted.

HEARING EXAMINER ORTH: Sorry, let's come back at 12:10.

MS. FOX: Thank you.

CHAIRWOMAN SANDOVAL: Maybe, Ms. Orth, before we go, can we just clarify, are we going to take a break for lunch, or was that supposed to have been before we started at 11?

HEARING EXAMINER ORTH: What's your pleasure, Madam Chair?

CHAIRWOMAN SANDOVAL: Well, I didn't personally eat lunch, so maybe -- I could be quick. You guys can watch me eat.

HEARING EXAMINER ORTH: Why don't we just break until 12:30 then?

CHAIRWOMAN SANDOVAL: That works.

HEARING EXAMINER ORTH: All righty. Thank you.

(Recess taken.)

HEARING EXAMINER ORTH: Let's make sure we have Mr. Powell and Mr. Bolander. I see Mr. Powell and I see Mr. Bolander. Mr. Feldewert -- oh, there you are. The pictures move around on my screen. Go ahead, please.

CROSS-EXAMINATION OF PANELIST BOLANDER

BY MR. FELDEWERT:

Q. Let's see, how do we -- I guess it's you, Mr. Bolander. Can you hear me okay?

MR. BOLANDER: Yes, I can.

Q. I'm going to go to your favorite topic which is on Page 2, Line 8. Do you know what that is?

MR. BOLANDER: Yes.

Q. Emergency; right?

MR. BOLANDER: Yes, sir.

Q. Okay. Now we are dealing here with, I believe, Subpart 6, that's what I'm looking at, in Line 8. Is that right, Mr. Bolander?

MR. BOLANDER: Yes, I was also pulling up the actual language from the rule itself.

Q. So it's 27.8.7.G(6), it's the definition of emergency, and I want to ask you about your statements related to that, okay?

MR. BOLANDER: All right.

Q. You state in the last line of your comments that

the OCD's definition of emergency allows three emergencies in 60 days. Do you see that?

MR. BOLANDER: Yes.

Q. That's not correct, is it, Mr. Bolander?

MR. BOLANDER: Yes, it is. In the rule it says three or more emergencies within a single reporting area.

Q. Wouldn't that only allow two to be excused?

MR. BOLANDER: Yes, in reading the language, I agree.

Q. Okay. All right. So two. Now, you indicate that, in your opinion, the OCD is more generous than the BLM's definition.

MR. BOLANDER: Yes.

Q. When you say the BLM's definition, which rule are you talking about, which BLM rule?

MR. BOLANDER: It would be 3179 103. It would be C.5.

Q. Okay.

MR. BOLANDER: Which states -- yeah.

Q. Hold on a second. Can I have sharing capability, please?

MR. BOLANDER: Yes.

MR. FELDEWERT: Mr. Coss is running this thing. Mr. Coss, can I have sharing capability? Thank you, sir.

MR. COSS: You have it now, Mr. Feldewert.

MR. FELDEWERT: Thank you very much.

Q. I put the definition you referenced up on the screen, do you see that?

MR. BOLANDER: Yes, I do.

Q. Now, the way the OCD's rule is written, the emergency exemption or issue extends to the operator, not a particular geographic area; right, Mr. Bolander?

MR. BOLANDER: It does within the reporting area the event occurred.

Q. Good point.

MR. BOLANDER: So not statewide.

Q. So it would be, for example, an operator in the -- I'm just going to say in the Permian area, which is the southeast area; right?

MR. BOLANDER: Yes.

Q. And it would apply to all the operator sites in the entire Permian southeast area?

MR. BOLANDER: Yes.

Q. And if the operator was out of the northwest, he would be out of the San Juan Basin?

MR. BOLANDER: Correct.

Q. And it would apply to all the operator's entire operations in that San Juan Basin area?

MR. BOLANDER: Correct.

Q. Now, when you look at the BLM definition, it's

more concise when it comes to the geographic area, is it not, Mr. Bolander?

MR. BOLANDER: Yes, it is, with the three specific areas.

Q. It says, for example, in C(5) in applying this emergency exemption. A situation on a lease unit or a communitized area.

MR. BOLANDER: Yes.

Q. Don't you agree that it would be appropriate to limit this particular section to a particular site or area like the BLM has done?

MR. BOLANDER: What the BLM did by listing all three, communitized areas can be quite large, for one.

Q. Hold on, Mr. Bolander. A communitized area?

MR. BOLANDER: Yes.

Q. You think that's quite large?

MR. BOLANDER: It can be.

Q. Most of the time it's not, though; right?

MR. BOLANDER: Normally. It is typically larger than a lease, but less than some of those large units I have seen in some of the federal leases.

Q. Okay. But it doesn't lump all three together, it says, lease, unit or communitized area.

MR. BOLANDER: Yes.

Q. So in other words, you would to have, this

provision would apply to three or more emergencies on a lease.

MR. BOLANDER: Within a 30 day period --

Q. Okay.

MR. BOLANDER: -- where --

Q. And it says or on a unit; right?

MR. BOLANDER: Yes.

Q. Or, as you pointed out, on a communitized area?

MR. BOLANDER: Correct.

Q. Okay. Now I want to talk about your comment on Page 2, Line 15.

MR. BOLANDER: Yes.

Q. This deals with NMOGA's proposed change to the definition of venting. Correct, Mr. Bolander?

MR. BOLANDER: Correct.

Q. Okay. And NMOGA's proposed change was to adopt what Colorado did.

MR. BOLANDER: Correct.

Q. Which I have up here on the screen. Can you see that?

MR. BOLANDER: Yes, I can.

Q. Okay. Now, you have suggested that NMOGA has not identified any type of equipment excluded by -- I will just -- referring to this definition; right?

MR. BOLANDER: Correct.

Q. That is not also excluded in the OCD rules?

MR. BOLANDER: Based on what we see here, we feel like that we captured a greater data set in both A -- 8.A or 8.B, 8.C and 8.D.

Q. Okay. Now, how are -- I'm looking at the definition, I'm looking at Subpart B. Can you tell me where unintentional leaks that are not the result of inadequate equipment design is captured in OCD's rule?

MR. BOLANDER: It is not captured in the rule.

Q. It's not?

MR. BOLANDER: No.

Q. Okay. That one is not. Then the next one talks about, under this natural gas escaping from downstream of a tank, do you see that?

MR. BOLANDER: Yes, I do.

Q. Okay. Now, tanks, emissions from tanks are allowed as an authorized, quote-unquote, venting, right, under Subpart D of the Division's rule?

MR. BOLANDER: Correct.

Q. But, Mr. Bolander, it's counted against the operator when you are in the process of calculating the gas capture percentage?

MR. BOLANDER: Only if it is uncontrolled and uncontrolled in a situation, for example, thief hatches, or even if it's controlled and thief hatches -- if thief

hatches are open or damaged if routed to a flare or a controlled device. So there are specific reasons for counting it in the reporting section.

Q. Have you read the reporting section?

MR. BOLANDER: Yes.

Q. Now, part of that reporting section is done based on the categories in G(2); correct?

MR. BOLANDER: Correct.

Q. If I go to G(2), I'm on NMOGA's -- OCD's Exhibit A, go down to G(2), it just says uncontrolled storage tanks. Do you see that?

MR. BOLANDER: Correct.

Q. So operators are expected to report on a monthly basis the emissions from uncontrolled storage tanks?

MR. BOLANDER: Correct.

Q. And uncontrolled storage tanks is not excused from the gas capture calculation when you get to that part of the rule, is it, Mr. Bolander?

MR. BOLANDER: You are correct.

Q. Okay. So even if it's unavoidable, as it is in uncontrolled tanks, it's counted against the operator when you get to the gas capture percentage?

MR. BOLANDER: Yes, it is.

Q. Whereas Colorado, Mr. Bolander, as we saw in the prior definition, their oil and gas association does not

regulate the emissions from uncontrolled tanks. Isn't that true?

MR. BOLANDER: If you pull it back up, it did mention in the case where tanks, where there was insufficient -- where separation equipment was of insufficient size, which would be C(2).

Q. There are some --

MR. BOLANDER: Yes.

Q. -- so let's assume, Mr. Bolander, that an uncontrolled tank in Colorado meets the requirements here in C, Subpart C(1), (2) and (3).

MR. BOLANDER: Correct.

Q. In that case, those emissions are not regulated by the Colorado Oil and Gas Association.

MR. BOLANDER: In Colorado, they're not.

Q. And instead they are regulated -- or am I correct, Mr. Bolander, in stating that in Colorado, these types of low pressure emissions in uncontrolled tanks are regulated by the Colorado Environment Department under their emissions department?

MR. BOLANDER: In this case they chose to do so, but in other parts of the rule they adopted by reference some of those rules.

Q. The Colorado Environment Department.

MR. BOLANDER: Yes.

Q. Not the Oil and Gas Association?

MR. BOLANDER: Yes.

Q. Am I saying that -- is that the right term, Colorado --

MR. BOLANDER: Colorado Air Quality Control.

Q. Okay. And with respect to this definition of venting, this was adopted by what Colorado agency?

MR. BOLANDER: The Colorado Oil and Gas Commission, better known as COGC.

Q. COGC, I'm sorry, I knew I was saying that wrong. And that would be the equivalent of the Oil Conservation Division or Commission here in New Mexico?

MR. BOLANDER: Yes, it would be.

Q. Okay. Thank you. I want to ask about your comment on Page 4, Line 33 -- yeah, either line or row, whatever you want to call it. This deals with another favorite topic of yours and it is introduction of oxygen as a result of commissioning of equipment; right, Mr. Bolander?

MR. BOLANDER: Correct.

Q. I'm trying to understand what you are saying here. Can you please explain to me what you are saying in your comment? First I want you to read it.

MR. BOLANDER: Right, thank you. Please, thank you.

Q. Let me know when you're ready.

MR. BOLANDER: Okay.

Q. I want to apply this to a circumstance you and I, I believe, talked about before, but I want to make sure nothing has changed.

MR. BOLANDER: Correct.

Q. We had a circumstance you and I spoke about previously, discussed previously where an operator would be commissioning equipment, and as part of that commissioning operation would be introducing air into the system.

MR. BOLANDER: Correct.

Q. Okay. We call that purging, I guess?

MR. BOLANDER: Yes.

Q. And that is a common and necessary practice; right, Mr. Bolander?

MR. BOLANDER: Correct.

Q. And as part of that purging you are going to introduce oxygen into the system.

MR. BOLANDER: Yes.

Q. Okay. Now, are you saying here that the venting and flaring that would be necessary -- I should say venting or flaring that would be necessary from the introduction of oxygen into the system in that circumstance would not be counted against the operator when it comes to the gas capture percentage? That's what I'm unclear about.

MR. BOLANDER: Right. In our language in 8.B, we

added a little bit of language, you know, from your -- from NMOGA's recommendation to state for as long as necessary to purge the produced impurity.

Q. Thank you, sir.

MR. BOLANDER: And from that language, it is our intent that if done correctly, that volume of venting and flaring which is necessary to remove the O2 from commissioning would be allowed under -- as an exception, and in this case, up to that point would not count towards your gas capture. That was my testimony the other day and remains.

Q. Thank you. So now can you tell me what language in the Division's current rule -- and we'll go through it here, accomplishes that intent?

MR. BOLANDER: Are we moving to the reporting section?

Q. Whatever we need to move to in addition that intent?

MR. BOLANDER: Well, the first intent was in the exception section, which would be 27.8.D(l), which I read from, and the corresponding recording would be in 27.8.G(2), and I believe you are probably referring to H where we have --

Q. I'm looking on the screen, yes.

MR. BOLANDER: Yes, H, we have i, or Roman

Numeral (i) where we will ultimately exempt those volumes from gas capture.

Q. That would be 27.8.H --

MR. BOLANDER: One.

Q. I'm sorry, hold on. Back up. 27.8.G(2)(h) Roman number (i)?

MR. BOLANDER: Correct. And then Roman Numeral ii is O2 concentrations that do not meet gathering pipeline quality specs.

Q. Okay.

MR. BOLANDER: And the intent here is to capture the oxygen levels that would have been introduced in other events that have been addressed such as foam air, microlift, you know, such as that. I believe that the intent of the way we wrote the language in 27.8.D(l), which allowed for that time period to -- where it would be allowed during commissioning takes those volumes out of the calculation.

Q. How? That's what I don't see, Mr. Bolander. How is that done in the calculation that accomplished the gas capture percentage which are in 27.9.B, how is it done? Because I don't see it.

MR. BOLANDER: Okay. Well, our intent -- understand. You know, our intent, if you look at everything that is listed in 27.8.D, and I can even add 8.B, C and D, a number of those involves which are exceptions, a number of

them we are not asking to be reported under G(2). One reason was to accommodate --

Q. I understand. Now hold on, Mr. Bolander. My question relates to oxygen that's introduced into the system as a result of commissioning operations and similar operations, how is that activity and the venting and flaring required as a result of that removed from the equation that results in the gas capture percentage?

MR. BOLANDER: In my opinion, the way it is written, the gas vented during commissioning is not reported under this category in G(2)(h) little i 2, only other volumes of oxygen that have been introduced.

Q. Would you agree with me that there is no language in H.2 that differentiates oxygen concentrations based on the activity that caused the oxygen to become -- to get into the system?

MR. BOLANDER: Yes. Reading it, it does not expand on the required reporting.

Q. Okay. But that's the intent, right, not to penalize operators as a result of oxygen getting into the system because of those activities?

MR. BOLANDER: Yes, upon commissioning.

Q. Okay. Mr. Bolander, you talked about 27.8.D as in David. I think I have it up on the screen.

MR. BOLANDER: All right. Thank you.

Q. These are authorized venting and flaring events?

MR. BOLANDER: Yes.

Q. Why are they authorized, Mr. Bolander?

MR. BOLANDER: They are authorized because, you know, in many cases they are required for safe operation. In case, you know, in case of an emergency or malfunction, in case of, you know, pertinent activities such as liquid unloading for maintenance, to, you know, reduce the pressure, and in many cases the way of doing that is to release the gas either through venting or flaring.

Q. Why is that an excused venting and flaring event?

MR. BOLANDER: Because it is a, as we'll say, a normal part of operations.

Q. A normal part of operations, a necessary part of operations?

MR. BOLANDER: In many cases, yes, however many of these can be engineered out.

Q. But the way -- the cases that you have listed here in D(2), those would be allowed events; right?

MR. BOLANDER: Allowed events.

Q. Because they are part of normal operations?

MR. BOLANDER: Correct.

Q. And they are necessary?

MR. BOLANDER: Necessary, you know, I don't think, I mean, it's a simple yes or no, and the reason being

is, in many cases they are necessary, but in some of the situations that you have listed here can be engineered out of being a necessary method for venting or flaring.

Q. And maybe sent to a sales line?

MR. BOLANDER: They can.

Q. They can?

MR. BOLANDER: They can. There are -- there are cases where, for example, wells that have loaded up depending on your line pressure, if you're on a low pressure system, there have been cases where you can unload a well directly into a sales line if it's a low pressure system. Is it as successful as unloading to atmosphere, no, but it can be done. In addition to that --

Q. Did you do that, Mr. Bolander?

MR. BOLANDER: Did I do that?

Q. Did your company do that?

MR. BOLANDER: Not in every well, no, but in cases where we had higher pressure wells that loaded up due to an issue such as high line pressure or we were able to build right back up, you were able to unload them or bring them back on line directly into the sales system without any issues.

Q. But would you agree with me that there is some venting that occurs as a result of liquids unloading even if you use best management practices?

MR. BOLANDER: Yes.

Q. Okay. And that can't be avoided; right, Mr. Bolander?

MR. BOLANDER: It can be avoided if you look at the type of well that you have and you explore other methods of artificial lift, in many cases in gas wells the use of gas lift, pumping units, various design can eliminate venting and flaring to zero.

Q. But with manual liquids unloading, in circumstances where you need to do manual liquids unloading, there is some necessary venting; right, Mr. Bolander?

MR. BOLANDER: Yes.

Q. In fact it provides a beneficial use, does it not, of pushing the gas, the liquids up?

MR. BOLANDER: Yes, I mean your engineer did a very good job the other day of going through the process and I agree with the process itself.

Q. Now, what about the other categories in here, why are they authorized to be flared or vented?

MR. BOLANDER: In, you know, many cases, you know, from an exploration well, the need for evaluation, we have listed categories for, you know, normal operations such as gauging a tank, floating out liquids, these are all normal operations. You know, one of the recommendations, you know, we made from a recommendation that NMOGA submitted

was in, I guess, 4C, that it's necessary for all repair and maintenance.

So, you know, many of these have purposes for doing so, but there is also methods of reducing the pressure prior to, you know, some of these operations, specifically, for example, repair and maintenance, ways of, prior to blowing down, to minimizing your line pressure prior to doing so.

Q. But the actual venting that occurs during those activities is unavoidable; right, Mr. Bolander?

MR. BOLANDER: Yes.

Q. Now, can we agree that these categories as you look through these, if done with proper management practices, does not constitute surface waste?

MR. BOLANDER: In these -- in most cases there are -- the intent here that has been normal operations, these are methods to operate an oil and gas well for a facility.

However, there are instances of excess emissions that occur in any one of these categories. And the only way to --

Q. What are you looking at, Mr. Bolander?

MR. BOLANDER: I'm -- what?

Q. Right now. What are you looking at?

MR. BOLANDER: The screen and my notes.

Q. Oh, okay. My question to you is can we agree that these, that these that we see here in Subpart D, and when they are done with proper protocols, that they constitute emissions or flaring that do not constitute waste.

MR. BOLANDER: If they can be captured for beneficial use using other methods, then I do think they can be categorized as waste.

Q. Huh, okay.

MR. BOLANDER: An example was the liquid unloading of considering artificial lift technologies.

Q. Let me ask you this, Mr. Bolander. Can we agree that all oil and gas emissions don't constitute waste?

MR. BOLANDER: Yes.

Q. Okay. I want to take you to what's been previously identified as Slide 83 in NMOGA's Exhibit 4A. Is this a slide that you put together, Mr. Bolander?

MR. BOLANDER: Yes, it was.

Q. Okay. Now, this indicates why you determined to delete certain -- I'm sorry -- certain categories. I don't know what happened there, hold on.

MR. AMES: Mr. Feldewert, just a word here. Mr. Bolander did not decide the leak categories, OCD did.

Q. Mr. Bolander, did you create this slide?

MR. BOLANDER: Yes, I did.

Q. Is this your language?

MR. BOLANDER: Yes, it is.

Q. Mr. Bolander, when you put this slide together, this explains why you deleted certain categories that had formerly been in Subpart G(2); is that correct?

MR. AMES: Objection. Mr. Bolander did not delete categories in the rule. This is OCD's rule, not Mr. Bolander's.

HEARING EXAMINER ORTH: Mr. Feldewert, there really is a distinction between OCD and this witness.

Q. Mr. Bolander, does this slide identify why the OCD deleted certain categories that had formerly been in G(2)?

MR. BOLANDER: Yes.

Q. Okay. And can you list for me the reasons reflected on here for why the OCD deleted certain categories from G(2)?

MR. BOLANDER: Yes. There were three categories -- when we looked at the original July draft, we wanted to step back, take a look, one, were there categories that we could combine to reduce the number of reporting categories, which you can see here we did that with maintenance and malfunction.

And then in drilling operations and completion operations, for -- you know, there, most of that there is no

separation at either facility or in most cases with drilling operations, no separation and/or pipeline for ability to use for beneficial use, it would not be considered waste.

Completion operations, I know you have heard my testimony --

Q. Yeah.

MR. BOLANDER: -- on initial flowback. You know, Bradenhead and package linkage tests are two tests that are required to test wellbore integrity. In most cases the gas released is small. I recognize it as too small to measure, but more in the case of how those tests are performed, if you are unable to capture those volumes for use in that case.

Q. So they would not be waste?

MR. BOLANDER: Correct.

Q. Would not be surface waste. So I've got too small to measure, that would not be surface waste. Is there another reason you have listed on the here is that there was no credible method of estimation?

MR. BOLANDER: Yes. And that would be in the venting of pneumatics if they were venting in excess of design specifications. There are methodologies to measure, however, they are quite expensive and the equipment to do so are not readily available.

As you heard yesterday, you know, some of this

equipment, such as inline metering were used in the UT studies, but that's not something that's readily available to determine for, you know, pneumatics across, you know, a (unclear).

Q. Okay. So you took these categories out because they represent circumstances, Mr. Bolander, where the volume was too small to measure?

MR. AMES: Asked and answered.

Q. Is that right, Mr. Bolander.

MR. AMES: Objection; ask and answered.

HEARING EXAMINER ORTH: Yeah, that's sustained. We've had a lot of discussion on that.

MR. FELDEWERT: I would like to make my record.

HEARING EXAMINER ORTH: I believe the record has been made, Mr. Feldewert. Please move on.

MR. FELDEWERT: All right.

Q. Mr. Bolander, am I correct that the way the Division drafted their rule is that they started with the proposition that all emissions constitute venting or flaring?

MR. BOLANDER: Could you restate that? I'm not quite sure I understand what you are trying -- what I'm supposed to answer on.

Q. You are familiar with the Division's rule, right, Mr. Bolander?

MR. BOLANDER: Yes, I am.

Q. Does the Division's rule start with the proposition that all emissions constitute either a venting or flaring event?

MR. AMES: Objection, the question is confusing. The witness has already stated that it's confusing, yet counsel simply repeats the question.

HEARING EXAMINER ORTH: All right. Mr. Feldewert, would you rephrase that, please? I'm not sure I understood where you were going, either.

Q. Mr. Bolander, did the Division draft this rule based on the premise that all emissions are to be addressed in this rule?

MR. BOLANDER: Not all emissions.

Q. What emissions, what type of emissions are not purportedly addressed by this rule?

MR. BOLANDER: There are a number of emissions that occur from equipment that is not appropriate for the Division to regulate, and those which are regulated under NMED's rule.

Q. What equipment is that?

MR. BOLANDER: Emissions that would come from equipment such as engines, compressors, dehydration units, amine plants, you know, fire equipment that, you know, potentially could have excess emissions, and for even

outside of reporting only, which the Division would like to see the impact of this device outside of reporting pneumatics are not regulated in terms of gas capture or considered lost gas.

Q. Are the other -- is the other equipment that you mentioned regulated as lost gas?

MR. BOLANDER: They are not.

Q. When the Division references venting and flaring in this rule, are they talking about all emissions?

MR. BOLANDER: I'm trying to answer this, you know, on answer is, yes, when emissions occur --

Q. That's fine --

MR. BOLANDER: -- by terminology it's either that gas relief is either vented or flared.

Q. Okay. And does that occur no matter how small the volume is?

MR. BOLANDER: Yes.

Q. And no matter what the pressure is?

MR. BOLANDER: Yes.

Q. And is considered venting or flaring whether it's surface waste or not surface waste?

MR. BOLANDER: By definition venting and flaring do not define waste, they define an event.

Q. So in other words, it includes the event whether it constitutes surface waste or not?

MR. BOLANDER: Correct. Venting and flaring defines an event of loss of gas. And how it is classified whether it is waste or not, it doesn't have the ability to either be used or sold or captured or engineered to a -- to be able to be captured and sold or used.

