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 NO 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 - DAY 4
JANUARY 7, 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 7, 2021, via Webex Virtual Platform, hosted by New Mexico Energy, Minerals, and Natural Resources Department.

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I N D E X

W I T N E S S E S

E X H I B I T I N D E X

HEARING EXAMINER ORTH: So good morning. My name is Felicia Orth. I'm the hearing officer appointed by the Oil Conservation Commission to conduct a hearing in the matter of the application of the New Mexico Oil Conservation Division to consider proposed rules to regulate the venting and flaring of natural gas from oil and natural gas production and gathering facilities, Case 21528.

We are beginning this morning with one of our many opportunities for public comment. I will ask you to keep your public comment to just a few minutes, and in the event you have more to say you would like the Commission to consider as part of their rulemaking, please put it in writing and address it to Florene Davidson.

You will find all of Ms. Davidson's contact information on the web page of the Energy Minerals & Natural Resource Department, Oil Conservation Division web page. Look specifically for the tab on outreach and public engagement.

This morning we have two people who signed up to offer comment that have not already offered comment. I will call you in this order, Carol Davis and Gil M. Sord. Ms. Davis, are you with us?

MS. DAVIS: (Unclear.)

MS. ORTH: Oh, hello.

MS. DAVIS: Hi. Yes, I'm here.

HEARING EXAMINER ORTH: If you would please go ahead.

MS. DAVIS: Good morning. My name is Carol Davis. I'm with Domestic Syndicates (unclear) Environment, and I'm a member of the council health committee. I have worked for six years with Navajo Community members across northwest New Mexico on issues related to emissions from oil and gas development.

During my time spent in the Eastern Navajo Agency working with communities affected by oil and gas development, I could smell a strong rotten-egg-like odor, and after an hour I would feel nautious and develop a headache. At a three day event hosted by our organization in January of 2018, many of us opted to camp near the Councilor Chapter House, which is off 550.

On the first night I woke with an extreme sense of anxiety and claustrophobia. I rushed out of the tent because I had to gasp for air. I have never experienced anxiety like that before. My symptoms, nausea, headache, sore, dry throat and anxiety ended after I returned home some 230 miles away.

There are many families and children and small children who live within a couple hundred yards of well sites within this region. We are subjected to the harmful gases daily. Many of these wells are decades old and have

found to have consistently low levels of harmful gas.

Methane is a powerful greenhouse gas that is responsible for about 25 percent of the climate change we are experiencing today. Oil and gas companies release more than 1.1 million tons of methane which have the same climate impact to us -- impact as about 25 coal-fired power plants.

To help restore the health of indigenous communities in Northwest New Mexico the Oil Conservation Commission must strengthen the Oil Conservation Division proposed methane waste rule to eliminate unnecessary waste and pollution by including the following recommendations:

One, ban routine venting and flaring unless necessary; two, require oil and gas companies to capture 98 percent of methane emissions by 2026; three, strengthen state supporting the public notice requirements mandating that operators immediately notify residents and communities at risk when methane releases threaten public health, safety or the environment occur; four, deny permits to drill new wells if operators are out of compliance with gas capture requirements.

The adoption of a strong venting and flaring rule is a critical first step in addressing emissions which disproportionately affect the Navajo communities who more likely to live within half mile of oil and gas well sites and disproportionately bear the burden of poor policies.

Finally, it's critical that the New Mexico Environment Department adopt a rule that holds polluters accountable and cuts emissions across the oil and gas industry. Thank you.

HEARING EXAMINER ORTH: Thank you, Ms. Davis. I was remiss in not introducing the Commissioners with us this morning. We have Madam Chair, Ms. Adrienne Sandoval, and we also have Jordan Kessler.

The second person signed up to offer comment this morning who did not speak yesterday is Gil M. Sord. Are you with us, Gil M. Sord?

(No audible response.)

HEARING EXAMINER ORTH: No? Let me make just one call in the event you have joined us this morning, you were signed up to offer public comment, you haven't offered it yet and you would like to offer it now, in the event we have someone who rejoined us.

(No audible response.)

HEARING EXAMINER ORTH: No? Okay. In that case, I believe I asked the parties to get on by 8:45 so that we can begin our technical case. I see a number of folks already on, but let's just take a five-minute break, unless, Madam Chair, you have something you would like to discuss before then.

CHAIRWOMAN SANDOVAL: No. A five-minute break is

fine. Thanks.

HEARING EXAMINER ORTH: Thank you.

(Recess taken.)

HEARING EXAMINER ORTH: Good morning. We are back after a very short break following public comment this morning. We are on day four of the hearing in Case 21528.

My name is Felicia Orth, the Hearing Officer appointed by the Commission to conduct this hearing, the rulemaking. We have two Commissioners with us this morning, Madam Chair, Adrienne Sandoval there, and Commissioner Jordan Kessler.

The hearing is being electronically recorded and transcribed by Irene Delgado of Paul Baca Court Reporters. Our technical host this morning is Baylen Lamkin. In the event you have an issue with audio or visual issues on Cisco Webex, please communicate through the chat function with Mr. Lamkin.

When we broke yesterday afternoon, we had begun Mr. Bolander's testimony, but there is more to be had there.

Counsel, are there any preliminary issues before we return to Mr. Bolander? Ms. Fox.

MS. FOX: Madam Hearing Officer, I just heard from Mr. Biernoff that he is not able to connect, and I don't know if I should chat with Mr. Lamkin. I gave him Mr. Garcia's telephone number.

HEARING EXAMINER ORTH: Yeah, the technical hosts are on rotation. Mr. Lamkin, is that something you believe you can help Mr. Biernoff with?

MR. LAMKIN: Yes. I should be able to help. I can give Ms. Fox my phone number in a chat.

HEARING EXAMINER ORTH: All right. Thank you.

MS. FOX: Maybe, could I give you Mr. Biernoff's number?

MR. LAMKIN: Yeah, that works, too.

MS. FOX: It is --

MR. LAMKIN: Do you want to just send it in a chat?

MS. FOX: Sure, will do. Thanks.

HEARING EXAMINER ORTH: Are there any other preliminary issues?

MS. PARANHOS: Yes, Madam Hearing Officer.

HEARING EXAMINER ORTH: Ms. Paranhos.

MS. PARANHOS: Thank you. Yesterday you indicated that you would like the parties to discuss some suggestions ensuring that the hearing's completion by the 15th. I was curious when today you were planning on having us discuss that.

HEARING EXAMINER ORTH: Madam Chair, I would like as much of the Commission as possible to be involved in that discussion. Do you have a suggestion as to when we have it?

CHAIRWOMAN SANDOVAL: I can check and see when Dr. Engler may be able to participate today, and if not today, tomorrow, maybe, and try to have that discussion when he's on.

HEARING EXAMINER ORTH: Thank you for that. Ms. Paranhos, there's your answer.

MS. PARANHOS: Perfect, thank you.

HEARING EXAMINER ORTH: Are there any other preliminary matters we can discuss?

(No audible response.)

HEARING EXAMINER ORTH: Ms. Fox.

MS. FOX: I think the planning does bear discussion, and -- let's see, I'm a little bit concerned because it's Thursday and if we discuss this Friday, I'm worried about hard deadlines next Friday for us being able to put on our direct case fully.

And I just want to put a pin on that idea that I don't want extended cross-examination, for example, to interfere with our ability to put on our direct case if there is a hard stop at January 15.

That is my concern. I just want to note that.

HEARING EXAMINER ORTH: Okay. Thank you, Ms. Fox. Anything else? I don't see Mr. Biernoff on the line just yet.

MS. PARANHOS: Madam Hearing Officer, I just

wanted to concur with what Ms. Fox just stated. I am also concerned about the extent of cross-examination and the amount of time it's taking and absolutely do want to culminate this hearing in the time frame that the Commission desires. So when we are able to talk about it, certainly one of our suggestions would be for time limits on cross-examination.

HEARING EXAMINER ORTH: All right. Thank you. We may get to the point where we have to ask Mr. Biernoff to call in rather than come in on the computer. Mr. Lamkin, any progress?

MR. LAMKIN: He said that he thinks it's an issue with an IT permission on his end, so he said that he would join as soon as he can, but he doesn't want the proceeding to be held up.

HEARING EXAMINER ORTH: Thank you very much, Mr. Lamkin. We will proceed then. Mr. Ames, if you would, please, and, Mr. Bolander, if you can turn on your video.

Whenever you are ready Mr. Ames.

JAMES L. BOLANDER

(Previously sworn, testified as follows:)

CONTINUED DIRECT EXAMINATION

BY MR. AMES:

Q. Jim, when we stopped last night, I believe you were on slide 71; is that correct?

A. Yes, we had just finished definitions, and we would be moving to a slide that introduces Section 28.8, venting and flaring of natural gas.

Q. Okay. Then just proceed then.

MS. POLAK: Mr. Bolander, excuse me, this is Tiffany Polak. Mr. Lamkin, if you can allow me to present, I will share the screen with Mr. Bolander.

MR. LAMKIN: Give me just one sec.

MS. POLAK: Thank you.

MR. LAMKIN: I think you should be able to now.

MS. POLAK: I think you have to make me a presenter. Okay. There we go. Okay. And, Mr. Bolander, if you can just confirm I'm on the right slide you wanted.

THE WITNESS: Yes, that's it.

MS. POLAK: Great, I will get out of your hair.

A. All right. Yesterday evening we finished up, you know, kind of an overview for 28 as well as introduce some of the definitions which is the first main section of the rule.

The next section of the rule that I would like to highlight is Section 28.8.A, which also is consistent with Part 27. As you can see, for both rules it's the same language throughout.

Yesterday Matt highlighted all three sections of the rule spending significant time on the first top two

parts. I want to spend a little bit of time with the last sentence, and primarily the part that states that the operator shall flare rather than vent exception when flaring is technically infeasible or would pose a safety risk.

The first, you know, comment that I would like to make, and this is in regard to, you know, some of the discussion yesterday is the words "technically infeasible." These are common words. Actually this was pulled from the BLM Rule 3170, specifically in Exhibit 37. I'm looking down at my notes, so it's Section 3179.6, which is venting limitations. And also it's a term that's used to understand from an engineering perspective of what can and cannot be done.

And, you know, what I want to talk about here from a technical perspective is when is flaring not an operational recommendation. And, you know, the first one that comes up is when gas rates and flowing pressures are too low to ignite and operate a flare.

Second is when flowing conditions vary pipe flow which, you know, we'll talk about in more detail and counter that initial flowback stage that doesn't allow, you know, consistent flare operations; and third, when gas quality such as high nitrogen after hydraulic fracturing precludes ignition of the flare due to the high amount of nitrogen in the flow stream.

You have a few examples of these. And I will kind of, you know, on each area of the rule that we'll talk about drilling. In most cases in our drilling operations, I will go into more detail a little bit later, you know, we drill to where the idea is for gas and not to get into the, into the wellbore.

However sometimes it does, it happens while you are drilling. It's actually the drill porosity, and that gas is entrained in the mud system, but typically it's too small to capture and flare.

During completion, we have the initial completion which is the initial flowback stage. And you mentioned, you know, a few seconds ago talked about slow flow where slow flow results and where you have different flow regimes, where you are producing 100 percent fluid at one point and then a combination of gas fluid and back and forth, so, you know, operating a flare is rather difficult.

And then production, we will go into more detail, but you've got low volume pressure situations, gas quality issues, and in some cases such as we'll talk about in more detail where you have large changes in volume in which the flares aren't capable from a design perspective from managing that range.

And then, you know, we talked about the safety issue that when it's safer to vent, you know, would be well-

controlled conditions in drilling and such where, you know, trying to, you know, ignite a vent would cause a safety issue.

Tiffany, next slide, please. Thank you.

Here we kind of talk a little bit about, you know, these sections as we move into, you know, kind of the specific exceptions within the rule itself.

The first one is, we're in Part 27 where I mention that I kind of highlight, you know, some of the engineering aspects in Part 27. The first one is 27.8.B, drilling operations, and the first statement is, you know, operations must capture or combust if technically feasible using best industry practices and control technology.

And I kind of teased it up a minute ago with the previous slide, but when typically when we are drilling, we are drilling mud or drilling fluid which is an engineer mud system designed to prevent inflow of fluids into the wellbore. In this case what we are talking about is natural gas.

During the drilling process, as you drill the formation, you know, gas may become entrained in the mud system. It's separated at the surface, however, the volumes here are typically too small to measure and capture. You know, the one case where, you know, there would be that instance would be during a well control incident. And in

that case, you know, the gas is piped away from the wellbore, and at that point in time it could be flared. But in most instances, day-to-day drilling operations, the volume is -- the ability to capture and flare is technically infeasible.

As we move to completion operations, which is 27.8.C, which now we have added recompletion into that, the requirement here is described in three steps and the first one is, operators must route flowback to a separator as soon as technically feasible, which, by the way, is consistent with the definition of reduced emission completions in 40 CFR 60.5375 or 5375A, depending on the well pipe.

And what that means is, is when the well is capable of producing or capable of separation, and that is you have flow conditions that are stabilized and put into a separator, you do so when it's technically feasible.

Once you are in separation stage, that's when the operator has the ability to capture the separated natural gas, and you know, typically it goes into a sales point, BUT in cases where there is no sales available, this is where you have the ability to flare gas.

And what we have added to the rule is an additional completion time frame in the natural gas when the natural gas contains impurities such as nitrogen. Nitrogen will, in most cases in this situation, will come in the case

of nitrogen used as a frac fluid medium, h2s or CO2, and most of those are natural constituents in the gas stream. And, you know, pipelines have specifications that require certain limits on that.

I would like to move to the next slide if we could, Tiffany, what I wanted to do here is, is kind of concentrate a little bit on these steps. And you know, this is a very simplified drawing, you know, there are many pieces of equipment that we could have highlighted in here. And but I really wanted to concentrate on, you know, really what happens, you know, after the well is fracked. And in many cases, you know, we are performing royalty stage hydraulic fracturing, especially with the long laterals where we're, you know, fracking many stages, and the many stages, we are isolating those stages by installing plugs.

And then after that fracturing has occurred, the next step is to drill out the plugs and initiate flowback. And that's what that first block communicates is initial flowback. That's when flow initiates the -- typically you are flowing through a frac manifold which is nothing more than, you know, a set of choke to manage rate and pressure, and it flows directly, as you can see, into completion, completion tanks. And that's at a full well strength.

The issue that happens here on some of the intricacies of initial flowback is, you know, one of the

goals is, on flowback, is to recover as much fluid as possible and to get the wells to sale as quickly as possible. So we are flowing the wells back at high flow rate, many times in excess of 2000 barrels a day.

Second, you know, we talk about drilling out the plugs, so that's obviously that's debris that's coming back. In addition we also recover some frac sand, so all of that is coming back during the process. As mentioned before, you know, during this early stage until the well stabilizes, you have erratic flow, you know, resulting in, you know, slow flow which could create, you know, safety issues.

And, you know, we are already flowing back into enclosed frac tanks, and any attempt to try to, you know, capture at this point could cause excessive back pressure within the tanks themselves which, one, becomes a safety issue; and, two, puts an artificial back pressure on the well itself which could hinder and lengthen that flowback time.

Once the flowing pressure is sufficient for a separation stage, then we move from initial flowback to separation stage. And as you can see, here is where we separate the natural gas from the fluid, and the fluids are routed to a tank, and the gas either routed to sales if available or to a flare.

Also I would like to point out in this slide, as

you can see, in the initial flowback is the determination of is this waste or not. With the inability of being able to treat the natural gas, which is basically the first stage of separation, this stage in the initial flowback cannot be considered waste. So in terms of regulating, we are really looking at regulating the separation flowback, and we'll talk a little bit about that in more when we come up to the equipment standards when we talk about separation for completion and production equipment.

Next slide.

Q. Before we go on to the next slide, thank you, I wanted to ask you a question here. Your discussion regarding Sections 8.C or 8.B, C and D concern different phases of the development process for a well.

There are some definitions in 27 that relate directly to these phases, and I see that the Division is proposing some changes to those definitions. I think it would be important to discuss the purpose of the definitions and the changes that the Division has proposed.

MR. AMES: So if we could bring up Exhibit 2A, Brandon. Brandon?

MR. POWELL: I'm trying to get to it. When I first pulled it up, it pulled up everything.

I'm on 2A. Which part again?

MR. AMES: In the definition Section 7. You may

start right there for the moment. Let me frame the question for Jim.

Q. Jim, there are definitions in 7.D for completion, 7.O for production, and also 7.K, initial flowback, and 7.Q, separation flowback. Start where you would like, but if you could discuss each of those phases, the reasons for the definition, the beginning and end point for those phases and the proposed changes that the Division is -- the changes that the Division has proposed here.

A. Sure, Eric. Like I said back a minute, and even though you didn't mention this one is highlighted 7.E which is drilling operations, and really if you want to talk about, you know, how the regulation is set forth in Section 8.B, 8.C and 8.D you really need to begin at the beginning.

And drilling operations, as it states, has not changed in the definition. It begins when the well is spud and concludes, you know, after production casing has been cemented and tubing head installed.

And really the intent here is to provide that operational time frame, you know, when there could be, you know, natural gas, you know, venting events that could be occurring.

The next phase is completion operations, which is 7.D. And here we begin with a slight change in the definition. And, you know, really the change in the

definition was meant to kind of clean things up. We had these time frames scattered throughout multiple definitions, and through recommendation from one of the stakeholders, you know, of why we need, you know, all of those multiple dates, let's set, based on your definition, and if you are going to use a date, use it this one location.

So a completion operations begins with the initial perforation of the well, and concludes at the end of separation flowback, which I just explained what that phase was.

If you have -- Brandon, if you move down to Page 2, and in that -- there, thank you.

In that completion phase, we have two components of that. The first one is initial flowback which is the period that begins once flowback initiates and concludes when separation phase starts, which is when it's technically feasible for a separator to function.

Then we move down to Q, which is separation flowback. Here is where we have a slight change. One was to delete when permit production equipment is placed into service. And one of the primary reasons we did that is a lot of operators today are installing their production equipment prior to completing the well and using that during this completion phase.

So there was -- it was by putting that

requirement in there really made completion phase, you know, kind of non-existent. So we had to address that. It's a proper way to address the completion stage.

And then we kind of modified the date a little bit and put in there no later than 30 days. And then if you move up a little bit, same definition -- or the definition of production operations in "O" means the period that begins 31 days after the commencement of initial flowback and concludes when the well is plugged and abandoned. And as I described in Q, we deleted insulation of production equipment.

A couple of thoughts here that I would like to highlight within this from a timing perspective. If you look at -- I think, the original rule, Eric, is 19.15.18, which is production operations, and it regards completion, there the current time frame is 60 days. And in our revised version here for Part 27 we reduce that to 30.

We think through some of other areas within the rule, specifically the case where you have off spent gas, high nitrogen, CO2, h2s, which allows for, you know, up to additional time frame for the completion stage to get that gas quality into pipeline specifications. As well as on exploration wells where we allow the additional time frame for evaluation.

Really where this comes into play would be for

the development wells and with, you know, flowback techniques today, high flow rate or high flowback rates, most wells would meet the 30 day time frame, we feel.

Q. Thank you. Please proceed with your presentation?

A. All right.

THE WITNESS: Tiffany, if you could bring back the presentation.

A. All right. This next section is 27.8.B, production operations, and I can see one error within our slide in my presentation relative to Matt's presentation, and Matt explained it in his, and that is the very first number one has been deleted currently, and therefore, I wanted to highlight that that's an error in our slide presentation and it has been deleted from Part 27 in, I believe, Exhibit 2A.

I would like to highlight just one instance, and that is Number 3 to unload or clean up liquid hold up in a well subject to best management practices. When we talked about this, you know, in our language we highlight -- I'll have to look at my notes here, get down to that -- we highlight multiple categories regarding that.

We talk about manual liquid unloading. And manual liquid unloading is when a well has been shut in and that well is brought back and sent to either a production

tank or to a flowback tank to unload the liquids that are preventing that well from flowing.

During manual unloading, our requirement in the rule is that an operator/representative be on location during this event. The primary reason for this is that all wells, even the same well during this process may clean up at different times. It doesn't always happen where a well cleans up four hours every time you do it. So having the representative on location means that he's able, under best management practices, to put that well back into sales as soon as practical.

Other areas within here that we highlight are unloading events using plunger lift and auto controllers, you know, and these are considered, you know, normal operations in mitigated events to keep the wells unloaded.

All right. Next slide.

Q. Before you go on, I would like to ask you a question about an exception that appears in Part 27, specifically the exploratory well provision.

MR. AMES: Brandon, if you could bring up 2A again and go to Page 3.

Q. And while Brandon does that, Jim, you may recall that yesterday Matt testified regarding this exception, but he said that you might have some more information to provide the Commission based on your experience of -- and

explanation of how this provision is intended to work. If you wouldn't mind?

A. All right. Thank you, Brandon. There we go. What I wanted to highlight here specifically, you know, in this provision we're allowing operators, you know, to extend the flowback period for up to 12 months. And you know, it isn't -- it's in every operator's best interest to evaluate this well as soon as possible and have the ability to put it to the sales as soon as possible primarily to begin generating revenue when possible.

However, the way the language is written is, you know, we allow for this to be, you know, there's a time frame, you know, once the operator determines that the well is capable of producing in paying quantities, that is sufficient. Not, not a one (unclear) time frame, you know, when the operator has determined that he has a viable product, then they file a form C-129 and new management plan and time frame to put this well into sales.

The reason why we left this more, you know, open-ended and had this Section C is that, you know, this is really reservoir and well dependent. You know, for example, a gas well, you know, it falls under an exploration category. As a gas well your product is natural gas. So, you know, doing an extended 12-month period means you wasted a lot of gas, and you are going to attempt to evaluate this

well as quickly as possible and move on to the next stage.

In addition to that being a gas well, you have a much probably shorter time frame to evaluate this well, you know, using either decline curve, rate transient analysis, you know, multiple engineering techniques to evaluate, you know, the reserve component of this well and the ability to expand the reservoir.