Q. So when we see the 98 percent, gas capture percent in this rule, Mr. Bolander, is that 98 percent gas capture percentage addressed as events causing surface waste, or is it addressed as all oil and gas emissions?

MR. AMES: Objection, confusing question. It's not clear what Counsel means by addressed as.

HEARING EXAMINER ORTH: Do you mean accounted for in the percentage? If you would just rephrase.

MR. FELDEWERT: Well, just because Mr. Ames is confused by the question, it doesn't mean the witness is.

HEARING EXAMINER ORTH: It would be good to use the language we have been using.

Q. Mr. Bolander, when you look at the -- you are familiar with the 98 percent gas capture target in this rule; correct?

MR. BOLANDER: Yes, I am.

Q. Is that addressed as events causing surface waste?

MR. BOLANDER: Yes.

Q. Does it include, and is it addressed as all oil

and gas emissions whether surface waste or not surface waste?

MR. BOLANDER: It is addressed in G(2), the events that are reported, and then subsequently it's addressed in 27.9.B in the accounting section which exempts in some cases certain sources, but everything else that is captured in G(2) that is calculated for gas loss is captured as gas waste.

Q. And would you agree with me that the events that are included in this gas capture percentage include emissions that do not constitute surface waste?

MR. BOLANDER: I do not.

Q. That's not the intent, is it?

MR. BOLANDER: Repeat the question. I may not have answered it correctly, if you don't mind, if could you repeat.

Q. Is the intent of the 98 percent gas capture rate to include in this calculation events that do not constitute surface waste?

MR. BOLANDER: The calculation of the 98 percent, the gas lost that is determined from reporting and accounting is gas waste, natural gas waste.

Q. The 2 percent is all natural gas waste?

MR. BOLANDER: Yes.

Q. Okay.

MR. BOLANDER: Based on the gas produced, that's key. As mentioned there are certain venting -- in most cases going to be venting events because the volumes in many cases are unable to be flared. In the cases where they are, for example, emergency, which is exempted, you know, exempt categories are not counted as waste.

There are categories that aren't listed in here because if, if we were to take from the welding spud all the way through the life of the well and every process and component and list that, it would be exhaustive.

And the same with what's being reported. We counted in the reporting section in 27.8.G(2) what the Division considers is waste except for the three or four categories that are outlined in the accounting section in 27.9.

Q. So what is the structure the Division has considered everything in G(2) to be surface waste?

MR. BOLANDER: Except for the exceptions.

Q. Exception for the exceptions, okay. I have heard counsel describe that 2 percent as "free waste." Is that accurate Mr. Bolander?

MR. BOLANDER: You know, in my opinion, no. If you've got the ability to capture that 2 percent, I would hope that you would work towards capturing it. However, the goals are set to achieve at least 98 percent. There's

nothing out there, including some of the data we saw yesterday, that shows operators exceeding the 98 percent already.

Q. Now, you would agree with me that that data that was shown addressed what people would normally call high pressure, routine venting and flaring events; right, Mr. Bolander?

MR. BOLANDER: I can tell you what that data came from is from the C-115 reports, and (unclear) your accounting, the venting and flared events, I would look across all of my operations and determine internally what you consider waste and not waste and report it as opposed to associated gas only.

Q. Okay. Would you agree with me that the accounting for the gas capture and what's counted against operators includes releases that are necessary and unavoidable?

MR. BOLANDER: Yes.

Q. And that includes events that are -- that provide a beneficial use?

MR. BOLANDER: Beneficial use is not counted.

Q. Okay. It shouldn't be counted; right?

MR. BOLANDER: It's not counted.

Q. Okay. Now, the releases that are counted against operators, operators at this point based on the accounting

in G(2), includes releases during routine downhole maintenance including the operation of workover rigs, swabbing rigs, oil and tubing units and similar specialty equipment, does it not, Mr. Bolander?

MR. BOLANDER: Correct.

Q. Okay. And those are events, Mr. Bolander, here in Subpart D(2)(d) that the Division recognizes as authorized venting and flaring events?

MR. BOLANDER: Yes, it is.

Q. Okay. And aren't the releases that occur during these activities, do they constitute surface waste? Is that your position?

MR. BOLANDER: Yes, they can, because they can be done -- engineered out. They can be done using best management practices that basically get the volumes down to a very low volume that would have minimal impact on your gas capture.

Q. But the way the language is written, if you didn't get to that point, it would still be counted against you as the operator?

MR. BOLANDER: Yes, it would.

Q. Okay. When you say it can be controlled, I think that's the language you use in your document; right, Mr. Bolander?

MR. BOLANDER: Yes.

Q. Okay. What do you mean by controlled?

MR. BOLANDER: For in this case here?

Q. For, yeah, venting and natural gas, downhole well maintenance, workover rigs, swabbing rigs, tubing units, similar specialty equipment, and minimizes the venting of natural gas to the extent it does not pose a risk to safe operations and personal safety and is consistent with best management practices.

MR. BOLANDER: Right.

Q. Okay? In that circumstance, what do you mean by it can be controlled?

MR. BOLANDER: It can be -- what I meant is that it can be minimized to the best possible extent if utilizing best management practices during those events to the point that there will be emissions, but their volumes will be such that even if they are added and calculated in G(2), their effect on your 98 percent will be minimal.

Q. And who do you base that on? When you say minimal, what are you talking about?

MR. BOLANDER: In terms of --

Q. Volume, give me a volume. What's minimal, Mr. Bolander.

MR. BOLANDER: I don't have a volume to tell you.

Q. What percentage?

MR. BOLANDER: I don't have a percentage.

Q. Okay. When it comes to another category that's in G(2) that is counted against the operator, even if they use best management practices, is releases during manual liquids unloading. Isn't that correct, Mr. Bolander?

MR. BOLANDER: Correct.

Q. And even though you recognize that it provides a beneficial use such as lifting those liquids up?

MR. BOLANDER: I would not class -- I would not classify manual liquid unloading as beneficial use.

Q. You already did. You already testified to that, Mr. Bolander.

MR. AMES: Objection, no question.

Q. Can you -- Mr. Bolander --

MR. AMES: Madam Hearing Officer, can we have a ruling on the objection, please?

HEARING EXAMINER ORTH: Yes, Mr. Feldewert would you pose a question to Mr. Bolander?

MR. FELDEWERT: I will withdraw the question. The record speaks for itself.

MR. AMES: Madam Hearing Officer, that wasn't a question. That's the problem.

HEARING EXAMINER ORTH: No, I know. He's withdrawn it. Go ahead, Mr. Feldewert.

MR. FELDEWERT: Did you hear that, Eric? I withdrew it.

Q. Mr. Bolander, can you explain to me, someone who is using best management practices in manual liquids unloading, and it provides a beneficial use in lifting those liquids, how is the venting avoidable, in your terms. And "avoidable" is your term.

MR. BOLANDER: All right. It is avoidable by looking at alternative methods to remove liquids from your wellbore outside of use of manual unloading.

Q. Would you agree with me that there are times when alternative methods are not available?

MR. BOLANDER: Yes.

Q. And, in fact, your company did manual liquids unloading; correct, Mr. Bolander?

MR. BOLANDER: Yes.

Q. Okay. Another category that's counted against operators that, in a gas capture calculation, is releases from storage tanks. Is that correct, Mr. Bolander.

MR. BOLANDER: Uncontrolled storage tanks.

Q. Uncontrolled storage tanks counted against the operator.

MR. BOLANDER: Correct.

Q. Now, you have heard testimony that uncontrolled storage tanks are at the end of the line after all the saleable gas has been removed?

MR. BOLANDER: Not necessarily.

Q. But there are uncontrolled storage tanks that exist which are at the end of the line, Mr. Bolander, where all the saleable gas has been removed. Isn't that correct?

MR. BOLANDER: There are tanks in which the venting is at a volume that is too low to be saleable or captured in a control device, but not all tanks.

Q. Okay. And in those circumstances, even though circumstances it's counted against the operator when it comes to the gas capture calculation?

MR. BOLANDER: It is counted against them. But if you look at the models that are used for wells at that volume, the volume that would be released through the enardo valves which are the vent valves in most cases, will be, you know, for many operators, I would expect that number to be almost zero.

But for several operators in which they have uncontrolled tanks and which they have not done either proper design of separation to capture, those volumes will be excessive, and this is a rule that is designed for everyone.

Q. When you say excessive, Mr. Bolander, what do you mean? What's the volume that's excessive?

MR. AMES: Objection. Can the witness finish his statement. The purpose of this entire proceeding is to provide information to the Commission. It's not a trial,

and so allowing the witness to finish his statement is helpful to the Commission.

HEARING EXAMINER ORTH: Mr. Feldewert, I think Mr. Bolander was about to finish a sentence there, and I think he really is trying to answer your questions as best he can, so, if you would, let him finish. Go ahead, Mr. Bolander.

MR. BOLANDER: Okay. I understand, I understand the science and engineering behind it for tanks we are dealing with three emission types; breathing losses, which is just normal losses of tanks; working losses which occur when fluid is dumped in that tank and it takes -- there is typically a loss because the vent valves are set at small pressures, normally in ounces. And there are flashing losses, and the flashing losses are the losses that can be excessive, can be captured and can be put for disposition or sales.

Q. At what pressure, Mr. Bolander?

MR. BOLANDER: At -- normally the vapor recovery units are -- incorporate a compressor that is able to have a low enough suction pressure to capture the gas, and then the discharge pressure is high enough to be able to get into a sales system.

Q. Okay. So you have to have control, uncontrolled tank that has sufficient volume to have a compressor; right?

MR. BOLANDER: Correct.

Q. And enough pressure to operate the compressor and get into the system?

MR. BOLANDER: Well, the compressor does that. You have to have enough volume, and they are designed to operate, you know, close to vacuum, so they are pulling, you know, gas from the tanks, and then their discharge pressure is such to be able to get into a low pressure sales system or into another system to compress upwards in high pressure situations.

Q. Now the reporting category G(2) mentions nothing about any of that stuff; correct?

MR. BOLANDER: Correct.

Q. G(2) says uncontrolled storage tanks?

MR. BOLANDER: Yes.

Q. And no matter what the circumstance is with that uncontrolled storage tank, it is counted against the operator as part of the gas capture percentage?

MR. BOLANDER: Yes, it is.

Q. Okay.

MR. BOLANDER: Can I make a comment, if you don't mind?

Q. Not at this point. You can make a comment later, but I want to get through my questions.

MR. BOLANDER: Thank you.

Q. Okay. Mr. Bolander, would you agree that the accounting on this gas capture percentage should also include categories that will provide accurate data to establish meaningful baselines?

MR. BOLANDER: Yes.

Q. Okay. And would you agree that the categories in G(2) that are utilized to establish this gas capture percentage should include categories that can provide consistent data?

MR. BOLANDER: Yes.

Q. On a monthly volume basis?

MR. BOLANDER: Yes.

Q. And would you agree with me that the categories in G(2) should contain circumstances where not only can the data be consistent on a monthly basis, but reliable and accurate on a monthly basis?

MR. BOLANDER: Should be reliable and accurate. Consistent assumes that that event occurs on a regular basis. For example, manual unloading may be infrequent, but it does occur, and it may not occur on a monthly basis, but it doesn't mean that it doesn't occur and can't be measured through calculation.

Q. You agree with me, though, those calculations have to be sufficient to provide reliable, accurate data on the volume of the emissions?

MR. BOLANDER: I believe I testified earlier today where industry associations, such as API and ANGA and companies through the EPA natural gas program --

Q. Mr. Bolander, wait a minute. My question is --

MR. AMES: Objection. Let the witness finish his answer.

MR. FELDEWERT: I wasn't finished asking.

MR. AMES: You ask it when he is finished answering your previous one.

HEARING EXAMINER ORTH: Let him finish his statement. Go ahead, Mr. Bolander.

MR. BOLANDER: I can end it pretty quickly with when these companies reported the information using those equations, they utilize that information either in economics or in other manners, and nowhere in the documentation do they question the accuracy of the engineering calculation that were being used.

Q. Would you agree with me that the purposes of this rule in the gas capture percentage that operators are required to calculate, that you must have a circumstance -- I'm looking at your Slide 49, Mr. Bolander. Are you with me?

MR. BOLANDER: Yes.

Q. You have to have a circumstance where you can obtain reliable, accurate data on the volume of produced

natural gas that's being vented or flared. You agree with that, don't you.

MR. BOLANDER: Yes, I do.

Q. Okay. And in fact, you have eliminated categories as we saw in Slide 83 where this test could not be met?

MR. BOLANDER: Correct.

Q. And would you agree with me that the Commission does not carefully analyze the categories and determine whether this test can be met, that the gas capture percentage would be based on unreliable data?

MR. BOLANDER: With the way the reporting section is written, operators are required to report how the volume was determined, was it physically measured through a meter or was it estimated and provide the methodology in doing so, which then should provide the Division with the information required to determine if the data is reliable and accurate. And if they may have concerns, they have the ability to ask for third party verification.

Q. My question is different, Mr. Bolander. When the Commission looks at the category in G(2), don't you agree with me that they need to make sure that those categories meet this test on Slide 49, that they provide reliable, accurate -- that operators can provide for those categories reliable, accurate data on the volume of produced natural

gas that is being vented or flared?

MR. BOLANDER: Yes.

MR. AMES: Objection. Mischaracterizes the slide. It's referred to as an objective, not a test.

HEARING EXAMINER ORTH: He's already answered, Mr. Ames.

Q. Because, Mr. Bolander, we don't want to have a gas capture percentage imposed on operators in New Mexico that is based on unreliable data now, do we?

MR. BOLANDER: We want a gas capture percentage that actually reports gas that should be captured, and thus determined by gas loss calculations to be able to reduce that.

Q. And that needs to be based on reliable data; right, Mr. Bolander?

MR. BOLANDER: Yes.

Q. Okay. Now these events that, where there is some question about whether they can be accurately measured or reasonably estimated, would you agree with me that releases from storage tanks, for example, are regulated by the New Mexico Environment Department, are they not?

MR. BOLANDER: Yes, but not every tank in the state.

Q. And doesn't the NMED have proposed regulations that seek to regulate emissions from these types of sources?

MR. BOLANDER: Yes, but not for every tank in the state.

Q. What tanks is the NMED not going to be regulating?

MR. BOLANDER: Tanks that are outside the county in which the regulations will be based on.

Q. So that would be based on emissions standards?

MR. BOLANDER: Correct.

Q. Okay.

MR. FELDEWERT: Is Mr. Powell available?

MR. POWELL: Yes, sir.

MR. FELDEWERT: Hold on one second.

CROSS-EXAMINATION OF PANELIST POWELL

BY MR. FELDEWERT:

Q. Mr. Powell, I want to ask you -- categories; correct? I think you are the right person for that

MR. POWELL: That is correct.

Q. I thought I had -- give me a minute. I'm looking for your PowerPoint slide.

MR. POWELL: I can pull it up, if you would like.

Q. That would be great.

MR. POWELL: Can I get sharing access, please.

Q. Yes. Stop sharing. Okay, thanks.

MR. COSS: You have sharing potential now, Mr. Powell.

MR. POWELL: Thank you. Is that the one you are looking for?

Q. Yes, thank you. I think you comment about this on Page 9 of Exhibit 4C, as well as -- Mr. Powell; is that right?

MR. POWELL: Would you like me to pull up the PowerPoint or the --

Q. You can go ahead and leave this up. I just wanted to orient you to this part of --

MR. POWELL: It's hard for me to look. My notes are on the computer, so it's hard for me to look at both at the same time.

Q. You don't need notes. You know this by heart.

MR. POWELL: I will try.

Q. I'm on OCD Slide 4C on Page 9, Line 87, and -- I'm sorry, Line 85. And you recognize, you say the OCD recognizes that it would not inappropriate to require operators to report volumes that the OCD has determined are not waste. Do you agree with that?

MR. POWELL: In this context, yes.

Q. In the context of your slide?

MR. POWELL: Of the slide.

Q. I don't think (unclear) slide.

MR. POWELL: While you were referring to the spreadsheet, I was trying to look at it as well. Sorry.

Q. Well, take a minute and look at it, that's fine. I'm sorry.

MR. POWELL: Now I pressed the wrong button I think. All right, we'll go back to the slide. Okay, we're back at the slide. Can you please repeat your question?

Q. Well, let's see. You stated that the OCD recognizes it would not be inappropriate to require operators to report volumes that OCD has determined are not waste. Okay?

MR. POWELL: That is correct, for this purpose.

Q. Okay. All right. And when you say not waste, you mean shouldn't have to report if it doesn't constitute surface waste?

MR. POWELL: Not as the waste I'm referring to and I think that the slide refers to as well.

Q. How do you determine whether or not a particular emission constitutes surface waste?

MR. POWELL: I would say that it would be up to the operator to determine that first, ensure, one, it's necessary, and two, it's not excessive. And then once they determine that, then they would report it.

However, if the operator fails to determine it and the OCD determines that it's either not necessary or not excessive, then the OCD can require certain waste to be report as well.

Q. So you would use essentially the statutory criteria?

MR. POWELL: I didn't refer to the statute. I referred to the definition in l9.15.2.

Q. I see. Is that the same as the statutory -- is that the one that says surface waste is the unnecessary or excessive surface loss or destruction without beneficial use?

MR. POWELL: Yeah. I think there is excessive in there. It's quite a bit longer than that. I don't have that available at the moment.

Q. Okay. All right. I want to ask you about -- you make a statement on the same Page 9 of your exhibit, so I don't think we need to use the slide anymore. If you want to go to your notes, Mr. Powell, that's fine.

MR. POWELL: Okay. Which line item are we on?

Q. So now I'm talking about -- this is your favorite subject -- overriding royalty interest owner reporting.

MR. POWELL: Okay.

Q. So I'm on Page 9, Line 87.

MR. POWELL: Okay.

Q. Now, I believe, if I'm understanding it, Mr. Powell, the Division agrees that reporting to overriding royalty interest owners has its difficulties; right?

MR. POWELL: Yes, after testimony -- and I would

like to give a little context in my comments in this slide. All of these slides are a culmination of all of our efforts. I'm trying to address them to the best of my capabilities so we could limit witnesses, but, yes, I believe it was pretty extensive in the testimony that the overriding royalty interest owners were hard to notify.

Q. And so you base the exclusion here on that testimony?

MR. POWELL: Yes.

Q. Okay. Do you recall that that same testimony applies to royal interest owners except the State Land Office?

MR. POWELL: I believe there was discussions about working interest owners as well.

Q. Okay. But that's the testimony that you relied upon to remove overrides was offered equally for overriding royalty -- I'm sorry -- royalty interest owners except the State Land Office?

MR. POWELL: The testimony I remember, I believe Mr. Smitherman was discussing with Madam Chair that working interest owners would also have a say as well, or could also have a say as well.

Q. Okay. And you're aware of the fact that an operator, just like you may not have a contractual relationship with an overriding royalty interest owner, and

likewise not have a contractual relationship with a royalty interest owner?

MR. POWELL: I don't know that. I'm not a royalty interest owner expert.

MR. FELDEWERT: Okay. May I have a couple of minutes to confer with my co-counsel, Ms. Orth?

HEARING EXAMINER ORTH: Yes. Yes, you want ten minutes?

MR. FELDEWERT: I don't think -- we can take that long. I don't need that long.

HEARING EXAMINER ORTH: All right. Five minutes is fine.

MR. FELDEWERT: Thank you.

(Recess taken.)

HEARING EXAMINER ORTH: Let's come back from the break, please. All right. Mr. Feldewert, do you have additional questions for Mr. Powell or Mr. Bolander?

MR. FELDEWERT: I do have some for Mr. Powell, and then Mr. Rankin has been looking at the studies that Mr. Bolander just cited today, so he wants to ask him a few questions about that. Okay?

HEARING EXAMINER ORTH: All right. Please, go ahead.

BY MR. FELDEWERT:

Q. Mr. Powell, you know I have heard your counsel

and I think others call this 2 percent free waste. Have you heard that?

MR. POWELL: I have not heard that except from you.

Q. I thought you heard that from counsel.

MR. POWELL: I must have missed it then.

Q. Do -- I can only speak to you because you presented this on behalf of the Division. You were involved in putting together this 98 percent gas capture and this remaining 2 percent provision; right?

MR. POWELL: That is correct.

Q. Did you think that the Division has jurisdiction to cap emissions that are -- cap surface waste emissions at 2 percent?

MR. AMES: Objection, calls for a legal conclusion.

Q. Is that what the Division thinks?

HEARING EXAMINER ORTH: It's still a legal question, Mr. Feldewert.

Q. Based on your understanding, Mr. Powell, in putting this rule together, did the Division decide to cap surface waste emissions at 2 percent?

MR. POWELL: So that's an in-depth topic. I would say that the Division picked 98 percent because they felt it was feasible. They felt that the 2 percent

allotment would allow continued operations as long as they weren't excessive, and they would allow operators to be continue working, but doing so prudently.

I think there was a lot of comment around waste, surface waste, specific different activities, and I would say that the 2 percent allows those activities as long as they aren't excessive. Because I think if we were to eliminate everything that was essentially necessary, then it wouldn't really be necessary to allow that 2 percent or should it be 100 percent capture except for the things that are necessary and unwasteful.

So I think that 2 percent does allow the normal operations as long ago they weren't excessive without them getting excessive.

Q. But if we include emissions in that 2 percent that are necessary, then it's creating a cap on what is necessary; right, Mr. Powell?

MR. POWELL: I wouldn't say we are creating a cap on what's necessary, we are ensuring that what's necessary doesn't become excessive.

Q. And by excessive, you mean more than 2 percent of a particular volume?

MR. POWELL: That's correct, more than 2 percent of a volume. A good example of that is I think addressed by say liquids unloading, and Mr. Bolander is a bigger expert

than I am, but say an operator is out there doing liquids unloading, if they don't shut in valves once that liquid is unloaded, continued venting of that liquids unloading would be excessive even though it's part of normal operations.

Q. But if, for example, Mr. Powell, if there is an operator here in the state who is reporting on all of the categories that the Division has lumped into G(2), okay, and has reached the -- and has reached the 98 percent threshold, okay, at that point any venting from liquids unloading that would normally not be surface waste would put that operator out of compliance; right, Mr. Powell?

MR. POWELL: So I think the question, you are saying on the specific liquids unloading, yes, but my question would be, is there other waste in the other 2 percent that they are causing them to already be at that 98 percent.

So you would have to look at holistically over all their venting and flaring, and if all of it was necessary, and all of it was not excessive, then I would say that that operator probably needs to go to hearing and show each and every item that they are doing because I don't see that as being the normal situation.

Q. But the Division, the way this is crafted, has included the calculations of that 98 percent of emissions that are not waste; right Mr. Powell?

MR. POWELL: I think the intent was they are not waste as long as they are not excessive. And that's why we're allowing the 2 percent is to ensure that they don't become excessive.

Q. And in addition to the way this is drafted, at least from our point of view, this determination of 98 percent, at least based on the existing categories, would include data that is currently drafted, and based on a lot of the testimony, would not be reliable for volumetric accounting purposes.

MR. AMES: Objection. The question is based on, as counsel said, on his client's point of view, not a question that calls for speculation by the witness as to whether he understands that to be NMOGA's point of view.