For oil wells the difference specifically in shale wells where we started out with extremely high rates and very steep declines before we even get a chance to see the well decline and turn over to a base decline. So we allow for this time frame during this, this time period where you are extremely hyperbolic, which means, I guess, kind of like I explained, it's a decline from high rate, and then the well eventually turns over and has a natural decline rate.

Even with some of the engineering tools such as rate time transient analysis, you know, this could be difficult to determine in a short time frame, you know, so therefore we've allowed for more time for this evaluation to take place, you know, because at the end of the day the operator is looking at, you know, evaluating a new, a new field, a new formation, you know, that would be future development, you know, that they are considering.

Q. Thank you, Jim. Let's return to the slides. I

believe we are now on 76.

A. Yes. All right. Sorry, folks, we actually have it corrected here and unfortunately forgot to correct it in the other one.

What I wanted to highlight here is these are the the exceptions that are relative to Part 28, which is the natural gas gathering rule. And here we only have one section. We don't have the multiple phases of operation, so for the midstream operations exceptions, they're in 28.8.B.

As you can see they are very similar, almost identical in most cases to the exceptions that are located in Part 27. The only difference or the primary difference is the fact that in Part 27 we have well operations, you know that are unique to upstream that are not downstream. And, you know, so I wanted to cover that, kind of talk about the differences and why, you know, the rule itself has a slight little bit of difference in it.

Next slide, please.

Thank you. Now back to Part 27, you are going to see this throughout my presentation, and I will try to make note of when I'm either talking about both rules or each rule separately, you know, but I think it's key, you know, with what we are trying to do here.

And the very first one is completion and production equipment must be designed for maximum

anticipated throughput and pressure. You know, Matt highlighted this, and, you know, the very first, you know, comment is not properly designing your equipment can result in excessive volumes of waste.

One, undersized equipment will result in longer venting and flaring events. An example here would be to step back and look at the completion phase, and you know, properly designing that separation stage and completion to be able to place that well into the separation stage and either into sales or be able to flare sooner rather than later, you know, operators today are doing that.

We've got, you know, instances that kind of stepping back, you know, from personal experience at Southwestern Energy, you know, we basically redesigned our production equipment to be able to handle volumes up to 2000 barrels a day. We were able to reduce our initial flowback period that were days down to less than, you know, 24 hours, therefore recovering the natural gas. In this case it was a gas reservoir so it made perfect sense for us.

And in the case here, there is going to be cases where that's going to be the same as well. The other aspect of this, and, you know, we talk about this and there was discussion yesterday about designing your (unclear) on the production side, and there was discussion yesterday about designing or maximum -- I'm trying to think. If you don't

mind, I would like to look at the language in Part 27 that was talked about in 8.A, maximize the recovery of natural gas.

And here what I would like to talk about in number one is maximize recovery from the well. And, you know, as a complete -- as a completion production engineer, that's what my focus was.

And in this aspect I want to talk about what is considered a best practice, which is to evaluate your reservoir, your hydrocarbons based on a change of state or phase behavior and the ability of maximizing your recovery through separation stage design by having the ability of designing your production equipment by taking an additional separation stage to stabilize your hydrocarbon, recovering more oil or condensate, minimizing the flashing that could occur in the tank which is wasting natural gas through better equipment design and engineering.

The next discussion I would like to highlight -- I'm sorry, stay on the same slide, please -- is automatic gauging equipment on you storage tanks. And this will allow operators to gauge tanks without opening the safe hatch. And the way the language is written is the way that it's being installed on tanks that are either routed to a flare or routed to control equipment.

What that means is that these tanks are already

flashing excess gas, therefore that's why they are routed to control equipment and/or a flare. So using manual gauging, which is physically opening up the safe hatch and gauging it, manually gauging it, means that excess or excessive gas as defined by the regulation and by the statute is being wasted. Therefore, we are asking that, you know, operators on new storage tanks that meet these conditions install automatic gauging equipment.

The third component is flare stacks. And what you've seen throughout the rule, we have had some deletions and, you know, mentioning properly sized throughout every step of the rule, we move this back to equipment performance standards.

So flare stacks are to be properly sized, which means, based on their gas composition, volume and pressure ranges, and be equipped or retrofitted with an auto igniter or continuous pilot.

These are two separate things. A continuous pilot requires that the flare have a separate ability to maintain that pilot. In other words, it stays lit regardless of whether there is gas flowing to the flare or not. And the auto igniter requires some sensing device to ignite the flare if it goes out.

And then the fourth is the exceptions which Matt talked about in detail yesterday.

Now we can move to the next slide, thank you.

Here we talk about the equipment performance or performance standards relating to inspection or AVO And what we did here is modified the July draft to be consistent with the proposed NMED AVO language that was proposed back in their original draft.

As inspection lists in the language and as the definition of AVO is, it requires such a facility be inspected utilizing three senses, site, sound and smell, to inspect externally, not any internal, for leaks or releases of natural gas.

One of the things that I would like to emphasize is this inspection is not (unclear). This is not leak detection repair, which is part of the air emissions requirement that NMED will be regulating. This is simple AVO which normal operators perform on location when they are out there.

It is not meant to be a robust system using optical gas imaging equipment. It's not meant to be a robust inspection and repair and reporting requirement, as you will hear later specifically probably from Brandon, you know, what the Division will be asking for is, is you perform the inspection, did you find any deficiencies and what were they. And even then we are not requiring that you submit anything, only that it be available.

We added a new section within equipment performance standards, and this is the ability to use automated monitoring technology in lieu of AVO. And this came as a recommendation from one of our stakeholders from industry. And what this allows for is many operators today are installing scada-type equipment, which is automatic monitoring equipment that they can monitor off-site, pressures, weights from multiple low points within the facility and wellsite.

And what this does is it allows you to monitor the site's performance as well as -- as well as help, therefore if you see any changes, it allows you to address that change immediately, you know, as opposed to having an operator on a normal route he can review his morning report and know which wells need to be addressed immediately.

So, therefore, this type of technology may be submitted to the Commission or to the Division for review and used in lieu of AVO.

Next slide, please.

I would like to move, now moving over to 28, Part 28, similar section that we (unclear) operation standards. And the reason being is that we have already talked about equipment in Part 28 if we did have, where we do have notices of equipment, we refer back to Part 27, but we want to highlight in Part 28 some of the operational performance

standards.

The very first one is that an operator must submit to OCD and implement an operations plan to reduce and minimize leaks and waste. We were specific that the rule does not recommend or the rule recommends but does not require specific procedures and methods, but we highlight, you know, some that we feel are used today by many midstream operators who to maintain the operational ability of their pipelines and facilities.

If you remember back from the July draft through the October draft of this rule, we removed, I would say, close to eight to nine sections within the rule. And after further discussion with our legal counsel, as well as counsel from industry, we realize that these sections were pre-empted by the Federal Pipeline Safety Act, and so therefore it was correct to remove them from this rule as that the Division did not have the ability to regulate those requirements.

Next slide, please.

The next slide highlights a few categories within the rule. I can probably put these into two categories, the first two being C.2 and C.3. They are very similar, but there's a little bit of difference now.

C.2 regulates scheduled maintenance with prohibiting venting and requiring that operators bring a

portable flare on location to be able to flare the gas. Or 28.C.3, this is during unscheduled maintenance or emergencies that require maintenance that we are asking for a similar provision unless flaring is infeasible or poses a safety risk.

Also a part of this is the consideration of operators use best practices. You know, for example, during our blowdown or to perform operations, you know, to reduce the line pressure prior to performing scheduled maintenance, therefore minimizing the amount of vented or flared natural gas.

The next two categories are C.4 and C.5. C.4 corresponds to the weekly AVO inspections that we have highlighted in Part 27. And this is specific to the associated facilities associated with midstream operations, specifically compressor stations, treatment facilities and such.

The last one is for pipelines specifically, and it's an annual monitoring of the entire length of the gathering system. This can either be done through AVO, you know, for example, operators get on an ATV and driving the length of the section, could be performed by the use of one of the approved alarm technologies or other valid technology detection such as smart (unclear) and such.

So this gives the operators the ability to, you

know, perform these inspections using various techniques.

Tiffany.

We highlighted -- matt mentioned it, and I mentioned it in my overview that we have a couple of new sections which are kind of unique to Part 28, and this is one of them, and this is a requirement for midstream operators to notify affected upstream operators in advance of maintenance, whether it's scheduled maintenance or unscheduled maintenance.

And the reason for this is that by making that notification, it allows upstream operators to put plans in place to allow them to reduce their potential venting or flaring due to the shutdown or pressure increase that they may be experiencing.

It allowed them to put their plans in place to basically affect their operations. It's broken down into two categories. The first one is scheduled maintenance and requires, you know, midstream operators to notify upstream operators that are on their system within 14 days' notice.

The second is for emergencies, unscheduled maintenance, or for malfunctions. And this is for a 12-hour verbal notice, and then 24-hour written follow up of the unplanned event. The second notice is probably the most critical as these are the ones that are unforeseen by the midstream side as we talked about in the definition of

emergency, and also has probably the greatest effect on upstream from a timing perspective to allow them to effect what they can do within the time period allotted for them and their definition of emergency.

Next slide please, thank you.

Now, I'd like to highlight a little bit on, you know, measurement. And, you know, Matt highlighted all the sections well. What I'm going to talk a little bit about here is what's required, you know, requiring meters to measure volumes of natural gas if practical, and we allow estimations of volumes of natural gas if it's not practical to be able to do so.

A couple of changes, but this may be a good opportunity, Eric, for Brandon to pull up, I believe it is 27.8.F, if you don't mind. Thank you, Brandon.

The part I wanted to highlight here are some changes that we made within the, you know, from the October draft, and really even highlight some of the changes from the July draft.

The July draft, you know, in terms of measuring equipment, you know, really the language, you know, that we highlight were very typical to the use of orifice meters standard throughout the industry. You know, comments we received from industry regarding that was that, you know, point blank, orifice meters have a small range of accuracy

and that they really need the ability to have the -- to use additional types of a meter such as thermal mass or ultrasonic within that.

In our October language, you know, we actually spell that out. Didn't pull it up as a -- as one of our exhibits since we deleted it, you know, but some of that original October language, you know, we pulled from the Texas Railroad Commission, which I believe it's their Rule 26, you know, where they kind of use some of that language and spelled out various technologies and such.

But the change from October to date was a little bit more specific, and you know, this was an industry request and that basically we are asking that industry conform their measuring equipment based on this API measurement standard.

And what's unique to it is that it's unique to the measurement of flow of flares, and in it, it highlights all of these various technologies and what are the pros and cons of each. So by making this change, it actually was a more appropriate reference to make within this, within this regulation.

You know, while we've got this up here, you know, I can talk a little bit about some of the other, you know, comments that are comment changes that we have specifically at 5, you know, where, you know, we spell out that if, you

know, circumstances are such, such as low flow rate or low pressure, you know, where you have venting and flaring, operators may estimate, you know, using methodologies that can be independently verified.

And there are multiple sources for this type of calculation. You will hear probably from some, and also there's use of EPA calculations and factors. We'll talk a little bit in the future about modeling techniques that can be used specifically around flash modeling, but there are ways of being able to do that, and the ability to put side bores on use of specific or a specific pressure or a specific rate really would be putting too many side bores due to technological changes and the ability of what you are able to do.

I feel like we hopefully have captured some that have with our Subsection Number 7 which gives the Division the ability to request from the operator additional equipment if it deems fit.

In addition to that, we talk about, you know, the the use of gas oil ratios for wells that do not have measurement equipment, and this would be the case where you have older facilities in which multiple wells are coming into a central facility, and these wells are performing annual gas oil or GOR tests, which is currently regulated by the Division and it's Rule 19.15.18. And these reports are

filed annually on its form C-116 which is a requirement by the state currently today.

If we can go back to the slides, Tiffany, that would be great. And next slide, thank you.

You have seen this slide. I don't want to spend too much time on it, but there were some significant changes that were made from July to today, so I thought it would be, you know, efficient to readdress it, you know, with the fact of, you know, what we were trying to do. You know, from the July to October draft, you know, there was a sense that this new requirement of notification of reporting venting and flaring events was going to be excessive.

There was already a rule, Rule 29 and a form C-141 that would be required. And so what we -- the main goal and there revisions here that we put forth in the October draft was to really bring these two rules together and to separate the events.

The new Rule Part 27 and Part 28 and their respective sections require releases regarding gas releases and the filing of a form C-129. Whereas liquid releases will remain under Rule 29 in a form C-141, the reporting criteria and thresholds are now in conformance with Rule C-141 or with Rule 29.

So really all I wanted to do with this slide is kind of reaffirm, you know, the requirement as -- because

it was a pretty significant change, you know, between the two drafts.

Okay. Next slide, please.

What I want to do here -- and at some point, Eric, I may ask Brandon to bring up this particular section, but for right now let's keep this up.

Matt, in his testimony, you know, talked about this report about the reporting of categories which in part 27 is 27.8.G.2, he talked about the fact that we, you know, remove certain sections. And in one case we added a section which was exploration wells, and you know, we do so for the ability of making sure we are capturing the right level of detail, you know, for the Division to be able to evaluate the efficacy of the data that they are getting and that the reporting of venting and flared data is accurate.

You heard from Tiffany in her presentation. You heard from Matt in his presentation, and I will reiterate it, and we can pull up the same pages from the map report as well where reporting and accuracy was one of the key issues.

What we have done here is talked about some of the deletions and revisions that we made. I'll put this in a couple of categories, and although I won't highlight each of these, I will talk about a couple.

The first one is non-scheduled maintenance and equipment malfunctions. This was an area that we felt that

we could combine these events and put them under one category, thus eliminating the reporting of two categories.

The next two categories, drilling operations and completion operations, the first one, drilling operations, we talk about that a little bit. One, with the way drilling operations are reported, you know, we want to make sure that we are capturing, one, venting and flaring events that are considered waste; and, two, what are potential volumes under drilling operations and normal drilling operations where your system is such that there is no in-flow, all you are getting is entrained gas from the mud system. These volumes are much too small to be able to capture and measure.

For the completion operations what we have done is deleted the volumes prior to separation for a couple of reasons. One is that, you know, the safety aspect of being able to capture and separate, and the other, I do mention too small to measure. In some cases that will be the case, especially early. However, there will be some cases where the volumes right before separation are such that could be -- that are sufficient.

However, the methodologies of trying to estimate are inadequate at best. During this stage you are looking at choke flow, and choke flow, if it was a, you know, single phase -- and what I mean by single phase, gas only -- can be estimated accurately.

However, prior to separation, we've got multiple phases of fluid. And when I mean fluid, it means gas, water, oil, and trying to calculate a gas volume in multiphase flow is highly inaccurate.

The third category I would like to highlight is pilot and purge gas. And the reason why we deleted that is currently today in operator C-115 reporting, which is the current reporting mechanism, these volumes fall under lease use, also known as beneficial use in some cases.

The other two categories we deleted were Bradenhead and packer leakage tests. Similar to drilling operations, these operations do not constitute waste, and also these tests are extremely short and the volumes are typically too small to measure due to pressure and volume.

I would like to highlight exploration wells. The reason why we added this in is because, A, we have been given the exception in Section 8.D, as well as in, you know, mass presentation in the accounting section.

And without adding this category, this section would have fallen under the category of, of producing due to lack of, you know, sales line or contract or what have you, but adding this category allows for operators to report this volume for wells that have been approved as exploration wells be able to account in their accounting methodology.

I need to take a quick breath. We can move to

the next slide.

Q. Jim, before we do that, we want to go back to the previous slide and finish up -- you had started this slide with a reference to Exhibit 2A and Brandon bringing that up. I think now would be a good time to do that.

A. Okay. Well, thank you.

MR. AMES: If we can go to the G.2.H, Brandon, on Page 6.

A. Thank you.

Q. So yesterday, Matt explained this provision in some detail. It -- the Division has proposed to split the H category of reporting into two subparagraphs, one dealing with N2, H2S or CO2, and the other with respect to O2, and then treat them differently for purposes of accounting.

Can you explain why the Division is proposing to split this category and why it's proposing to treat the two categories differently, in particular, the first category H.1 would not be raised, but H.2 would be.

A. I will do my best, Eric.

If we look at this, I kind of mentioned it earlier, you know, the contaminants of nitrogen, H2S which is hydrogen sulfide, or carbon dioxide, CO2, two are naturally occurring CO2 or H2S. H2S can be placed into the wellbore during the stimulation process, however, operators do their best by adding biocides and such to minimize this,

but it still becomes an issue.

And then nitrogen is a known, known use for as a hydraulic fracturing fluid used as a foam, specifically in areas probably in New Mexico, predominantly in the northeast and the gas reservoirs. And nitrogen is used either in low pressure situations because it's, it's a liquid, but it flows back as a gas so it aids the liquid recovery and/or where the formations are sensitive.

Oxygen is another category. It was mentioned yesterday by Mr. Feldewert that it's introduced in various, you know, operations practices. I think we, in our section in 8.D where we have added commissioning of facilities, I feel comfortable that we have addressed the purging of facilities of oxygen, and that will be placed as soon as possible, once that purging has occurred, to eliminate that purging as being reported here under H.I.2.

Other kinds of oxygen being introduced into the operations could be done to faulty equipment. So therefore, there is, for lack of a better way of putting it, you know equipment, monitoring equipment performance where this could become an issue.

There are operational activities that occur, you know, for example, when we're, you know, jetting a well in with cold tubing, you know, using nitrogen, you know, air is going to get in the system.

Also, you know, we use, instead of foaming with nitrogen, we may foam with air, you know, to clean out. However, in these situations we're not introducing the air into the reservoir. So therefore, when we are finished with these operations and we had the ability to resend flow, and the ability to resend flow to put back into a pipeline, in my experience, the flowing conditions that allow me to now get into the line pressure are through my equipment and into the line pressure in which the well has the ability to flow, the oxygen has already cleared the system.

So, therefore, you know, yes, there are cases where oxygen does get into the system, but we're feeling like, from a pipeline quality specification, you know, where a transporter is going to call me and tell me, "I've got too much oxygen in the system," it's going to be an extremely rare event and more than likely it would occur due to equipment issues as opposed to any operational concerns based on my prior experience.

HEARING EXAMINER ORTH: Mr. Ames, if you would, identify a natural point for a break sometime soon. It doesn't have to be now, but sometime soon.

MR. AMES: We are nearly done with Jim's presentation, so if we could continue for ten more minutes or so.

HEARING EXAMINER ORTH: Certainly, thank you.

Q. Back to you, Jim.

A. Yes, Tiffany, if you could put the slides back, please. Thank you. Next category, thank you.

This is kind of summarizing some of the changes in Part 28 for natural gas gathering systems or midstream facilities. And here we were able to reduce the reporting categories from 15 to 10, utilizing, you know, the same evaluation that we did in Part 27, where, A, we were able to combine systems, recording to the Division will be new for midstream.

We were able to create an entire beneficial use category and were able to put all, you know, categories that would be reported under this, under 1, you know, as opposed to separate. So here we were able to separate and decrease theirs from 15 to 10.

While this will be new for midstream reporting, I feel like, you know, many operators already have a leg up on this because many of these categories are currently being reported, you know, by midstream operators under the EPA Subpart W. So they are familiar with the categories and the methods of being able to calculate these venting and flaring categories.

Next slide, please.

This is the -- oh, sorry, forgot I had a slide in between. Unique to 28.F, and we highlighted it in Matt's

discussion, I want to go on a little more detail here, because it is a departure with how we are asking midstream operators to report their lost gas in both volumetric and percentage basis.

Originally we had them calculating their gas loss from basically the point of custody transfer to the end point of where that gas would be delivered, such as transmission.

So we were asking them to calculate that gas loss across the entire gathering system. And, you know, thanks to discussions with industry, and you know, kind of from background working at Southwestern Energy and having our own midstream company, you know, we kind of realized, you know, there are processes that go on within the midstream gathering system that really will cause a reduction in volume from Point A to Point B that aren't lost gas.

Many of these advances during that, during that process are going from Point A to Point B is you have a gas stream that's not a hundred percent methane, contains higher (unclear) higher carbons that as flow conditions pressure drop occurs these liquids fall out, they are captured in the associated facilities what they call shrinkage to occur, also during the treatment process at these treatment facilities of removing CO2, removing other impurities also shrink the volume of natural gas.

These aren't losses. These are just natural processes, but it causes the volume from A to B to be less than that isn't venting and flared natural gas. So what we have changed here is that the natural gas volume that would be used on both the enumerator and denominator is natural gas gathered. And that's the natural gas gathered at the custody transfer point, and then based on the reporting categories that we have talked about, those will be the volumes that will be used to subtract and/or exclude if there is an exception in the calculation of lost natural gas. Thank you.

Next slide, thank you.

Don't get ahead of myself -- my notes. We talked about two sections that we added to Part 28. We talked about the reporting to affected operators, and the second one is location requirement, and how unique it is to -- for Part 28. And that is a requirement of natural gas gathering system operators to file a, a GIS digitally formatted as-built map of their new and existing systems to the Division.

I think it's important. I want to actually read the objectives here because I think it's important that we really understand why this requirement we are asking for.

You know, we feel like it's a fundamental requirement for OCD to know where these gathering lines are

located, who owns and who operates them; two, to allow OCD to track leaks and identify gathering pipelines that have repeated incidents; and, three, it improves OCD's ability to respond to leaks and assist response by local emergency management agencies if warranted.

Now let's go into the details, which is the next slide.

There are several requirements within the rule itself. The first is that operators are required to submit their GIS maps for new and existing gathering lines by time frames based on, you know, if they are new or existing and such, and you can see within the slide what those time frames are.

Second, is a requirement that on the map to give OCD an understanding is, you know, what size is that pipeline, is it four-inch, is it eight-inch, what's it constructed of, is it steel or is it poly.

Also a section of this is an update maps annually that will include the location and volume of vented and flared gas for releases reported under Section 28.F.1, which, if you remember, that is the reporting of emergencies and releases that are filed on their form C-129.

And as we noted that many of these pipelines, you know, are large, carrying, you know, large volumes of fluid and natural gas, natural gas since that's what we are

talking about, we want to make sure that the Division acknowledges the potential for confidential information and allows operators to assert confidentiality pursuant to existing laws.

Now that concludes all of my sides. I wanted to highlight a couple of things. You will see I didn't really comment about the natural gas or the statewide natural gas capture requirement, mainly because Matt did an excellent job of explaining it. Also mainly because for natural gas gathering systems, it includes the same components.

It requires meeting a 98 percent capture rate in two distinct areas. It has, you know, ability to work with operators in acquiring when they acquire midstream facilities. And there is an accounting system that mimics Part 27, including the alarm technology and credits.

What it doesn't include, is the natural gas management plan, as, you know, for midstream facilities, you know, if it didn't fit with what we were trying to accomplish with minimizing waste within the state.

So in hindsight or summary, I guess would be the right word, I feel like what we talked about in Part 28, you know the components of the rule are designed to where they should meet the main objectives of reducing waste, improving measurement and reporting and meeting the gas capture requirement of 98 percent for midstream operations. And I'm

that (unclear).

Q. (Inaudible.)

A. Yes.

MR. AMES: Excuse me, Jim. A couple of sentences were very garbled on my end. Were they garbled for the hearing officer?

HEARING EXAMINER ORTH: They were not garbled for the hearing officer. However, your first few words were garbled, Mr. Ames. And now you are frozen. It may help if you turn off your camera briefly.

MR. AMES: His last comments were garbled. Did the court reporter hear them clearly?

(Discussion with reporter about audio.)

MR. AMES: Okay, thank you.

Q. Jim, I believe you have concluded your testimony. Is that right?

A. That's right.

Q. We have one last piece of housekeeping here. In preparing your testimony, did you reference a number of documents which OCD has identified as exhibits in its prehearing statement?

A. Yes, I have.

Q. Would that be OCD Exhibits 32 through 53?

A. Yes, they are.

MR. AMES: Move admission of Exhibits 32 through

53.

HEARING EXAMINER ORTH: I will pause a moment in the event the other parties have objections.

(No audible response.)

HEARING EXAMINER ORTH: No? Okay, OCD Exhibits 32 to through 53 are admitted. Thank you.

(Exhibits 32 through 53 admitted.)

MR. AMES: That concludes our examination of Mr. Bolander and we will pass the witness.

HEARING EXAMINER ORTH: Thank you. We will take a ten-minute break, and when we come back I will ask Mr. Feldewert if he has questions of Mr. Bolander, thank you.

(Recess taken.)

HEARING EXAMINER ORTH: If you would, Mr. Feldewert, do you have questions of Mr. Bolander?

CHAIRWOMAN SANDOVAL: Ms. Orth, before we start real quick, Dr. Engler is expecting to be able to be on this afternoon at some point, so whenever he is, he didn't have an exact time, but it sounds like we should be able to discuss the schedule this afternoon.

HEARING EXAMINER ORTH: Terrific. Thank you, Madam Chair.

MS. FOX: Madam Hearing Officer, you did not see me waiving my hand. Just one procedural point, if I could, before we start with this witness. For tomorrow morning, as

you know, counsel has agreed and the hearing officer has agreed to allow Ms. Della Begay to testify tomorrow morning because of her schedule, and I was wondering it would be all right to schedule for her convenience. I'm suggesting that she begin first thing in the morning at 8:45, if that's acceptable to everybody.

HEARING EXAMINER ORTH: I would propose the same thing, actually. At the moment, we have just one or two public commenters, so we might even slide that back toward 8:30 because each of the public commenters can only take two minutes, and at the moment I think we have just one, so I would say immediately following public comment.

MS. FOX: Okay. I think that's fine.

HEARING EXAMINER ORTH: All right. Are there any objections to that from anyone else?

MR. AMES: No objection, Ms. Orth.

HEARING EXAMINER ORTH: Thank you. If there is nothing else, we will turn to Mr. Feldewert's questions for Mr. Bolander.

CROSS-EXAMINATION

BY MR. FELDEWERT:

Q. Good morning, Mr. Bolander. Can you hear me okay?

A. Yes. Good morning to you as well.

Q. I'm going to share here. Can I share content?

A. Yes.

Q. Mr. Bolander, I have attempted to put up, I think, what you referred to as your Slide 85.

A. Yes.

Q. Okay. And then you state in here, you discuss that the Division modified the rule, and you are talking about 28.8.F.3 to address some concerns about the calculation of the, of the lost gas percentage; right?

A. Yes, for midstream operations.

Q. Okay. And I appreciate that, but then when I went to the language, okay, so I'm going to go to the language now, Mr. Bolander. So I'm going to look in what's Exhibit 3A, and I'm looking on Page 5, and I'm looking at that reference here, 28.8.F.3. Do you have that in front of you?

A. Yes.

Q. Okay. And I think I can -- I just brought it up on the screen. I don't know how well anybody can see it, but I brought it up on the screen. Can you -- can you explain to me what language was added to address what you discussed here, because I don't see it?

A. All right. Let me --

Q. In other words, I understand the effort, I'm not sure the language.

A. Right. If you don't mind, I'm reading it.

Q. Totally understandable.

A. Yeah. Okay. (Reviewing document.) And had to read all the way through the 3, if you don't mind, and 3.A -- 3.A is calculating the lost natural gas on a volumetric basis. So what is, is it totaling up the categories reported on the C-115 B form that will be created with the ability to deduct use of beneficial use, emergency, from that volume. The ALARM credits, because they will be infrequent, we deleted from here and moved them specifically to the accounting category in the statewide gas capture requirement accounting section.

In 3.B we have to calculate the percentage loss is, if you look at -- hopefully what we were trying to accomplish is that last statement in 3.B, which is to subtract the gas loss that we just calculated in 3.A from the total volume of natural gas gathered and then divide that by the total volume of natural gas gathered.

So as mentioned, natural gas gathered will be in both the enumerator and the denominator. With the enumerator you are subtracting goes loss, so therefore, you know, that will give you your gas capture percentage. And the main change was to prevent going through that entire, through the entire system.

Q. So what language change occurred that accomplished that goal of what you -- I think you testified

taking into account shrinkage and things of that nature.

A. Correct.

Q. What language did that?

A. Well, what you are seeing here unfortunately is the October draft and not any changes that have been made since October. You are not seeing the redline from July in which -- that's the difference is looking at the July, where, in July, you had the entire system was evaluated.

By only looking at the gas that's gathered, which is the gas that comes in from the custody transfer point, you don't need to consider all the shrinkage that's accounting in there. So therefore, all we're doing is taking what's -- the volume that's been gathered, and then subtracting the categories from the C-115 B report and then calculating it, dividing that by the volume of natural gas gathered, which is before any shrinkage occurs.

Q. All right. You were referencing then was something that occurred after July, not, not to the one -- to the language that was actually published?

A. In October, correct. And that was based on, yeah, NMOGA's comments after the July draft was made and then subsequent stakeholder meetings that went through that process with us, and that's why we made that change there.

Q. I understand, okay. All right. Then I want to touch briefly on -- you mentioned the allowed venting and

flaring under 27.8.F -- I'm sorry -- 27.8.E.

A. Yes.

Q. So now we're in OCD's Exhibit A, and this is, to put it in context, you were discussing the fact that the new draft of the rule essentially penalizes operators if gas fails to meet pipeline specs and as a result is vented or flared. What I mean by penalizing. Is any volumes vented or flared because of oxygen content is counted against the operator for gas capture; right, Mr. Bolander?

A. Correct.

Q. But if it's vented or flared due to other contaminants in the system, it's not counted against the capture?

A. That is correct.

Q. And you mentioned the allowance here under venting and flaring for the commissioning of pipeline equipment or facilities?

A. Yes.

Q. And it says for as long as necessary to purge introduced impurities from pipeline or equipment?

A. Yes.

Q. Okay. So is it your position -- I guess what Commissioner Sandoval was addressing yesterday is, do you believe that this allowed venting and flaring, first off, if it's under the commission view, would not count against the

operators?

A. Yes, sir.

Q. Okay. Is it your opinion that this would allow venting and flaring as long as necessary to remove oxygen as a result of commissioning?

A. Correct.

Q. So even if you finish with the purging process and you are now in the process of reconnecting the equipment to the sales point, if it still has oxygen because of this commissioning, you would be allowed to vent and flare as a result of this provision, L?

A. During that short term that that occurs. Unlike the conditions of nitrogen, CO2 and h2s, that will be a shorter time period of venting or flaring, as per our language that we have introduced and added here, that would be allowed.

Q. Okay. So it's -- so in other words, this allowed venting and flaring is not just limited to while you're actually commissioning the equipment, but then as long as it's necessary to remove the impurities even after you hook up to the system?

A. Correct. And as you stated there, it has to be done before you actually connect to sales correctly.

Q. Well, is there a possibility that after you do this commission and after you do this purging and you

connect to the sales line, isn't there a possibility you are still going to have oxygen in the system?

A. In my experience I haven't seen where it exceeded oxygen levels to prevent going to sales, you know, but I can't say that I worked in, you know, every single basin in the United States, but the ones that I have, you know, this period of the commissioning has been such that it's been able to clear any impurities to be able to get into the sales system.

And we feel like this was a -- this was an add that came from your December prehearing statement, and we felt, you know, once we evaluated the language and what the intent was, it was a -- it was a necessary add because we know that during the pressure testing and hook up and all of that equipment that that does occur, and we wanted to acknowledge that.

Q. So just to be, if there is oxygen in the gas stream after the commissioning of pipelines or equipment, and you are required to flare as a result, that would be excused under this Subpart L?

A. Yes. If it comes from, if the oxygen was introduced due to the commissioning of the pipeline or equipment or facilities, that would be allowed.

Q. Okay.

A. Anything outside of that is not.

Q. And the reason here is because it's an operation -- it's a necessary operational matter?

A. Correct.

Q. And it's, it's not as a result of operator error or poor maintenance or anything like that?

A. No, it's a part of normal operation. As a matter of fact, it's part of most company's best practices to install and pressure test and make sure there is no leaks within the system before they are placed into service. So it's a normal part of a good company's operational practice.

Q. And Mr. Bolander, if there are other instances where oxygen is introduced into the gas stream as a result of normal operations, shouldn't that likewise be excused and not counted against an operator?

A. In my experience, and as I, you know, highlighted in my testimony, cases of that would be cleanouts and such, and since you are not introducing oxygen into the formation, by the time that the well is capable of flowing into the system, the oxygen has already been cleared, and if that's not the case, then I would argue that it probably would be due -- would have occurred to, you know, not following best practice management practices during cleanout.

Q. Okay. I want to ask you about one of your slides. Going to go to Slide 83, okay?

A. Okay.

Q. Now, you mentioned the completion process.

A. Yes, sir.

Q. And you discussed the initial flowback time frame.

A. Correct.

Q. And if I understand it from your slide here on completion operations, the Division recognizes that during initial flowback there is going to be some, potentially some venting of gas; correct?

A. Yes, sir.

Q. And that, is it also true that that venting is usually for a short period of time and so you can get a separator in place?

A. Yes. So if you designed your separator properly to be able to initiate reduced emission completions, which is required, then yes.

Q. Okay. And you mentioned here in your slide that there is no methodology to safely capture the initial flowback until you have separation in place?

A. Yes. I am concerned with that, I do know that Colorado did make that change to require that. However, I have some concerns with that from my background in operations and HS&A that that can be done safely in all cases. Not to say they can't be done, but to make it a normal part of a regulation does give me some concern.

Q. So it's not something based on your experience, Mr. Bolander, that you would recommend at this point in time?

A. Correct.

Q. Okay. I want to ask you about AVO inspections, okay? So I want to jump up here to Slide 77.

A. Okay. I'm moving with you with my copy of the rule, if you don't mind.

Q. That's fine. I think that would be great because here you are talking about 27.8.E, but I really want to focus on the statement here, and I think I'm on the right slide. You say that there are provisions in the rule addressing AVO inspections where the Division is suggesting weekly; right?

A. Correct.

Q. Okay. And you indicate that the Division modified the rule to conform with NMED requirements. Are there -- are you suggesting that the current NMED requirements impose weekly inspections?

A. What that is meant to mean in the slide is that the original draft of the NMED language set forth specific requirements that should be performed during an AVO inspection. And in our language specifically beginning in E.R.A, all the way through 5 -- yeah -- 5.A little 3, all of those, that language we, you know, in our collaboration with

NMED, pulled that language from their draft to be specific.

The one thing we added was the external, which was a recommendation from NMOGA.

Q. So my question on your slide here, the suggestion the NMED currently requires weekly AVO inspections; is that correct? They don't currently require AVO inspections, do they?

A. I'm not sure what they require. We wanted to conform with the specific language on, you know, what that inspection entailed, not the timing of it.

Q. So I guess my question to you is, are you aware of any current AVO inspection requirements that are weekly?

A. Of any regulatory requirements that are weekly?

Q. Any AVO.

A. AVO inspections, not any regulatory, no. However, I would say that most companies, lease operators, every time they are on location probably perform one. The only thing that we are asking is that, you know, if the well or facility conditions meet, that they just check a box to say that they performed one, and if they found any issues, make note of it.

You know, as I mentioned, you know, we did not want to because we know that we are dealing with waste and not air, you know, we -- hopefully in my testimony it came across this is not a leak detection and repair program

because we know that's out of our lane.

Q. On that point, I wanted to ask you about another slide, Slide 78, okay? So I'm going to -- yeah, Slide 78, the next one.

A. Yes.

Q. And you are referencing the current requirement in the rule under 28.8.C.1 which is labeled, I believe, performance standards?

A. Correct.

Q. And that the operator, this would be a gathering operator, would implement and operate this plan?

A. Yes, sir.

Q. And if I go to the language, you see it's turning on Division, on the Division's 3A, the bottom of Page 2, that's the performance standards and it goes over here in C1; right, Mr. Bolander?

A. Yes, sir.

Q. Okay. Now you mentioned that this is a particular area that is governed by other state and federal agencies?

A. All the sections that were removed, yes.

Q. Okay. Would you agree with me that, that issues such as the cathodic protection, corrosion control, I'm looking at the language here, liquids management, tech management, those are areas that are governed by other state

and federal agencies?

A. In a robust safety plan, yes. However, if you, you know, read our language, we're not requiring those, we are suggesting those --

Q. Okay.

A. -- as guidance. I would, I would, if you don't mind me characterizing this section --

Q. Well, let me ask a couple questions first.

A. Please do.

Q. In light of the fact that this is an area governed by other state and federal agencies, what does the Division plan to do with the plan once it's submitted?

A. One, they will have it on file, and they will be able to review, you know, with the sections that we had on reporting of emergencies, the reporting of location requirements. If there are excessive leaks and events, they can refer back to this plan to see if the operator in fact has an adequate plan to manage their system.

I would look at this as nothing more than if we look at it on a midstream area. You know, the Division requires certain requirements of upstream operators to meet certain criteria in drilling to complete a well. This is a first you know, regulatory section for OCD to regulate pipelines, to me this is a pretty simple requirement to have a plan in place to show that they are managing their

operations to minimize leaks, and also, from a (unclear).

Q. So do you anticipate that the Division, for example, is going to question or make suggestions for, on cathodic protection or corrosion control or integrity management for things or other matters that are listed in here?

A. They may have for records of your routine maintenance to make sure that you are, you know, managing your equipment, your cathodic protection, do you have your tests to show that your system is actually working, and you know, to also put this in place. And I know we are headed towards a fine line between, you know, what the state can do versus what a regulated entity can do, but I would like to point you to Colorado and fortunately it was in one of our exhibits --

Q. Let me stop you right there.

MR. AMES: Objection, Madam Hearing Officer, can Mr. Feldewert allow Mr. Bolander to finish his sentence at least?

MR. FELDEWERT: Well, my question. My question was --

MR. AMES: Madam Hearing Officer, can the witness be allowed to finish his statement?

HEARING EXAMINER ORTH: Sorry. I needed to unmute myself. So one of the issues that we are hearing

noise from Mr. Ames, from Mr. Feldewert and from Mr. Bolander, and so some of what's been said, if you don't wait for the last person to finish their sentence is garbled.

Now, Mr. Bolander is giving expansive answers to Mr. Feldewert's questions. Mr. Feldewert, if you could try to break in perhaps between sentences, we won't have some of this garble.

So, let's see. Mr. Bolander, if you would focus on answering Mr. Feldewert's questions, certainly if Mr. Ames wants to draw you out further on the broader context of your answers he can do that on redirect. And Mr. Feldewert, did you get an answer to your last question?

MR. FELDEWERT: I believe I did. I mean -- and let me just try to --

Q. Mr. Bolander, this provision not designed for the Division to regulate such things as cathodic protection or corrosion control or integrity management; correct?

A. Correct.

Q. And the Division is proposing that this type of plan should be submitted to them for all -- by all gathering operators?

A. Correct.

Q. Even those that are meeting their gas capture requirements?

A. Yes, sir.

Q. Okay. Give me one minute. I think that's all the questions I have.

(Pause.)

Mr. Bolander, someone asked me to clarify, okay, and I believe we can do it with you. If, if oxygen is introduced into the system as part of the commissioning activity, okay, is it then not counted against the operator on its gas capture percentage?

A. For commissioning facilities, yes. That's why the allowance is put in there to allow for once it's cleared, that's the -- that's the time period that's allowed.

Q. Okay. And that's under that Subpart L that you --

A. I believe so. I believe that's the right citation.

Q. Great, okay. Thank you, Mr. Bolander.

A. Thank you.

HEARING EXAMINER ORTH: Thank you, Mr. Feldewert. Mr. Biernoff -- and by the way, for the record, Mr. Biernoff did join us just a few moment after we were reporting on his difficulties this morning.

Mr. Biernoff, do you have questions of Mr. Bolander?

MR. BIERNOFF: I have just a few questions for

Mr. Bolander, Madam Hearing Officer.

And I am wondering if the kind of assistance that the participants received from the Oil Conservation Division staff might be available again to call up a particular exhibit on the screen, and this is Exhibit, OCD Exhibit 2A.

MR. POWELL: I can pull that up.

HEARING EXAMINER ORTH: Mr. Feldewert, would you mute yourself, please?

MR. FELDEWERT: I apologize, yes.

MR. BIERNOFF: Mr. Powell, thank you. If that's who called up the exhibit on the screen, thank you for your assistance with this exhibit.

CROSS-EXAMINATION

BY MR. BIERNOFF:

Q. And could we turn to what I think is Page 5 of the document? And we are looking at 19.15.27.8.F like Friday of the proposed rule. Mr. Bolander, can you take a look at the language of Subpart 4 and F like Friday 4, and you see a reference there to metering not being practical under such circumstances under both low rate or low pressure venting and flaring.

Is there any definition in the proposed rule for a what counts as low flow rate or low pressure venting and flaring?

A. You know, from a standpoint of here, you know,

there is no definition of low flow rate or low pressure. You know, there are certain events, you know, that are highlighted in, I believe, 27.8.D which is production operations that lists several categories, some of them are low pressure such as, you know, pneumatic, venting from pneumatics, you know, venting from thief hatches. This was an attempt to capture would be low pressure and low flow rate venting of, you know, gas from associated wells in which the volume would be too low to be able to meter.

That's why you have the requirement, you know, to use GOR in cases such as that or estimation methods. And what we wanted to account for there, and this was based on your prehearing statement is to make sure that we had -- that whatever methodology would be used, if there was a third party on it, could be independently verified, you know, outside of OCD and that third party can look at that methodology and be comfortable that these volumes were accurate using the methodology used.

Q. Is there a uniform understanding about what counts as low pressure venting and flaring?

A. I think it's pretty well established. You know, one of the areas, you know, I think we get into with low pressure or low flow rate is, you know, the ability of what meters can do. Most meters in the field are orifice type meters and require a pressure valve across ends to be able

to accurately meter gas. And when that pressure is too low to actually be able to create that pressure drop, you have the ability of measuring.

And likewise, on low flow rate, you know, is, you know, you may see that pressure drop, but you may not see any movement across that differential to be able to measure. So, you know, struggle around, you know, putting in a definitive numbers or side bores around here, but understanding that, and I think, you know -- you know, the Division is comfortable with their understanding and knowledge of what is considered low flow and low pressure to be able to manage this particular section of the rule.

Q. Thank you. (Unclear) and I'm wondering if we look a little further down into F 5, there's reference to a methodology that can be independently verified. Does the Oil Conservation Division have a good understanding of what methodologies can be independently verified?

A. They will have a good understanding from the reporting on the C-115 B, you know, we are asking that, you know, the volumes that are estimated, you know -- one, we are asking for the volumes that are being reported, how are they being measured? Is it metered or is it estimated, if it an estimate is it a calculation or is it a factor, and we are asking for the methodology. Is it using, for example, EPS subpart calculations, is it using manufacturing data,

and/or is it using data say from, you know, AGA, American Gas Association or API, you know, and they have the understanding of what type of sources are available.

And I think also this language here, this edition is if they have concerns and they move forward with a third party audit in which, you know, experts and measurement and accounting will be looking at that, they are the ones who will be looking at this and need to make sure that that methodology can be confirmed, it was the right method or one of the right methods used to calculate that volume.

Q. (Unclear) for examples of methodologies that can be independently verified.

(Reporter asking for clarification due to unclear audio.

Q. I had asked the witness for examples of methodologies that can be independently verified.

A. Okay. I'll list a couple if that meets -- in EPA's Subpart W language, I think it's 43 CFR 98.233, they list several calculation methods for various sources. That's one area.

And there are certain categories within that that industry is comfortable in using in terms of their accuracy, in terms of some of the sources that we are asking around flashing on tanks, especially excessive flashing on tanks, there are multiple modeling techniques, such as third-party

proprietary software such as ProMax and EMP tanks which is another -- which are used within the industry and are accurate, and there are certain, you know, manufacturing data for specific sources such as pneumatics that provide you with what normal operating pneumatics operate at.