HEARING EXAMINER ORTH: I'm sorry, Mr. Feldewert. Would you re-ask your question, please?

MR. FELDEWERT: Well, we can let -- I think I will withdraw the question and let the evidence speak on whether it's reliable data or not that should be utilized for this type of volumetric monthly accounting.

MR. AMES: Objection, editorializing.

HEARING EXAMINER ORTH: Thank you, Mr. Ames. That one is sustained. Mr. Feldewert, please go ahead.

MR. FELDEWERT: Sure. My colleague, Mr. Rankin, now has a few questions about the studies that Mr. Bolander

referred to for the first time today.

MR. POWELL: So are you referring to Mr. Bolander now?

HEARING EXAMINER ORTH: Thank you, Mr. Powell.

MR. FELDEWERT: Thanks, Mr. Powell.

HEARING EXAMINER ORTH: Let's get Mr. Rankin on the screen. There you go.

MR. RANKIN: Good afternoon, Madam Hearing Officer.

CROSS-EXAMINATION OF PANELIST BOLANDER

BY MR. RANKIN:

Q. Good afternoon, Mr. Bolander.

MR. BOLANDER: Good afternoon.

MR. RANKIN: Let's see, Mr. Rose-Coss, may I have sharing capabilities?

MR. COSS: One moment, Mr. Rankin.

MR. RANKIN: Thank you.

Q. Mr. Bolander, while Mr. Rose-Coss manipulates the system, what I'm going to ask you about is your rebuttal testimony relating to Line Item 79 in OCD Exhibit 4C revised. I'm just going to bring that up as a point of reference so we can have a starting-off, jumping-off point.

If I can actually correctly use my mouse, it would be helpful. Are you able to see my screen, Mr. Bolander.

MR. BOLANDER: Yes.

Q. I have highlighted here a couple of points in Line 79, and the issue here was two categories, reporting categories that NMOGA had proposed to delete from the rule. And you had testified on the basis for OCD's objection of the deletion of those categories; correct?

MR. BOLANDER: Yes. Yes. Making sure I understood the question.

Q. Sure, I understand. It's been a long couple of weeks, and if we can -- focus is always a challenge at this point in the game, but just getting you oriented to the question.

So in those three categories that were proposed for deletion were routine downhole maintenance, manual liquid unloading, and uncontrolled storage tanks; correct?

MR. BOLANDER: Correct.

Q. And you testified today about two of those categories, the manual liquid unloading and uncontrolled storage tanks; correct?

MR. BOLANDER: Correct.

Q. And what you testified about was the ability or validity of certain -- that there is a valid estimation to quantify those volumes; correct?

MR. BOLANDER: Correct.

Q. And just to again get us oriented here, what I

think I heard you say was that there were engineering calculations in Subpart W that OCD deems as being valid estimation methods for that purpose; correct?

MR. BOLANDER: In Subpart W, yes.

Q. That applies to both the manual liquid unloading process and the uncontrolled storage tanks; correct?

MR. BOLANDER: And where my testimony was on storage tanks was highlighting certain software such as ProMax and EMP Tanks that is known -- that's known within the industry for design, designing equipment, as well as for regulatory permitting.

Q. Okay. And those -- those -- so for storage tanks you are not relying on Subpart W for storage tanks.

MR. BOLANDER: For storage tanks, the research I did was specific to modeling technologies that are available to be able to use to measure flash calculations or flashing or emissions from tanks. That was my specific testimony and background as well.

Q. Okay. So I will, I will take you to those in turn, but I'm going to focus for purposes of my questions on those two categories, the manual liquids unloading first, and then the uncontrolled storage tanks. Okay?

MR. BOLANDER: Correct.

Q. Now, let's see, where is my -- all right. For the manual liquids unloading, the basis for your statement

that there are valid estimation calculations available, this was referring to in particular Subpart W as a valid method; correct?

MR. BOLANDER: Correct.

Q. Now, I just -- you heard testimony earlier, I believe, Mr. Bolander, you presented testimony earlier in which the first witness testified about the variability in Subpart W?

MR. BOLANDER: Yes.

Q. Now, I want to pull up -- you referenced Exhibit 46, OCD Exhibit 46 that specifically addresses estimation methods for liquids unloading; correct?

MR. BOLANDER: Correct.

Q. Can you see my screen where I have a portion of that exhibit on the screen?

MR. BOLANDER: Yes.

Q. I can scroll for you. Do you recognize this from that exhibit?

MR. BOLANDER: Yes. That's one of the methodologies listed in that, along with the utilizing the engineering calculations as well as certain direct measurement techniques as well.

Q. So in this particular case, this emission, this emission factor is one of the methods identified in that exhibit as a valid means of estimating volumes from manual

liquids unloading; correct?

MR. BOLANDER: Emission factors can. I spoke specifically to the equation, however.

Q. Okay. So on this, on this point, then, these emissions factors, it references in the footnotes a particular study that I think you also reference which was the API-ANGA study; correct?

MR. BOLANDER: Correct.

Q. So I'm going to pull that up, and my -- what I'm going to ask you about. So going to the variability and the wide confidence ranges here between what is available under Subpart W, which is a valid estimation according to some of the testimony, and other means that you have also identified as being valid, in this particular study these are the findings. Do you recognize these findings from API ANGA study?

MR. BOLANDER: Yes, our company was actually a part of the study.

Q. So, in summary, what were the two key findings from the API-ANGA study?

MR. BOLANDER: One, use of the emission factors could be off, and the intent of the study was to collect from, from operators, and Southwestern was one of them, actual well data from liquid unloading events, both manual and plunger lift, and compare the results.

And ultimately we saw that using real data, you know, compared to the EPA and actual estimates, using real data was much lower than the EPA national measurement. And you know, so the intent was, was doing -- utilizing real well data and using the engineering calculations to show that, hey, you know, the national estimates are off, but it shows that the use was accurate.

Q. So in terms of being able to identify an accurate and reliable methodology to estimate volumes related to manual liquids unloading, EPA Subpart W, on the one hand, is one method. This emissions factor calculation method is another, but the difference between the two here in this one instance a factor of 14. Is that right?

MR. BOLANDER: Yes.

Q. Talking about tanks controlled -- I'm sorry -- uncontrolled storage tanks, which is the second category of emissions that I would like to just talk about, now, my understanding is from your clarification to me was that your testimony was specifically directed to certain types of software programs that were used to estimate those emissions; correct?

MR. BOLANDER: Correct, and design as well.

Q. And design as well. And which were those software programs again? Sorry, I have them in my head.

MR. BOLANDER: ProMax which was developed, I

think, Brian Engineering, which is a Texas engineering firm.

Q. And you also referenced OCD 46, which pertains specifically to emissions estimations from uncontrolled tanks; is that right?

MR. BOLANDER: Yes.

Q. And in Exhibit 46 -- I will pull that up here on my screen. Let me know when you can see it -- is that 46? I'm sorry, I meant to say 45.

MR. BOLANDER: Oh.

Q. 45, you also referenced Exhibit 45 when you were talking about estimating emissions behind emissions from uncontrolled storage tanks?

A. Yes.

Q. And you recognize the page here I've got up here on the screen reflecting estimation methods contained in that exhibit?

MR. BOLANDER: Yes. I'm familiar with those.

Q. Now, in your testimony I understood you to say that flashing losses can be excessive, and one of the concerns around these emissions from volumes from tanks is the flashing losses; correct?

MR. BOLANDER: Correct.

Q. And some of the software that is identified in this estimation method are identified here Accutech, HYSYS (unclear) tanks and others; correct?

MR. BOLANDER: Correct.

Q. And in this case the (unclear) identified -- this paper specifies that, quote, "Software cannot characterize separator or scrubber valve leakage which can far exceed flashing losses." Did I read that correctly?

MR. BOLANDER: Yes, you did.

Q. It appears to present a problem where the software is unable to exclude or correctly characterize certain types of liquid which can overwhelm the flashing loss issue; correct?

MR. BOLANDER: It can. It's not designed to evaluate a tank based on a malfunction. It's designed to look at the full well stream of hydrocarbons, go through the phase separation and determine what the volume of gas would be flashed in the tank based on how that gas was separated and sent to the tank.

As far as looking at the note, that would be an indication that you have a malfunction, not an uncontrolled tank due to poor design. I would, that last comment, I would characterize that as being reported under the malfunction category of OCD's regulation.

Q. Now, on the topic of the software that's identified here, I have highlighted a portion of the language that indicates that -- and I guess when they refer to partners, they mean -- what do they mean when they refer

to partners?

MR. BOLANDER: Partners are where the oil and gas companies that were the participating partners in the coalition.

Q. So in this case, the intent here would be to suggest that operators who intend to use this would then calculate flashing, working and standing emissions, and those are the three types of emissions that you referenced during your testimony; right, breathing, working and flashing losses, are those the equivalent here?

MR. BOLANDER: Yes.

Q. Using the software identified in the highlights that I have highlighted in the language.

MR. BOLANDER: Correct.

Q. And it -- it states here that these emissions, these programs they are referencing here are equations of state programs; is that correct?

MR. BOLANDER: Yes.

Q. Is it your understanding that equations of state can provide working emissions?

MR. BOLANDER: Yes.

Q. Okay. And that equations of state will also provide standing emissions. Is that your understanding?

MR. BOLANDER: Yes, as well as flashing.

Q. So all three of those programs will provide those

calculations or estimations for each of those types of categories of emissions?

MR. BOLANDER: Correct.

Q. Now, Mr. Bolander, were you present for NMOGA's witnesses' testimony regarding different methodologies and factors that operators often employ to address and manage their facilities and emissions from their facilities such as oil and gas blankets?

MR. BOLANDER: I'm familiar with that. Was that Mr. Leonard?

Q. It may have been Mr. Greaves, do you recall that?

MR. BOLANDER: Unfortunately I did miss Mr. Greaves' testimony.

Q. Do these estimation methods include any of those potential operational methods and other operational techniques that operators may employ to vanish their emissions and vapors from their tanks and systems?

MR. BOLANDER: It would use the software to determine what would be the best method of mitigating excess flashing that's occurring. It could either be during the separation phase and/or -- and the tank, and how do you handle that.

Q. But do they -- how would it do that? I'm sorry, I'm not quite sure I followed that answer.

MR. BOLANDER: Typically you start with a

recombined sample of the oil and gas, or gas and condensate, and unfortunately missing Mr. Greaves, the change of phase, process of going through phase behavior, you know, each reservoir fluid has a phase envelope, and what these -- what this software does is, as you go through pressure and temperature changes, the gas liberates from the fluid at different percentages, at different stages, and the software is designed to determine what would be the most efficient process.

And for example, in separation, is it better -- is it just as good to operate one separator or does it require two separators to stabilize your hydrocarbon through the process to one through that stabilization process it actually improves your oil production, but in the other instance it reduces the volume of gas that is flashed than if you didn't go through that extra stage of separation.

It could also be a condition of separation. It could also be a temperature effect, such as installing aerial coolers to perform the same function as a pressure drop. And through that process, you understand what volume of gas would be flashed off the tanks, and then that volume of gas that would be flashed off the tanks, if it's sufficient, that's where you design your vapor recovery, which we saw, you know, a schematic that Mr. Leonard presented. It showed, you know, a lot of the tanks or

facilities that he mentioned are design and controlled facilities where they install vapor recovery off the tanks, because they physically have gone through the modeling calculations for that to determine, you know, what types of separation they need and the capture recovery.

Q. So, Mr. Bolander, I think I may have lost you. I was asking about gas leakage and how the software programs, if they do, in fact, account for and allow operators to account for their operations, including the use of gas blankets to manage their emissions from storage tanks.

MR. BOLANDER: I would like to say that's one methodology, a gas blanket will maintain a pressure on the tank to minimize the flashing aspect of it.

Q. I guess my question is, do these software programs allow the operators to incorporate those operations in their estimations through the software?

MR. BOLANDER: Where, you know, engineers that have worked for me have used this, have used it in the design of separation and design of vapor recovery.

Q. I guess that's not answering my question. I'm trying to find out, if an operator is using a gas blanket, if they can also use this software to accurately estimate the emissions that they have in their system.

MR. BOLANDER: Yes. You can estimate, you know, what would be emitted in normal operations, you know,

without, you know, any type of control such as what gets emitted say through a vent or enardo valve.

Q. Including the effects of operations of their gas blankets?

MR. BOLANDER: Should be able to.

Q. Okay. And do these programs also account for the estimation -- do the estimation methods also account for, as Mr. Greaves testified about, the importance of identifying the location of where the pipe enters the tank, whether it's from above or below, do these software program estimation methods account for such factors as location of the pipe?

MR. BOLANDER: I do not have that intimate knowledge. However, engineers that I have worked with do have, you know, are able to design our equipment effectively using this type of software.

Q. That's the design. I guess I'm wondering about being able to estimate your emissions. To your knowledge you are not aware of whether or not these programs account for the location of pipes in order to accurately estimate the emissions?

MR. BOLANDER: I'm not sure where they assume pipe location is, but if you are designing a vapor recovery unit, then obviously you're basing it on the emissions from the tank.

Q. You weren't here to hear Mr. Greaves testify

about the importance of the location of the pipe, and you understand that that would impact emissions; correct?

MR. BOLANDER: No, sir.

Q. And then finally, as far as installation, there was some discussion about the importance of the impact of insulating pipes on the system and estimating emission volumes. To your knowledge, do these software programs or estimation methods allow operators to incorporate the effects of insulation on piping in calculating or estimating their emissions from uncontrolled tanks?

MR. BOLANDER: I do not have that knowledge.

Q. And you also, if you weren't here for Mr. Greaves, then you didn't hear him testify about the importance of the dramatic swings in thermal variation temperature, which I'm assure you are familiar with, that occurs down in the Permian.

To your knowledge, are these programs able to incorporate and take into account dramatic thermal shifts in thermal temperature gradience in your estimation of these emissions volumes?

MR. BOLANDER: In their calculation of standing emissions, which would be breathing losses, that would be a determination based on those effects. What the limits on the software is in terms of temperature swings, I do not have that knowledge, but it does account for the calculation

of breathing losses.

Q. Very good.

MR. RANKIN: Madam Hearing Officer, I have no further questions at this time for Mr. Powell. Appreciate it.

HEARING EXAMINER ORTH: Thank you very much, Mr. Rankin. Mr. Biernoff, do you have questions of the Division panel?

MR. BIERNOFF: Thank you, Madam Hearing Officer, I do not. Thank you.

HEARING EXAMINER ORTH: All right. Thank you.

Ms. Fox, will you have questions of the Division panel, and if the answer is yes, I will ask you to estimate so that I know whether we need a break or not.

MS. FOX: We do, but Mr. Baake and I do, and I have about five to seven -- five to ten minutes' worth of questions, and Mr. Baake has perhaps -- what do you want to What do you want to say, David.

MR. BAAKE: I'm hopeful we can go through quickly. I would say, to be conservative, 15 minutes, but probably closer to ten.

HEARING EXAMINER ORTH: Okay. Well, if you would like to go ahead, go ahead, and I will.

MR. AMES: Why don't we let the witnesses -- Madam Hearing Officer, they have been going now for almost

an hour and a half, if not a bit more. I think a short break for them would be appropriate.

HEARING EXAMINER ORTH: All right. No, I'm fine with that. Let's take ten minutes then.

MR. AMES: Thank you.

HEARING EXAMINER ORTH: Come back at 2:45.

MR. AMES: I'm sorry, what time?

HEARING EXAMINER ORTH: 2:35.

MR. AMES: 2:35.

HEARING EXAMINER ORTH: Sorry.

(Recess taken.)

HEARING EXAMINER ORTH: All right. Let's come back from the break, please.

MS. FOX: Mr. Rose-Coss, can I have sharing ability?

MR. COSS: Yes, of course, Ms. Fox. One moment.

MS. FOX: Thanks.

HEARING EXAMINER ORTH: Get the witnesses back on the screen. Irene, how are we doing?

REPORTER: We're doing.

MS. FOX: If Mr. Powell could appear, please.

HEARING EXAMINER ORTH: Mr. Powell and Mr. Ames?

MR. AMES: I'm here.

HEARING EXAMINER ORTH: Terrific. We are back on the record after a short break. It's time now for Climate

Advocates to pose their questions to the Division panel on rebuttal. Ms. Fox.

MS. FOX: Thank you, Madam Hearing Officer.

CROSS-EXAMINATION OF PANELIST POWELL

BY MS. FOX:

Q. Good afternoon, Mr. Powell.

MR. POWELL: Good afternoon.

Q. I want to ask you about Item 106 in the spreadsheet having to do with Part 27 that OCD submitted last evening that I have on the screen.

MR. POWELL: Okay.

Q. So Item 106 addresses OCD's reaction to our proposal that there would be automatic denial of APDs if an operator is out of compliance with its gas capture requirements.

MR. POWELL: That is correct.

Q. And part of the OCD's rationale for not accepting that proposal is that operators who are out of compliance with the annual gas capture plan must submit more robust gas management plans; correct?

MR. POWELL: That is correct.

Q. And OCD states that operators cannot spud any well until they are in compliance. Do you see that language?

MR. POWELL: That is correct.

Q. And do you mean if they are not in compliance with their annual gas capture requirements?

MR. POWELL: I believe this one relates to the provision that we added, and if you will give me just a moment, let me try to find it. Where if they are out of compliance, they have to submit a more robust plan, and if they fail to comply with it, then we can suspend their APDs. I believe that is 19.15.27 dot 9.A(4).

Q. But doesn't that provision say that the, even if an operator is out of compliance with its gas capture requirements, it can submit a plan to come into compliance that year if OCD, if it approves that plan, will allow it to spud during that year. Isn't that how it works?

MR. POWELL: That would be -- I believe so, that they would submit the plan, and as long as they were conforming with that plan, they would still be allowed to spud. If they fell out of compliance with that plan and weren't in compliance with that plan, that's where they wouldn't be able to spud.

Q. I think the way it reads is they cannot spud if they are out of compliance with their annual gas capture requirements except if they submit a plan to the Division and the Division approves that plan. Isn't that how it reads?

MR. POWELL: Let me look at it a little closer.

Q. I guess what I'm most concerned about, Mr. Powell, is the phrase in here that an operator who is out of compliance with their annual gas capture plan cannot spud, and I do not think that's accurate. I think that's what Mr. de Saillan was proposing, but it's not what OCD is accepting.

MR. AMES: Objection, objection. That's a statement, not a question.

MS. FOX: It was a question. I'm asking --

HEARING EXAMINER ORTH: -- if he agreed with that statement.

MR. POWELL: I would say the provision is not in there for an automatic denial of a spud. The provision is through an enforcement mechanism with the compliance plan.

So you are correct, it's not an automatic provision until they go through the compliance plan that the spud be denied until they are in compliance.

Q. Right. And so an operator that is out of compliance with their annual gas capture requirement can, under certain circumstances, spud a well even if they are out of compliance with their annual gas capture requirements?

MR. POWELL: I would say, yes, that's correct, in a general sense.

Q. Or in the sense how OCD has written its

regulations, would you agree?

MR. POWELL: Well, I think there are certain provisions that if they fail to meet in 4, then it becomes a denial that they wouldn't be able to spud. But until they are into that provision in 4, that automatic denial for spud would not be there.

Q. Right. Thank you. Let's see the next provision, the next one on 102 they identified as Mr. Bolander, although I think either one of you can answer this next line of questioning about, about applying for an APD.

MR. POWELL: If it's regarding the APD, I think I was identified down below, so I could try to answer.

Q. Yeah, I'm guessing that you are the better person. So let's stay with you since you are on camera, if that's okay.

MR. POWELL: That's fine.

Q. Okay. So looking at Climate Advocates' proposal on the circumstances under which an APD can be approved. Let me see if I understand this, Mr. Powell.

If an operator applies for an APD, the operator has to -- and I'm a looking here at -- this is 27.9.E(4), and if an operator is applying for an APD, the operator has to either certify that it will be able to connect the well to a natural gas gathering system in the general area with sufficient capacity to transport 100 percent of the volume

of the natural gas the operator anticipates. And if it can't do that, then the operator must submit a venting and flaring plan. Is that correct?

MR. POWELL: That is correct.

Q. So there is two options. There is the certification for takeaway capacity. If they can't do that, then they submit a venting and flaring plan. And the venting and flaring plan has to do with uses of the gas on site; correct?

MR. POWELL: That is correct.

Q. And so what your proposed rule requires is that operators submit a venting and flaring plan that evaluates the number of options; correct?

MR. POWELL: I think there's --

Q. That are produced?

MR. POWELL: I think there's two main options and then some sub options under one of those main options.

Q. I have the screen in front of me. So I'm seeing about nine options and then an alternative use option.

MR. POWELL: Right. So maybe I misunderstood. I thought you were talking any option. So the two big options, it would be a hundred percent takeaway, or the second option would be another beneficial use. And under the beneficial use, there is some sub options, yes, correct.

Q. And so what the operator does is they submit a

plan that evaluates potential uses; correct?

MR. POWELL: That is correct.

Q. They don't select a potential use, they evaluate a potential use; correct?

MR. POWELL: I think they have to evaluate and then do one of those potentials or shut in the well as we propose.

Q. So their plan has to evaluate and select a use?

MR. POWELL: Yes. So in 5, in E(5), there's the word "shall" in there. So the operator shall either shut in the well until the operator submits a certification or submits a venting and flaring plan.

So that shall there dictates either it has to be shut in, they have to certify the hundred percent takeaway, or they have to use one of the venting or flaring plans down below.

Q. A through J?

MR. POWELL: A through J, correct.

Q. So the operator does need to select from among those ten or so options?

MR. POWELL: Yes, the A through I, shutting it in or having certification.

Q. And we had proposed language that would express stating that the operator needs to select a number among those alternatives, and it sounds to me that substantively

you agree that the operator must evaluate and select among one of those alternatives; is that correct?

MR. POWELL: I would say, substantively, they have to use one of those alternatives if they can't take it away or shut it in.

Q. They have to select one of those alternatives, I believe, is what you told me; is that correct?

MR. POWELL: I don't know if they have to select it, but they would have to use it, use one of those alternatives, which means they would have to likely let us know which one they are using.

Q. Or, in other words, select one of those alternatives?

MR. POWELL: Correct.

Q. And then when we go down to Subsection, what is your Subsection 7 and our new Subsection 8, the Division requires that the operator either -- if the operator does not make a certification, or fails to submit an adequate venting and flaring plan, or if the Division determines the operator doesn't have adequate takeaway capacity at the time a well is to be spud, you all propose the Division may deny the APD or approve the APD -- or conditionally approve the APD; is that correct?

MR. POWELL: That is correct.

Q. And do you remember the testimony under

cross-examination from Mr. Lepore when I was asking him what is meant by an adequate venting and flaring plan?

MR. POWELL: Vaguely.

Q. Do you remember specifically that I asked whether an adequate -- if -- if a venting and flaring plan would be adequate if --

MR. POWELL: I.

Q. -- just let me finish here -- if it allowed 50 percent of the gas to be vented or flared?

MR. POWELL: I do remember. Yes, I do remember.

Q. Okay, great. And he responded yes. Do you remember that?

MR. POWELL: I do remember that response even though I may not agree with it.