So there are, you know, within -- we did -- we felt like instead of specifying either one set or a smorgasbord of available sources, it was to make sure that whatever methodology they are using someone could independently verify that it's right for the source to be measured and it's, you know, used within the industry and other areas, you know, within oil and gas.

Q. Okay. And Mr. Bolander, are there examples of methodologies that cannot be independently verified?

A. I'm trying to think, to be offhand, I think from our listing in the requirements and C-115 B on what we are asking to be reported, you know, most of those, you know, going through that list that remaining are categories that can be verified.

In my testimony I talk about categories that were deleted, and the reason being that they were deleted is that there were, you know, there was no accurate methodology to report in most of those cases.

Q. Okay. Thank you, Mr. Bolander. I appreciate your testimony today.

MR. BIERNOFF: I don't have any further questions for this witness, Madam Hearing Officer.

HEARING EXAMINER ORTH: Thank you very much, Mr. Biernoff. Ms. Fox?

MS. FOX: Mr. Baake has some questions.

HEARING EXAMINER ORTH: Thank you. Mr. Baake.

CROSS-EXAMINATION

BY MR. BAAKE:

Q. Hello there. Thank you so much, Mr. Bolander, for your testimony. First of all, can you hear me okay?

A. Yes, I can.

Q. Perfect. Again I really appreciate the testimony and hard work that's gone into this rule. I just have a few questions about initial flowback during completions, and I was wondering if we could pull up Slide 73 from the presentation you gave.

A. You want me to pull up 73?

Q. Can you do that?

MS. POLAK: Mr. Baake, you cut out a little bit. Can you specify which slide, please?

MR. BAAKE: 73.

MR. AMES: David, can you say what the topic is as well?

MR. BAAKE: Initial flowback during completion.

MR. AMES: Thank you.

MS. POLAK: Give me one second here. Mr. Bolander, make sure I'm on the right slide because our slide numbers are off.

THE WITNESS: I'm seeing 76. Do we need to go backwards?

MS. POLAK: Correct.

THE WITNESS: Slide 78 -- 68.

MR. BAAKE: Well, that's what I wanted, so thank you for helping, Tiffany.

BY MR. BAAKE:

Q. So I wanted to ask you about this bubble here, and it says, the point in the process at which venting or flaring natural gas can be considered waste, and it indicates that it's at separation flowback and that prior to that it would not be considered waste.

I wanted to ask you about that. Yesterday Mr. Lepore made a comment that I thought was really interesting and helpful which is that the type of waste depends on technological context, and that something that might have been considered beneficial use ten years ago today would be considered waste because there are technological alternatives. Do you agree that's an appropriate way to think about waste?

A. Yes.

Q. Very helpful. So would you agree that if there

are technologies that could reliably eliminate the need to vent gas during the initial flowback then maybe venting gas during that stage would be appropriately considered waste?

A. I think we need to consider and look to definition of waste. And if there is a safe way of collecting the gas from the initial flowback, has it been treated and can it be used for beneficial use and/or sales. And in this -- in the case you are describing, the answer is no.

Now, is it an emission source? Yes. However, you know, with what we are tasked with regulating today is waste. And that's why in my testimony, you know, when I talk about the separation flowback stage, I really wanted to link it to our equipment performance standard in "E" on designing that separation equipment to where that initial flowback stage would be the shortest period possible.

Because once you hit separation stage, that's effectively what's considered -- that's the first stage of treating a full well stream. You now have the ability to separate fluids and such, and at that point in time, you know, then that gas can be used, you know, for beneficial use or for sales or what have you. But prior to that, if it's still, you know, from a, from a beneficial perspective, today it's not considered waste or -- yes.

Q. I think that --

HEARING EXAMINER ORTH: Mr. Baake, we are having the same issue with the garbling at the very beginning of when you speak. So if you would either pause or just say a word or so to settle the audio down.

MR. BAAKE: Okay.

HEARING EXAMINER ORTH: Thank you.

Q. Thank you, Mr. Bolander, I think I understand where you are coming from on that point and that this is not set in stone, as it were, but this is sort of your understanding based on, you know, what can be put to beneficial use at this point. And others may present evidence that suggest that where that point begins can be different.

Can we go to slide --

MR. AMES: Objection. Counsel is making a statement about his intended testimony. He isn't asking the witness a question.

HEARING EXAMINER ORTH: That objection is sustained. Please carry on, Mr. Baake.

Q. Can we go to Slide 83, and just in case the question (unclear) the slide that says that certain events are too small to measure -- I believe it's this one, yeah.

So, Mr. Bolander, I think I heard you when you were talking about this slide. Sort of maybe walk back or modify what this slide itself says about completions. I

think I heard you say that all of the slide says that volumes prior to separation are too small to measure, I think you said that sometimes that's the case, not always the case, is that -- am I recalling that correctly?

A. Yes.

Q. And so in some cases those emissions could be significant, but I think you said that there are other concerns of reporting it correctly in terms of the flowback being erratic and that sort of thing. Is that again --

A. Yes. That is correct. Would you like me to expand?

Q. No, I appreciate that. I just wanted to make sure I got that clear. Are you aware of any studies that actually quantify the emissions at this stage of flowback?

A. Yes, I am.

Q. Could you -- are there any that you can provide us with right now or kind of give us a sense of what those are?

A. A lot of these original studies, this was, you know, back during the time when I was at Southwestern Energy. And during the time frame of Quad O and Quad O A being contemplated and there were studies in which they were reporting volumes during this stage using choke calculations, specifically the choke calculations in EPA's documents.

The issue with either the results of those studies and/or any of that was during this phase, if you can think of it as prior to separation, so you have full well strength, so you've got everything flowing through that choke, and EPA's formula is for single phase flow, when you've got multi phase flow going on, so inherently it's the wrong equation being used.

So whatever results come out of that -- those studies, and it's been, you know, years since I have seen them, you know, I would -- you know, I have concerns with the results that came out of those studies because the results are incorrect utilizing that equation for those conditions.

Q. Thank you. That's helpful. So I take it you're not aware of studies that you would consider accurate that apply methodologies in your (unclear) you think is forthright; is that correct?

A. Correct. During that time frame, you know, most of the multiphase flow are empirically based, based on specific geographic areas. I know there were several research groups within specific companies that were working this issue because we understood what it was, but as far as I know, I'm not sure if the nut has been cracked.

Q. Thank you so much. This feedback is -- takes a little bit of getting used to. I have a couple more

questions, and I really do appreciate it because it's illuminating.

So Mr. Feldewert asked you about Colorado's new regulations which do require capture during initial flowback, and I think you said you're aware of those regulations. Is that correct?

A. I am correct. Yes, sorry.

Q. I'm just waiting to give the -- so the fact that Colorado went ahead and adopted those regulations suggests that at a minimum those regulators feel the potential emissions from this stage are significant. Would you agree with that?

A. They realized it is a concern. The original regulation was promulgated by their environmental group to, you know, regulate emissions.

Q. Appreciate that response. Did you consult or did anyone else at OCD consult with the Colorado regulators to learn more about the approach that they adopted on that issue, on this rule?

A. No one that I was aware of.

Q. And how about, were there any other entities (unclear) that you spoke to about whether that approach might be workable?

A. I'm aware that, you know, in reading that, what the rule was, their actual rule language, the rule language

that's found in I guess Rule 7 of the Air Division, and, you know, I made, obviously, cursory calls, found that in right conditions it can be achieved, but not in all, you know, flowback types.

I know that, you know, that Oil & Gas Commission did reference it in the rule making it a regulation. However, in their, you know, statement of basis, one of their primary reasons was not to create any confusion with the rule that was recently put in place by the Air Division, but their primary concern was to make sure that the separation phase was moved to sales as soon as possible.

Q. Okay. Thank you so much. Mr. Bolander, I don't think I have any further questions.

A. Thank you.

HEARING EXAMINER ORTH: Thank you, Mr. Baake. Ms. Paranhos, do you have questions of Mr. Bolander?

MS. PARANHOS: Thank you, Madam Hearing Officer. I have no questions for Mr. Bolander.

HEARING EXAMINER ORTH: All right, thank you. Mr. Ames, do you -- I'm sorry, hold on. Commissioner Kessler, do you have questions of Mr. Bolander?

COMMISSIONER KESSLER: Thank you. All of my questions have been addressed.

HEARING EXAMINER ORTH: Thank you. And Madam Chair?

CHAIRWOMAN SANDOVAL: I do have some questions. Bear with me again while I go through my notes here. Can you hear me okay, or are you getting that feedback?

THE WITNESS: I can hear you fine.

CHAIRWOMAN SANDOVAL: All right. I will start with the same questions as I have with some others. Do you support this regulation?

THE WITNESS: Yes, I do.

CHAIRWOMAN SANDOVAL: Do you feel like this has been, from your experience past, present, future -- well, not future -- past present, a collaborative process?

THE WITNESS: Yes I do. You know, I will re-echo what Matt said. To see the changes since July means we have listened and put forth a good rule.

CHAIRWOMAN SANDOVAL: Thank you. All right, where to start here. I think -- so yesterday there was a little bit of concern about -- so I don't remember the exact citation, that would have been helpful -- basically where production operators have four hours to shut in their wells if there is some sort of midstream upset. And basically there's a, for lack of a better term, a three, four hours where they can vent and/or flare and then after that if they haven't taken action, it will count against them. From your operational experience, do some operators have mechanisms to shut in wells remotely?

THE WITNESS: In some particular cases, yes, but not all.

CHAIRWOMAN SANDOVAL: Okay. So it would sort of be a mix of -- of whether or not that four hours might be appropriate?

THE WITNESS: Yes. It would be a mix on, do you have the ability to remotely shut in, the ability of how many wells you would have to physically shut in as well.

CHAIRWOMAN SANDOVAL: Do you feel like the four hours is appropriate, or is there maybe a better recommendation?

THE WITNESS: I feel like that four hours is a starting point. I can see, you know, looking at, you know, trying to look at it from a time line, you know, from initial notification, to the notification to your lease operators, to their ability to, you know, from a -- if it's from a remote operation, then, yes, four hours is sufficient.

But for someone to physically be called at a moment's notice to, you know, start shutting in multiple wells, you know, even if they are relatively close together, four hours is an extremely tight schedule to meet that and still be doing it proactively.

CHAIRWOMAN SANDOVAL: Okay. Do you think it would be more appropriate to have, say, two categories, one

category of time frame for operators who have their wells on a scada system versus a time frame for operators who don't?

THE WITNESS: Yes. I mean they still would have, even the wells on scada, they do have time to evaluate what that well's condition is before they do a 100 percent remote shut in, you know. But for people that have operators that have to physically, you know, go to the field to shut in wells, I would recommend a longer time period.

CHAIRWOMAN SANDOVAL: Okay. Thank you. Maybe let's wade through some of the measurement questions which I think have been asked in the rules. All right. F.2, a little bit -- so in F.2 it reads basically after -- oh, actually I'm looking at maybe a slightly older version there is an errata. I think the errata said something similar. The operator shall install equipment to measure the volume of natural gas vented or flared. What's the feasibility to install measurement equipment for vented gas? I'm thinking of situations like a PRB. I can't recall in any of my operational experiences seeing a meter on a PRB or something of the like. Do you have any experience or insight you could share on that?

THE WITNESS: On the language, you know, we put in, Adrienne, we took -- I'm sorry, Madam Chair -- we tried to be consistent with using vented and flared, and I agree with you, you know, what we are dealing with, with F.2 is

predominantly flared volumes, and that's why we were -- where we step back in F.3 and, you know, changed our citation to be more consistent with flared, flare gas.

However, I will say where you may see some metered volumes it wouldn't be of vented gas, but in large facilities with lots of fire equipment, you may be measuring similar issues with metered equipment, but as far as vented gas, I agree with you, vented gas is typically not metered.

CHAIRWOMAN SANDOVAL: I'm just trying to think. Would that then be captured -- so say the language was vented or flared to keep it consistent, would then not operational and feasibility be captured in 5 where it says if metering is not practicable due to circumstances such as low flow rate or low pressure of venting and flaring do you think those feasibilities would be captured then under 5?

THE WITNESS: That was the intent of creating 5.

CHAIRWOMAN SANDOVAL: Okay, now sort of on 5, I guess my concern -- or do you have any concerns here that, that 5 could be taken advantage of in any sort of way by operators?

THE WITNESS: In my experience, no, you know, because we are looking at, you know, volumes. You know, when I kind of go through a facility, you know, from separator on, one of the main volumes we wanted to measure specifically on new facilities is associated gas coming off

a separator or heater treaters, or depending on the volume is it capable, something off of a vapor recovery unit. But outside of that, all the other volumes going throughout the system that would be considered a low pressure venting event would fall under 5 as being, you know, required for calculation purposes.

CHAIRWOMAN SANDOVAL: Okay. And you didn't directly testify about this, so if you are not the one who addressed this, just let me know. I don't know if you have seen the proposal from EDF and Climate Advocates, they in both accounts -- I'm trying to pull it up now -- seem to want to eliminate the GOR options -- so I've have got 18 binders here -- so eliminate 6, I believe, in the draft that says, for a well that does not require measuring equipment, the operator shall estimate the volume of venting and flaring natural gas based on the result of an annual GOR test for that well reported on form C-115 to allow the Division to independently verify the volume rate an (unclear) of the flared natural gas.

And I don't, I don't know the logic here, but I guess I was hoping you could sort of illustrate why you think the leaving that language in there is appropriate, leaving that GOR option in.

THE WITNESS: For one, you know, this type of methodology of calculating the gas volume from oil wells,

you know, that produce associated gas is being performed in the industry in all the regulatory basins for years. So it's, for one, it's an operation that is, you know, that industry is comfortably aware of.

They have processes in places, and what that means is that (unclear) location -- this would be the case where you have multiple wells coming into a facility in which one, you know, one separator, as an example, is used on a day-to-day basis, and they may have a separate second separator on location that they can isolate individual wells to perform the GOR test where they measure the gas volume coming from that well that they are testing and then file the form.

For companies that don't have the ability to have a test separator on location, then they were allowed a rental or test separator that they may have and move around the field. So it's way of doing it, it's a practice of doing it. It's understanding the gas oil ratio is, you know, from a reservoir perspective, is a way of understanding how my reservoir is reacting, is that GOR changing. At some point in time at the decline of that well that GOR will remain stable without any changes. So this is a valid methodology of determining gas volume from normally low GOR type wells.

CHAIRWOMAN SANDOVAL: Okay. So you feel like

leaving those in is important, is an important option?

THE WITNESS: Yes, I do.

CHAIRWOMAN SANDOVAL: Okay, thank you. Let me see if I have any more measurement questions. I think that's all on the measurements.

So it looks like from -- I can't remember again where it was, but we seem to have excluded the language about the NMED authorization or the permit or something of the sort. I know it was explained, I just -- I guess I'm just a little concerned or confused how we are going to make sure that there aren't any issues or conflicts that arise.

Can you just elaborate a little bit more on that for me, please?

THE WITNESS: I may not be the right person to explain that aspect. This was kind of a change late in the process, post the December 17 submittal. How it arose, we originally had language in there, stakeholders -- other stakeholders had recommended that that language be expanded somewhat to, to include other regulatory bodies.

We resubmitted that language to NMED, you know, for their review, and my understanding from not being intricately involved was they read the language, not just the new language, but even the original language and didn't see a need for it.

So, you know, I would have to say, Madam Chair,

this is beyond my technical explanation on this one.

CHAIRWOMAN SANDOVAL: Okay. Would Mr. Powell be appropriate, maybe, to ask questions about that?

THE WITNESS: Yes. Mr. Powell may be the person to ask.

CHAIRWOMAN SANDOVAL: Okay. I will reserve those for him.

Sort of while we are on the NMED train of thought here, so I think Mr. Feldewert asked some questions about NMED's current rules. Maybe the question that should be asked is, was the intent to try to match NMED's proposed updated rules on the AVO time frame?

THE WITNESS: Yes. What we wanted to do, we wanted to match the language, and, through our collaborative effort, the time frames.

CHAIRWOMAN SANDOVAL: I just am looking at their draft language -- and you don't have this up, I can just read it to you -- in 20.2.15.16, standards for equipment leaks in the C, it says basically, owners operators shall conduct an audible visual and (unclear) inspection, it lists a handful of equipment, at least weekly, is what it says. So you are saying that their proposal and those time frames here matches and was tried to (unclear)?

THE WITNESS: Yes.

CHAIRWOMAN SANDOVAL: Okay. And I don't know if

you alluded earlier, maybe Mr. Powell is more appropriate for this, but this wasn't envisioned in drafting this that you wouldn't actually have to go out there and do AVO twice in one week. Like the same AVO that is checking the box for the Division is also checking the box for NMED?

THE WITNESS: Yes. The intent was to streamline the process.

CHAIRWOMAN SANDOVAL: And that there was not like a specific OCD form that had to be filled out, for example, if NMED had a form that would count likely for OCD's requirement?

THE WITNESS: That was the discussion we had with our work group.

CHAIRWOMAN SANDOVAL: So that it would not be duplicative?

THE WITNESS: Correct.

CHAIRWOMAN SANDOVAL: Okay. Based on your operational experience, does a week -- or maybe how often are operators out on site? Would the week time frame force them to go out there more than normal?

THE WITNESS: For wells that meet that category, you know, where we have our crossover point of 60 MCF a day, those wells will be visited more frequently than wells that fall below that.

In my experience, weekly is an achievable time

frame. And for higher rate wells, I would say that many of those are, if not visited daily, are visited three to four times a week.

CHAIRWOMAN SANDOVAL: Okay. So that doesn't seem to force operators to go out there when -- when they're not already, it would just conform to what their normal schedule was?

THE WITNESS: Yes.

CHAIRWOMAN SANDOVAL: Okay. What about for the wells that are on the monthly frequency, does that seem appropriate? Those are the lower flow wells, I think, the stripper wells, those are required to be done monthly for AVO. Does that time frame seem appropriate to you?

THE WITNESS: I think it's very appropriate for producing wells to visit it at least monthly if you are a prudent operator.

CHAIRWOMAN SANDOVAL: Okay. Thank you. All right. So maybe let's jump into some of the midstream questions.

I was just going to read something to you. Are you -- I think -- so -- well, actually let me step back. I think you said something yesterday in your kind of initial testimony that OCD doesn't currently regulate midstream operations. Have you read all of OCD's rules?

THE WITNESS: Have not, sorry. I've become more

familiar than I thought I would be, but no I have not.

CHAIRWOMAN SANDOVAL: Would you be surprised to learn there are multiple situations where OCD regulates midstream operations right now, in particular, maybe 19.15.18 or Part 29, there are multiple places where OCD currently regulates midstream operations?

THE WITNESS: Thank you. It's nice to know this isn't original territory.

CHAIRWOMAN SANDOVAL: And again, you probably have not read all of OCD's statutes. I have a very large binder that's very chunky.

Are you familiar in particular with 70.2.12(A)(4) which states, basically -- I won't read the whole thing -- it gives OCD the authority to examine, check, test each oil and gas well, tanks, plants refineries and all means and modes of transportation and equipment. Were you aware of that statute?

THE WITNESS: I was not.

CHAIRWOMAN SANDOVAL: In your experience for oil and gas operations, is one mean or mode of transportation a pipeline?

THE WITNESS: Yes.

CHAIRWOMAN SANDOVAL: So knowing that, does it seem totally within OCD's statutory authority to regulate pipelines?

THE WITNESS: Yes.

CHAIRWOMAN SANDOVAL: Okay, thank you. From your operational experience and background, what sometimes happens or what can happen if a midstream gathering system goes down, what can be the ramifications on the production operations?

THE WITNESS: Well, I mean, depending on the size of the system and the effect, you know, on a smaller system when a midstream operation goes down, you know, and for example shuts in, it will increase the line pressure on the upstream side to the point to where the wells would, would either be, you know, go to flare if there's a system in place and where wells automatically go to a flare, or it would increase the line pressure where the wells will be physically shut in.

For larger gathering systems, it will be different throughout the upstream side. Some would result in shut-ins and some will just see a small line pressure change that may not have the effect, you know, their well from a venting and flaring perspective, it just may increase their line pressure that it causes their wells, for example, to load up, and that would be the result of it.

CHAIRWOMAN SANDOVAL: So -- oh, the feedback just happened. Is everybody else getting that, or just me?

HEARING OFFICER ORTH: It was just a moment at

the beginning. Now you're fine.

CHAIRWOMAN SANDOVAL: Okay. So what I'm hearing is if there are issues on the midstream side, it can force the production operations sometimes to have to flare all of that gas because there is nowhere else for it to go?

THE WITNESS: Correct.

CHAIRWOMAN SANDOVAL: And shut in a well.

THE WITNESS: Correct.

CHAIRWOMAN SANDOVAL: So, okay. Do you believe it's an important part of managing flaring in this state to also manage the midstream operations because they can have broader ramifications?

THE WITNESS: Yes, I do. I thought it was key that we added the section on reporting of any of their events to affect the upstream side positively instead of negatively.

CHAIRWOMAN SANDOVAL: Okay, thank you. (Pause.) Sorry, I'm just wading through my notes here.

All right. On the midstream side in Part 28 -- where did it go? I think it's 28.8.C now 2 -- so, for example 2.C, so 8.B.2.C, and I'm basically -- and this sounds like maybe it was -- sorry, let me (unclear). So 2.C basically gives an exception you can vent or flare during normal operations of a dehydration unit or amine unit.

Is that -- just can you verify for me, is that

still counted against, for example, your gas capture percentage? Like you would still have to calculate how much was vented or flared or measured, whatever that upper grid mechanism is, and that venting and flaring would still, say, count against the gas capture percentage? Is that how that works.

THE WITNESS: What this was to address is, you know, normal venting that occurred from say a dehydration unit.

CHAIRWOMAN SANDOVAL: Yes.

THE WITNESS: And to account for that, that effect. These are typically, you know, emission related events and we wanted to make sure that normal operations would be counted -- or not counted, they would be considered exceptions.