Q. And that's exactly what I was going to ask you. Do you agree with that, that that, a venting and flaring plan under this provision could allow for ten -- let's say -- well, let's start with 50 percent of gas emitted to be let go.

MR. POWELL: So what I would say in the venting and flaring plan is -- and I think that's where Mr. Lepore may not have the in-depth knowledge with all the other rules that the Division has, is attaching this as part of the APD package, it's part of the information submitted with an APD. So in that submittal with the APD, it also falls under the

rules of the APD that they have to fill it out completely. And then it also falls under the rules that we have general enforceability with permits that they have to comply with all the permits.

I would say if they submitted one that says they were only taking away 50 percent of the capacity, going back up to the Provision 4 and 5 that we just discussed where it says that they shall do one of the following, it's either takeaway capacity, shut in or beneficial use, I would say that that would not provide a 50 percent takeaway capacity because it doesn't meet any of those criteria.

So it would not be approvable, so therefore the APD, in my opinion, would not be approvable at that point, because the approval is not specific to the venting and flaring plan itself, the approval is specific to the APD package.

Q. What percentage of produced gas has to be captured or, rather, used for beneficial use under a venting and flaring plan?

MR. POWELL: So for the beneficial use we don't have that specifically identified for each one of those levels. I don't know that I have an idea of how efficient each one of those are, I'm not an expert in those. I would guess that some may have different efficiencies. But when using -- but when using those -- sorry.

Q. No, go ahead.

MR. POWELL: I was going to say, when using those different usage, that that beneficial use would have to be consistent with that usage instead of -- in my opinion, it would have to be consistent with the intent of that usage.

Q. And then where in your rule are there any limits on the percent amount of gas that must be used in order for a venting and flaring plan to be adequate?

MR. POWELL: So used or -- so I think I just addressed that. Maybe I stated it wrong. So use, I would say, qualifies under the beneficial uses which would be A through I. I don't think we have a percentage of that for different usage as far as what's acceptable. But if it's for takeaway, we do have that percentage which is a 100 percent takeaway capacity.

Q. Right. So then your rule by its terms does seem to allow what Mr. Lepore testified to, and that is that the beneficial use plan could allow 50 percent of venting and flaring since there is no percent requirement beneficial use; is that correct?

MR. POWELL: Well, I would -- I would caveat that with whatever percentage that they are using has to be consistent with one of those options. So they would have, say power generation, all of that gas would be going through and being used as efficiently as possible for that power

generation. They couldn't have a power generator on site and be directing ten percent of their gas to that power generation and venting the other 90 percent.

I would say that whatever they are using that for for beneficial use has to be (unclear) with the gas they are venting or flaring through that.

Q. Now, under your proposed language, if an operator doesn't make a certification, doesn't have an adequate venting or flowing plan, or if you all determine there is not adequate takeaway capacity, the Division proposes language that states the Division may deny the APD or conditionally approve the APD. That's correct, right, we have gone over that?

MR. POWELL: That's correct. That's correct.

Q. So could the Division approve an APD without conditions under this language?

MR. POWELL: I would say the way it's written they could, but it wouldn't be consistent with the intent of the rule.

Q. So is the intent of the rule is that the Division only has two choices here, to either deny the APD or conditionally approve the APD; is that correct?

MR. POWELL: If they are out of compliance, yes, that was the intent.

Q. And so then the language that Climate Advocates

proposed making it clear that the Division has only those two choices, deny or conditionally approve, is consistent with the OCD's intent as you just described it; correct?

MR. POWELL: I think there could be other circumstances that still meet that intent because I think there is more than one way to conditionally approve or bring an operator into compliance that would still meet that intent.

That would be through our enforcement discretions similar like an agreed compliance order where we have stipulated penalties if they didn't meet it. That could be conditioned on that previous provision where we identify an operator isn't complying and they would come to us with a compliance plan.

So I would say those would still be conditions even though those are conditions not explicit on the APD itself, they are conditions explicit to the overall process.

Q. Right. But we are not talking an enforcement action in this section, we are talking about approval or not approval of APDs. So what you had told me was that the intent of this provision is either that the Division deny the APD or conditionally approval the APD.

I am not take -- I'm not asking you about what the Division would doing in taking enforcement action. So let me ask again. Isn't it true that the intent of the

Division in this provision as just told me, is either, if -- if the operator can't certify, if they don't have an adequate venting and flaring plan, if they can't -- if you all determine they don't have sufficient takeaway, the two options for the Division are to deny the APD or conditionally approval the APD; correct?

MR. POWELL: Let me look at the wording just to be sure. So if they don't certify it, then it would be, correct, a denial or conditional approval. They don't submit an adequate venting or flaring plan, yes, I would agree with that, to approve it we would need to do A or B.

Or if the Division determines the operator will not have adequate natural gas takeaway capacity at the time a well will be spud, the Division may -- I would say the last one, at the time of spud the Division may, that's where there may be other enforcement discretions may be already in play, because I don't see the Division making that determination as a standard course of business every day. The operator would likely already be in some kind of discussion or enforcement action with the Division for that one to apply.

Q. But let's go back to the APD, because that's what we are talking about. We are not talking about the enforcement action, and I agree that as the APD process is going on an enforcement action can be going on parallel.

What I'm talking about is what OCD does vis-a-vis the APD, and if the -- if the Division determines that the operator doesn't have adequate takeaway capacity at the time a well will be spud, with respect to the APD, the Division can only deny or approve conditionally; isn't that correct? Or could it approve without any conditions at all?

MR. POWELL: I would say if they are already in a plan, in that case to meet that intent, they could approve it because attaching the conditions may be duplicative of actions the Division has already taken.

Q. May or may not be taking.

MR. POWELL: Correct.

Q. And then finally, if the condition, you know, the operator, you know, is failing to certify, failing to submit an adequate plan, failing to -- the Division thinks does not have takeaway capacity, you all say that the Division can deny or conditionally approve.

But shouldn't the conditional approval ensure that however the operators have failed, whether it's failure to certify, submit an adequate plan, not have takeaway capacity, shouldn't the conditions for that APD go to the failure of the operator to make the necessary showing?

MR. POWELL: So, yes. If you put conditions on the APD, those conditions would be related to that failure for the operator to comply with that failure or address that

failure.

MS. FOX: That's all I have. Thank you very much, Mr. Powell.

MR. POWELL: Thank you.

HEARING EXAMINER ORTH: Thank you, Ms. Fox. Let's see, do we have -- we have Mr. Baake for the remainder of Climate Advocates' questions.

MR. BAAKE: That's correct. Thank you, Madam Hearing Officer. I think all of my questions are going to be for Mr. Bolander. So, Mr. Powell, thank you very much.

I am very grateful for all the time OCD has spent and I would even go further and say all the work that Madam Hearing Officer has done, the Commission and Counsel for either side, it's been, you know, I think a very, very fair to have people putting in, so I appreciate that.

CROSS-EXAMINATION OF PANELIST BOLANDER

BY MR. BAAKE:

Q. Mr. Bolander?

MR. BOLANDER: Yes, I'm on.

Q. There you are. Okay. Let's see. Mr. Bolander, I would like to start with controlled storage tanks or -- yeah.

MR. BOLANDER: Yes.

MR. BAAKE: Can I get to share as well?

That's not right, is it. It's just zoomed in.

Q. Okay. So under Section 8.G(2), I'm talking Part 27 here, entitled monthly reporting of venting and flaring of gas, we had proposed to add a section here for controlled storage tanks.

And then I believe -- I believe that you have responded to that by saying OCD believes this category is not required because these tanks would be full, meaning that their emissions are being captured for beneficial use or destruction in a flare.

I can pull that up in your spreadsheet, but do you recall that? Do you agree that's what you said?

MR. BOLANDER: Yes, I do remember.

Q. Okay. Well then I won't bother with it, because it will make (unclear) scrolling and it would be beyond my capacity.

So I guess, Mr. Bolander, I don't really understand this answer. So we are talking about information that should be included in the monthly report of vented and flared gas, and so why wouldn't flare in that storage tank be reported as a type of flaring?

MR. BOLANDER: There could be a couple of reasons for the, one, there is an exception that for gas that has a high percentage of H2S, which is not pipeline quality. In those cases there, gas being -- coming off the storage tanks, which would be considered controlled, would be

flared, as an example. For, you know, most cases I would say, if you could capture it, you know, through a vapor recovery, if the gas quality meets specifications, that would be the preferred method. In that case, it is being captured for disposition.

Q. Okay. So again, I'm just a little -- again, I'm trying to clarify here because -- but you agree that controlled storage tank -- I guess our intent with that language was to include flaring at a tank of gas. So you agree that that is -- that does happen?

MR. BOLANDER: Yes.

Q. And flaring of tank gases would not be covered under F here, which is uncontrolled storage tanks; right? Uncontrolled covered venting from storage tanks; correct?

MR. BOLANDER: Uncontrolled tanks could -- yes --

Q. Is flaring --

MR. BOLANDER: You are correct.

Q. Is flaring of tank gas potentially a form of waste?

MR. BOLANDER: Potentially, yes, dependent upon the reason for the flare.

Q. And Mr. Bolander, did you hear Dr. McCabe testify yesterday that almost 3000 tanks in New Mexico, most in the Permian Basin are already using vapor recovery units to

capture the gas and direct it back to sales?

MR. BOLANDER: Yes, I did listen to David's testimony yesterday.

Q. And Dr. McCabe also testified that, you know, people have been doing this for a good, a long period of time and the technologies are readily available; correct?

MR. BOLANDER: Correct.

Q. So if it is possible, at least in some cases, to capture and sell the flash gas from tanks, isn't it wasteful to flare?

MR. BOLANDER: If the gas quality is such, and if the vapor recovery can be sized for that volume of gas, it could be too low for some design criteria.

Q. And I hear you on the contamination issue. And I think there is a separate category if it's contaminated with hydrogen sulphate, for example, we are not suggesting that we think that flaring of contaminated gas is a waste. But I guess my question is, if it is possible to capture and sell this gas instead of it being flared, shouldn't that be reported as a form of vented and flared gas on that section?

(Audio interruptions.)

MR. BOLANDER: If it can be captured through a design or -- is anybody hearing that?

Q. I did hear it. It might be me. I'm sorry if it is.

MR. BOLANDER: Okay.

HEARING EXAMINER ORTH: (unclear) Mr. Baake and we will try again with Mr. Bolander.

MR. BAAKE: Sorry, Madam Hearing Officer, you said I should mute?

HEARING EXAMINER ORTH: Just while he is answering.

MR. BAAKE: Let me. Hold on. I --

HEARING EXAMINER ORTH: All right. Mr. Bolander, try again.

MR. BOLANDER: Okay. If natural gas that is being flared also off of a tank can be adequately designed for vapor recovery, then that should be a preferred method for capture as opposed to flaring.

Q. And as the rule is currently written, there is no requirement to report flaring gas from a tank even if it can be controlled; correct?

MR. BOLANDER: Not currently.

Q. Okay. Thank you Mr. Bolander, I would like to move now -- let's do a very quick one, auto igniters.

MR. BOLANDER: Yes.

Q. Mr. Bolander, on I think it's 28 -- or 27 -- sorry -- 8.E(3) we had proposed requiring auto igniters and continuous pilots in your flares. You heard Dr. McCabe testify about why he believed auto igniters were more

reliable continuous flares.

I guess this is a clarification. I don't see a response to that particular recommendation. I do see a response to the section it be 98 percent combustion. Am I missing where you responded to the auto igniter point?

MR. BOLANDER: I do not see that, see that in there, you know, from our response. I failed to catch that one. Apologies for that. You know, from our analysis and review of, you know, various regulatory bodies that require either/or give the ability, you know, for what type of operation that works best for each.

In some cases be continuous pilot is, you know, more effective in some sources than auto igniters which ultimately the Colorado, still you see, ended up with their final rule allowing for either/or. You know, understanding that different conditions, whether it's continuous flow or intermittent flow, one may be better than the other.

Q. Thank you, Mr. Bolander. I'm not sure that's my recollection of the Colorado rule, but that's not --

MR. AMES: Objection. Objection. Question is not -- counsel's arguments.

HEARING EXAMINER ORTH: (Inaudible.)

MR. BOLANDER: Mr. Baake, when you get an opportunity, it's 903D5 in Colorado, which talks about the flares. It doesn't talk about the 98 percent, but it does

give the or. I just wanted to point that out to you.

Q. Thank you, Mr. Bolander, I appreciate that.

I would like to now turn to pneumatic devices, and I just to give a road map, we want to do pneumatics, blowdown and completions, and that's all I have. So I'm not going to keep you here too much longer.

I want to look, Mr. Bolander, at again, 27.8.G(2) little (i). This is again related to pneumatic devices. So this is actually your response to NMOGA's proposal, but it -- we also want to discuss a change in the proposed change in OCD's between the notice of rulemaking and the beginning of this hearing, which is it not actually covered in this document, but those are kind of our points of reference.

Mr. Bolander, do you recall Mr. Lepore testifying that the concept of waste is not static, but it's evolved.

MR. BOLANDER: Yes, I do remember Matt making that comment.

Q. I think he even gave a specific example of high bleed pneumatic controllers. Is that your recollection?

MR. BOLANDER: I do remember Matt making that comment.

Q. So his point was that they were considered a form of beneficial use years ago, but now they are considered waste because there are alternatives that they can do the

same thing without venting. Is that your recollection?

MR. BOLANDER: That's what I understand, what I remember, yes.

Q. Okay. So let's look at your comment -- let me pull this up because I do think this is actually helpful to have it up in front of us on this one. This is your comment to 8.G(2)(i).

CHAIRWOMAN SANDOVAL: What line number is that, Mr. Baake?

MR. BAAKE: I'm actually am not operating off the one that has the line numbers. I do apologize.

Q. Here it is for pneumatic controllers and pumps. I will zoom in on that.

CHAIRWOMAN SANDOVAL: It's 83, if anybody needs it.

MR. BOLANDER: Thank you.

Q. Okay. So NMOGA had proposed to delete the requirements to report venting from pneumatic devices. And OCD rejected that, and they explain why. Let's look at that this note here.

You said, "Venting and flaring from the normal operation of pneumatic controllers and pumps is not counted as lost gas. However, OCD proposes to require reporting these volumes because pneumatics are considered one of the largest sources of venting and flaring gas in New Mexico."

Putting that in the form of a question, do you agree with what I read and the record is substantially accurate?

MR. BOLANDER: Yes, that's what you read.

Q. Okay. So, and to clarify, even high bleed controllers under the current rule are, are excluded from the formula for calculating lost gas; correct?

MR. BOLANDER: Correct.

Q. And that's a change from the version of the rule that was actually accompanied with the Notice of Public Rulemaking; correct?

MR. BOLANDER: Correct.

Q. So in the original version, venting and flaring of pneumatics would have counted against lost gas?

MR. BOLANDER: I, if I remember correctly, the original that would have counted for pneumatics would have been lost gas from malfunctioning pneumatics.

Q. So you don't -- you think it was only malfunctioning and not --

MR. BOLANDER: Not normal operations.

Q. Not normal operations?

MR. BOLANDER: Yes.

Q. Well --

MR. BOLANDER: Okay. If we can pull that up, I would appreciate that. I'm looking at a more recent copy.

Q. So, yeah. And so the reason why this is a little tricky, is because we made our redlines on the October 15 version. So venting and flaring -- so venting and flaring as a result of normal operations of pneumatic controllers and pumps unless the operator vents or flares less than 500,000 cubic feet.

I think, it looks like that was originally i, and I also actually have the original OCD. Yeah, do you see this on the original version that was published for the proposed rulemaking?

MR. BOLANDER: Correct.

Q. So that version, venting and flaring from the normal operation of pneumatics was reported as venting and flaring, and did it count towards the lost gas. And I will pull this up here.

Mr. Bolander, let me know when it -- because it's --

MR. BOLANDER: Right. I see it.

Q. So the reason why it's confusing is because it's obviously, you have to put together the cross-reference, but Subparagraph I is the volume of normal emissions of pneumatics and not listed as one of the items excluded from the volume and for purposes of accounting; is that correct?

MR. BOLANDER: Correct. It was corrected in our post October because the intent was not to count normal

operations of pneumatics to -- because of its use, its beneficial use.

Q. Okay. But Mr. Lepore testified the venting release from pneumatics is not of beneficial use anymore, as we already discussed; correct?

MR. BOLANDER: Mr. Lepore said that.

Q. And in your discussion here, you also said -- and it's come up in the hearing -- brand new evidence that, that volumes vented and flared from pneumatics are one of the largest sources of waste, or one of the largest sources of venting and flaring; correct?

MR. BOLANDER: That's what we have -- that's what the results of the greenhouse gas reporting has been. However it is not broken out by state outside of the report and the MAP where it lists that it's one, one of the goals of the Division's rules was to capture this data so the state would understand what was the true volume from pneumatics, and then understand what percentage is considered low, intermediate and high, and then based on that data, then have the ability to modify the rule if it deems fit that they wanted to collect the data first, understanding that pneumatic data or pneumatics typically are considered beneficial use today, and then based on the data and the results that we got, could it be changed in the future.

Q. Okay. But, and you heard Mr. McCabe -- Dr. McCabe testify that there are in fact zero emission alternatives to these controllers, that in his studies, that they they can save -- that the gas savings from switching over can pay for itself within a little over a year. Do you remember?

MR. BOLANDER: Yes, I remember Mr. McCabe saying that.

Q. If it is possible to completely eliminate this source of waste, this source of venting, is it -- wouldn't it be wasteful to not make that switch over?

MR. BOLANDER: If it can be done where there is available, you know, resources to be able to do that, one would be available electricity for, you know, power generations to go in that direction.

However, from an operations perspective, I would not recommend 100 percent replacement of gas driven pneumatics, specifically on safety valves which typically are intermittent design, which typically, you know, at best, operate once a year when you test the functionality.

And for safety valves, I want to make sure that I have the ability to actuate at a moment's notice. An electrical power outage is not a risk I would be willing to take for cases such as that.

Q. Thank you, Dr. -- Mr. -- Mr. Bolander; correct?

MR. BOLANDER: Yes.

Q. Seems like a doctor to me. I keep wanting to call you doctor.

MR. BOLANDER: My daughter is one, if that helps.

Q. Mr. Bolander, I think Dr. McCabe also testified that you can use instrument air as an alternative to electric or natural gas. Can you address some of those concerns about electrical outage?

MR. BOLANDER: Instrument air can be used, however instrument air does require a compressor, and so it requires some energy source to create it, so which that could be natural gas or some other technology. I know we tested fuel sales at Southwestern Energy to see if that would be effective.

Q. So Mr. Bolander, it sounds like there may be some discrete areas where you feel like, notwithstanding the alternatives, using a gas driven pneumatic may still be appropriate. But would it be possible to write a rule that excludes those limited circumstances and says, at least for high bleed controllers, at least in less critical functions, it would be considered waste to use something like that?

MR. BOLANDER: I think right now it was the intent of the reason why we wrote the rule like we did was the ability to capture the data to understand what it was.

So the first intent in this case is to capture

data and exempt it from gas capture as it reads today. Based on the results from the data, the data is there for future regulations or the goals, or what the intent was, you know, we did not want to write something where we were uncomfortable with the available data since it was not on a statewide basis, it was on a region.

Q. So Mr. Bolander, you think that the data is insufficient to show that pneumatics are a significant source of waste? I mean, I think that NMOGA recited in the NMOGA report that is one of the highest sources of waste. Dr. McCabe cited that is one of the largest sources of waste, and based off your own language you agreed with that, so I guess I'm not really sure, what is the, what is the gap in the data that needs to be filled in with additional reporting?

MR. BOLANDER: I think the gap is, and for us, is looking at, whether it's the statute or the language that's converted over into I think 19.15.2 on defining waste is that we, you know, look at it in terms of, you know, can it be used for beneficial use.

Obviously, pneumatic use of natural gas is for beneficial, and can it be excessive. And I think once the state gets the data to show that there may be some pneumatics that are excessive, they can take action on that and move forward.

Q. All right. Thank you, Mr. Bolander. I think we've had about as much on pneumatics as probably anyone has patience for, except for David McCabe, he would love to give more on that.

Let's do some completions, can we?

MR. BOLANDER: Yes, we can.

Q. So this is the very, very first edit here on, on 27. Scroll up on it. So again, I'm going to refer you to something you wrote in response to NMOGA, but related back to an issue that we, we were interested in.

So in response to NMOGA's suggested changes, 7.D, who wrote -- and I will highlight it here if I can -- "prudent operators should be setting their limit to accommodate the max or near maximum flow in order to initiate separation at the earliest possible time."

MR. BOLANDER: Correct. Which I think we have covered in or language in 27.8.E(1) if I remember if that's the right citation.

Q. 28.E(1)?

MR. BOLANDER: E(1).

Q. Production separation equipment and storage tanks -- just give me a second here because I actually am not -- this may be reduce the need for some of his testimony if I can understand -- the intent of that section, E(1), is that an operator shall design completion and production

separation equipment to maximize recovery -- okay.

So I guess my -- the intent of this provision is if someone is doing a completion, they should be using a separator and tanks and so forth that are designed to accommodate the actual flowback that's going to occur; correct?

MR. BOLANDER: Yes. The intent is to shorten the initial flowback stage as short as possible. I said earlier this morning in my testimony, I had mentioned that that was mentioned by Tom Alexander yesterday when he brought up the Fayetteville Shale where we designed our separators to be able to flowback into and cut the initial flowback time from days to hours. Yes, that's what that is intended to mean.

Q. So I guess my question is, is how the design equipment -- I guess -- does that, to your mind, imply that you are also required to use that during the completion of operation and to have it on site at the outset of completion?

MR. BOLANDER: Yes. You know, we were specific in E(1) to make sure that that was -- that involved both completion and production separation equipment.

Q. So, Mr. Bolander, did you listen to Ms. (unclear) testimony?

MR. BOLANDER: Yes, I did.

Q. So you probably heard her testify to the fact

that -- car alarm.

(Car alarm.)

Q. -- that operators are not using properly sized equipment and sometimes using a separator design for production instead of a separation -- instead of one designed for flowback emissions. Do you remember that?

MR. BOLANDER: Yes, and this language -- the attempt of this language is to solve that issue.

Q. I appreciate that. That is not something that I had really -- a provision I really focused in on, so that is helpful. That's why we have the experts here. Let's switch to blowdowns. This is in 28?

MR. BOLANDER: Correct.

Q. So 28, Section 8.B(3)(a), B(3)(a), so we had proposed that venting and flaring should only be allowed during scheduled maintenance and repair including during blowdowns only where the gas cannot be rerouted back to pipeline outside of the pressurized zone or otherwise beneficially. That's what this is responding to, that recommendation.

MR. BOLANDER: Right.

Q. And so this is really just a clarification to start off. OCD believes these situations will occur infrequently. Which situations are you referring to there, situations where gas can be rerouted back into the pipeline,

or situations where it is not possible?

MR. BOLANDER: What we are referring to there is the ability to transfer the gas to, you know, to be able to -- to transfer the gas, you know, into another system to be able to do so, what --

Q. So you believe that, that capturing and rerouting is going to be not very often that is going to be possible?

MR. BOLANDER: In a gathering, what I would say in a gathering situation where normally you have single lines, you know, going to custody transfer points, that would be the case there, you know, I think. And one of the sections that we talk about in blowdown, you know, I highlight the use of pump down techniques for, you know, depressurizing, you know, your system or, you know, best management practices to minimize your venting and flaring when you do a reset situation and you don't have that alternative.

Q. So again, you've already, you have already said you heard Dr. McCabe testify yesterday. He testified that in fact there are steps you can take to minimize waste during blowdowns, including using isolation valves which (unclear) plugs, it can be being replaced, and the gas can be pumped out of a pipeline and compressed and then rerouted to the sales line. Is that essentially what you remember?

MR. BOLANDER: Yes. That's what I just spoke to

a second ago concerning, you know, pump down techniques and such.

Q. Right. Right. So you agree that that -- that those are possibilities?

MR. BOLANDER: Correct.

Q. So I guess what I'm -- the disconnect I'm struggling with here is why -- and you may have already answered this, and I apologize if you have -- why do you believe it's infrequent that this -- these waste prevention methods will be employed?

MR. BOLANDER: If I remember the exact language, it was the ability to transfer gas to another system. So the comment was speaking specifically to that, not to other technologies, and our goal, you know, by using a gas capture percentage in the rule as opposed to, you know, prescribing, you know, specific either processes or technologies is designed for operators on really both sides of the equation, upstream and midstream, to look at where they have the greatest losses and fix those first.

And if blowdowns is their greatest loss then, you know, they are going to do what they need to. But if they are doing what, if they are already doing that, then we would have a form to look at other categories to meet their requirements.

Q. So I think if I understood, you are saying that

because that venting is -- less goes to the gas capture percentage, you felt it was not necessary to specify that in that section. Did I understand that correctly?

MR. BOLANDER: That is correct. Yes.

Q. And let me just see, I think I have one more on blowdowns that may be -- I think it's -- Mr. Bolander, I could, I could keep asking you questions, I find this fascinating, but I think I will pass the witness. Thank you.

MR. BOLANDER: Thank you, Mr. Baake.

HEARING EXAMINER ORTH: Thank you, Mr. Baake. Ms. Paranhos, I see you.

MS. PARANHOS: Thank you, Madam Hearing Officer.

CROSS-EXAMINATION OF PANELIST BOLANDER

BY MS. PARANHOS:

Q. Mr. Bolander, I have what I think is a quick question for you hopefully. First I wanted to say thank you so much for your testimony and all of your time and for all of OCD's time and hard work into this rule.

Hopefully yesterday you heard Tom Alexander's testimony where he expressed some concerns about the revised definition of a stripper well, essentially, wherein pursuant to the current draft, OCD would just look at the operators' gas production, per day not the oil production as well, and he expressed some concerns about how that would potentially

allow operators with significant oil production to qualify for some of the exceptions in the rule. Did you hear that yesterday?

MR. BOLANDER: Yes, I did.

Q. I'm just curious, I didn't see in OCD Exhibit 4C any mention of that testimony and I was just curious if OCD had an opportunity to contemplate what Mr. Alexander had to say, and if so, if you had any thoughts you could share with respect to his comments?

MR. BOLANDER: Yes, yes, I do. I think we probably, last night as we were finalizing that, we forgot to add any comments relative to Tom's testimony, but what we are looking at, if you look at the exemptions that we have and you know, like to concentrate on two of them, specifically meters and flares first. And that is, you know, those two are meant to measure or flare natural gas.

The AVO, we feel like is captured in that, you know, even with removing the exemption for oil in AVO, it will still be subject to AVO, you know, regardless of its production. You know, what we were looking at relative to, and Tom's example, I think he used a hundred barrels per day, 50 MCF per day, that is, that is the case, however, you know, there are, you know, waterfloods in the state in which, you know, there's minimal gas that could be, facilities could be making hundreds of barrels and probably

make less than 10 to 15 MCF per day.

And when I look at, you know, when I'm looking specifically at flare and metering, I wanted to make sure that those were volumes that were based on a gas requirement and not an oil requirement.

Q. Thank you for that answer. So just to make sure I understand, the basis for the change was to just look at gas production because the exceptions really are focused on gas production? Is that --

MR. BOLANDER: That's correct. Gas production and/or the gas through that facility.

Q. And so, I'm just curious, would you agree, though, that these, the use of the stripper well qualifies the operator for certain, what I would characterize as an exception, not an exemption, from at least certainly the AVO requirements and the retrofitting of flare requirements. But that if one only looks at gas production and exclusion of looking at oil productions, it is possible that you can have an operator qualify for that exception, so less frequent AVO, for example, monthly rather than weekly, based on the fact that they produce a very small amount of gas regardless of how much oil they produce?

MR. BOLANDER: That is correct because we're, you know, effectively regulating natural gas waste and not, not oil in this particular regulation.

Q. Okay, I think I understand.

MR. BOLANDER: Okay.

Q. Thank you so much. I appreciate it.

MR. BOLANDER: Thank you.

HEARING EXAMINER ORTH: Thank you, Ms. Paranhos. Let's see, Commissioner Engler?

COMMISSIONER ENGLER: I have no questions. Thank you.

HEARING EXAMINER ORTH: Okay. Commissioner Kessler, we might have lost.

COMMISSIONER KESSLER: I do have a couple of questions, but I was wondering if I could go after Commissioner Sandoval -- Director Sandoval?

HEARING EXAMINER ORTH: Yes. Madam Chair.

CHAIRWOMAN SANDOVAL: I have quite a few questions, okay. And I did not write exactly the words, so that was not helpful. I think some of the beginning ones were more for Mr. Powell. Okay. Yeah, I mean I don't really honestly care who answers, as long as I get information, it would be great.

Okay. Line Item 54 has to do with AVO. I think you talked about this, Mr. Powell, and said it was intended to just have very minimal recordkeeping requirements; is that correct?

MR. POWELL: That is correct.

CHAIRWOMAN SANDOVAL: But the Division doesn't plan to necessarily put out a form for this?

MR. POWELL: No, we don't. The intent was to give the operator the ability to work it into their system the best way that fits them. Most operators probably already have it worked into their system one way or another as far as just their standard leak detections as they do their site inspections.

CHAIRWOMAN SANDOVAL: So I can't remember which witness it was, the one for Enterprise, I'm blanking on his name, said -- and I'm thinking Mr. Smitherman said that the issue is not being on site, they're on site, they just don't want to do paperwork. Do you recall that?

MR. POWELL: I do recall that, and I think it was Mr. Thomson that discussed that they were doing some inspections similar to Colorado where all they filled out was a check box and then listed the deficiencies. That's the level we were expecting out of this AVO.

CHAIRWOMAN SANDOVAL: So I think I have specific questions for -- gosh, I'm totally blanking on his name, the one from Enterprise. I apologize, I can't recall his name off the top of my head.

MR. POWELL: Mr. (unclear)

CHAIRWOMAN SANDOVAL: That's it. Thank you. I proposed some sort of option like, well, what if -- because

he was concerned about, I don't know, I guess all the associated language that's in there, the fields, all this stuff, it doesn't just say go look, see -- well, look and see. Look, smell, hear. It says look, smell, hear and do all of these other things, and that seemed to be their concern.

And I proposed, well, what if they did the comprehensive thing once a month and walked around the site and did the other stuff every week, and he seemed amenable to that. Would that still be the intent of what the Division is trying to do?

MR. POWELL: I believe that would still meet our intent. It probably would exceed what our original intent was.

CHAIRWOMAN SANDOVAL: Okay. Thank you. Oh, gosh, I have a lot. I'm so sorry. I'm going to go through my written ones first, and then I may circle back on the document that I have and all of those questions where I went through your rebuttal and marked it off.

So I'm going to go through what I wrote down during this direct and cross, and then we can go back to the document, otherwise it's going to get messy.

87, it's the royalty interest. I guess my question was, the proposal says, in the rebuttal it says beginning January 2022 to add a date because I don't think

there was a date in there. I guess maybe this is a silly question, but wouldn't they be reporting January's data in March?

MR. POWELL: That would probably be correct.

CHAIRWOMAN SANDOVAL: So would it be more appropriate to say beginning either January 2022 data reporting, or February -- no, March 15 because it's 45 days basically after. Is that, would that be more appropriate?

MR. POWELL: So that would be more appropriate, and I think tying it in with the reporting time lines, so the C-115s would probably be good that starting January 2022, January's information will be required 45 days after on a monthly basis, or something along those lines consistent with the 115 B language.

CHAIRWOMAN SANDOVAL: Okay, sorry. I'm making notes. All right. Does the Division actually have any language that they intend to propose yet where OCD agreed with NMOGA that overriding royalty interest owners do not require this reporting annual exemption requirement. Do you have that language proposal yet or no?

MR. POWELL: We are working on it. I don't think we have anything that's ready to be proposed. I think the intent was to have that before it starts next Thursday, but Eric may abe able to answer that better later.

CHAIRWOMAN SANDOVAL: Okay. So I think you

talked about 77 -- sorry to go back one, I missed that one -- and some of the reasons why, in your PowerPoint (unclear) the property information. Do you have any specific examples of maybe times where the Division, why the information would be helpful on a facility basis or a well basis as opposed to a lump of wells?

MR. POWELL: So I have had a couple of specific examples. I don't remember the wells specifically, but I do remember there's been times where an inspector or a (unclear) well, two cases, one where an inspector has seen flaring on a specific site, and then trying to allocate that back to make sure that it was reported and couldn't because it was on a property basis. We could just see that an operator was reporting some venting somewhere in the system.

The other one was in response to a public concern where the -- we had actually directed the operator to ensure they reported the venting or flaring and then went back to look and ensure that they did report that venting, it was venting in that occurrence. And looking back again, we could see that they reported venting to that property, but we couldn't identify which well in that property that venting was tied to.

CHAIRWOMAN SANDOVAL: Okay. I don't know if you heard NMOGA bring up concerns about -- and I think this was maybe Ms. (unclear), she brought up issues with sometimes

things aren't -- so there is a centralized facility that a handful of wells goes to.

I guess my question is, if that was -- if that's the -- she also referred to commingling. If that's the situation, are they required to get commingling authorization?

MR. POWELL: Sometimes. So if it's all on the same lease, or all on the same unit and it's going to a facility, then they don't have to have specific commingling authority. If it's mixing leases, then they would have to have surface commingling authority.

So it could be one or the other, and that was one of the reasons why, with 115 B, we were looking specifically at either a well or a facility to pinpoint where that flaring is actually occurring because if it's occurring at a facility, we want to be able to tie that venting and flaring to that facility so we can look at the operations of that facility. Because if he we tried to disseminate it down to a well level, we wouldn't be able to look and see what's actually occurring on that facility either.

CHAIRWOMAN SANDOVAL: So I guess I'm wondering, if that change is made in the rule, I think if we present language for that, how would -- how would the operator know, or the OCD know, for that matter, whether or not the operator should be reporting on a well basis or a facility

basis?

I guess what I'm trying to say is, how would the OCD know that an operator isn't trained to circumvent the process and make it easier, potentially, for themselves by reporting on a facility basis when maybe they should report on a well basis? Do you see where I'm going?

MR. POWELL: Yeah. I think that's where we need to be clearer, and we have some language in there, proposed language, that that report is to happen separately for each well or each facility to try to explicitly state that if it's happening at a well level, they need to report at a well level. If it's happening at a facility level, it needs to be at a facility level. I don't know, does that address your question?

CHAIRWOMAN SANDOVAL: Do you feel like that language is clear enough to prevent any circumvention of the rule?

MR. POWELL: Let me pull it up. Right now it says the operator shall separately report for each well or each facility, so --

CHAIRWOMAN SANDOVAL: I guess I'm trying to figure out, how are they supposed to know when they report on a well basis and when they report on a facility basis is that I'm trying to figure out and how does the operator know that.

MR. POWELL: We could go back and look and see if we can clarify that more. I would say, wherever that flare is at, or wherever that venting is at, they need to report for that, whatever that is at a granular level instead of trying to disseminate it back to one or the other.

CHAIRWOMAN SANDOVAL: Okay. Thank you. I think this one is for Mr. Bolander. Completions operations are, seems like, one of the favorites. I think you said earlier and it came up in the testimony yesterday by -- oh my gosh.

I recall the testimony, I just can't remember the names at this point apparently.

MR. BOLANDER: Mr. Alexander.

CHAIRWOMAN SANDOVAL: That's it, thank you. So this morning you talked about how most of the examples you gave were gas; correct?

MR. BOLANDER: Correct.

CHAIRWOMAN SANDOVAL: Would it be appropriate to distinguish in the rule that maybe additional completions requirements are necessary for gas versus oil wells, or is that not appropriate?

MR. BOLANDER: We wrote the rule, you know, obviously looking at it from a one-size-fits-all. When we first wrote it we knew what Colorado had, but had no tangible example of that being used.

Now that we do, it could be that we also have our

general requirement in 28.8.A which required operators, if technically feasible, to flare over vent. So if a company looks at that from an overall perspective, it should look at all three categories of A, B, C and D, you know, from that lens.

You know, if we wanted to modify 8.C, you know, without, you know, cumbersome, making a more cumbersome intent, we could add a qualifier in there that, you know, based on well types, if it's technically feasible, operators should meet the requirement in 8.A.

CHAIRWOMAN SANDOVAL: But you feel like in general it's probably more feasible for gas wells than oil wells?

MR. BOLANDER: Correct. I think in the -- the one thing that have you with, with oil wells is that initial flowback is going to be primarily fluid, you know, large, especially in New Mexico where large, you know, slick water fracs produce pretty large volumes of oil coming back, you are going to have a lot of various flow regimes, where in the northwest where most of them are energized fracs with nitrogen or such, those would have a capability of capture sooner with the goal of, you know, in both cases designing your separation equipment to be able move from initial flowback to separation, to me, that's the key is being able to move from that step to the next. Because once you move

to the separation stage, that's where you have the ability to officially treat the gas through separation and put it toward sales.

CHAIRWOMAN SANDOVAL: Okay. I think at the beginning of this you said it might be possible to add -- what was it said you there again, add some sort of statement in C.

MR. BOLANDER: Yeah, some sort of statement in C, that, you know, we -- the first part in C, if I can get to it. If you don't mind, I will move to the right rule.

CHAIRWOMAN SANDOVAL: No, take your time.

MR. BOLANDER: You know, the way we have the rule currently written is, "During initial flowback, operator shall route flowback fluids to a completion or storage tank and commence operation of separator as soon as technically feasible for separator to function," and we can add language within C(1) that adds a qualifier that if -- that the ability to capture during the initial flowback is feasible, that it be performed as well.

CHAIRWOMAN SANDOVAL: I'm just thinking. The UPS man is outside my house, which is a very scary time of day, so hopefully we don't -- he's a threat to the family, at least for my dogs. Hold on. I apologize.

MR. BOLANDER: No problem. My dog has been waiting to go on -- I actually have to spell the word

because he knows the word to go online, so he knows the word.

CHAIRWOMAN SANDOVAL: Understand, very much understand that.

All right. So there has just been a lot of conversation about what you can model, what you can't model, what you can measure or can't measure, estimate, can't estimate.

I guess my question is, in your experience, I believe you, one of -- I don't have the resume in front of me. You were VP at Southwestern at one point.

MR. BOLANDER: Correct.

CHAIRWOMAN SANDOVAL: So do you have familiarity with environmental reporting?

MR. BOLANDER: Yes.

CHAIRWOMAN SANDOVAL: So I guess some of the testimony was that we are not sure the models are good enough to permit, but your -- you are doing for sometimes an over-estimation to make sure you stay within that limit, and so it's okay for that, but to model things -- more accurately -- or on a daily basis and to be more accurate, models may not be the best option. Is that what you recall hearing?

MR. BOLANDER: That's what I recall hearing. I would like to push back a little bit on that general

statement, however.

CHAIRWOMAN SANDOVAL: Go ahead.

MR. BOLANDER: A lot of the software packages, you know, are also used in the design of facilities and the design of control equipment. And so, you know, they are actually used in designing criteria on volumes going through separation equipment or through vapor recovery, you know, so you need a certain amount of accuracy to be able to design a compressor for a vapor recovery unit on capture. And the same software, in many cases, that's used for regulatory permitting is also used in design applications.

So if it's good for on both ends of the spectrum, it should be good for the middle.

CHAIRWOMAN SANDOVAL: From your experience, is -- are those modeling softwares also used to demonstrate compliance, either yearly or monthly or whatever the state or feds require, are those modeling softwares also used to demonstrate compliance with inapplicable permits?

MR. BOLANDER: Yes, they have been used specifically, you know, our HS&E air specialist would do so, for example, responding to the Arkansas Department Environmental Quality.

CHAIRWOMAN SANDOVAL: So for those responses, do you believe that it was important to provide accurate information?

MR. BOLANDER: Yes.

CHAIRWOMAN SANDOVAL: And you believe that that modeling -- well, you and, I think, Southwestern maybe believed that that modeling was the most accurate information to represent what was happening at that site; correct?

MR. BOLANDER: Correct.

CHAIRWOMAN SANDOVAL: Okay. So I don't exactly recall, let's see, I think it was Mr. Greaves who spoke about -- and I think you said earlier you missed this -- about a gas blanket on a tank and whether or not -- well, Mr. Feldewert asked whether or not it could be modeled.

Now, I don't recall if he was talking about a natural gas blanket or a nitrogen blanket. Are you familiar with -- it's a technical supplement document from TCEQ about aboveground liquid storage tanks?

MR. BOLANDER: I'm not familiar with that one, no.

CHAIRWOMAN SANDOVAL: Okay. I'm going to read you a blurb from it. It's talking -- it's under the nitrogen blanketed tank section. It says, "Therefore when determining emissions from nitrogen blanket atmospheric storage tanks," which it notes is having to be 78 percent nitrogen by volume, "No modifications to the AP42 equations or software programs are required. The blanket will not

affect emissions if the tank is operated near atmospheric pressure." Does that sound accurate to you?

MR. BOLANDER: That sounds accurate that they acknowledge that the use of gas blankets doesn't affect the use of modeling or even in the use of equations as well.

CHAIRWOMAN SANDOVAL: Okay. Thank you. Let's see if I have any more tank questions.

Okay, so there was talk -- I think Mr. Baake asked you about uncontrolled storage tanks -- I'm sorry, controlled storage tanks and their exclusion from this rule. Do you still believe, I mean, after some of that testimony, that they should be excluded from this rule?

MR. BOLANDER: I would characterize, if it's controlled going to a vapor recovery, then it should be excluded from the rule. And if the vapor recovery malfunctions, any losses would go under our malfunction category. If it is flared due to H2S it should be excluded from the rule and should already be because we do have, you know, characterization for H2S.

However, if it's a control tank just for flaring natural gas, that would indicate that it does have the ability or possibility to be captured for beneficial use. So in that individual case it could be added to the regulation.

CHAIRWOMAN SANDOVAL: Thank you for that

clarification. I'm trying to group some of these, they're a little all over, so I'm not hitting on topics four and five times.

So I think NMOGA is wanting to exclude routine downhole maintenance including operation of workover rigs, manual liquids unloading, and uncontrolled storage tanks, the pneumatic controllers and pumps, thief hatches and the other category, for all of those categories that were just listed, do you think that there is a way to measure, estimate or model those categories well enough to report under here?

MR. BOLANDER: If we step through them, if you don't mind, and pull up my Section G, you know, the first one being thief hatches, and those would be, you know, thief hatches that are routed to a flare or a control device, improperly closed, in those cases that means they're wide open is the improper closing of them. And there, that can, can be modeled, and in the case of where you have a control device, that operating and capturing a certain volume of gas, and that volume of gas decreases because that thief hatch is open, that's a pretty simple math calculation there. I think most of us can figure that one out.

As far as, if we move up, uncontrolled storage tank, you know, through understanding of the models that are out there, specifically some of the more recent models such

as ProMax which has the ability to model throughout the system, uncontrolled storage tanks can be, I believe, accurately estimated through modeling.

Manual liquid unloading, I believe, can be, through the use of engineering equations, you know, I think the data from the API ANGA report shows that use of emission factors for manual unloading, you know, would result in an accuracy level that would probably not be acceptable or reliable for that, and I think, you know, that's one of the reasons why we are asking for the methodology being used.

So I feel comfortable about manual liquid unloading, and one the keys for manual liquid unloading is to promote kind of a change in operator behavior in reporting some of these and looking for areas where they can engineer out some of these emissions.

And I understand, you know, I have had wells log off at times when they are not even at a critical rate and manual unloading is necessary, but there are, you know, plenty of wells that are manually unloaded on a regular basis. So behavioral change of counting that is, I think, important.

Downhole maintenance, there are equations and Subpart W, and I will admit on that, the accuracy level of those is, on a well-by-well basis, is probably not where I would want it if we are looking for accurate and reliable

data.

For all of the operations that we have mentioned, you know, the specifically workover rigs where basically you are trying to kill the well and you are going to have gas release, you know, during the killing of that well, that's going to be really difficult to estimate some of the other operations, cold tubing units would be difficult based on what the flow medium that you are doing, you know.

When I look at a swab rig, you can think of it as just a big old plunger with a wire attached to it, so that one does have the ability, I think, to be calculated, but for all of the ones that are listed there are accuracy concerns that it would have in that, based on what all (unclear).

CHAIRWOMAN SANDOVAL: Okay, that's helpful. Does this rule set a de minimus on venting? I think there's been questions so far like, well, it's a small amount, so it doesn't -- why should it count. Is there intended here to be a de minimis on venting, like if it's under X amount, then it doesn't count?

MR. BOLANDER: I don't think, you know, there were in my one slide where I mention too small to measure, in some of these there is not any good methodology to measure so it makes it too difficult to come up with an accurate, you know, volume to report on.

The intent is, you know, gas loss, you know, every, I guess people that you've heard every molecule counts, well, that would be true, so there is no de minimis, but I feel you've got to have an accurate method of, a, determining if there is venting occurring through a leak, and do you feel comfortable with an accurate estimation method.

If you're not and there's not accurate estimation methods, you know, unfortunately there will be some venting and that will more than likely not be counted because there is no physical, you know, no either meter technique, metering or estimation method.

CHAIRWOMAN SANDOVAL: Okay. I also -- there seems to be some confusion, I just want to clarify this, that just because -- let's see -- venting or flaring is authorized in, what is it, C -- B, C and D.

MR. BOLANDER: Correct.

CHAIRWOMAN SANDOVAL: It doesn't necessarily mean that it doesn't count against your gas capture percentage; correct?

MR. BOLANDER: That is correct.

CHAIRWOMAN SANDOVAL: Okay. There seems to be confusion around that. So the rule recognizes that some things have to vent or flare, for that matter, some of it would then just, what, tie back to whether or not you have

to submit a C-129? Because if it's authorized in one of these B, C or D, then it's preauthorized and you don't have to submit a C-129, or you still do?

MR. BOLANDER: C-129, we went back and modified that to be specific with Rule 19.15.29, which typically was C-141 reporting, which set thresholds for reporting, you know, incidents of emergencies, malfunctions, or in the case of our rule of, of a venting and flaring event of a long duration within eight hours within a 24-hour period.