CHAIRWOMAN SANDOVAL: So I'm trying to (unclear) they are considered an exception in the sense that that operator or that equipment is designed to vent at times, and so they are given an exception to be able to vent and not be out of compliance; correct?

THE WITNESS: Correct.

CHAIRWOMAN SANDOVAL: But are they given -- is that venting that's designed given a pass from counting against their gas capture calculation? Does that make sense, what I'm saying?

THE WITNESS: Yes. If it is part of the normal operation, it is not counted on their gas capture. If it is excessive due to some operational concerns, the way we are handling it in the reporting section is we have -- because, you know, it gets to the point you know, Madam Chair, to where, you know, we can ask -- we could have probably come up with 30 categories that 90 percent of the time are going to be zero, but we gave a category of "other," and, you know, this would fall into the case where equipment that's not operating properly that has excess venting beyond its design, those volumes would be considered waste, so therefore they would be counted in the reporting section under that section and then counted against their gas capture.

CHAIRWOMAN SANDOVAL: Okay. But the normal operations would not; correct?

THE WITNESS: Correct.

CHAIRWOMAN SANDOVAL: Okay. I think you mentioned one of the categories that was deleted was on pilot and purged gas because it should be beneficial?

THE WITNESS: Yes.

CHAIRWOMAN SANDOVAL: You consider it a beneficial use. Is that now wrapped up -- is there another category that gets wrapped up in. Was it consolidated or just deleted?

THE WITNESS: Consolidated. For here it's consolidated.

CHAIRWOMAN SANDOVAL: Okay. I think that may be my last question. Thank you, Mr. Bolander.

THE WITNESS: Thank you, Madam Chair.

HEARING EXAMINER ORTH: Thank you, Madam Chair. Commissioner Kessler, do you have a question of Mr. Bolander at this time?

COMMISSIONER KESSLER: If you don't mind. I had wanted to hear testimony related to 19.15.27.8.G.4, which is the royalty reporting or reporting requirements for royalty owners on vented and flared gas. And specifically I would like to hear from the Division's perspective how the Division believes that that requirement prevents waste.

Mr. Bolander, I don't know if you are the correct person to ask those questions, but I didn't want to forego the opportunity.

THE WITNESS: Right. I may not be the right appropriate person to discuss this. You know, I do know that the intent was that, you know, as a royalty owner, you have a vested interest because your, you know, your royalty check that you get paid on is based on what gets sold.

And if there is gas that is wasted that you don't have the opportunity to obtain a value on, then, you know, the intent was, was that gives that royalty owner the

understanding that he is missing out, or that person is missing out on an opportunity for additional revenue.

So the intent was to give them that information to give them the opportunity to, you know, affect the future if there is an opportunity.

COMMISSIONER KESSLER: Okay. Back to the operator (unclear) compliance through contractual obligations, I guess?

HEARING EXAMINER ORTH: Commissioner Kessler, would you repeat that, please? It was hard to hear.

COMMISSIONER KESSLER: Is this a mechanism, Mr. Bolander, that the royalty owner would be able to exert contractual pressure or pressure through their agreement with the operators to be able to obtain more, more gas or less venting and flaring?

THE WITNESS: That is beyond my expertise. I really would hate to comment on that, but I would assume that would be the mechanism, but it's beyond my expertise to answer appropriately.

COMMISSIONER KESSLER: Okay. Thank you.

HEARING EXAMINER ORTH: Is that all, Commissioner Kessler?

COMMISSIONER KESSLER: Yes.

HEARING EXAMINER ORTH: Thank you very much. Mr. Ames, do you have any follow-up with Mr. Bolander?

I can't hear you.

MR. AMES: Can you hear me.

HEARING EXAMINER ORTH: Yes, now I can.

MR. AMES: I was actually not going to say anything. No, I don't think I have any redirect for Mr. Bolander. I would ask that the witness be excused.

HEARING EXAMINER ORTH: All right. Thank you very much, Mr. Bolander, for your testimony on your direct and cross, you are excused.

THE WITNESS: Thank you, Madam Hearing Examiner.

HEARING EXAMINER ORTH: So Mr. Ames, if you would -- we are now just several minutes from noon. And we have been going not quite 90 minutes -- I guess about 90 minutes since our last break, so I think a lunch break would be appropriate. I know that you have one more witness, Mr. Powell; right?

MR. AMES: That's right.

HEARING EXAMINER ORTH: All right. Madam Chair, do you have any guidance for us on how long a lunch break we would need to take? Any chance we could shorten it a little today?

CHAIRWOMAN SANDOVAL: I muted myself. I do not have limitations today that I had yesterday and could do a shorter break, maybe 30 or 45 minutes instead. Commissioner Kessler, do you have any limitations?

COMMISSIONER KESSLER: I don't have any today.

HEARING EXAMINER ORTH: All right. So let's come back at 12:45 to squeeze a little bit more out of the afternoon.

CHAIRWOMAN SANDOVAL: Perfect.

HEARING EXAMINER ORTH: Thank you all. Let's come back at 12:45.

CHAIRWOMAN SANDOVAL: Thanks.

(Lunch recess taken. The proceeding resumed as follows:)

COMMISSIONER ENGLER: This is Tom Engler. I'm not sure of my bandwidth, so I am not putting my video on, but I'm here.

HEARING EXAMINER ORTH: All right. Thank you very much. When we broke for lunch at noon, we had just finished the direct and cross-examination of the Division's third witness, and so now we're going to move on to their fourth witness, Mr. Powell. Mr. Ames?

CHAIRWOMAN SANDOVAL: Could we discuss schedule, maybe, since Dr. Engler is here?

HEARING EXAMINER ORTH: Okay, sure. We can do that before we hear from Mr. Powell. Madam Chair, do you have some guidance for us?

CHAIRWOMAN SANDOVAL: I think I would love to hear what the parties think in terms of timing and maybe how

we make things work in the next six days, at least to finish the testimony side of it. You know, Session does start the week after, but, you know, I think we want to continue with this and not take long breaks until say after Session.

We need to finish with this expeditiously, so in the chance that we can't finish by the end of next week, we're going to have to continue to run times the following week until this done. But it won't be postponed for long periods of time.

HEARING EXAMINER ORTH: All right, thank you. Mr. Ames, would you like to begin with your observations or suggestions?

MR. AMES: Sure. Thank you, Madam Hearing Officer, Madam Chair, Members of the Commission. Eric Ames, counsel for OCD. The OCD supports the Commission's objective of completing the hearing by January 15th. With respect to OCD's case, we anticipate completing our direct testimony today.

We expect to have some cross of other witnesses, but not too extensive, and we are prepared to live with some guidelines or some limitations on the length of cross if that would facilitate planning for our January 15th end to the hearing itself.

I do anticipate that OCD will want to provide some rebuttal testimony. In our direct examination, we have

steered clear of commenting on other parties' proposals that we did not accept into our proposed version of OCD Exhibits 2A and 3A.

If the parties press their arguments for those changes, then OCD will have to respond through rebuttal. But at this point it is not possible to estimate with any precision how much rebuttal we'll need to do because it depends on what the other parties choose to present.

Thank you.

HEARING EXAMINER ORTH: Okay. Thank you, Mr. Ames. Mr. Feldewert, would you like to weigh in?

MR. FELDEWERT: Yeah, I mean, first, Mr. Ames' comment, I think the Division has been apprised of the party's proposed modifications for quite some time now. So I am somewhat surprised to hear that they have not -- that they have chosen not to address those during their case, and, instead, rely on some rebuttal for an unknown period of time. That's surprising.

Secondly, NMOGA shares goal of getting this finished by next Friday, and although I think we all recognized that trying to get this many witnesses in in a two-week period was going to be difficult, and then that two-week period became eight-and-a-half days, which even exacerbated that, but we're willing to do whatever the Commission thinks is appropriate to get this accomplished.

If that means working Saturday and Sunday, we are willing to do that. If that means starting earlier in the morning and going later at night, we're willing to do that.

HEARING EXAMINER ORTH: Okay. Thank you, Mr. Feldewert. Mr. Biernoff -- oh, I did see Ms. Fox. Let me see if Mr. Biernoff -- oh, no. You know what? I think he said that someone else from the office would be covering the first part of this afternoon, so let's go to Ms. Fox.

MS. FOX: I'm not quite sure what was said, but we're talking about timing for the rest of the hearing; correct? And so anything I should know before I start that was said so I can get oriented here?

HEARING EXAMINER ORTH: Nothing that you wouldn't have expected, Ms. Fox. Both the Division and NMOGA share the Commission's goal of getting the hearing wrapped up. I talked about the challenges of doing that. Mr. Ames, apparently, believes he may have some rebuttal, and NMOGA is clearly willing to have longer days.

MS. FOX: Okay. Let's see, a couple of things. One, our main concern is not having our direct case cut short. We had estimated in our prehearing statement almost nine hours of direct. I think we overestimated on that. We were trying to not underestimate. I think it will be closer to seven-and-a-half or eight on direct.

We have 11 witnesses. I have not communicated

with my witnesses, a number of whom have small children, a number of whom are on the East Coast, about going late. That could be a problem for my witnesses. We would prefer not to take our witnesses out of order. We prefer to be able to present our direct case sort of with the facility that OCD has been able to without inconveniencing our people who have, like I say, young children and who are, I think, inconvenienced enough right now during COVID. So those are our concerns. I personally don't mind going late for, say, NMOGA witnesses in evening, I can do that, but I'm a little bit worried about asking our witnesses to do so, but I would do so if that's what the Commission wants.

HEARING EXAMINER ORTH: Thank you for that.

Ms. Paranhos, anything to add?

MS. PARANHOS: Thank you, Madam Hearing Officer, Commissioners. We, EDF also does support getting this, getting the testimony done by the end of next -- by the end of the 15th. The OCD has actually made some changes to its most recent rule that adopted some of the suggestions, and so due to that, I think we can reduce our estimated testimony time by some amount, provided that other parties agree with those (unclear) editions.

So I will endeavor to work with the other parties and make sure that everyone supports those revisions. If there's not support by all parties, then we may need to

spend some time on them, but I'm hoping that we can get party support for those (unclear) editions.

And certainly we are open to going later if that's convenient for the Commission and the other parties are starting earlier. I also have a witness on the East Coast as well, it's in Central Time, so obviously working with everyone's schedules can be challenging, but I'm happy to do whatever we can to get this thing done on time. And I guess I would just, you know, underline what Ms. Fox said this morning and what I said this morning, which it does seem to me that cross is a tool that can be used in limited circumstances to help clarify or with additional testimony from the witnesses, but it doesn't seem like it should be used to put on a party's direct case, and all parties have opportunities, ample opportunities with multiple witnesses to do so, so I could see real reasons for limiting cross-examination in the interest of making sure we get through with this in the time that we have set sight for.

HEARING EXAMINER ORTH: Thank you, Ms. Paranhos. So the cross-examination, for example, this morning I thought was entirely appropriate, and I do listen for, for example, for repetitive questions or questions outside the scope of a witness' direct, and I'm trying to address that when, when I notice it. So, this is Mr. Kessler?

COMMISSIONER ENGLER: This is Tom Engler. May I

ask a question?

HEARING EXAMINER ORTH: Yes.

COMMISSIONER ENGLER: I guess my question is to Madam Chair. Are you worried about -- when we are going to deliberate?

CHAIRWOMAN SANDOVAL: Well, that's a whole other can of worms. I'm just talking at this point about finishing up the testimony. I believe what, we have 30 witnesses, is that correct, and we have gotten through three and we're on Thursday. So I think right now, I mean, yeah, we're going to have to deliberate at some point, but that's even in addition to what we are talking about now. I think at this point I even would just love to get through testimony by the end of next week.

COMMISSIONER ENGLER: Okay. Well, I guess, you know, from my perspective, through next Monday through Friday I would be happy to start early and go late to give everyone due time in the process. Normally I could do weekends, but I cannot this weekend and I cannot next weekend. So I guess to give you my perspective, I would be happy to try to go longer days next week. Thank you.

HEARING EXAMINER ORTH: Thank you.

Commissioner Kessler, anything to add?

COMMISSIONER KESSLER: Going late is tricky for me because I have a new baby, so I can step away at 5:00 and

have my (unclear) delivering up options, but going much past 5 might be difficult. We had also set aside a couple of days for this deliberation, the week after the 15th. I don't know if we want to discuss using those days for testimony and/or if we want to talk about going through the lunch hour, I'm open to that and can have some flexibility after 5:00, just not as much as I would like to.

HEARING EXAMINER ORTH: All right. Madam Chair, what days had been planned for deliberations the week of the 18th?

CHAIRWOMAN SANDOVAL: Let me look at the calendar. I think normally, if I'm recalling correctly, Dr. Engler's schedule is heavier on the front half than the back half of the week, and so usually Thursdays and Fridays are better on his schedule. I don't know if that's still the case, Dr. Engler.

I mean, I can do, I can ultimately do a host whenever next week if need be, if we have to go into the next week. I just would have loved to have finished at least the testimony, because again, we're still going to have deliberations which I expect to take days.

MR. AMES: Madam Chair, if I may interject, in order to deliberate, you will need the transcript for the proceeding, the entire proceeding, since one or more Commissioners has or will miss portions of the testimony.

CHAIRWOMAN SANDOVAL: Yes.

MR. AMES: So there will be a delay, a necessary delay for that as well.

CHAIRWOMAN SANDOVAL: I think we expected that, so I think we understand that as opposed to normal, where the Commission finishes one day and/or finishes at 4:00 on one day and starts deliberations at 4:01, it may different this time where there is a longer gap. And because this is so complex, we may look at other options after testimony concludes before we go into deliberations.

I don't think we know yet until we get to that point, but I think the issue right now is how do we get through 27 more witnesses in six-and-a-half days. You know, I would say that it was always, from the November 4th hearing on, we set these hearing dates and the first day-and-a-half was always set for public comments, so we did not flip the script here. The script was always the same. That was set at the hearing.

HEARING EXAMINER ORTH: All right.

MR. AMES: Madam Hearing Officer, Madam Chair, if I might interject a couple of comments at this point. The focus seems to be on the number of witnesses left to present direct. I want to reiterate the OCD's view that rebuttal may very well be necessary. Mr. Feldewert's surprise at my mention of rebuttal is a surprise to me since I expressly

advised him that we were not going to comment on NMOGA's proposed changes that OCD was not proposing to accept.

And the notion there was that we would want to see what the parties intended to actually present in their cases in chief before rebutting. And then, secondly, we thought it would be unfair to the other parties for OCD to present testimony about changes it did not agree to, proposed by the other parties, before those other parties had a chance it make their own cases.

So given that we deliberately structured our direct and told Counsel we were going to structure our direct for the express purpose of not prejudicing their ability to present their cases on changes we did not agree with, we think rebuttal is necessary. Otherwise, the testimony of other parties on those changes will have no other evidence in the record.

And I will point out that if we had done our, quote-unquote, rebuttal of other party's proposed changes that we did not accept during our case in chief, we would still be talking to Mr. Lepore today. Instead, we're almost done with our direct case.

So that said, I know that earlier Counsel for WELC and EDF argued for the right to present rebuttal, and argument at the time was that that's a matter for the Commission to decide. But if in the hearing we still

believe that, if the Commission does not want to hear our rebuttal, it can decide not to. But we were always under the impression that we would be able to make the argument for rebuttal, and since we're talking about scheduling the hearing so that other parties can be heard, it's important that the Commission hear that the OCD, at least, believes that rebuttal, at some level, depending on the cases put on by other parties, will be required to bring a complete and accurate record of the parties' positions. Thank you.

HEARING EXAMINER ORTH: Thank you, Mr. Ames. I have found just in my experience that rebuttal is helpful when teeing up a complex rulemaking for a Commission insofar as it allows the parties to help refine their positions.

Mr. Feldewert, was that you trying to say something?

MR. FELDEWERT: Yeah. And Mr. Ames may very well be correct. I don't remember if we, to be honest with you, Eric, if we had that conversation. I will take your word for it. There's been a lot, as you know, going on for the last couple of weeks with the holidays, so that may very well have occurred. And I certainly understand, you know, the thought process behind it.

You know, I can only tell you from experience that when we did rules like this previously, in person, it took a long time; that's just the nature of the game. And

now we're trying to do it virtually, and I appreciate the challenge, and we're willing to do whatever we can, but recognize there's only so much you can do.

I mean the parties all want to present their cases, they are trying to streamline as much as possible, but it is very, very difficult, as you point out, Ms. Sandoval, to have a complicated rule like this put on properly and effectively when, you know, we have a limited window virtually. But we're willing to try, and, you know, I was hoping maybe we could go this weekend, but if we can go longer hours, let's see if we can get it done.

HEARING EXAMINER ORTH: All right. Thank you for that. Oh, Ms. Fox?

MS. FOX: Yes, thank you, Madam Hearing Officer. I guess I would like to echo what Mr. Ames said in terms of what his representations were to Counsel and what the discussion was about rebuttal. I do remember that conversation with Mr. Ames.

And I also echo Mr. Feldewert's sentiment that the nature of these rulemakings is that it takes a long time and maybe we were too ambitious to think that it could be done in eight-and-a-half days.

I remain concerned about our side being able to go in order with our direct case and schedule all of our witnesses, again, who have young children and also who, we

have a couple of people on the East Coast. So I am concerned about the imposition on us going late hours, while that did not happen this week. Like I say, I personally can go late hours, and I can go weekends, but I am not -- but I don't know about our 11 witnesses.

HEARING EXAMINER ORTH: Thank you, Ms. Fox.

COMMISSIONER ENGLER: Madam Chair, this is Tom Engler. Just to say, I guess, Chair Sandoval, I think we did set aside two days, Thursday-Friday, for deliberations. It may be that that ends up being overflow for testimony, and we just need to adjust from there. Other than that, there is Monday, that's Martin Luther King holiday, that's available as also on overflow, I think, I don't know how other parties believe in that, but I can do that, too.

But, you know, it may be, as we get to the end of next week, I think everyone deserves the right to have due process and rebuttal, I agree, Mr. Ames, so I don't want to cut anybody short on that, you know, for the time. And so I think if they need more time, we'll just do it. For me, Madam Chair, that's overtime pay.

CHAIRWOMAN SANDOVAL: That's good for you, Dr. Engler.

I mean, I definitely echo what everybody is saying, I want to make sure that -- this is a very complex rulemaking, we have to make sure that all the information

comes out and that everybody has the opportunity to adequately and fully present their case here without getting cut off. I think today has gone smoother than it did yesterday, so that's -- in terms of timing.

It's -- what is the option to start earlier? I think, Commissioner Kessler, you have a limit on going later. Is that limitation for earlier as well?

COMMISSIONER KESSLER: For me, I mean I'll just be able to, to be here and be listening, but with the video off, because I may or may not have an insider with me here in my house. And I'm also open, and as Dr. Engler pointed out, I'm open on Martin Luther King Day and also the days that we reserve for deliberation.

MR. MOANDER: This is Chris Moander (unclear) who actually (unclear) not interjecting thus far. Just a few things to keep in mind, I think the Commissioners know this as well as anybody, not that it impacts on my schedule or is any real importance here. The general session starts the day after MLK Day. I think that's right looking at my calendar?

CHAIRWOMAN SANDOVAL: It does, it definitely does.

MR. MOANDER: That is an issue that hangs a bit over the continuation. I don't know how -- I know that I will have -- my office has a role of doing bills, some bill

work, and we tend to stay pretty busy, so I don't know how everyone else is going to be positioned vis-a-vis the legislature, but I think I would be remiss if I didn't bring that up for consideration here.

CHAIRWOMAN SANDOVAL: Oh, yes, I think I am very aware. We have -- there are quite a few things that could impact us during the session that we need to stay on top of, but I mean we also have this, which is very important. So, you know, let's use the time we have now. Maybe we cut lunch, you know, where we can, like we did today. I'd ask that everybody be as, you know, prepared and ready for your turns as possible.

You know, I'm -- but if we have to go Martin Luther King Day, that sounds like that's on option for everybody, and then maybe the 21st and 22nd will be the continuation of the testimony.

I'm not talking deliberations. There is more fun with that later.

HEARING EXAMINER ORTH: And do you think it would be possible to start at 8 in the morning instead of 8:30? I know that we have just one commenter signed up so far at 8:30 each of the next couple of mornings. I expect that even to drop off, frankly, so there would be a very brief interruption to do that at 8:30, but we could squeeze another half hour in there. I think most folks are

accustomed to beginning their work day at 8.

CHAIRWOMAN SANDOVAL: That is fine except for me on the 12th. I had already scheduled that time for some of my, I don't know, daytime work, or now nighttime work, so that's something I cannot move at this point. So with the exception of the 12th, that would work.

HEARING EXAMINER ORTH: Well, can we just plan to do it tomorrow morning then and the 11th, and then we'll talk on the 12th to see if it's necessary going forward?

CHAIRWOMAN SANDOVAL: And you know what? Even on the 12th, as need be, you guys can start, and I will review the transcripts when I get back.

HEARING EXAMINER ORTH: Okay. Just one proposal. It's just based on the minimal number of sign-ups we have for the 8:30 public comment sessions going forward, okay? Oh, Ms. Fox?

MS. FOX: If we start at 8 tomorrow morning, did you want Ms. Begay on then? I've communicated to her first 8:45, now 8:30. I think I could do it but I'm just not sure.

HEARING EXAMINER ORTH: Okay. Maybe check to see if it's okay with her, and if it's not, we'll work in some other business.

MS. FOX: Perfect, perfect.

HEARING EXAMINER ORTH: Thank you for bringing

that up. It would sound flaky to one of witnesses.

CHAIRWOMAN SANDOVAL: And then let's plan on 30 minutes at max for lunch.

HEARING EXAMINER ORTH: Okay. All right. Let's see. So we'll try to squeeze in some more time tomorrow. We could certainly go a little later tonight, and I know that the Commissioners and lawyers and I typically like to have our cameras on, make it clear we are paying attention. I don't think there is any problem with Commissioner Kessler occasionally going off camera, for example, we know she is still paying attention. So if it's okay, maybe we will see if we find a natural stopping point later tonight. Mr. Feldewert?

MR. FELDEWERT: Madam Hearing Officer, I don't know this for certain, but I am told that sometimes if you have Webex scheduled for a certain period of time, that there are steps that you have to take to go beyond that, so --

HEARING EXAMINER ORTH: Let's ask our expert. Mr. Lamkin?

MR. LAMKIN: I couldn't say for certain, but I think at the very least it'll give you a warning before it kicks you off.

HEARING EXAMINER ORTH: All right. I have gone beyond and haven't had an issue.

CHAIRWOMAN SANDOVAL: I can modify them and it won't modify the link where people join.

MR. FELDEWERT: That would be great.

HEARING EXAMINER ORTH: Thank you for that, thank you for raising that.

All right. So shall we return to the technical presentation and our final OCD witness? Yes?

MR. AMES: OCD calls Brandon Powell.

HEARING EXAMINER ORTH: Mr. Powell, would you raise your right hand, please. Do you swear or affirm that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.

HEARING EXAMINER ORTH: Thank you. Your sound is good, and if you would please spell your last name for the court reporter.

THE WITNESS: Powell. P, as in Paul, o-w-e-l-l.

HEARING EXAMINER ORTH: Whenever you're ready, Mr. Ames.

MR. AMES: Thank you, Madam Hearing Officer.

BRANDON POWELL

(Sworn, testified as follows:)

DIRECT EXAMINATION

BY MR. AMES:

Q. Good afternoon, Brandon.

A. Good afternoon.

Q. Could you please state your full name for the record?

A. Brandon Powell.

Q. And where do you work, Brandon?

A. The New Mexico Oil Conservation Division.

Q. And what do you do there?

A. I am the engineering bureau chief.

Q. How long have you been the engineering bureau chief?

A. Since November. It's fairly new.

Q. But you have been with OCD for a number of years now?

A. Correct. I've been with the OCD for almost 15 years now.

Q. That's quite a long time. Can you give us a sketch of the various positions you've held with OCD, and as you go along, explain what you did and learned in that position?

A. Certainly. I'll try to be brief considering the time.

I started with the OCD in 2006 as the environmental specialist. I've overseen field environmental concerns, operations, release responses, responses to dangers to human, health and the environment.

In 2011 I was promoted to staff manager and inspections enforcement supervisor, which I was in that position for almost eight years, or actually a little over eight years. In that position I overseen the field inspection staff. I also worked reviewing downhole engineering and worked with coordinating the new environmental specialists and other professional, worked with other professionals in the office and filled vacancies as they were vacant. I also drafted enforcement documents.

In 2019 I was promoted to the district supervisor. In that position, I overseen all of the district's day-to-day operations and aspects and decision making. I overseen all the professional staff, including the inspectors, geologists, the admin staff, data managers in the district.

And then I was promoted to the engineering bureau chief. In summary, I've seen pretty much all of the day-to-day operations of the Division as far as implementation as it goes in the field, including enforcement, inspection protocols, those kind of things.

Q. Thank you, Brandon. So over the course of your years of service to the OCD, have you learned quite a bit about business practices within the Division?

A. I have. The business practices, the rules, how they apply, all of those aspects.

Q. You understand the various forms that OCD provides to operators?

A. For the majority, yes. I haven't dealt with all of them, but I've dealt with the vast majority of them.

Q. Are you familiar with how forms are created for operators to use?

A. I am.

Q. Are you familiar with how forms are processed?

A. I am. I've been involved in both the creation and the processing of multiple forms.

Q. Are you familiar with the databases that OCD uses and intends to use in the context of this rule?

A. I am.

Q. Thank you. Brandon, I believe your CV is OCD Exhibit 54; is that correct?

A. That is correct.

MR. AMES: Move admission of Exhibit 54.

HEARING EXAMINER ORTH: Let me pause a moment in the event there is any objection.

(No audible response.)

HEARING EXAMINER ORTH: Exhibit 54 is admitted.

(Exhibit 54 admitted.)

MR. AMES: Great, thank you.

Q. Brandon, have you prepared a PowerPoint presentation to support your testimony today?

A. I have.

MR. AMES: Ms. Polak, could you bring up that PowerPoint?

Q. And Brandon, begin when you're ready.

A. So on this slide, just a general statement. I plan on going over the rules again with a brief high-level summary of the main points instead of a deep dive.

My intention is to focus more on how this rule affects the OCD in New Mexico. As Tiffany, Matt, and Jim have already focused on the other details, even though there is some crossover in intent, I will go over each proposed rule one at a time. But once I get to Part 28, I will just note the similarities instead of reading through their entirety to help streamline my testimony by not being duplicative.

I think you will notice a pattern as I go through the rules. The majority of concepts are new to New Mexico, however, they track with the OCD's regulatory intent stating back clear to 1970.

Next slide, please.

So we start on Part 27. Again, this is an entirely new regulation to regulate the upstream operations in New Mexico. As such, we are setting new concepts and regulations to reduce the waste of natural gas from venting and flaring.

Next slide.

We start with -- I'm going to start with 19.15.27.8 NMAC. This section really sets up the intent of authorized venting and flaring in New Mexico and clarifies the venting and flaring outside of the scope is considered waste.

It also provides that it is the operator's general obligation to maximize recovery of natural gas in New Mexico. This provides operators in the state with a general explanation of the expectations in New Mexico around venting and flaring and our commitment in requiring operators to reduce the waste of natural gas to the greatest extent possible.

Next slide.

Now we move on to Subsection B. This section describes the OCD's expectations regarding the operators' obligations for venting and flaring during drilling and requires the gas be flared instead of vented where possible.

These implementations, again, are new in New Mexico. As such, we hope they will reduce the potential impacts to human health or the environment during the drilling process.

Moving on to Subsection C, I'm going to spend a little time in this section as there is some big new concepts contained that will affect New Mexico going

forward.

This section describes the OCD's expectations regarding the operators' obligations for venting and flaring during completion operations. It allows for extended completion time frames if there are complications due to gas quality.

It also separates completion into two phases, as Jim had previously mentioned, the non-separation and separation phases. These implementations during completion work are new for the OCD and New Mexico. Currently, venting and flaring during completion work is totally exempted from any of the regulations for the first 60 days.

As proposed in the separation phase, there is language in place to provide operators our expectations to capture as much natural gas as possible. Because of this language, our intent is to capture gas that has historically been flared or vented.

We also understand that not all gas during completion is sellable due to its quality. So in this section, we have provision which allow operators to address gas contamination issues that could create safety issues such as nitrogen or H^2S.

Now, in Subsection D, in this section we detail the operators' obligations during production operations. You will notice that routine flaring is not included in the

list as it is no longer an allowed practice in New Mexico. We recognize this will be a big change and we will work with the operators to phase this approach out through our compliance program.

Again, the implementations during production are new in New Mexico. In the current rule, there is considerable ambiguities in the exceptions allowed. This has led to issues on how it has been applied statewide. Having the new level of clarity on the expectations will allow clear and consistent application by the OCD and clear and consistent operation expectations by the operators.

Subsection E. In this section we provide new standards in New Mexico.

Q. Brandon, I'm sorry, I was trying to cut in there. Can you pause a second?

A. Certainly.

Q. Thank you. I wanted to, before we left the discussion about exceptions under Subsection D, I wanted to give you an opportunity to expand on the Division's reasons for deleting the exception in 8.D.1 regarding federally enforceable air quality permits.

During Mr. Bolander's testimony, he suggested that you would be able to expand on that, and the chair asked for additional information as to the Division's reason or reasoning for deleting that provision. Could you expand

on that?

A. Certainly. So that provision was originally adopted by the OCD into our draft to ensure there wasn't a conflict with the NMED's rules -- or NMED's permits. As we worked through the rule, we included additional items and made some slight tweaks to that, but we left it mostly the same.

Prior to coming to hearing, there was some suggested language for some changes to that provision. We looked at those suggestions. We were looking at potential alternatives.

We contacted the NMED, discussed that language and those alternatives with them. They rereviewed what we had put together and determined that everything that they felt was needed was incorporated in other provisions of our rule.

So we again asked them to rereview it just to ensure that that was the case. They had their legal counsel review it. They also had management review it, and then they came back and said that it was no longer needed.

Because of that, we looked at it again just to ensure that we didn't need it. And after rereviewing it, and because NMED didn't have it, we were concerned if we left it in there, that it could create some loopholes because of the different permits that were applicable that

if, say, a facility had an NMED Commission's permit, then all of a sudden it could create a loophole for routine flaring because it was a permitted facility. So we opted to go ahead and take that out.

Q. Thank you.

A. Moving on to Subsection E, performance standards for separation, storage tank, and flare equipment.

In this section we provide new standards in New Mexico for equipment, including performance standards and define inspection intervals.

Our intent is that these prescriptions will set standard expectations in the state, which will subsequently reduce waste from them. The OCD has not previously applied a minimum frequency for inspections on the operators. However, we feel prudent operators are already visiting these sites and performing these types of inspections. For them, we are now asking that they just be documented.

For the other operators, the AVO requirements will reduce venting in the state by discovering well leaks earlier through minimum expectation of inspections. The inclusion of shut-in, temporary abandoned, and inactive wells in the frequency require wells that may not be -- may not have been previously inspected in years to now be inspected at least monthly. Historically, in our inspections, we found leaks on these types of wells that may

have been left unchecked by the operators for years.

I am going to elaborate a little further on the inclusion of temporary abandonment wells under this section because they were referenced by NMOGA, and I believe there may be some confusion there.

These wells are regulated by OCD's current rule 19.15.25.14 NMAC. I would like to point out that this rule doesn't directly require that the isolating device used for testing purposes to stay in the well during the temporary abandonment timeline, which is why we are still requesting they be inspected as they could still develop surface leaks. This regulation is different from the federal requirement under BLM where those isolating devices are required to stay downhole.

Next slide, please.

Subsection F, measurement of vented and flared natural gas. This section establishes requirements in the state for the measuring of venting and flaring and includes information based on the situations that these occur with a meter or through estimations.

One of the issues we currently have in the state is we have no way to identify how an operator is measuring the venting and flaring they are reporting and if it is accurate. This will give a new tool to be able to start evaluating these situations. This will allow the OCD and

the State a reliable picture of what is occurring during operations on a well or facility.

Moving on to reporting of vented or flared gas.

This flared -- this section details requirements for reporting venting and flaring in New Mexico. The other big change in this section is, from the current rule, is change in the intent of the C-129 from an authorization form to a reporting form.

During this process, we identified the current system in New Mexico was very generalized and that information we were receiving was not reliable. Because of this, we had difficulties being able to fully understand where the venting and flaring is occurring in New Mexico and at what frequency. The proposed section addresses these issues by providing the OCD and the State a holistic view of the venting and flaring and where it is occurring at a granular level.

As part of the outreach we conducted, it was identified there was considerable overlap between the newly proposed 129 and the C-141. To account for this overlap, we are now proposing to use the C-129 in lieu of the C-141 when the reporting of gas only release.

Q. Brandon, I have a couple questions for you here. Can we pull up OCD Exhibit 2A, and specifically Page 5G1, 8.G.1.

A. Certainly. Can I be -- there we go. You said Page 5, 8.G.1?

Q. Yes. I think you are in 28. I'm referring to 27.

A. Oh, I'm sorry. I thought I was in the right rule.

Q. So I think it's up from where you are. You're a little down.

A. G is down.

Q. There you go. That's fine right there. So I just want to clarify something. G.1.A requires a report -- G.1.A, little i, requires a report, and then G.1.A, little two and three, both refer to C-129. Is this a more-than-one form -- is more than one form being filed?

A. So that is all the same form, it's just different events that classify what category of response or what category that that form fits in. Those categories are reflective under 19.15.29 as well, and that language was adopted into this one, specifically so that 129 could be used in lieu of the 141 as needed.

Q. Okay. Then what is the purpose of G.1.A, little three?

A. G.1.A, little three, is to give us notification when that venting or flaring has terminated. So they would file one when it starts, and then they would file one at

termination.

Q. So you're saying operators file an initial form and then update it in the final form?

A. Yes.

Q. Which -- So -- go ahead. I'm sorry.

A. I was going to say, so when they file the initial form, they may have the information of why it started, where it started, but they wouldn't have te total volumes of how much was vented or flared during the process. So the final form is to complete all the gaps in that information that they may not have up front.

Q. Okay. Do you recall Mr. Feldewert asking some questions, I believe of Mr. Lepore, about how operators would be able to report accurately on a monthly basis under G.2 if they don't have some data at that time?

A. Let's see, so under G.2?

Q. Yes. So like, so the question I think is, if an operator doesn't have some information at the time it's required to file its monthly report under G, G.2, would it have an opportunity to provide that information to correct its initial submission?

A. Yes. Although the system hasn't been created yet, the C-115-b would work similar to the current C-115 process where if they filed information and then previously gained additional information, they could amend that form so

it would be appropriate.

Q. So if I understand you correctly, you're saying that under G.1, the operators file an initial form and a final form to update the information, and OCD already has a similar process in place for C-115s; is that right?

A. That is correct.

Q. And you're saying OCD would do the same for C-115-Bs; right?

A. That would be correct. One thing to note that I think was maybe missing from the previous testimony where they were talking time frames and those kind of things, the C-115 B report doesn't come until roughly 45 days after the production has already taken place.

So during that time, if there's clarifications that need to be made, as Madam Chair represented, acts of God, if they are waiting for that classification for us to say that it was beyond their control, they have that 45-day window to get that determination as well.

Q. And that determination arrives in the context of what is or is not an emergency; is that correct?

A. That is correct.

Q. Okay. Thank you. One more question. If you go down to G.4 -- I'm sorry, G.3. So in G.3, the Division proposed a change here from the operator reporting on a volumetric and percentage basis the volume of lost natural

gas to the Division compiling and publishing it. Can you explain why the Division made this change?

A. So we made this change because we felt that it, it's purely an accounting change that can be made in the system that's going to be designed for this. It's something that can be auto-calculated and published.

So it's entirely in the system to do those calculations, because we are requiring the operators to submit on a well basis or a facility basis. So this could auto-compile this into a general overall number that we can then publish or have available to the public.

Q. Okay. Thank you. So operators are reporting the data on a well basis, and the Division will compile and publish the operator's overall compliance for their gas capture requirement; is that correct?

A. That is correct. Yes.

Q. And then finally, let's go to G.4 now, the royalty owner reporting requirement. And I believe you had a couple of points you wanted to make in response to some of the questions that the Chair asked.

A. Let me look at it again. I think there are some overall points that I would like to make and then I can dive further down into it. I think there was some confusion over the information that we previously referenced that we're going to compile in 3.

In 3, it's an overall operator's perspective as far as the operator as a whole. The information we are looking for in 4 is not an operator's perspective as a holistic operator. It would be the reports on what effect does it have on the individual royalty owner. So the operator -- we're asking the operator to report to that royalty owner the volumes that directly affect that royalty owner during that monthly timeframe.

Those royalty owners are directly affected by their reduced royalties from waste, if it truly is waste. So by being affected by that waste, we feel that, one, they need to be informed, and, two, once they are informed, if they have contractual obligations to reduce waste during the production of those minerals, then they can take whatever action appropriate to work with the operator to reduce those, that waste, which is why we're including this provision is we feel that once the royalty owners are notified of that waste, they can work with the operators to try to reduce that waste.

Q. Are there other places in OCD's rules where, where royalty owners are given information, or where they are required to give information to royalty owners?

A. So I'm not aware of any other places where royalty owners specifically are required to receive notification. We do have some other rules where surface

owners are required to give information off of a similar scheme, and maybe I shouldn't use "scheme," but on a similar process where surface owners are being affected by an operator's process, we require the operators to give them notice of those processes, specifically our PIT Rule, which is 19.15.17 NMAC and our release rule which 19.15.29 NMAC. Both have notifications to notify a surface owner of a specific issue.

And it's really kind of similar in what we're looking at is the operator is doing something that could directly affect the royalty owner, so that's why we're providing that information.

Q. Thank you, Brandon. I think we can return to your PowerPoint presentation, and I think we are on Slide 97, Statewide Natural Gas Capture requirements.

A. Okay. So this moves to the next section is the Statewide Natural Gas Capture, as Eric pointed out.

This section establishes the gas capture requirements and accounting methods. This section is significantly reducing venting and flaring, in my opinion, in New Mexico. It sets a 98-percent capture requirement with a five-year implementation. It separates the state into two sections and allows the OCD to spend APDs prior to spud if an operator fails to meet certain compliance requirements.

The percentage used has been thoroughly reviewed by Matt and Jim in previous testimony, and has previously stated that as far as we know, the overall venting and flaring percentage requirement being proposed is the first time in not only in New Mexico's history, but in the country, that this has been directly added into the rules.

This is a new concept in New Mexico to reduce venting and flaring and hold all operators to the same overall venting and flaring threshold, adding predictability for New Mexicans and for the operators. The proposed section provides a defined gas capture expectation for all the operators in the state. It also considers the path of 98-percent compliance may be different for various operators. So the five-year phased approach allows the operators to follow a more individualized approach to achieve this compliance.

Next slide, please.

Moving on to the accounting section, B. This section goes over the accounting of the rule and also introduces a new program we are proposing called ALARM. The accounting section will allow the OCD to see an overall picture of the operator's compliance with the venting and flaring percentage in New Mexico.

The ALARM section is creating a new way to incentivize new monitoring methods and advancement. The

concept is an attempt to create a partnership between the OCD and the operators and looks to sponsor advanced technology and innovation. Looking at the future innovation is something that will benefit not only the State of New Mexico, but also operators as new technologies come out.

This is a big area where I think rules fail is when they don't look at the future innovation. So I see this as a big win for New Mexico.

Moving on to Subsection C, which is third-party verification. The proposed section allows the OCD the ability to have measurement methods verified independently if there are major concerns over an operator's measurement process.

This is a new concept in New Mexico and we hope to use it as a collaborative effort between the OCD and the operators to ensure reporting methods if there are major concerns without proceeding with more formal action, which could include penalties.

Subsection B, natural gas management plan. This section requires future planning prior to APD submittal by the upstream and midstream operators, ensuring takeaway gas capacity. It also encourages compliance as it lessens the information burden if an operator is following their capture requirement.

Historically, the OCD attempted to have operators

plan their gas takeaway by requiring a gas capture plan. That process was never written into rule and this proposed section formalizes and builds off of that original concept by requiring upfront planning.

This preplanning requirement will create more cohesive and verifiable relationship in New Mexico between upstream operators and midstream gathering companies to reduce the wasteful venting and flaring in the state.

We now move on to Part 28. This section regulates venting and flaring on the midstream side. This is a very new concept for the OCD and New Mexico as current midstream regulations are very limited in this aspect. As previously stated, now that we are reviewing 28, I will just note some of the similarities where they exist instead of reading through their entirety to help streamline my testimony.

The first part is 28.8, venting and flaring of natural gas. This section generally prohibits venting and flaring but identifies a limited number of situations when venting and flaring is allowed, establishes equipment and measurement standards.

This is the first rule portion with similarities between the rules referenced in Subsection A -- sorry, referenced in 27. As you can see, just under Subsection A, I reference the reference to the applicable rule in 27.

Similar to Part 27 for upstream operators, this provides midstream operators with a general explanation of expectations in New Mexico around venting and flaring and our commitment in requiring operators to reduce the waste of natural gas to the greatest extent possible.

Next slide, please.

Subsection B, this section sets up the venting and flaring expectations during operation of midstream processes. This section is very similar in intent to the new production prescriptions in Part 27. In New Mexico, these venting and flaring prescriptions are completely new to the OCD. We are proposing these new regulations to an area that is currently mostly unregulated by the OCD. This level of clarity on the expectations will result in decreased waste for venting and flaring in the state.

Moving on to performance standards. Again, this is second slide now where it's also similar to Part 27 and you can see the direct rule reference there. Similar to 27, the OCD has not previously applied performance standards to these pieces of equipment. These prescriptions will set new standard expectations and reduce waste.

Also, as previously stated, a minimum frequency of inspections is new to New Mexico. The AVO requirements will reduce venting in the state by discovering equipment and line leaks sooner.

Q. Brandon, before you move on, I have a question here for you about C.1, 28.8.C.1 the operation plan. You heard Mr. Feldewert ask Mr. Bolander a number of questions about the plan, and one of those questions was what does the OCD expect to get out of this and what is the OCD expected to do with the information.

Do you have some information to offer to the Commission to explain why OCD wants this provision and what it expects the information to achieve?

A. I do. So I think, conceptually, what we are looking at, and I think what's being pointed out is, even though this lists different categories in it, we are not regulating those categories specifically. We are regulating those categories as they relate to leaks and releases.

So say cathodic protection was the one I believe that was previously addressed. We are not referencing how they address their cathodic protection, what equipment they use, those kinds of things. We want to know how they are handling their cathodic protection in a way that reduces leaks and releases. So it's more of a holistic view relating to the leaks and releases that we are really looking at and not the equipment operation itself.

In that, once we get those plans, we would take those plans and we would have them on file, then we include a brief review when we get on to see what they are. And

then if we see issues relating to an operator in that specific process or that specific piece of equipment, we would go back to their plan, look at their operations plan, see what it says, and if we identify that they are doing something in their operations that could be causing that leak and release, then we can get with those operators to address that specific operation in their operations plan.

So it's not just addressing the small instance, it's addressing the bigger picture or even they may be having that same issue on multiple different sites or level, if it's an operational deficiency instead of a specific equipment deficiency.

Q. Thank you.

A. Moving on to Subsection B, reporting to affected upstream operators. Jim spent quite a bit of time on this one earlier, but I would like to just continue to point out this section requires notice to the upstream operators of issues that affect them. The intent is to limit unnecessary venting and flaring by upstream operators in New Mexico by giving them expedited notice from midstream companies allowing them to quickly take appropriate actions. We have heard in the past that this communication has been lacking, which caused extended venting and flaring in upstream operations.