So that reporting is specific to more than anything -- the ability to do a root cause analysis for emergencies or malfunctions. For venting that is less than the threshold that are specified in the rule are still required to be reported if they are listed under 27.8.G(2), which is the reporting function, regardless of volume.

MR. POWELL: I have a little bit of additional information to that as well. The C-129, like Jim explained, it applies to emergencies or malfunctions or venting greater than 50 MCF. However, the other items that are in there, even though they may not have to report on a C-129, would still be reported on C-115 B as applicable, no matter the volume they were at, whether it be above or below 50.

CHAIRWOMAN SANDOVAL: Okay. I also, I guess I'm left with, after some of the testimony in questions, I have a little bit of concern. Is the Division's intent for

industry to be able to decide when something is waste and when something is not based on each individual release or event or however we want to call it?

MR. BOLANDER: You know, hopefully the intent of the reporting categories in G(2) which are reflected on the C-115, we tried to be as exhaustive as we can, trying to include categories that we view -- well, I was going to say, we view all of them as waste, but some of them are not counted as waste, such as emergencies, offset gas for H2S and such and for events such as that, but the other categories are counted as lost gas.

CHAIRWOMAN SANDOVAL: So the only place in the rule where industry would make that assessment as to whether the release is waste or not would be the other category?

MR. POWELL: This is Brandon, yes, as the other category as we are proposing it now, we are adding the reference to the waste rule, so they would have to make a determine for that waste. But that would also apply to categories where if we found it and felt it was waste as well, we could apply it to that category as well.

CHAIRWOMAN SANDOVAL: Okay. But in general, the rule is designed so that industry is not making that decision on a day-to-day basis?

MR. POWELL: That is correct. On all of the other categories those are preset out without making

determinations on each and every account, essentially.

CHAIRWOMAN SANDOVAL: Okay. Are either of you familiar with the NMED's proposed draft rules on ozone?

MR. BOLANDER: I have looked at each of the categories when we had our prep meetings with them, so I'm familiar with them.

CHAIRWOMAN SANDOVAL: Okay. I'm going to refer to, it's proposed Section 20-2 -- not dash -- 20.2.50.22, standards for pneumatics controllers and pumps, and I'll just read B -- so it's B(3) -- let's read B, B(3)(b), "Owners and operators of each pneumatic controller located at a well site, tank battery, gathering, existing site, or (unclear) station with access to electrical power shall ensure the pneumatic controller has a VOC emission rate of zero."

If OCD added a provision in this rule to convert controllers to instrument air or no bleed, would that be duplicative of NMED's proposed rule?

MR. BOLANDER: I think it does, you know, we were looking at this, and I understand the difference between the three various type of pneumatic controllers, we put pneumatic separate because, you know, their use is typically on lease, and that natural gas is used for a function, so therefore beneficial use.

Where, with NMED, they are regulating emissions

versus waste or beneficial use, so I see it's a little bit different criteria on how the two different rules regulate.

CHAIRWOMAN SANDOVAL: Okay. Thank you.

MR. POWELL: I would add to that a little bit, that based on the reporting we are getting for pneumatics, that if they are successful on that rule change, we would see the impacts from that rule in ours and we would be able to evaluate those as well.

CHAIRWOMAN SANDOVAL: Okay.

I think you talked a little bit about this a minute ago, Ms. Paranhos asked the question about the stripper well removal of oil. You don't think that there is going to be sort of situations where the new language creates a loophole?

MR. BOLANDER: I don't. I'm sorry, I didn't allow you to finish, Madam Chair.

CHAIRWOMAN SANDOVAL: I was just going to say, for wells, I think his example was that has 100 barrels of oil, and 20 barrels -- 20 barrels -- 20 MCF of gas, and now they are going to qualify the stripper well under this rule when really their economics are okay.

I guess our -- let me ask it this way. Are there situations where like a well could be producing thousands of barrels of oil and/or hundreds and really not -- and be producing gas under that 60 MCF level, are there situations

that where it would be that kind of dramatic?

MR. BOLANDER: Yes. You are going to have cases especially in the area where you have waterfloods where you are going to, you know, facilities bringing in, you know, several hundred wells will have oil production probably much greater than 100 barrels per day, but the gas oil ratio is so low, you know, in those fields that the volume of gas is too small to really affect -- and, you know, really when we look at it from a flare perspective and meter perspective, we looked at it more from an operational perspective as opposed to, you know, an economic driver.

Because typically on these, you know, you are looking at volume of -- so that's why when I was -- directed -- directing or on the witness with Ms. Paranhos was that looking at the three categories in terms of flare meter, flare and meter design are specific to gas volume only, you know, irrespective of what the oil volume is.

MR. POWELL: Just to add a little bit to that one as well, in New Mexico we have some fields that probably produce little if no gas in relation to the oil. So the AVOs that would be required in those circumstances, we are still requiring monthly AVOs on those, or we are requesting them, but as far as a weekly in detecting gas, they would provide no benefit because some of those wells are dead oil, is what they call it, so there is no gas associated with it.

So there would be no benefit from my gas side of it to do weekly inspections in those cases.

CHAIRWOMAN SANDOVAL: So it's not only looking at the economic side, but also the practical operation side that they have less, not ability, but potential to release gas and so they are in a lower tier? Does that make sense, sort of?

MR. POWELL: I think I would agree with that. There is less potential risk because of some of the lower gas volumes. There probably is some risk to them as they talked about on ones that do have a higher amount of associated gas, or if there could be some higher economics, but there would also be some -- they have very little risk of gas because of the very low volumes of gas. And in those cases you would probably be looking at extremely low pressures or low flows where metering may not be practical anyway.

CHAIRWOMAN SANDOVAL: What about estimation?

MR. POWELL: They would still estimate and still provide that in the reporting. So they wouldn't be exempt from any of the reporting categories in G(2). It would just be more limited to the meter requirements, the flare upgrades and the AVOs.

CHAIRWOMAN SANDOVAL: Okay. all right. Thank you, that's -- thank you for walking me through this. All

right.

In F, 27.F, and then I think it's 28.G is a measurement section, if I can find it. What is Exhibit 28 on? It's F in 27, it's --

MR. POWELL: E.

CHAIRWOMAN SANDOVAL: It's before not after.

So I guess I'm just curious about what the intent was here. So it's seems, while I could sort of almost read the language two ways in F(2) where you are supposed to retrofit sites -- well, it sort of reads like basically you don't have to retrofit sites, you -- if it's a new site built with an APD after the May 31, then you would have to install meters, which I think makes a lot of sense, because it's sounds like from the testimony that it's easier to install when you are constructing.

But I guess I'm just curious what the intent was, because in the midstream side it looks like they have to retrofit. There is no, no timing, they just have to retrofit.

But in the production it looks like they don't have to retrofit, it's just going forward. I guess could you provide clarity on what the intent of the Division was?

MR. BOLANDER: Okay. If I look at Part 28, which is E(2), and the intent on that was that most of the volumes coming in and out of the facilities of, you know, natural

natural gas gathering associated facilities is quite large. So, you know, metering is practical for there, plus, as we talked about, one of the reasons why we modified the equation for calculating gas loss is, you know, because of the complexity within the system, you know, as a matter of course, they are going to be doing that to understand shrinkage and all that that they've got.

As far as Part 27, which is for wells and facilities, you know, we are looking at, the rule is based on requiring meters, you know, on new facilities that meet the volume threshold, knowing that if existing facilities and wells, if metering equipment is not already installed, then they are utilizing the state's GOR requirement to calculate GOR to measure -- to calculate the volume of gas.

And we've added, you know, some language in there that, that was new from the prior that gives the Division the opportunity to look at that data, you know, in addition to what's on the form to convert, you know, to look at for accuracy. And then we have also modified the language in F(7) that if the Division determines that the GOR test is not sufficient, then the Division may request metering be accomplished.

CHAIRWOMAN SANDOVAL: Okay. So basically the difference is recognizes the differences in the operations and how they function and so they are tailored to each?

MR. BOLANDER: Correct.

CHAIRWOMAN SANDOVAL: Okay. Thank you. All right. Now I have all the questions about (unclear).

HEARING EXAMINER ORTH: Madam Chair, we have been going about two hours since the last break. Shall we take another break?

CHAIRWOMAN SANDOVAL: That's fine.

HEARING EXAMINER ORTH: All right. Is ten minutes enough, 4:45?

CHAIRWOMAN SANDOVAL: That works for the witnesses and court reporter

MR. POWELL: That works for me.

(Recess taken.)

(Discussion off record.)

HEARING EXAMINER ORTH: Commissioner Engler, are you ready to back on the record?

COMMISSIONER ENGLER: Yes.

HEARING EXAMINER ORTH: Madam Chair.

CHAIRWOMAN SANDOVAL: I think Commissioner Kessler is going to go before me, before I finish up, if that's okay.

HEARING EXAMINER ORTH: Terrific. Commissioner Kessler.

COMMISSIONER KESSLER: Mr. Powell, I have one set of questions for you related to Line 87 in the rebuttal

exhibit and it's the royalty reporting requirements.

I wanted to know, what does the OCD contemplate happening if owners, if royalty owners are unlocatable?

MR. POWELL: So I'm not a real in-depth royalty expert, so I would ask that maybe Jim can help me out if I don't -- but I think we are trying to bring some of that subset down for some of the royalty owners that are in regular communication, but I -- I would ask that maybe Jim could help me out on that one a little.

MR. BOLANDER: Thanks, Brandon. I think what we are thinking of there, Commissioner Kessler, is, you know, one of the first areas that we addressed was override royalty interest owners knowing that it was more of a contract as opposed to a mineral interest owner.

And, you know, we are aware that there are royalty interest owners that are unlocatable, and we also understand that, when that's the case, most of these companies hold the royalty in reserve, or whatever word that is. And, you know, we would ask that part of that, if they are holding the reserve, that they are holding the data to provide them when they are located.

Even though we currently aren't -- it's not spelled that way, but I would, you know, request that we have the language in there that allows that to, that allowance when, you know, it can't locate a royalty interest

owner, that that data be held for when they do.

COMMISSIONER KESSLER: I am familiar with --

(Audio difficulties.)

COMMISSIONER KESSLER: Mr. Bolander, in the process of trying to get in touch with royalty owners or overriding royalty interest owners through the compulsory pooling process where you are required to provide notice through certified mail and then publication if, if other information about addresses doesn't come to light. And I'm just trying to think through how an operator could attempt to comply in good faith with the rule as it's currently written, but fall short of that if they're not able to find an interest owner or other various witnesses have opined related to the contractual agreements that royalty owners fall under an operators', you know, potential notification standard's. So I'm just trying to think through how an operator could comply with that. I think it's a good suggestion to be able to hold that information if an interest owner is unlocatable and making sure that that language is in the regulation. I think that's a really great idea.

MR. BOLANDER: Brandon had mentioned we were in process of adding a few changes to that specific section as well, so adding language that allows that, you know, so an operator doesn't come out of compliance or falls out of

compliance for a reason that's beyond their control is, you know, definitely an edition that should take place.

COMMISSIONER KESSLER: What about, Mr. Bolander, spelling out in more detail what it means to submit information to the royalty owners? Do you contemplate certified mail, do you contemplate an electronic report, do you contemplate some kind of opt-in provision where a royalty owner is able to request information, but not entitled to it? What other -- are any of those other changes contemplated?

MR. BOLANDER: We have gone through this provision and worked as a team. We haven't come up with a definitive answer on that. I know that one example is that royalty checks that go out typically on their check stub incorporate a lot of information regarding disposition of the oil and gas taxes and such, you know, that's an opportunity to provide that information on a check stub, as well as, you know, providing copies of C-115 or other methods.

I know many companies on their website for royalty owners have a place where they can go and always have access and that information could be provided there. And the Division hasn't finalized the methodology of how that would be, knowing that different companies, based on their various technologies that they utilize, may use

different methods to convey the volumes of vented and flared gas, you know, between -- based on their size and/or, you know, what their -- how they are doing it today.

COMMISSIONER KESSLER: That's (). I think that you are the appropriate witness for my next two questions. There were a couple of sets of questions previously related to safety concerns related to liquids unloading and the need for a member of the operator's team to be on site while liquids unloading is occurring. Do you have an opinion about that?

MR. BOLANDER: There is two components of an operator being on site during a liquid unloading event. You know, one, dependent upon, you know, if this is the first time he's unloaded this well or not, he doesn't have a definitive time of when that well will become unloaded, capable of then being put back into the sales line.

So if he is off location when that occurs, then now that well is now venting and capable of being placed to sales. So, therefore, in this case, you've got excess venting that could go on for, you know, any period of time.

And even in wells where, you know, that unloading occurs on a regular basis, it doesn't always happen on an estimated time. It's average. You may know that this well unloads on average in a two-hour time period, but it could be an hour and a half. So there therefore, you got 30

minutes of excess venting and the volume that the well normally produces on a daily basis and that becomes excess venting that's occurring that should be, you know, piped down the sales line.

As far as safety reasons, and in most cases, wells are being unloaded, you have a good understanding of your well pressure, which your bottomhole pressure is estimated, you know, what rates are coming back. There is always a risk in any operation that we do of safety, and you know, having that person on location to be able to react while on location as opposed to not knowing what is actually happening is another benefit of being on location during the unloading event.

COMMISSIONER KESSLER: My last question is also a safety related question. Yesterday there was a -- I can't remember if it was a witness or counsel that indicated that industry concerns for safety were essentially overblown with respect to green completions, and the industry was using safety concerns as a reason to not want to perform green completions. Do you have an opinion on that?

MR. BOLANDER: Yes. Actually that was probably in concern to my original testimony back -- I can't even remember what day my direct testimony was -- the safety concerns during the initial flowback period, and you know, my concern there is, and you know, try to highlight that

this afternoon, was during the initial flowback stage, depending on the type of well, there could be issues with over-pressurization of the tanks due to the high liquid volume coming back. So that observation was from me, not from industry.

COMMISSIONER KESSLER: Those are all of my questions.

HEARING EXAMINER ORTH: Thank you, Commissioner Kessler. Madam Chair.

CHAIRWOMAN SANDOVAL: This may be a dumb question, but I'm going to ask it anyway. In the definition of emergency, 7.G(6), so it's Line 8 of the rebuttal testimony -- maybe I'm thinking about this wrong. It's the last line says "Notably OCD's definition of emergency allows three emergencies in 60 days, which is more generous than BLM's definition of 30 days." So does BLM's definition say three emergencies in 30 days, or do you know?

MR. BOLANDER: Their language is three or more emergencies within the past 30 days, and ours is three or more within 60. So, you know, Mr. Feldewert was correct that our -- so the third emergency is the catch point. So really you're allowed two, and the third for both OCD and BLM is three -- at the point of three, that's when the, the exception goes away.

CHAIRWOMAN SANDOVAL: But -- okay, maybe I'm

thinking about this wrong. I don't know why this is catching me, but okay. If you get three emergencies, let's just say it's three, I know I think the point made earlier was it's two, let's just go with three at the moment. If you have three -- you are allowed three emergencies in 60 days, wouldn't that actually be less generous than three emergencies in 30 days? Because if you get three emergencies every 30 days, in 60 days you would get six emergencies whereas this is three; right?

Am I thinking about this wrong?

MR. POWELL: This is Brandon. I see what you're saying.

MR. BOLANDER: I see what you are saying.

MR. POWELL: It's actually more restrictive.

CHAIRWOMAN SANDOVAL: Right, so it is.

MR. POWELL: Yes.

MR. BOLANDER: Yeah.

CHAIRWOMAN SANDOVAL: Okay, all right. I just -- I really struggled with that one today, and it sounds a little silly. All right. Thank you.

MR. BOLANDER: Been a long process trying to doing math sometimes.

CHAIRWOMAN SANDOVAL: () so understandable. I just wanted to confirm that. All right.

So Line 41, this is a NMOGA recommendation, it's

about designing facilities I think for maximum anticipated throughput, NMOGA wants to strike maximum. I mean, in facility design if flowback -- not that -- that's going to be when your flare is going to be your highest; right?

MR. POWELL: Correct.

CHAIRWOMAN SANDOVAL: So how would, how do you design a facility if not for that volume?

MR. BOLANDER: That's, I think, the point of our language in 8.E(1) is, you know, we address it for completion and production separation, and if you are using, for example, rental, you know, completion equipment or if you have your own completion equipment that you move from well to well, you know, the idea is that it be designed for maximum capacity. And the reason being is that will reduce the length of that initial flowback period of being able to separate the gas.

Many companies today are flowing wells back through their production separation equipment. And if they design for the, you know, anticipated rates that would be, you know, from a production standpoint, they would be much lower than what they would experience during flowback, yet they are performing that process of flowback with their production equipment.

So they should be designed to, you know, take advantage and ability to put wells to sale as soon as

possible because the additional gas that's recovered during this operation, at least, you know, from, from my experience at Southwestern Energy, predominantly from gas wells, that we were able to capture gas that would pay for the upsizing of the compress -- of the separator and then even later, that additional production paid for changing them out if we deemed it necessary to a smaller separator.

CHAIRWOMAN SANDOVAL: Okay. Thank you. I think, actually if you go to the next line, I turn to the rule. In the rule it's E -- 7.8.E(2). It's the storage tanks () gauging performance-standard. I am trying to find my -- so Mr. Smitherman talked about how () like, quote, tried and true methodologies and may not allow manual gauging, do you -- and then we have not heard any -- I have not heard any other testimony on this, and I believe NMOGA wants to strike the entire provision. I guess I'm just wondering, do you have any additional information on that?

MR. BOLANDER: You know, I can't speak for all companies or oil purchasers and what their requirements are in terms of that to speak on it from that standpoint. You know, the use of an auto gauging system can be, you know -- you know, multiple technologies, including a simple float in a well that estimates, you know, that gives you the volume, the rise of the fluid in there to be able to estimate or calculate based on the size of your tank the volume produced

that day, but if an operator is going to that tank on a daily basis and measuring oil volume, and he is able to do it using an automatic gauging system, and he does that five times a week and on day six he is required to manually gauge it, well, that's five days he didn't have to open up that thief hatch, only one time when oil was being pulled.

So even in that case it doesn't preclude you from manual gauging, but it does allow you to auto gauge when you most frequently check oil volume.

CHAIRWOMAN SANDOVAL: Okay. That's a good clarification. So just to make sure I understand, if they, for example, the purchaser needed or required a manual gauging, they could do that, but that would -- that would be a oneoff versus, you know, maybe every other time that somebody's got to gauge that tank?

MR. BOLANDER: Correct.

CHAIRWOMAN SANDOVAL: And it doesn't preclude you from opening --

MR. BOLANDER: Not with some of the technologies that I have looked at.

CHAIRWOMAN SANDOVAL: What about -- so into -- the operator of a permanent storage tank associated with production operations, that rise goes to a flare control device. Why is it just tanks that rise to a flare control device? Is that like the only way it works?

MR. BOLANDER: No. We were looking at, you know, in terms of opening thief hatches, you know, that tanks that were, were routed to a device had more emissions that they were releasing. Tanks that are not, that are, you know, basically operated under a couple of ounces of pressure, and pressure is released through simple enardo-type vent valves, you know, through my research and visiting with some of the research firms or engineering firms on modeling, they saw very little difference of what was released through a vent valve versus a gauging exercise.

So based on that, you are still going to have the same emissions, so that's why we felt like that the best bang for your buck for installing the auto gauger would be to prevent any losses on tanks that we knew had excess flashing going on.

CHAIRWOMAN SANDOVAL: Okay. That's really helpful, thank you. Line 60, is the new proposed language intended to go with like the end of that, of 7, F(7)?

MR. BOLANDER: Yes.

CHAIRWOMAN SANDOVAL: Okay.

MR. BOLANDER: New 8.5. Yeah, that's our kind of probably 10 o'clock last night early proposal.

CHAIRWOMAN SANDOVAL: Okay. And then my other question is -- it was -- switch here. I believe it was -- oh, gosh, I can't remember again which one it was -- said

that the heating -- I believe it was Mr. Greaves -- said that the heating value was unnecessary in F(6). Do you agree with that or have an opinion on that?

MR. BOLANDER: I don't have an opinion. One of the areas that we were looking at in trying to strengthen that, this is language that is actually in BLM language in their 3170 series on measurement where they require operators to have that information available if the BLM requires submittal of that information.

So we were just trying to be, in this case, consistent with BLM language relative to Rule 3170, and unfortunately I didn't copy that out -- oh, yes, I did. Hold on a second. It would be Rule 3179.301B2.

CHAIRWOMAN SANDOVAL: Okay. That was helpful. Thank you.

Line 79, sort of in the middle there is a statement, "OCC has the authority to require reporting in order to further its objective of preventing waste both in the present example to obtain relevant information regarding the scope of venting and flaring and in the future example of venting and flaring become waste as capture technologies become available" -- I guess -- is this something you can elaborate on, what that is intending to mean?

MR. BOLANDER: The intent there, and a good example on that would be our requirement not specifically in

this section, but on the reporting of pneumatics is, as we gather data on pneumatics within the state, if we see areas of concern, that becomes, you know, future ability to regulate.

I think probably in this section we were trying to capture all of our thoughts around all of these reporting categories as being finite to individual categories within, you know, the reporting section.

CHAIRWOMAN SANDOVAL: Okay.

MR. POWELL: This is Brandon. I got a little bit more to add. This also touches on when I was responding to Mr. Feldewert, that the normal operations, if they become excessive, then they become waste. So if we find things that are becoming excessive through new technologies, and we deem that to be waste, then we can include that in this rule.

CHAIRWOMAN SANDOVAL: In the future?

MR. POWELL: In the future, yes.

CHAIRWOMAN SANDOVAL: Okay. Understood. One thing that actually was not, I don't think, on the spreadsheet, maybe I missed it, so in 27.9.B -- yeah 27.9.B, I think NMOGA proposed February 28 as opposed to February 15.

Does the Division have any sort of thoughts on that? I think NMOGA said something along the lines of they

wanted a little bit of time after February 15 after they turn in their C-115 B to wrap it up, maybe?

MR. POWELL: I think that's just to give a little bit of accounting time at the first of the year. I don't know that that would be crucial to us between those two dates because it's just on the first part of each year.

MR. BOLANDER: I would agree with Brandon on that. I don't think there is any -- 15 days is not going to make a difference there on how we evaluate.

CHAIRWOMAN SANDOVAL: Okay, that's good information. All right. So that's all of mine in 27.

Let's go to 28, Line 19. So the response on Line 19, the response on Line 19 was operators will route saleable gas into a pipeline whenever possible. I guess my question is, are they actually going to? Do we really expect them to? I mean, is there a, is there a chance they won't and that's something we need to clarify?

MR. BOLANDER: I think here in our language we did not include this requirement, you know, and I think for the reason that, you know, that if it's possible -- it gets back, Madam Chair, you know, when I see there -- our goal and design in regulations were to be more performance based using 98 percent capture rate, and you know, for many companies to reach that, they will require doing techniques such as routing gas to a pipeline when possible, you know,

utilize other access such as pumpdown and other techniques to meet their requirement.

You know, so we wanted to leave the overall rule more performance based as opposed to being prescriptive, but obviously this is an area that there is an opportunity for midstream operators to reduce their volume of venting and flared gas.