And I think the connection has been made earlier,

but I would just like to reiterate it for clarity, is the four hours that's been discussed under Part 27, that is directly contingent on those upstream operators getting the notice from the midstream company.

So that four hours doesn't start until they receive their notice. So it's extremely important that the midstream operators give those upstream operators that notice.

Next slide, please.

Subsection E, measurement of vented and flared natural gas. Measurement of venting and flaring for a natural gas gathering system is new to New Mexico. This establishes requirements which would allow us a better picture of what is occurring during these operations.

And I know that was really short, but Jim did a really good job diving into the details of that.

Subsection F, reporting of vented or flared natural gas. This section is also very similar to Part 27, in the corresponding Part 27 rule as above. During this process we identified venting and flaring of natural gas during gathering was not tracked or reliable in New Mexico.

One of the difficulties we faced was being able to fully understand where venting and flaring is occurring and at what frequency. The proposed section allows the OCD to obtain a holistic view of the venting and flaring in New

Mexico at a granular level.

Now we move on to Subsection 9, which is location requirements. This was another area that Jim went through extensively, but I feel it is very important, so I plan on going through it quite a bit as well. We feel the information required by this section is a very important addition to the OCD's rules and to the safety of human health and the environment in New Mexico.

Historically in New Mexico, the OCD has struggled at times to locate responsible operators during an emergency or a release originating from a pipeline. This information will allow the OCD to contact the proper operator the first time and reduce the amount of time it takes to identify the responsible operators.

Actually, Tiffany, if you could go back one slide.

The annual updates will ensure that the OCD is working with up-to-date data and operators. This has been difficult in the past as we have abandoned lines marked with prior operators causing issues and it is difficult to track down the current operator.

The GIS later showing the emergencies and malfunctions on specific lines will allow operators in New Mexico to identify and address problem areas, greatly reducing ongoing venting and flaring in those identified

areas. Currently, it is difficult to map these issues and tie them to a pipeline. Even in a close area, there could be multiple pipelines in a single easement.

So what that means is, yes, we are getting all the 141s currently, we plan on getting all the 129s, and all of those are going to have a location requirement aspect to those forms showing where that happened. But that may not provide us enough data to truly see what's going on, because there are times where you could have multiple pipelines in a single easement, so you don't know which pipeline that is actually relating to. Or you could have a single pipeline that's having multiple issues that could be hundreds, if not thousands of feet apart, but all related to the same issue.

Next slide, please.

Now we move on to Section 10, statewide natural gas capture. Again, this is very similar to the Part 27 rule. Currently, New Mexico does not have an overall venting and flaring percentage requirement. This is a new concept to reduce venting and flaring in New Mexico and hold all operators to the same overall venting and flaring threshold.

This defines gas capture expectations for all midstream companies in the state. It also considers the path to 98-percent compliance may be different for various companies, and the five-years phased approach allows them to

follow a more individualized approach to achieve this compliance.

Q. Brandon, before you go on to the next slide, Subsection C, I'd like to go back to 10.A. Could you bring up Exhibit 3A, Page 6?

A. Certainly.

Q. So scroll down to 3A, 3 and 4. So it looks to me like A.3 is the same provision as appears in 27; is that correct, except that here it applies to gathering systems as opposed to operators?

A. That is correct, yes. I believe they're the same, just with a gathering system versus well.

Q. But A.4 is new. Where did this come from, and why do we want it? Well, you can answer that, the first question, and I will ask the second one, or you can answer both of them, it's as you wish.

A. I think in that one what we wanted is we wanted a holistic view of what an operator is getting as far as their gas capture requirement instead of splitting it up to various different affiliated operators or different affiliations.

Q. Are you aware that -- well, how many natural gas -- well, maybe that's not a fair question to ask you. About how many natural gas system operators are there in the state?

A. I don't know that, and I wouldn't even know to venture a guess.

Q. Okay. All right. I will save my questions for NMOGA then. Thank you. You can go back.

A. Let's see. I believe we covered Subsection A, so let's move to the next slide, Subsection B, accounting.

Again, this is very similar to the Part 27 Rule, just related to the upstream or the midstream environment.

I would like to note that I had a rule reference in this section in the previous slide that were filed, Part 27.9.B is the correct reference.

Similar to Part 27, this will allow the OCD to see an overall picture of an operator's compliance with the venting and flaring percentage in New Mexico. And also, as previously stated, the ALARM section is creating a new to for monitoring methods and advancement. The concept is attempting to create a partnership between the OCD and operators and look to sponsor advanced technology and innovation. Looking at future innovation is something that will benefit not only the State of New Mexico but also the operators as new technologies come up.

Next slide, please.

Third-party verification, i give another noted reference to 27. The proposed section provides a collaborative tool in New Mexico for OCD operators to review

concerns without having to file an enforcement action which could include penalties.

So that concludes the Part 28 provision, but I have some additional historical information I would like to go into.

Historically, the OCD started acting on venting and flaring waste on December 1, 1970 that I could find. As evidenced by Order R4070, in this hearing, the Commission recognized the unnecessary venting and flaring as a waste. Not only did the order address venting and flaring at a well level, but also at processing plants. It will be evident when reviewing this information, the Commission was reviewing very similar issues that exist today.

So moving forward, here are some findings from the -- here are some of the findings and orders listed directly from them. So we will start with R-47, the orders and findings. First, we will look at the findings.

I'm going to read Finding Number 2, that substantial amounts of casing head gas produced from oil wells in the State of New Mexico are presently being flared or vented to the atmosphere. Noted reference casing head gas, I found in some of our old rules that's how natural gas used to be referenced. As evidenced by this finding the Commission was reviewing actions to be taken due to substantial gas being vented and flared in New Mexico. This

mirrors the current issues we have today. An example of this is, as Tiffany showed, the roughly 37 million MCF vented or flared in 2018 and again in 2019, which is a dramatic increase over prior years.

Now I'm going to read Finding Number 4. That in order to prevent the unnecessary or excessive surface loss of a valuable and natural resource, the wasteful flaring or venting of casing head gas should be prohibited.

These Commission findings were very similar to our own findings during this process. They look to prevent wasteful flaring or venting by prohibiting unnecessary or excessive venting and flaring.

Now I'm going to move to the order side. I'm going to start by reading Order Number2.

That except as provided in this order, no casing head gas produced from any well in the state completed after January 1, 1971, shall be flared or vented after 60 days following completion of the well.

In the findings, OCD explicitly bans venting or flaring of gas after completion, with limited exceptions located in Section 3.

I'm not going to go through Section 3 in its entirety, but Section 3 said the general expectations used today and due to the broad language used, they have been difficult to consistently regulate, and we feel have failed

to meet the Commission's original intent.

Now I want to move on and read Order Number 5. That no extraction processing -- plant processing any gas in the State of New Mexico shall flare or vent such gas unless flaring or venting is made necessary by mechanical difficulty.

The reason I point out this section is the Commission previously tried to address venting and flaring at processing plants which extended the scope of enforcement to the midstream operations, which is similar to what we are trying to accomplish in Part 28.

Next slide, please.

The OCD then revisited the regulations in Hearing Order R-4382 on August 30, 1972. In this hearing, the Commission again recognized unnecessary venting and flaring as a waste. This hearing established the venting and flaring rule requirements that are currently in use today which have remained mostly unchanged in the last 48 years even as technology advanced.

To give an example how technology advanced or changed since that 1972 time period, I would like to note that in 1972, there was the invention of the first hand-held scientific calculator, which is quite a difference from what we see today.

Next slide, please.

So again, we see the findings and the orders. I would like to start by reading Finding Number 2, by order and Number R-4070, which is dated December 1, 1970, the Commission prohibited the flaring or venting of casing head gas from any well in the state or for any extraction plant in the state except under certain limited and specified conditions.

In the finding, the Commission referenced the 1970 order as a prohibition of venting and flaring except under certain limited and circumstances. Due to the magnitude of venting and flaring today, we feel that this intent is no longer being met.

I'm going to read Finding Number 3 now. Then after a period of time which to test the efficiency of said order and the provisions contained therein, the Commission believes that said order has been a useful tool in promoting the beneficial use of even small amounts of casing head gas, and that it is in the interest of conservation and the prevention of waste.

I would like to point out that in this finding, the Commission specified that even small amounts of casing head gas have been in interest of conservation and prevention of waste. This shows the Commission wasn't just looking at large sources of venting and flaring, but also small sources.

I'm not going to go further into the order as it remains mostly unchanged in the intent from the 1970 order. However, I would like to note the main language in this order is still used in the current rule 19.15.18.12 NMAC that we are asking to be struck.

Another example, just for fun, of how the technology has changed since this order, this language was established nine years prior to the invention of a laptop computer which is now standard equipment in most operator's field trucks.

I'll move on to summarize Parts 27 and 28.

These rules update the OCD's expectations regarding waste from venting and flaring based on current technology. This level of change in waste regulations in New Mexico has not been substantially undertaken or seen in the last 48 years.

These rules establish standardized inspections, granular reporting requirements and specify process guidelines that provide a comprehensive path for reducing waste of natural gas in New Mexico. Robust stakeholder engagement allowed OCD to gather key information from a variety of technical experts and incorporate it into the proposed rules.

This cooperation with stakeholders and other agencies has created achievable and enforceable rules in New

Mexico. These rules take into account technology advances and allow operators to chart their own path to compliance with overall said goal of 98-percent gas capture by December 31, 2026. This is a progressive set of rules that will reduce waste of natural gas in New Mexico for years to come.

So now I'm going to move into the related rule changes. These are the rules that will be affected by the implementation of 27 and 28. Specifically those rules will be 19.15.7, which is forms and reports; 19.15.18, which is production operating practices; 19.15.19, which is natural gas production operating practices.

As I go through, I'm going to show what's being changed, and then I'm going to identify our rationale for that change in blue. I don't intend to spend a lot of time on these as they are more just clean-up of the adoption of 27 and 28.

So the first one up is 19.15.7.1, and all we are doing is identifying the correct agency in the correct manner. Moving on to 7.8, we insert a -- or 7.8.D, I'm sorry, we insert a new Paragraph 18, which is the C-115 volume of vented or flared gas.

We adjust the numbers of subsequent paragraphs and insert new Paragraph 57 and 58 to add new forms to accommodate OCD's previous adoption of changes to 19.15.34, which is produced water, drilling fluids and liquid fill

waste.

Next slide.

Now we are moving into 7.24 or 7.24.B, operators' monthly report. We identify a specific form and clarify the language in the rule.

Next slide.

19.15.7.25, vented and flared natural gas, we add the new C-115 form as required by Parts 27 and 28. And then we renumber the subsequent sections.

19.15.7.37, application for exception to no flare, we identify correct references and then, again, renumber the sections.

Now we move on to 19.15.18, production operating practices. We identify the correct agency in the first part, we correct the formal citation in the third part, and we conform language to the State Records Center's rules in the 8th Part F and K. In the 11th and 12th parts, we remove sections replaced by Parts 27 and 28 and then reserve the sections to avoid the need to renumber subsequent sections. In the 14th part, we conform title to current usage, in 16-B we conform language to current use.

Moving on to 19.15.19, natural gas production operating practices. In the first part we identify the correct agency. In the third part we correct the formal citation. In the 10th part we removed this section and

replaced it by Part 27. We reserved this section to avoid the need to renumber subsequent sections.

That concluded all the different rule sections.

The proposed rule satisfied the OCC's executive statutory and administrative objectives by implementing the governor's mandate to establish a statewide enforceable regulatory framework to reduce methane emissions in the oil and gas sector, preventing waste and protecting correlative rights, public health and the environment, establishing rules using the best available science, employing creative engineering and technology solutions, engaging communities and stakeholders and ensuring meaningful compliance, standardizing the requirements for inspections and reporting across the oil and gas sector, providing flexibility for operators to adopt new technologies rather than prescribing engineering solutions and fulfilling the OCD's historic objective to reduce natural gas waste.

To end with, we feel these changes create a strong regulatory framework which is enforceable, allowing the State of New Mexico to secure substantial reductions in preventing waste in New Mexico due to venting and flaring. We feel these changes could very well be used as a national role model for other states.

And with that, I'm done with my presentation.

Q. Thank you, Brandon. Brandon, are Exhibits 55 and

56 accurate copies of OCC Orders R-4070 and 4382?

A. They are.

MR. AMES: Move their admission.

HEARING EXAMINER ORTH: Let me pause for a moment to see if there are objections.

(No audible response.)

HEARING EXAMINER ORTH: The exhibits are admitted.

(Exhibits 55 and 56 admitted.

MR. AMES: Thank you, Madam Hearing Officer. Pass the witness.

HEARING EXAMINER ORTH: Let's take a ten-minute break and when we return I will ask Mr. Feldewert if he has any questions of Mr. Powell

(Recess taken.)

HEARING EXAMINER ORTH: All right. Thank you. We are back after a ten-minute break. We just completed Mr. Powell's direct presentation. Mr. Feldewert, do you have questions of Mr. Powell?

MR. FELDEWERT: Yes, Madam Examiner, I do. Can you hear me okay?

HEARING EXAMINER ORTH: Yes, I can hear you okay.

MR. FELDEWERT: Great. Thank you. And will I be able to share content? Looks like I can now, yes. Great.

CROSS-EXAMINATION

BY MR. FELDEWERT:

Q. Good afternoon, Mr. Powell.

A. Good afternoon.

Q. Mr. Powell, there's a provision in the sections dealing with AVOs, inspections that require operators to keep a record. Are you familiar with that language?

A. Without going to it specifically, I have a vague recollection of it, yes.

Q. Let me try to share here. Hold on. I believe I'm sharing OCD Exhibit 2A now. Can you see that, Mr. Powell?

A. Not yet.

Q. How about now?

A. Yes, I can.

Q. Okay, great. Thank you. And so this is Subsection 27.8.E.5, and you will see that -- and this is the section dealing with AVO inspections, okay?

A. Uh-huh.

Q. And down here it talks about the operator shall make and keep a record of an AVO inspection for not less than five years.

A. Correct.

Q. And I believe we see similar language in Part 28; right?

A. I believe so, yes.

Q. Okay. What does the Division mean by "keep a record"?

A. That means when they go out and they perform their inspections, they document that it was performed and then they keep the record, however they documented it, for five years.

Q. Are you anticipating that the Division is going to put out some kind of a form?

A. That is not our intent. Our intent is to let the operators identify how they want to keep those records, be it through their standard processes that they employ today, and new processes that they may be bringing up, a process that they may develop with the NMED. We're not specifying how that's to be recorded.

The main thing we are wanting out of that is, one, that it was performed, and if there was deficiencies, that those were noted. How that is tracked, that's up to the operator.

Q. Okay, thank you. Let's then move on to Subpart G. This is the reporting, okay, of vented and flared natural gas?

A. Okay.

Q. Again, in OCD 2A, and there is similar provisions in Part 28, but I'm interested in G.1.B, okay, and I'm down here at Roman Numeral IV where the Division has added since

they published the rule the term "compositional" ahead of "analysis of the vented or flared natural gas." Are you there, Mr. Powell?

A. Yes, I am.

Q. Okay. What do you mean by providing compositional analysis? What type of analysis are you talking about?

A. I apologize, but I believe that's, as its stated, a compositional analysis or a breakdown of what the gas is in that gas stream, be it the oxygen, the nitrogen, the methane content, those kind of things.

Q. So that would be like a C6 or something like that?

A. I'm not a chemist, but it would --

Q. Well, you are looking for oxygen, nitrogen, CO^2, H^2S, something like that?

A. Just the standard gas breakdown that I think the operators deal with in their pipeline provisions and we receive all the time.

Q. Okay. What's the purpose of this meeting, why do you need a compositional analysis?

A. Let me go back up to -- I think it's just to explain what kind of gas was vented so we know is it all methane, is it a mixture of methane and H^2S, is there any additional safety concerns that we need to be looking at.

Q. Okay. Do you -- would you expect the operator to obtain that type of analysis, for example, during a venting or flaring event?

A. As far as during a venting or flaring event, I would say, if they could. If not, they may have that compositional analysis for their gas stream on record for that well or the facility.

Q. And that's -- thanks for that, that's my question. NMOGA has proposed adding the phrase "representative compositional analysis" in front of that for that very reason. Do you see any problems with that, Mr. Powell?

A. I think when you add the word "representative," it could conflict or muddy the waters a little bit, because what does it really representative of; is it representing an entire pool, is it representative of the entire basin, or is it representing the well itself.

I think if you're talking about the well or the well stream, I don't see the scriptor in there that says that that compositional analysis has to come from that particular well at that particular time. So I think that ability, as long as it's truly as representative of that stream, is there as written.

Q. So, for example, rather than taking -- trying to take a compositional analysis at the point of venting, for

example, would operators be able to use a representative analysis that they have on hand of that gas stream from, for example, that they may have from a sales line or something like that?

A. Yeah, as long as it's consistent with the gas stream that's venting or flaring, I don't see a problem with that.

Q. Okay, all right. Now, I want to go down to G.1 -- let's see, G.1.B. Okay? And, I think, Mr. Powell, you had a slide on this that you pointed out that the intent here is for an operator to file a Form C-129 for gas; right, in lieu of a C-141?

A. Yes. So D just kind of completes that cycle. I believe A above starts that cycle, where if it's a gas-only release, it is reported on a C-129. D closes the gap on that, where if it's a gas and fluid release, then it's reported on a 141 in lieu of the 129.

Q. Okay. And I agree with you that Subpart D communicates that to an operator, that you are to use a C-141 for the release of liquid?

A. Uh-huh.

Q. The question that has come up is whether you also have to have filed under Rule 29 a C-141 for the release of gas in addition to the C-129?

A. So I would, in that -- I will just read that

sentence because maybe I'm missing something. The operator shall file a Form C-141 instead of Form 129 for release of liquid drain venting or flaring that is or may be a major or minor release under 19.15.29.7. So say if it includes fluids and it qualifies as a major or minor release under 129, that they file the 141 instead of the 129. So it's that singular form.

Q. What's not in here, Mr. Brandon, is the statement that an operator who has filed a C-129 under this rule is not required to also file a C-141 under Rule 29 for the release of gas. That's what we seem to be missing. Do you see that?

A. I'm looking at that.

Q. And the reason I ask is because NMOGA has made a suggestion that would make that clear, that you file a C-129 for gas under this rule, you file a C-141 for liquid, and you do not have to file a duplicative C-141 under Rule 29 for the release of gas.

A. And I remember looking at NMOGA's language as they proposed in D and, to me, it continued to confuse that. I see what you are saying. I would say, if you are filing a C-129 in lieu of a 141 for a gas-only release, that that would probably be better addressed in A, if it's not already.

Q. Okay. So in other words, something to make it

clear that you don't have to file a C-129 under this rule for the release of gas and then go over to rule, existing Rule 29 and file a C-141?

A. That is correct. Our intent was to file one form.

Q. Okay. I have a question then also about Subpart D.2.

A. I'm sorry, which part of the rule?

Q. Good clarification. 27 -- because I'm going the wrong way -- 27.9.D.2. So we're in 27.9, and going down here to D.2. All right, here we go. And I see the Division has made some changes here that were previously discussed, and there was something we noticed that I just wanted to talk to you briefly about, okay?

A. Okay.

Q. There was a discussion about your D.2, how the phrase for the previous year was added to make it clear what gas capture requirement is applicable. Do you recall that?

A. Oh, I didn't testify for the language, so what's your question? What's that again, I'm sorry?

Q. Okay. So my understanding is that the Division concluded that adding the phrase for the previous year after "natural gas capture requirements" makes it clear which natural gas, what requirement is applicable for this rule?

A. That would be correct.

Q. Okay. What I notice is that when we went down here to Subpart D -- so keep that in mind, okay, for the previous year -- when we went down here to Subpart D.6, that similar phrase for the previous year was missing after the phrase "natural gas capture requirement."

MR. AMES: Do we have a question, Madam Hearing Officer?

BY MR. FELDEWERT:

Q. And so my question is, would you agree that to likewise make it clear, that if the operator becomes clear that it has cumulatively for the year become out of compliance with its baseline natural gas capture rate or natural gas capture requirement for the previous year, that that would assist in making it clear, as we did in the previous paragraph?

A. I see where you are looking at. I'm not sure that I agree that that's needed. I think that's the intent, because once -- the previous year's natural gas requirement then becomes the baseline requirement for the following year, so by calling it the previous year's requirement, I don't know if that's really needed as it's the new baseline requirement for that year as well.

Q. I guess -- so they would have the same intent, would it not, as we see up here in Subpart 2?

A. Yes, I believe that's the same intent.

Q. Okay. That's what I thought. That's what I thought. While we are here, I wanted to look at Subpart 27.9.D.1. Okay? So let's go here, natural gas management plan. I'm looking at Subpart D.1.E, which is some language that the Division recently added on Page 9 of their Exhibit 2A, so I'm at 27.9.D.1.C.

And you will see there is a reference here to a description of how the separation equipment will be sized to optimize gas capture. Okay? That's where I'm starting.

Now, I want to keep that in mind, that phrase, "will be sized to optimize gas capture," because when we go up to 27.8.E.1, so we'll go up here to the performance standards, 27.8.E.1, this requires operators to design completion and production separation equipment and storage equipment for that maximum anticipated throughput and pressure. Okay, Mr. Powell?

A. Okay.

Q. Now, this new language under 27.9.E.1 talks about separation equipment to optimize gas capture. Is there a difference -- did you intend a difference in terms of the standard?

A. I think they both accomplished the same thing, and I think there's the added word "optimize." But I think what we are looking for is for the operator to perform proper planning to ensure their equipment is sized

appropriately.

Q. Which would be, under E.1, would be based on the maximum anticipated throughput and pressure; right?

A. Yeah.

Q. And is there -- is there any difference in the -- if I go back down here to 29.E.1 -- and again, this is new language, that's why I'm asking you a question about it, what separation equipment is being discussed here that wasn't already addressed in E.1?