CHAIRWOMAN SANDOVAL: Okay. The next one is actually the next line, and I don't actually remember any testimony on this. Maybe I should -- I'm overwhelmed with so much testimony.

And I'm not actually seeing it in any NMED -- in NMOGA's proposal. It says, "Reduce inspection frequency from weekly to monthly and exempt production equipment at sites" -- oh, I'm reading that differently than -- never mind. Scratch that. I can't read. Reading is hard today.

I think my last -- well, let's see. Yeah, my last question is on 28, Line 15. I just -- I just wonder if you have any additional perspectives on 10(A), that sort of section that requires the consolidation of companies, and we saw the sheets and sheets and sheets of companies and/or smaller companies that roll up to the larger parent companies, I just wondered if you had additional information that you could provide on that from the Division.

MR. BOLANDER: You know, we were -- we saw the

proposal, you know, from the NMOGA on this. In our original October draft, you know, this was not even contemplated on affiliates. And their recommendation was to allow either or reporting on affiliated basis or not, and you know, either in our lack of wanting to be consistent, we thought it would be better to choose one option over the other, you know, thinking from more of a clarity perspective. But if there are reasons to report separately, you know, I don't think there could be -- as long as it can be accounted for, you know, it would make sense because if they did want to report separately then each of those entities would have to meet 98 percent, where we were thinking of more of a, you know, give a one -- go one route over an option.

CHAIRWOMAN SANDOVAL: I guess -- go ahead, Brandon.

MR. POWELL: I'm sorry. Brandon Powell. I think to add a little bit more to that. Currently right now it's parent companies that report on the C-141s for any gas releases, so the intent was more a parent company actually providing that data and being responsible for it.

CHAIRWOMAN SANDOVAL: Okay. I mean, I guess, from the Division's perspective, or I mean, could you see -- could you see any like logistical issues from the Division if it had 50 people reporting versus one, and like how that data would roll up, or not really?

MR. POWELL: I could potentially, just based on my history, could see that. You know, each company in our system used to get a separate OGRID number, and at one time I think we had 20 different El Paso OGRID numbers, so it was really hard to identify which OGRID was the parent OGRID, and it makes it tough when you have a bunch of different operators all named relatively the same of getting that information crossed and going to the right place.

And then if you have a poor performing area, I guess my fear would be putting them under an affiliated operator and separate it out from the rest of the system.

CHAIRWOMAN SANDOVAL: Okay. I think I asked this question of Mr. Craft. This also is, if on operator chose to report under its sub companies, not the parent company, would that also impact the GIS mapping that the Division would get under, under 9?

And I guess -- I guess I'm sort of wondering if it would then be a situation where, like, I don't know, you get one compressor station, a pipeline on one GIS, and then another over here and, like, it's sort of puzzled together, would that, I guess -- okay. I'm not speaking very well, I'm sorry.

If they are reported by each affiliate, would that also roll down to other parts of the rule like the GIS?

MR. POWELL: I haven't looked at that

specifically, but that would be my -- I would have that fear because you would be looking at pieces of the puzzle instead of the whole puzzle.

So, again, it would be harder for us to track down who might be responsible or who could respond in those emergency situations.

CHAIRWOMAN SANDOVAL: Okay. I think that was my last question. Thank you. Thank you to both of you.

MR. POWELL: Thank you, Madam Chair.

HEARING EXAMINER ORTH: Mr. Ames, you said you have some follow-up.

REDIRECT EXAMINATION OF
PANEL MEMBERS POWELL AND BOLANDER

BY MR. AMES:

Q. I do. Just a few questions, Brandon and Jim.

Jim, question for Jim. Brandon was asked if the OCD proposed to exclude overriding royalty interest owners from the royalty reporting requirement because overriding royalty interest owners were difficult to notify.

Did you hear any other testimony during the past few days that supports exempting overriding royalty interest owners from the reporting requirement?

MR. BOLANDER: I think here to clarify on overriding royalty interest owners, that would not fall into the category of difficult to, to contact. That would be

some of the mineral interest owners, and you know, which have lost contact with the operators, and that's one of the questions that Commissioner Kessler brought up.

Most overriding royalty interest owners are through a contract with the operator or the working interest owner himself. So in that case it's -- I wouldn't see that as less of a contact, but less than a mineral interest owner who has interest in the minerals themselves, so more of a transactional ownership as opposed to a mineral ownership.

Q. Do overriding royalty interest owners have correlative rights?

MR. BOLANDER: No, not that I'm aware of -- that was too emphatic of an answer. Not that I'm aware of.

Q. Brandon, you were asked about WELC's proposal to auto deny APDs if an operator is out of compliance. Can you tell us how long it might be before an operator spuds a well -- well, let me ask it differently. How long before an operator spuds a well does it start planning to drill that well?

MR. POWELL: It could be years ahead. We've had APDs after extensions -- the initial APD and subsequent extensions be two to three years out, roughly.

Q. Can you tell us about drilling schedules, for instance?

MR. POWELL: What they do is they get their APDs

approved. Once they have a package of APDs approved typically then they would go out and look at getting a rig and a drilling schedule so then they could start drilling on a package of wells.

Because a lot of times it's not economical to pull a drilling rig out for a single well and then send it to back to the yard, so they would want a volume of APDs to start working through a field.

Q. Do these companies plan their capital investments ahead of time then?

MR. POWELL: I have not been directly involved, but I have been told that they plan a year to two years ahead at times depending on the field.

Q. So let's consider the example like for instance an operator submits an APD in March of a particular year, the operator is currently out of compliance but has a plan to come into compliance within four to five months, the OCD would review that plan, I assume?

MR. POWELL: That would be correct.

Q. And assume that the OCD agrees with that operator, under WELC's proposal, would OCD be required to deny the APD?

MR. POWELL: Under their proposal, yes, it would be required to be denied.

Q. What effect do you think it would have on

development and investment decisions in the oil and gas industry in New Mexico if OCD denied APDs again and again because an operator was out of compliance?

MR. POWELL: I think operators would probably look negatively on that investment. And in addition to that it would also create an additional burden on the Division as well if the Division has to keep continuing auto denying it after they review it, because that's something I don't know that we could automate, so we would be reviewing each and every one of those APDs and then denying it and then we would have to re-review the submittals as they come in.

Q. Turning to another topic, Section Part 27, 95, you were asked to agree, Brandon, that an operator should be required to select one out of nine alternative benefits of uses for its venting and flaring plan; is that right? Do you remember that?

MR. POWELL: I do remember that.

Q. Would OCD approve an APD if that venting and flaring plan is not adequate?

MR. POWELL: No, we would not.

Q. Would the OCD put a condition in the APD to ensure that the operator actually follow through on the venting and flaring plan?

MR. POWELL: Yes, we would.

Q. If an operator selects one of the nine beneficial

uses, but then changes its mind somewhere down the line and wants to use a different one, would that be okay?

MR. POWELL: Yeah, that would be fine because it would still meet the intent of that provision.

Q. Could adding a selection to 95 be construed to limit the Division's ability to condition the APD?

THE WITNESS: I would believe so because they would be locked into whatever they selected without additional submittals.

Q. So are you saying that adding the word select could make it difficult for the operator to change uses, one beneficial use to another?

A. I would say so because one of the rules that we have for enforcement says an operator has to follow every provision in a permit that's authorized, so if they selected one and then used another one, they wouldn't be following that provision. And we haven't built a ramp, I guess to say, to select another provision. So there's not an avenue to make a separate selection from that list.

Q. Okay. Thank you. Couple of questions for Jim. Jim, I'm looking at () this is the provision regarding estimation methods. My question to you is, is there such a thing as a perfect estimation method?

MR. BOLANDER: Sounds like a loaded question, but you know, I mean a calculation is based on, you know, either

mathematics, you know, mathematics formula, it's based on empirical data in most cases. And, you know, is it as good as a physical measurement, no, but can it be replicated and used for data acquisition, yes.

Q. Can an operator, in your opinion, can an operator obtain all the data that OCD is requesting in this rule reliably and with reasonable accuracy?

MR. BOLANDER: Yes, with the caveat from my testimony with Madam Chair regarding the data around downhole operations where that information required some of the estimation methods, their, I guess, accuracy methods or accuracy bar is pretty high.

Q. Does OCD's proposal, OCD's rule in Section 8.F(5) allow the operator to select the estimation method?

MR. BOLANDER: Yes.

Q. Does it, does that provision allow the operator to use any method as long as it's verifiable?

MR. BOLANDER: Yes.

Q. If an operator has to estimate and report volumes, does it have an incentive to innovate and develop better methods?

MR. BOLANDER: Yes, from a sense of accurately reporting, you know, when looking at what this rule is about is minimizing and eliminating waste, and it's, you know, technology allows for better results that didn't allow the

operator to affect the way it operates to actually capture that from a salable perspective, then, you know, he has the benefit to do so.

Q. Thank you. Thank you both.

MR. AMES: Nothing further. Madam Hearing Officer, I would ask that these witnesses be excused.

HEARING EXAMINER ORTH: All right. Is there any reason not to excuse the Division's rebuttal panel?

(No audible response.)

HEARING EXAMINER ORTH: No? All right, thank you gentlemen. You are excused. At this time I would like to turn to a discussion of rebuttal by others and hope we have all, all counsel handy.

I think we have two challenges when it comes to proposing rebuttal, one is the challenge of identifying what is new in the Division's rebuttal that you want to address. And the other is identifying, describing the new evidence that you would want to present so we can address that new information or adjustment to the rules.

Otherwise, it would be a matter of saying, well, they didn't address the rules in the way we proposed they address it, and we want to emphasize the evidence that we put on three days ago, that's not appropriate rebuttal.

Let me assure you that although we will have this discussion next, we will have an opportunity to, a brief

opportunity, but an opportunity to put your closing thoughts into writing.

So let me hear if folks need a short break to confer among themselves, we can, we can take it. Otherwise, let me hear from you in order. Mr. Feldewert and Mr. Rankin?

MR. FELDEWERT: Madam Hearing Officer, in light of the testimony today from Mr. Bolander related to, for the first time, two exhibits in which he characterized these, these studies, that are referenced in here, in our opinion, this case () we have a witness who is very familiar with those studies, David Greaves, and we would like an opportunity to present Mr. Greaves for a very short period of time to discuss the issue of whether those studies that Mr. Bolander referenced can actually be utilized in the manner in which he suggested.

HEARING EXAMINER ORTH: Is that something you would be prepared to do tonight? Or can you estimate the amount of time you believe that testimony would take?

MR. FELDEWERT: I know when I checked about an hour ago, we were in a position where we could present that testimony as the time needed, which included tonight. I would need to double check, but that's still a possibility, I would believe.

MS. FOX: Madam Hearing Officer?

HEARING EXAMINER ORTH: Ms. Fox.

MS. FOX: On that point, I'm a little confused because rebuttal is intended to rebut the direct case, it's provided for in the rules if appropriate rebuttal. There is no provision to rebut rebuttal, which is what Mr. Feldewert is proposing.

And so I guess I object to rebutting rebuttal, and that said, Climate Advocates has five minutes of true rebuttal to the direct case, cases that we heard that is indisputably new evidence. It will not be repetitious, and I have already provided the two exhibits that we would like to introduce to counsel.

HEARING EXAMINER ORTH: Okay. Thank you, Ms. Fox. It has been my understanding that the parties other than the Division were including rebuttal to the direct case as they went along. I know I encouraged, but maybe I misunderstood.

MS. FOX: We said we would try, but we didn't promise that we would do that. We do have five minutes' worth of rebuttal. We never made that guarantee.

HEARING EXAMINER ORTH: All right. Thank you. Mr. Biernoff?

(No audible response.)

HEARING EXAMINER ORTH: We may have lost Mr. Biernoff. Mr. Biernoff?

(No audible response.)
HEARING EXAMINER ORTH: No? Ms. Paranhos?
MS. PARANHOS: EDF already presented its rebuttal testimony. We have no further testimony.
HEARING EXAMINER ORTH: Thank you very much for that. So, Madam Chair, it sounds as though we need --
CHAIRWOMAN SANDOVAL: I have a question.
HEARING EXAMINER ORTH: Yes, ma'am.
CHAIRWOMAN SANDOVAL: Mr. Feldewert, are you wanting to put on rebuttal for OCD Exhibit 40, the information that Mr. Bolander characterized in Exhibit 40? Is that what you are talking about?
MR. FELDEWERT: The information that he discussed for the first time today, I think there was two exhibits, as I recall, that he referenced.
CHAIRWOMAN SANDOVAL: But they were already exhibits; correct?
MR. FELDEWERT: They were exhibits that were not utilized or addressed by the Division in any fashion, either in their prehearing filings or in their direct case. The first, it was utilized for the first time, as you know, this afternoon in an effort to suggest there is a reliable way to estimate the volumes coming from three -- well, from manual liquids unloading and uncontrolled tanks. That's the first time I heard that.

CHAIRWOMAN SANDOVAL: Was it already exhibited -- was it already put into evidence, or was was there a motion to --

MR. FELDEWERT: Was what put into evidence?

CHAIRWOMAN SANDOVAL: -- put into evidence already?

MR. AMES: Madam Hearing Officer, all of OCD's exhibits filed on December 17 were admitted into the record.

HEARING EXAMINER ORTH: All right. So, Madam Chair, I believe Mr. Feldewert's point is not that it's a new exhibit, but that they heard new testimony on the basis of that exhibit.

CHAIRWOMAN SANDOVAL: Okay.

HEARING EXAMINER ORTH: It sounds as though what Mr. Feldewert is describing would be ten minutes or less and what Ms. Fox is describing would be ten minutes or less.

CHAIRWOMAN SANDOVAL: Okay.

HEARING EXAMINER ORTH: My proposal would be that we do that tonight, and that would allow us truly to have a post-hearing process that I could think would not be --

CHAIRWOMAN SANDOVAL: Okay. Thank you.

COMMISSIONER ENGLER: Just -- I'm sorry I'm interrupting. Six o'clock I'm out of here, so ten minutes and ten minutes is 20, counsel, please stick to that.

CHAIRWOMAN SANDOVAL: Do we need to talk about

the process afterwards, though?

HEARING EXAMINER ORTH: Well, sure, but I can write an email to Mr. Engler about that.

MR. FELDEWERT: Madam Hearing Officer, I just checked, we are ready to go with David Greaves, the witness.

HEARING EXAMINER ORTH: Sure. Thank you. If you would bring him up on the screen and remind him that he is still under oath.

MR. FELDEWERT: I think he is on, and I'm hoping he is admitted as a panelist, as well as Adam Rankin who will be presenting the testimony.

HEARING EXAMINER ORTH: All right. Thank you.

CHAIRWOMAN SANDOVAL: Dylan, did you hear that we need to make David Greaves a panelist, please?

MR. COSS: Yes, Madam Commissioner, I'm on it.

CHAIRWOMAN SANDOVAL: Thank you.

MR. COSS: And David Greaves is now a panelist. Who should I pass the presenter powers to, or is that necessary?

HEARING EXAMINER ORTH: Either Mr. Rankin or Mr. Greaves, so let Mr. Rankin call it.

MR. RANKIN: Thank you very much, Mr. Rose, to me please. Thank you.

Madam Hearing Officer, may I proceed?

HEARING EXAMINER ORTH: Yes, please. Thank you.

MR. RANKIN: I just want to make sure we have Mr. Greaves on. Do you see him? I haven't seen him or heard him yet.

MR. GREAVES: I'm here.

MR. RANKIN: Thank you very much.

DAVID GREAVES

(Previously sworn, testified as follows:)

DIRECT REBUTTAL EXAMINATION

BY MR. RANKIN:

Q. Mr. Greaves, you were present for the testimony today for Mr. Bolander regarding Line Item Number 79 on NMOGA -- I'm sorry -- on NMOCDs rebuttal Exhibit 4C?

A. Yes.

Q. And in particular, you heard Mr. Bolander's testimony regarding NMOGA's proposal to delete certain categories from the rule under provision 8.G(2)(f)?

A. Yes, heard that.

Q. And in particular, his testimony regarding the, the emission estimation methodologies relating to uncontrolled tanks?

A. Yes.

Q. And you also heard the questions presented to him on cross-examination and from the Commission on this topic?

A. Yes, I heard those.

Q. Great. I just want to make sure we have you

oriented and know your background. Now I'm going to put up on my screen here what I had discussed with Mr. Bolander previously and that he had previously referenced in his direct testimony or his rebuttal testimony on OCD Exhibit 45. Let me know when you can see it.

A. Yes, I can see that.

Q. Mr. Greaves, you heard Mr. Bolander's testimony regarding the capabilities of these various software programs and the estimation methodology. Would you please give us your response and particular concerns regarding the capabilities of these software programs for the purposes that he testified about?

A. Yeah. So I think it's really important to read the sentence highlighted in yellow there, partners can calculate flashing, working and standing emissions from liquid transfer to storage tanks with the equation of state programs.

So I wanted to clarify that equation of state programs are not necessarily programs that can be used to calculate working and standing losses. So for instance, I'm very similar with HYSYS and have used Aspen for many years both in college and then in my previous job and current job.

And HYSYS is, is a thermodynamic software package. What that means is that it uses the composition of the fluid stream that you have, combined with, combined with

your operating conditions and the history of the separation vessels that you go through, and based upon that -- sorry, the vacuum is running outside my office. Hopefully you can hear me -- based upon that information it does equalibrium calculations, thermodynamic equalibrium calculations.

So it's based upon, assuming equalibrium, which oftentimes we are not at equalibrium, as I said in my testimony, but it's also not based upon on all the operating history of your tanks. Which, when you are doing working and standing emission, those are operational considerations. Thermal expansion in the tanks and accounting for the emissivity of the tanks and the radiation is part of a thermal calculation. That's not part of a thermodynamics equation of state calculations.

Equations of state are also very complicated. They have lots of inputs related to the composition that you have, and it's very easy to get a very different answer with your equation of state because equations of state rely on all the factors about how the different molecules interact with each other called binary interaction parameters and how you build your fluid model.

So to think that everyone will be able to use HYSYS is incorrect. It's very difficult to use and requires a significant amount of training and good quality data.

And also, HYSYS was not built to use for working

and standing emissions. It's not a tool that can calculate that. It will calculate the flash as accurately as the moment that you put in the data, it's as accurate as -- as good as you make the model, and as good as you know the pressure and temperature for that precise moment, but not for the whole range of operating conditions you're going to experience over a reporting period for production accounting.

Q. So what's the problem with that distinction, that it's able to do one thing, but not the other based upon the operation emissions for purposes of monthly production accounting?

A. For one thing it makes me a little nervous about reporting this document as proof that you can go accurately estimate these, these calculations. When I have a sentence like that, that simply is not true. HYSYS does not have those capabilities. So that makes me nervous about this gas -- similarly a flash calculation, and that's well known. You can go to TCQ website and read about that if you like and see it's for flash, it's not working and standing. So right away it makes me nervous about trusting a document like that that doesn't understand it.

But it's important to note there is a lot of discussion today around these programs are good enough, right, the calculation methodologies are good enough, and

you use them for design and permitting. And it's really important to understand that what's used for design and permitting is very different than what happens necessarily in reality.

In design, you want to design for the worst case. Same with permitting, you want to design for peak. So when you go into the design effort, API 2000, which is the common document used to design for a pressure vacuum release valve, that document gets you at the peak condition you could experience of working in thermal losses.

It does that so you don't over -- or so you don't undersize your relief valve in your piping. So while it does work for design, design is not what happens in reality intentionally.

As an engineer, you put design factors on things so that you have safety margins. It doesn't mean that the calculations are bad for the design, it just means that they keep you safe and help you properly size your equipment.

Q. Okay. So would these models then potentially, depending on the inputs, result in a wide range of outputs?

A. Yes, as I said before, the range is significant. I was looking at it today to better understand phase envelopes, and based upon how you build your model in HYSYS, if you use what are called -- if you use the actual components versus if you use something called fractions, you

get very different phase envelopes, and those different phases envelopes give you very different flash estimations. So while they can give you a number, it's a number.

So we can, you can go and report a number, but the real challenge here is not the ability to report a number, it's not the challenge, of, well, you have given us the flexibility of using any estimation method you want, it's that whatever estimation method you want will create a number that is then used against the gas capture calculation. So it's the impact of that number.

So, yes, you can create a number, but is that an appropriate number, and is that a number that you are willing to live with against your gas capture calculation versus reporting a number that's () estimation.

Q. So to your point, it's a number, and that number may be capable of verification by an independent third party because you know the methodology and inputs so it can be verified; correct?

A. Yes, you can definitely verify the number and approach taken, and many people can take many different approaches.

Q. But is that number necessarily an accurate representation of the actual volumes associated with an uncontrolled tank?

A. No, and I think that's one of the most important

things as you read the EPA literature, AP42 document. Probably as you read this document -- I think I saw it in there but I haven't reread -- it's that a lot of these approaches are good for an average, particularly good for an annual average. So that's why they work for EPA calculations, but they will specifically say they are not accurate for an individual moment.

And so when we look at production accounting, we are looking at an individual operator, an individual moment, an individual finite time in space, and in those short periods there is language in there about a short period is not appropriate for a short range period.

Q. Such as monthly reporting?

A. Yes, exactly. Because they use, if you look at AP42, AP42, it uses this average approach for temperature, which is not accurate for any sort of given month or any sort of given day where you might have wide temperature swings which will really impact your thermal affects within that tank.

Q. Now NMOGA is -- does NMOGA question the use of those methodologies, these software packages for purposes of estimating emissions for air permitting?

A. No.

Q. For designing these facilities?

A. No. No.

Q. It's just a concern about the monthly production accounting purposes; correct?

A. That's correct.

MR. RANKIN: Madam Hearing Officer, I have no further questions --

Q. Oh, I will just ask, Mr. Greaves, in terms of your response, is there anything else that you want to say on this topic that I didn't ask you about?

A. Yeah, I wanted to clarify for Madam Chair an answer about nitrogen blankets. She asked about nitrogen blankets. Nitrogen blanket is very different than a produced gas blanket, so I can't speak for all operators, but I have more commonly seen produced gas blankets in the Delaware.

The nitrogen blanket, nitrogen blankets require some sort of nitrogen generation unit, but also nitrogen blankets don't affect emissions, per se, the emissions calculation because they are, they are not a greenhouse gas in the calculation, but also because nitrogen is an inert. It doesn't impact the flash that's happening because of the sense of the thermodynamics. It would be a separate component that really doesn't change the flash, it's when you use produced gas that you see those changes.

The other thing to remember with nitrogen is that nitrogen has contractual limits as well. So there is very

common numbers, you might hear 2 percent nitrogen for your gas sales. If you put a nitrogen blanket on there, it may push you outside of that.

The other thing with nitrogen, while it won't change the emissions, it does change the () so on a volumetric basis you could see a higher rate. You put on a nitrogen blanket and it expels out temperature, it will change your volumetric rate which is what we are talking about, not the flash calculation which is what I believe you were talking about.

MR. RANKIN: Thank you very much, Mr. Greaves. Madam Hearing Officer, I have no further questions for Mr. Greaves and pass him for questioning.

HEARING EXAMINER ORTH: Thank you. Commissioner Engler, let me ask you first in the event we lose you first, do you have questions of Mr. Greaves?

COMMISSIONER ENGLER: No. Anyone who wants to have five more kids, I'm not going to ask any more questions.

HEARING EXAMINER ORTH: All right. Thank you very much.

MR. GREAVES: My wife wanted me to come home, but I told her I was running late today.

HEARING EXAMINER ORTH: Mr. Ames, do you have questions of Mr. Greaves?

MR. AMES: No questions.

HEARING EXAMINER ORTH: Thank you. Mr. Biernoff, if you've returned. Do you have questions of Mr. Greaves?

(No audible response.)

HEARING EXAMINER ORTH: Ms. Fox?

MS. FOX: Thank you, Madam Hearing Officer. We have two exhibits from OCD's website that we would like to get admitted into evidence. And I must say that I did offer counsel that we could just submit these into evidence without a witness.

HEARING EXAMINER ORTH: Ms. Fox, I'm sorry, you've jumped ahead. I was just asking if you had questions of Mr. Greaves.

MS. FOX: No. No.

HEARING EXAMINER ORTH: All right. Great.

MS. FOX: Sorry.

MS. PARANHOS: Thank you, Madam Hearing Officer, I have no questions.

HEARING EXAMINER ORTH: Thank you. I'm not sure if Commissioner Kessler is still with us. Maybe not. Madam Chair?

CHAIRWOMAN SANDOVAL: I have no questions. Thank you.

HEARING EXAMINER ORTH: Terrific. Mr. Greaves, you're actually excused again.

THE WITNESS: Thank you.

HEARING EXAMINER ORTH: Thank you. Ms. Fox, now you're up.

MS. FOX: That was an embarrassing moment. All right. Let's see, Mr. Rose-Coss, could you switch Tom Singer over from the public view to the panelist view?

We have two documents from OCD's website that we would like admitted into evidence. And I do have to say that we tried to do that without a witness to save time, but Mr. Ames objected to these two documents that are coming in from the OCD website, so we will put on a witness to introduce them. Mr. Singer is on.

MR. AMES: May I interject? I did not object, for the record.

MS. FOX: May we just put these two records in without counsel even seeing them and without a witness? We are willing to do that to save time.

MR. AMES: In that case, I will object because they lack foundation. So go ahead.

MS. FOX: That's what I was asking.

Mr. Rose-Coss, may I have sharing ability, please?

HEARING EXAMINER ORTH: And, Dr. Singer, you are still under oath.

DR. SINGER: Thank you, Ms. Orth.

MS. FOX: Let me put these two documents --

DR. SINGER: Ms. Orth, may I address Dr. Engler first?

HEARING EXAMINER ORTH: Who was speaking?

DR. SINGER: It's Tom Singer. I just wanted to let Dr. Engler know that I'm introducing data, which I know that he is a data guy and enjoys data, so if he can hang in for a few moments, I just have very few things to say, but I'd hate to have him run out the door.

COMMISSIONER ENGLER: You got time. I'm listening. I'm here.

MS. FOX: So what I'm going to do, counsel has these, so I'm going to move through -- these are the from the OCD website. This is the title from the OCD website, Stripper Gas Wells.

THE WITNESS: I will answer when I'm ready. Can I do that?

MS. FOX: Hold on, Tom. Stripper Gas Well Summary is proposed Exhibit 33, Stripper Oil Well Summary is proposed Exhibit 34. Looks like this. Just to orient the Commissioners because they don't have the benefit of these exhibits right now, and neither does the hearing officer.

TOM SINGER

(Previously sworn, testified as follows:)

DIRECT REBUTTAL EXAMINATION

MS. FOX:

Q. Okay. So Mr. -- Dr. Singer, what are these two documents?

A. These documents are summaries of the number of stripper wells operating, currently producing, operating, in New Mexico sorted by operator. Yeah, sorted by operator.

Q. And where are these documents found?

A. They are on the OCD website statistics page.

Q. And what do you know about how these, how these documents were developed?

A. The source documents are Excel spreadsheets that identify 14,768 stripper gas wells by operator, well number, operator, production, number of days producing. And then similarly the oil Excel file shows 15,074 oil wells, again with barrels of production and days of production.

So it's -- it's OCD -- apparently OCD's classification of wells as stripper wells, and which those, the number of those wells, and then they roll those up by operator.

So the data there is number of wells.

Q. And, as far as you know, is this -- were these two datasets developed by OCD staff?

A. Correct. As far as I know, yes.

Q. As far as you know, who developed this -- these two sets of data?

A. I do not know.

Q. Dr. Singer, you have heard testimony that implies that stripper wells are essentially operated by small operators operating at the margin; correct?

A. I don't want to testify to that. I know that the -- that -- that there has been discussion of exemptions for stripper wells. And I'm also aware there is a common assumption discussion of stripper wells being associated with particular kinds of operators, but I don't recall hearing specifically that all stripper wells are operated by small operators in this, in this case.

Q. And what's the assumption that you just referred to?

A. In this case, and in the media and generally in conversations or publications or media coverage of stripper wells, they are often associated with small operators or mom-and-pop operators. And I think we have heard that in testimony in this case in this hearing.

Q. Do these documents -- and what do these documents say to that assumption?

A. Well, I have some prepared remarks. I think it might be better if I followed my train of thought. Can I do

that?

Q. Absolutely.

A. Yes. I guess, again, there's been some testimony in the hearing about differential treatment for stripper wells for several provisions of the rule, I won't go into them. And again OCD provides information on stripper wells on the web state statistics page.

And I think this is going to be particularly useful for commissioners as they deliberate these exceptions for these kinds of wells, there are two tables, one for gas well -- let's have the gas well up now -- and then one for oil wells. And if you just start looking -- and you can leave just the first page -- these distributions are so dramatically skewed that you get kind of the message from the first page of a multi page table that this information addresses what I believe is widely-held assumption, that stripper wells are primarily associated with small operators or mom-and-pop operators.

And you can go to the next slide. Go down to the oil. The oil stripper wells are not as dramatically skewed distribution, but they are pretty -- you will see what a long tail, these distributions have a very long tail.

And so clearly, yeah, the distributions are skewed with long tails. So I can't today walk through these tables and classify each operator by size or some other

financial capacity category. But of course some of these names on these first pages are quite familiar and more familiar than others.

And the data does indicate -- and here is the punch line -- the data indicates how the benefits of any stripper well exemption is going to be distributed among New Mexico operators. Therefore, I thought it was important for the Commissioners to have this data when they deliberate these stripper exemptions. And that concludes my rebuttal testimony.

Q. Thank you.

MS. FOX: Move admission of Climate Advocates Exhibits 33 and 34.

HEARING EXAMINER ORTH: Let me pause a moment in the event there are objections.

(No audible response.)

HEARING EXAMINER ORTH: Exhibits 33 and 34 are admitted.

(Exhibits 33 and 34 admitted.)

MS. FOX: That's all we have, Madam Hearing Officer.

HEARING EXAMINER ORTH: Thank you very much, Ms. Fox. Commissioner Engler, do have you questions of Dr. Singer?

COMMISSIONER ENGLER: I will do some

clarifications for you. First off, stripper well is the definition of a type of well. I don't believe it was necessarily defined as large versus small operator or mom or pop.

I would submit to you that if you look at your numbers, you will have, as you saw, a substantial number of stripper wells. You will also have a substantial number of non-stripper wells. But if you take a mom-and-pop company like Dugan, which was on your list, you will notice they have 700 gas stripper wells and they probably own and operate 800.

So there is a difference in the percentage of a mom and pop and what they get versus some of the more higher well numbers.

So I appreciate () there is a lot more information there that could be done, but, you know, please keep in mind that stripper well is a definition of a particular well. And so there's -- that's all I'm going to say.

DR. SINGER: May I respond to that?

HEARING EXAMINER ORTH: If you would, please, Dr. Singer.

DR. SINGER: I agree with you, and I think that any -- it just goes to the notion that any exemption really ought to be as fine-tuned as possible to address the issue

the Commission is concerned with, and that there is some data, there is a start in the data in the table to craft exemptions that solves the problem and doesn't create other problems.

So thank you for that clarification, Dr. Engler, I appreciate that.

COMMISSIONER ENGLER: We will do what we can to make sure we will craft ().

HEARING EXAMINER ORTH: Thank you, Commissioner Engler. Let me see, Mr. Ames, do you have questions of Dr. Singer?

MR. AMES: No, I don't. Thank you.

HEARING EXAMINER ORTH: All right. Let's see. Mr. Biernoff may not be on. No. Ms. Fox -- Ms. Paranhos.

MS. PARANHOS: Thank you, Madam Hearing Officer. No questions.

HEARING EXAMINER ORTH: And I managed to skip Mr. Rankin. I'm sorry, Mr. Rankin, I see you are still with us.

MR. RANKIN: Oh, yeah. No questions for Mr. Singer. Thank you, Dr. Singer.

HEARING EXAMINER ORTH: Let's see. I don't see Commissioner Kessler. Madam Chair, do you have questions of Dr. Singer?

CHAIRWOMAN SANDOVAL: I just have one question. Dr. Singer, were you around for the rebuttal today?

DR. SINGER: Yes, I heard -- well, I was highly distracted, but yes, writing drafts and scrambling, but yes, I was on the hearing all day today.

CHAIRWOMAN SANDOVAL: Did you hear Mr. Powell and Mr. Bolander say that the definition was tailored not only to take into account things like potentially economics, but also the potential of a well to cause gaps or gas releases?

DR. SINGER: I vaguely recall that testimony, Madam Chair.

CHAIRWOMAN SANDOVAL: Okay. Thank you. That's it.

HEARING EXAMINER ORTH: Thank you, Madam Chair. Ms. Fox, any follow-up?

MS. FOX: No follow-up, no, Madam Hearing Officer.

HEARING EXAMINER ORTH: All right. Thank you very much. Dr. Singer, you are excused again. Thank you.

Is there anything else before we discuss the post hearing process and call the completion of the evidentiary record?

CHAIRWOMAN SANDOVAL: I guess I just want to ask, Dr. Engler, before you step away, would the use of the conclusion of what was -- I'll say it again, I'm sorry.

Ms. Orth, I just want to make sure that before we close the record that Dr. Engler feels like he has the

information he needs to make, you know, any sort of type of decision and that we don't need to recall any additional witnesses to provide you with more information.

COMMISSIONER ENGLER: No, I don't need that.

CHAIRWOMAN SANDOVAL: Okay. Because once we close the record, we can't reopen it.

COMMISSIONER ENGLER: Understood.

MR. MOANDER: Just a point, I believe the hearing officer said the evidentiary record. Just for clarification, I'm not clear if that means there could be some pleadings which would be the record proper or the complete record. I just want to make sure we are clear on what did close versus what may not. I know it's nit-picking, but we want to get that right.

HEARING EXAMINER ORTH: Thank you, Mr. Moander. Yeah, I consider the evidentiary record to -- the first thing we do in a hearing with the testimony and exhibits, so that would come to a close here momentarily.

Post hearing submittals I consider pleadings and the sort of thing that would be in the record proper, for example, in the event of an appeal as part of the entire rulemaking record.

So I'm not hearing any takers for wanting to put on additional evidence, so I'm going to close the evidentiary record right now, and let's talk about the post

hearing process.

I know this makes me a terrible negotiator, but let me just offer up the most generous thing I can offer up just to start the conversation, and then I'm happy to take questions, just understand that this time would not be expanded. We no longer need January 21 or 22 for any part of the --

CHAIRWOMAN SANDOVAL: That's exciting.

HEARING EXAMINER ORTH: Yes, yes. You all deserve a pat on the back.

My first question is to Mr. Ames. Mr. Ames, because I believe the most helpful format for the Commissioners in their deliberations would be for the other parties to take the Division's final rule proposal and do redline strike out, what have you, and then refer to the testimony that would support each of those adjustments, it's my belief that's how that would be most helpful to the Commissioners. And I know you and I have been through it together personally before the Water Quality Control Commission, how soon could the Division prepare what would essentially be a revised Exhibit 2A and 2B?

MR. AMES: Close of business Wednesday.

HEARING EXAMINER ORTH: Terrific. Thank you very much. I believe that we will have the remainder of the -- transcript including the transcript from today by next --

thursday. It's my understanding from Irene earlier was that the agreement was three working days. Is that true, Irene.

REPORTER: That was my understanding from Paul.

HEARING EXAMINER ORTH: My basic point is that all of the parties will have everything they need for a post hearing submittal by mid next week, certainly by late next week. If you can take -- I'm sorry, was someone trying to talk?

(No audible response.)

HEARING EXAMINER ORTH: If then you would take the documents from Mr. -- from the Division and reflect from the transcript. As far as I'm concerned, written closing arguments are discretionary. If you feel like you need to set something out, go ahead and do it, but what is most helpful for the Commission is to make your proposed revisions clear and then point to the record where those proposed revisions would be supported.

And if we could have those by close of business February 5, the rest of the process works out. That's two full weeks and potentially even two days plus that. So are there questions about any of that, because I really do want everyone to understand what's being requested.

MR. AMES: Madam Hearing Officer, OCD is happy to hear your proposal. Our pledge is to do what would help the Commission, and you are speaking for the Commission and so

we would do that.

We would also propose a page limit to ensure that we don't have voluminous documents in the record here on this. More argument is probably better said succinctly. We would propose 25 pages, excluding the certificate of service, standard margin, double spaced, 12 point font, no attachments.

HEARING EXAMINER ORTH: So again, Mr. --

MR. FELDEWERT: Eric, can you be more precise?

MR. AMES: I can try, but that's all I could think of, Mike.

MS. FOX: But no font and it has to be double spaced.

MR. AMES: We can debate that. No footnotes. How is that?

HEARING EXAMINER ORTH: So going back, Eric, I want you to assume that the Commission may deliberate on February 11 and 12, just assume that for the purposes of this conversation. And that those -- that the Commission would not find especially helpful verbal closing arguments.

What is more helpful is written closing arguments, if you really feel the need to make some, and what is most helpful is taking Part 27, Part 28, and for each of the modifications, referring to the part of -- referring to the evidence in the record, either the exhibit

or testimony, to support those proposed last pages.

So given that, I think one of the regulations is 11 pages long, one of the regulations was a little shorter, what, what would your page limit apply to, Mr. Ames?

MR. AMES: The entire pleading, excluding the certificate of service.

HEARING EXAMINER ORTH: Okay.

MR. AMES: The only exception I would propose is that parties could attach a draft of the version of the rule that they would like which would be the basis for their pleading.

HEARING EXAMINER ORTH: So that's what I'm talking about is the primary submittal from the other parties. That's what I'm trying to describe. I'm sorry if I wasn't clear. Ms. Fox, do you have something helpful?

MS. FOX: I think, Madam Hearing Officer, I agree with you, that I'm fine with a 25 page limit, as long as that is exclusive of our proposed modifications to the rule.

MR. AMES: Yes, I revise my proposal along those lines, yes.

HEARING EXAMINER ORTH: All right. Mr. Feldewert?

MR. FELDEWERT: Madam Hearing Officer, when you say the party's proposed modifications, you are talking about the proposed modifications that have been filed, not

new modifications by parties other than the Division.

HEARING EXAMINER ORTH: No. What I mean is that you would take the Division's, its final proposal which Mr. Ames has now promised for close of business on January 20, let's say that the Division adopted something of what NMOGA proposed to modify. I'm assuming you wouldn't have any comment; right? If the Division is proposing to modify along the lines to align itself with your own proposal, there is no particular reason to comment on that.

But let's say that there are items that the Division didn't propose to align themselves with NMOGA's proposal, at that point you would show the format of the change you were going to make, and immediately under that section, point to the evidence in the record that supports your proposed adjustment.

MR. FELDEWERT: That's -- I understand. My only concern is that, granted this is a bit all prior rulemaking, okay, the parties submit their proposed modifications in advance of the hearing. Okay? The only party thereafter that is entitled to provide additional modifications is the applicant.

That's how it's always been done. Now, and the reason is, I think, I'd be somewhat leery about parties introducing new modifications that no one has had an opportunity to address.

HEARING EXAMINER ORTH: Okay. So I sure wasn't trying to convey that you could offer new modifications that you hadn't already --

MR. FELDEWERT: Okay. That was my --

HEARING EXAMINER ORTH: Ms. Fox.

MS. FOX: I have a question. So what I heard you say, Madam Hearing Officer, is that in the -- in our set of proposed rules that we submit, that you would like the justification for each of our proposed rule under the rule in the same way that NMOGA filed their prehearing statement. Is that what you are suggesting?

HEARING EXAMINER ORTH: So it -- I'm sorry.

MS. FOX: Our justification should be integrated within our proposed modifications to the rules, within that rule document like NMOGA did -- which I found very helpful, by the way.

HEARING EXAMINER ORTH: Yes. So we -- we were doing that with the Triennial Review in front of the (), and those Commissioners, and there are 14 of them, as you know, they found that the most useful, when they had half a dozen different proposals in front of them, to be able to step through section by section and see section by section what the different proposals were, and where in the record the support for each of those proposals could be found.

And you may remember, I imagine Mr. Ames

remembers, it used to be I would take a month or two to compile everyone's proposals and go through section by section whereby I sifted parts of what all the parties were doing, but we don't have that kind of time. So, Ms. Fox.

MS. FOX: Then I agree that that's a really helpful format, and -- but looking for -- I don't see how that fits within the 25 page limit because, are you saying all our justifications should be in this format and that any additional legal argument we want to make would be an additional pleading, since just looking at NMOGA's proposal and the format you are suggesting, their Part 27 is 27 pages, and their Part 28 is 17 pages.

So we are over the 25 page limit, you know, at least if they are going to propose -- in any event, it's going to be more than 25 pages. But what you are suggesting is that we do the modifications, we do the justifications and then we can submit separately written closing argument in our discretion.

HEARING EXAMINER ORTH: That's what I'm pitching to you. And I see Ms. Paranhos.

MS. PARANHOS: Thank you, Madam Hearing Officer. I will admit I'm now confused because initially it seemed like what you were asking for was a document that contained our explanation based on testimony in the record for any revisions that we are still asking for, so the revisions we

have already requested in this rulemaking, but have not yet been accepted by the Division.

And so based on the testimony in the record, we would say, "We are still asking for this revision. Here is the testimony in the record that supports it."

HEARING EXAMINER ORTH: Yes.

MS. PARANHOS: It sounds like now potentially what Tannis is asking is, in our one exhibit that we're allowed, which would be a copy of OCD's most recent version of the proposed rule with our suggested revisions that we are referring to in our final closing brief, that in that redline document we would include not just the language change, so the strikeout or additional language, but also the justification for that strikeout, which is also included in the brief. And so is that what you are asking for, do you want the justification for the strikeout in both documents or just in the brief?

HEARING EXAMINER ORTH: So I believe that it's most helpful if the justification appears, or if you point to the evidence in the strikeout underlying rule document, and really the closing argument is more about, for example, what's legal or what the scope of authority of the Division might be, it's more for legal argument, not to point to exactly where in the record a particular adjustment of the rule would be made.

MS. PARANHOS: Thank you. That's clear, and I understand what you are asking for now.

HEARING EXAMINER ORTH: All right. Ms. Fox.

MS. FOX: So the proposed page limit wouldn't apply to the rule modification document with justifications, but certainly would apply to the closing argument document? Is that right?

HEARING EXAMINER ORTH: Yes. And I really hope you guys don't need 25 pages to make any kind of closing argument. You know, page, as far as I'm concerned, the proposed adjustment to rule where you are pointing to the evidence shouldn't have a page limit.

COMMISSIONER ENGLER: I agree with you, and if it helps you guys, I won't read anything past ten pages.

HEARING EXAMINER ORTH: Thank you, Commissioner Engler. Are there any other questions about any of this? I can certainly put it in an order, if that would be helpful.

CHAIRWOMAN SANDOVAL: Can I just confirm? So it sounds like the Division will hopefully have their redline this Wednesday, there would hopefully be most of the transcript by this Wednesday, then the parties going to do their thing, due end of the day of the 5th -- the 5th. And then we would deliberate at the normally-scheduled OCC hearing the 11th and 12th and we will need to continue the cases from the 11th to probably a later date, maybe like the

25th.

Okay. Chris -- or Mr. Moander, are you on line?

MR. MOANDER: Yes, I am. I'm taking notes, so we will be talking about this in the coming week about getting tidied up and we will take care of it.

CHAIRWOMAN SANDOVAL: I just want to make sure you are hearing it all.

MR. MOANDER: I am absolutely glued to the action.

CHAIRWOMAN SANDOVAL: Okay, great.

MR. AMES: All right.

HEARING EXAMINER ORTH: All right. Anything else?

MR. AMES: Yes. I'm sorry, Madam Hearing Officer, but I am now thoroughly confused what is going on. It appears now it's up to two documents, and I'm not sure there are any page limits and I'm not clear at all what is expected from the Division other than the proposed rule. Are you expecting us to do a justification for every paragraph, subparagraph in the rule, or just for those proposals of other parties that we still have not accepted?

I'm little unclear as to what obligation the Division has besides producing the document by close of business Wednesday.

HEARING EXAMINER ORTH: I believe you have

already produced two documents, namely the two exhibits you entered in today that provide an excellent explanation of why you have accepted the changes the Division hasn't accepted. I don't think we need that again from you. In the event you would like to offer written closing argument, you are welcome to do that. Otherwise, what we need from you soonest is the final, the proposed rules in their final proposed format by next WEdnesday and, again, closing argument is discretionary.

MR. AMES: And what are the parameters for closing argument.

HEARING EXAMINER ORTH: You can put anything you like in closing argument.

COMMISSIONER ENGLER: 100 words or less.

MR. FELDEWERT: Ten pages.

MR. AMES: I can doe a haiku if you like.

CHAIRWOMAN SANDOVAL: That would be great. I mean, creativity definitely.

MR. AMES: Anyway, so what -- I understand Dr. Engler's parameters. What are the Hearing Officer's?

HEARING EXAMINER ORTH: So I guess, I'm not concerned that anyone is going to abuse the written closing argument among you all. You're all great lawyers. I'm not concerned about abuse there. I can write down a 25 page limit or a 10 page limit, but since it's coming in in

writing I'm not worried.

MR. FELDEWERT: I have written down ten pages.

MS. FOX: I heard Dr. Engler loud and clear.

COMMISSIONER ENGLER: Mr. Feldewert, I might have to reduce that.

HEARING EXAMINER ORTH: Is there anything else we can talk about before we adjourn?

MR. AMES: I'm sure we can find something, but I don't think we want to.

HEARING EXAMINER: Well, thank you all very, very much. Have a great weekend.

(Adjourned.)

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

REPORTER'S CERTIFICATE

I, IRENE DELGADO, New Mexico Certified Court Reporter, CCR 253, do hereby certify that I reported the foregoing virtual proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings to the best of my ability.

I FURTHER CERTIFY that I am neither employed by nor related to any of the parties or attorneys in this case and that I have no interest in the final disposition of this case.

I FURTHER CERTIFY that the Virtual Proceeding was of poor to good quality.

Dated this 15 day of January 2021.

/s/ Irene Delgado

_____

Irene Delgado, NMCCR 253
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