A. I think the difference is, is in this section we're asking for the operator to provide us that information. I would have to look at the section you previously referenced to see if that was provided to us. You could make it consistent, you could add in E, the maximum anticipated volumes and liquids in natural gas production and a description on how separation equipment will be properly sized for throughput, to make it consistent. I think the difference is, is this section we're asking for that planning side to be provided to us.

Q. Okay. Okay. And then once that's provided to the Division, does the Division intend to do anything with that, or are you guys going to second-guess that, or what's the thought there of providing you -- providing the information?

A. So I think all applications that come to the

Division all follow kind of a general overview review process. We get those applications, we get those submittals, we look at them, we make sure there are no glaring errors, make sure the processes being applied to conform with our rules, that it, for lack of a better word, it passes the smell test, and then we file it.

And then if there is an issue upfront, then we go back and look at it. We work with the operator for that plan. You know, if they filed a plan that says their maximum anticipated volumes were 8,000 barrels a day, and then they are getting 20,000 barrels a day back, then we would go back to the operator and say, you know, why are the anticipated volumes so much different than the volumes you are actually seeing.

Q. So there is no intent here, for example, to receive this, spend a period of time deciding if you are going to approve it and then approve it?

A. No, we're just asking for information to be included showing that.

Q. All right. That's what I thought.

While we are here, there was a question that I had of, I believe Mr. Lepore, and he politely punted to you, okay, and it has to do with Subpart D.7. Were you here for that testimony?

A. I was.

Q. Okay. And this is the whole process, right, where you are filing an APD and you -- you certify under D(4) whether you have adequate takeaway capacity at the time of spudding or whether you don't, and if you don't, then you go into D(5), which is the venting and flaring plan that you submit then; right, with your APD?

A. That's correct.

Q. And then we get all the way down to the end here, where it says, on Part 7, it says that the operator does not make its certification, so that would be the certification under C.4; right, Mr. Powell?

A. That is correct.

Q. Or fails to submit an adequate venting and flaring plan, and that would be under D(5)?

A. Yes.

Q. Then it says, or if the Division determines that the operator will not have adequate natural gas takeaway capacity at the time the well will be spud.

At the time that the Division is considering the APD, the application to drill, do you contemplate that the Division is going to look ahead and make some kind of a determination itself as to whether there is going to be adequate takeaway capacity?

A. I don't see the Division spending a lot of time on that, but the Division at different times gets a lot of

different information. I think that allows the ability to make that determination if they know of maybe issues with a particular field, issues from a particular operator where they certify it and then don't have takeaway capacity, I think that allows us to address kind of the one-offs that may come up.

And I would say that that provision, if we determine they don't have adequate takeaway, more than likely would fall probably under 7.B where we would maybe conditionally grant an APD.

Q. Okay. Because one would assume a lot of times at this point the operator will have certified to the Division that it's going to have takeaway capacity; right?

A. Uh-huh.

Q. Okay. And I guess, if that's the scenario, you don't normally see or anticipate that the Division is going to do its own analysis, for example, and second-guess that, or is that what you envision?

A. I don't envision the Division doing an analysis. What I envision is, one, we look at the operator's analysis, and two, if something else comes up. Like I said, we have seen a variety of different things. We have seen information come from the BLM where they are not granting specific right-of-way approvals or State Land Office where right-of-way approvals are being held for a specific reason

for a specific operator. So this would address all of those.

Q. Okay. All right, now, there was an issue that came up, Mr. Powell, just recently. And as you know, you know this rule, you know it can be a little confusing; right?

A. Certainly.

Q. All right. And it has -- let's start then with this 27.8.E.4 Okay? So I'm going back up here, it's going to be on Page 3 and 4 of NMOGA's Exhibit 2A.

MR. AMES: NMOGA's Exhibit 2A? Or OCD's Exhibit 2A?

MR. FELDEWERT: Thank you, Eric. It's OCD's Exhibit 2A.

Q. And it has to do with Subpart B, which is the allowable flaring or venting circumstances. Okay, Mr. Powell?

A. Okay.

Q. Now, this is previously discussed, and one of the allowances there is gas that does not meet pipeline specs, okay, down there in D.k -- D.1.k, and then -- no, I'm sorry, D.5.k, and then the other one that was talked about was the, under Subparagraph l, the commissioning of pipeline equipment or facilities for as long as necessary to purge introduced impurities, okay? Were you here for that

discussion?

A. I was.

Q. All right. Now, this section addresses the subject of what is authorized to -- or what flaring or venting event is authorized, Mr. Powell; isn't that right?

A. That is correct.

Q. Okay. This does not come into play when you are calculating the gas capture?

A. Correct.

Q. All right. Because as I understand it, when we get down to Part 27.9 and we're dealing with the natural gas capture requirements, and we're into the accounting section, that what comes into play for the natural gas capture requirements are the reporting categories that are identified in Subpart G.2?

A. Correct.

Q. Is that how you understand it?

A. Yes.

Q. And in fact, when you look here I see references not to 27.8.D but to Subsection G and various reporting categories there. If you have -- and under G(2), I'm there now on Page 6, G(2) requires operators under Subpart H to separately report H-little-i and little-i-two, H-little-i-two dealing with oxygen; right?

A. That is correct.

Q. Okay. It does not, for example, in this section, deal with the cause for oxygen being a reason for gas being out of pipeline specs, that I see. Do you, Mr. Powell?

A. There is not a cause listed.

Q. In other words, there is nothing in here that addresses the reason for O^2 being in the gas stream such as the commissioning of equipment, that I see, right, Mr. Powell?

A. That is correct, there's not a -- the causes aren't listed.

Q. Okay. And when it comes to then calculating the gas capture, and what is counted against an operator, and what is not counted against an operator, those categories are dependent upon what's reported here in G(2); right?

A. Correct.

Q. Okay. And when we go down here to the calculation method, under B, we see down here in the new B.3 that excused -- that's what's excused from the gas capture requirement and thereby not held against an operator is by the natural gas vented or flared pursuant to Subpart H-little-i-one, which would be the, would be the failure to meet pipeline specs; right?

A. Correct.

Q. For nitrogen, CO^2 and H^2S. Is that how you understand it?

A. Uh-huh.

Q. What's that?

A. Yes. Yes.

Q. It does not have any excuse in here for failure to meet pipeline specs based on oxygen content?

MR. AMES: Is that a question?

Q. Is that correct, Mr. Powell?

A. That is correct.

Q. Okay. So the way this rule is currently drafted, if an operator has commissioned equipment and is failing to meet pipeline specs because of the introduction of oxygen in the system during that commissioning, this paragraph does not excuse that from the gas capture requirements.

A. That's correct. We specifically didn't excuse oxygen as part of the allowed gas or the gas that didn't count because we felt the oxygen was typically under the operator's control.

The situations where oxygen would be introduced as part of the normal operations would be relatively minor. However, by having oxygen in there, it could be a constituent that could be abused by operators, in certain circumstances, to allow for venting and flaring if they didn't operate their operations appropriately.

Q. But what I'm -- I want to be sure I'm correct here, Mr. Powell, but as I understand it then, if an

operator has commissioned equipment and is required to vent or flare during commission, okay?

A. Uh-huh.

Q. That that venting or flaring activity is counted against them when it comes to the gas capture requirement?

A. Yes, as it's written now it's a generalized statement based off of oxygen. I think if --

Q. Even though there's a legitimate reason for venting and flaring, it has nothing to do with poor operations, it counts against the operator as this rule is currently written?

A. I guess my question is, it almost sounds like maybe you are asking that commissioning of equipment be a separate category?

Q. It's not in there now; right?

A. It's not in there now. Well, it's not in there now as far as the reporting side of it.

Q. The gas capture requirement?

A. Correct.

Q. Even though it's an authorized venting and flaring event under D(4)?

A. It is an authorized venting and flaring event. And I would like to point out there is other authorized venting and flaring under D(4) that still counts against the operator's gas capture requirement. That was one of the

reasons why we have the two-percent requirement and the 98-percent is to allow for some of those operations to take place.

Q. Okay. So what I want to make clear, though, because it was not clear this morning or I think even yesterday, is that even though Subparagraph D(4) authorizes venting and flaring during commissioning activities, that those volumes are counted against the operator when it comes to the gas capture percent?

A. I would say that would be correct. So it would be intrinsic on the operator to reduce that venting and flaring during commission to as much as possible.

Q. And then by the same token, if there is the introduction of oxygen into the system that causes gas to be out of pipeline specs for legitimate reasons, that that, too, counts against the operator's gas capture requirements?

A. Yes, the way it's written it's for legitimate or illegitimate reasons.

Q. Okay. And the same is true for emissions from normal operations that are to be expected. That, likewise, currently is counted against an operator when it comes to the gas capture requirement?

A. Can you state which normal operations or which categories you are specifically referencing?

Q. Any normal operations other than pneumatics;

right?

A. Let's see. I know pneumatics is one that doesn't count against emergencies. For the most part, it's operations that are outside of the operator's control that won't count against them. The operations that are under an operator's control, they have that two-percent allowance.

Q. But wait. We heard from earlier testimony that there were normal emissions that occur that are outside the operator's control that happen as part of normal operations; right, Mr. Powell?

A. I think that was phrased a little bit differently earlier. I think there's normal operations that are required for production. I wouldn't say they're outside of the operator's control.

Q. Okay. And those would be counted against, in other words the operators would be penalized in the sense that it's counted against their gas capture even though it's outside their control?

MR. AMES: Objection, form of question. Not clear what categories of -- of what volumes Mr. Feldewert is referring to in his question.

HEARING EXAMINER ORTH: Would you clarify, please, Mr. Feldewert?

BY MR. FELDEWERT:

Q. Mr. Powell, back to Subpart D, right, okay,

venting and flaring events. Normal operation of storage tank and other low pressure production vessels, those are counted against an operator's gas capture; right?

A. That is correct.

Q. Normal operation dehydration units, amine treatment units, counted against the gas -- operator's gas capture?

A. I would -- you know, if we are going to go one by one, I would have to compare it with the reporting criteria to see if each and every one is in the reporting criteria.

I would, you know, and I understand Eric objected earlier, but your statement that an operator would be penalized by reporting that production, I would say that they are not penalized for reporting that production unless they report that production in excess of their allowed gas capture percentage. Because there's that percentage that's allowed in there, and as long as that percentage isn't exceeded and that percentage starts with a five-year process, as long as that percentage isn't exceeded, there is not a penalized area for that because they would still be in compliance.

Q. I think you and I can differ on how you look at it; right? I mean, we're talking about normal operations that -- where you have emissions that the operators cannot control.

MR. AMES: Objection, Counsel is testifying.

HEARING EXAMINER ORTH: Right. Mr. Feldewert, would you move along, please.

MR. FELDEWERT: Sure. Sure.

Q. When it gets to this reporting category down here in G.2, Mr. Powell, where it says "other," do you see that?

A. Yes, I do.

Q. It's G(2), it's 27.8.G(2) and right now it's labeled Subparagraph M, as in "Mary."

A. Correct.

Q. What is in included in "other"?

A. Venting and flaring that is not included in the categories above.

Q. How is that, if anything that's then put into "other," how is that treated for gas capture reporting?

A. It's, I believe, counted against your gas capture percentage.

Q. Always, no matter what the circumstance?

A. There's not a provision written in there to identify each one. I think the other is intrinsic to understand the total volumes in the state. If we didn't have an "other" in there, instead of having 15 categories, we might have a hundred.

Q. I want to ask you about the request to report to overriding royalty interest owners on a monthly basis.

Okay, Mr. Powell?

A. Okay.

Q. So I'm down here in G(4). Can you tell me when this monthly reporting is supposed to start under this rule?

A. There is not a specific time frame, so I would say as written, with the adoption of the rule.

Q. Okay. Not when operators are to begin monthly reporting to the Division, which I think is January 2022?

A. Correct.

Q. This would come into effect immediately upon the adoption of the rule?

A. That's correct.

Q. Okay. And how does the Division anticipate operators start to provide this information to royalty interest owners, and by definition, overriding royalty interest owners?

A. I would say as written, we haven't defined exactly how that is to happen. We imagine the operators are already in communication with those royalty owners through royalty payments, those kind of things. So whatever means is currently used to give them the information they are getting otherwise, I would assume operators would use that same process. But if they want to develop a separate process to inform them, that would be between the operator and they royalty owner, more on the operator's end to

develop that.

Q. So as part of this, your assumption is that an operator is communicating with each and every royalty and overriding royalty interest owner on a monthly basis?

A. I would -- yes.

Q. Okay. What do you expect the operators to provide to each royalty and overriding royalty interest owner?

A. I think it states in the rule, a volumetric and percentage basis of their mineral estate that was vented or flared.

Q. And I believe you mentioned and the rule says by the well on a monthly basis; right, Mr. Powell?

A. That's correct, by the well.

Q. So it's to be broken down for each royalty and overriding royalty interest owner on a monthly basis for each well in which they have an interest. That's your, that's what you're suggesting?

A. That's what's written. The intent is for you to inform the royalty owner of any wasted natural gas that would normally be --

Q. What if an operator does not pay royalty -- an overriding royalty interest owner?

A. They would probably have to figure out another system.

Q. Because you're aware, are you not, that in some contractual circumstances, you have an operator, let's say of a spacing unit, that contains a number working interest owners; right, Mr. Powell?

A. I am not up to date on all operational contractual issues.

Q. Okay. Well, I will represent to you that if you look at the Division's records, you will see that spacing units are routinely formed that contain acreage held by various different working interest owners. Okay, Mr. Powell?

A. I'll take your word for it.

Q. And are you aware that each of those working interest owners will have their own individual royalty and overriding royalty interest owners that are burdening their interests. Are you aware of that?

MR. AMES: Objection, Counsel is testifying under the guise of asking leading questions. The witness has already said he has no idea about any of these contractual relationships, and it extends beyond the scope of his testimony.

HEARING EXAMINER ORTH: All right. Mr. Feldewert, he has said, in fact, that he is not up on the contractual relationships between royalty interest owners and the production operators. Perhaps NMOGA could

give its own testimony on this point.

BY MR. FELDEWERT:

Q. Okay. So you haven't looked -- you haven't looked into it, Mr. Powell; correct?

A. No, I have not.

Q. And neither has anybody at the Division, in terms of implementing or putting this provision in place?

A. I believe we looked at part of it as far as what some of the royalty payments look like, those kind of things, but as far as going into contractual obligations, I don't know that we would even have access to that because it's contractual between the operator and the royalty owner.

Q. Actually, to be more specific, it would be between the working interest owner and the royalty owner; right, Mr. Powell?

A. I would assume -- I am assuming you are correct because I don't know.

MR. FELDEWERT: Okay. That's I believe, all the questions that I have. Thank you.

HEARING EXAMINER ORTH: Thank you very much, Mr. Feldewert. Mr. Biernoff, are you with us?

MR. BIERNOFF: Yes, I am here, Madam Hearing Officer. Thank you.

CROSS-EXAMINATION

BY MR. BIERNOFF:

Q. I have a few questions for you, Mr. Powell. Mr. Powell, are you able on your screen to call up Oil Conservation Division exhibits?

A. I am. I can.

Q. Okay. I would appreciate your assistance with that, and I'm specifically interested in OCD Exhibit 2A.

HEARING EXAMINER ORTH: Mr. Feldewert, would you mute yourself, please.

A. It should be up now.

Q. Thank you so much. And if we could go to 19.15.27 and specifically to F, like Friday, measurement of vented and flared natural gas. Thank you.

And I want to ask you, Mr. Powell, in F like Friday, 2, there is language at the end of that provision limiting this requirements of this provision to facilities or wells with certain production volumes; right?

MR. AMES: Mr. Biernoff, if I may interrupt briefly. The Division has filed Exhibit 4B which contains the current version of the Division's proposal for this section. So it's probably, to avoid confusion, it probably would be better to look at that version on the screen.

MR. BIERNOFF: Much appreciated, and that makes good sense to me.

Q. Mr. Powell, if I can trouble you to switch over to Exhibit 4B. You have done that, thank you. And so

looking at that language, I had asked just to get us oriented, does this provision F.2 limit the requirements of the -- the substantive requirements of the provision to wells or facilities that have certain production volumes?

A. That is correct.

Q. And why is the reference to ten barrels of oil struck out? What was the purpose of that change?

A. So the purpose of that change, Matt previously testified earlier, is this being a venting and flaring rule dealing with methane waste from venting and flaring, the use of oil in it was probably not as applicable because there could be oil wells that produce upwards of hundreds of barrels of oil with no associated gas.

So we wanted to make sure that this rule was specifically written to just address the gas waste from venting and flaring.

Q. Okay, thank you. And what are the consequences, Mr. Powell, for an operator that does not comply with the provisions of F.2 that we're looking at here?

A. I would say that if operators don't comply with the provisions of any part of the rule, they are opening themselves up to enforcement and compliance under our enforcement discretion.

Q. And what specifically are the consequences that a non-compliant operator, non-compliant with F.2, could face?

A. I think the provisions under our enforcement rule are we can revoke APDs, we can shut in wells, we can curtail production, we can issue penalties. So I would say those would all apply to any compliance, whether it be F.2 or any other provision.

Q. Is the Oil Conservation Division prepared to take the sort of enforcement action that you just described against non-compliant operators?

A. I would say yes, if there is an issue with non-compliance, it's our duty to start looking at our enforcement capabilities and what we need to do to enforce those. It's something that we have built in our process for other compliance issues.

Q. How did the Oil Conservation Division decide the appropriate cutoff in terms of production -- of volume of production of gas for purposes of compliance with F.2?

A. So where this volume comes from, and it actually started with a stripper well provision as part of tax and royalty and tax incentives, so it's a statewide established threshold for the ten barrels and 60,000 MCF of gas -- or 60 MCF of gas, 60,000 cubic feet are used, so it's already a standard volume used to identify wells in the state, both by the OCD and by Tax and Rev, and possibly even SLO.

So we started with that provision and that's where the ten barrels of oil actually got crossed over and

brought into this rule is we just grabbed the whole provision as far as volume and we put it in this rule and later determined that the oil probably isn't as applicable as the gas in this scenario.

Q. Let me ask my question in a different way. Why is it that the Oil Conservation Division determined that wells or facilities that are producing 60,000 cubic feet of natural gas or less should not be subject to the requirement of F.2?

A. Oh, okay. I see your question now. So the reason why we used that is those wells historically have been deemed where they are marginal or on the verge of being uneconomic. So by bringing them into the higher standard, it could force them to be uneconomical and be prematurely plugged.

Q. Okay. When you say that it could force them to be deemed uneconomical, what kind of analysis did the Oil Conservation Division do to support that inference or that assumption?

A. We didn't do a full economic analysis. When it refers to 60 cubic feet of natural gas per daily average, that could be anywhere from 2 MCF a day, MCF is 2000 -- or MCF is 1000. It could be from very minor production up to that 60,000. So we didn't do an economic analysis specifically to that 60,000.

Q. Okay. And has the Oil Conservation Division determined the range of costs for installing the equipment that's called for in F.2?

A. No, because it -- first off, I would say, no, we haven't, and I would say it would be very hard to do as far as range of costs because it would depend on a particular well and how many different streams or lines that are running through there.

I would also state, typically the stripper wells that are referenced here are the low-volume, low-production wells that were previously testified by Jim on that are very hard to reasonably meter because of that low volume or low flow.

Q. Okay. So I guess I'm a little bit confused. Is the reason for the exemption from the, from the metering equipment requirement that these lower producing wells or facilities are hard to meter, or is it that they're -- that it's not economical to do it?

A. I would say it's probably both.

Q. 50-50?

A. I, you know, I hate to give a percentage because I don't have an analysis, but I would say a majority of these low-flow wells, or stripper wells if you want to call them that, would be in the low-flow, low-volume capacity. There may be some that you could economically put a meter

on, but I haven't done that analysis.

Q. Okay. Has anyone else at Oil Conservation Division that you know of done that analysis?

A. Not that I'm aware of. And just to reference, I think the original's ten barrels, 60,000, was probably related to a historical analysis because at one point there was tax incentives because of economics for wells that produced under those thresholds.

Q. Has Oil Conservation Division conducted any analysis of the methane emissions that are specifically linked to wells or facilities that are exempt from the requirements of F.2?

A. We have not. Specifically we haven't done any reviews of emissions themselves. We did it more from a waste perspective instead of an air quality perspective.

Q. And has the Oil Conservation Division undertaken any analysis, I think you may have addressed this in answering one of my earlier questions, of the actual costs of compliance with F.2 for the wells that are, under this version of the rule, exempted from compliance?

A. No, we have not.

MR. BIERNOFF: Okay. Mr. Powell, thank you very much.

Madam Hearing Officer, I will pass the witness.

HEARING EXAMINER ORTH: Thank you, Mr. Biernoff.

Ms. Fox, do you have questions of Mr. Powell?

MS. FOX: No, we do not, Madam Hearing Officer. Thank you.

HEARING EXAMINER ORTH: Thank you. Ms. Paranhos?

MS. PARANHOS: Thank you, Madam Hearing Officer. I do just have one clarifying question for Mr. Powell. And if you could keep up the exhibit for me, maybe that would help me just to guide you to the provision.

CROSS-EXAMINATION

BY MS. PARANHOS:

Q. So I'm looking at what I believe is 8.G(2)M as in Mary.

A. 4(B) is just over the statement production. Would you like me to pull up 2B or 2?

Q. Sorry, yes, 2, the redline that shows the most recent changes to the reporting requirements.

A. And you said 8.G?

Q. Yes, 8.G.2.M, as in Mary, it's the very last category in the monthly reports, it's the "other not described above."

I am just curious how an operator would know what to include in that "other" category since the categories are not explicitly listed in the rule.

Are you able to answer that question?

A. I would answer it similar to the way I answered

it to Mr. Feldewert. I would say that any venting or flaring that's not included in the provisions above would be reported to "other."

MS. PARANHOS: Great, thank you. That's all the questions I have.

HEARING EXAMINER ORTH: Thank you, Ms. Paranhos.

Commissioner Kessler, do you have a question for Mr. Powell? Commissioner Kessler?

COMMISSIONER KESSLER: I'm here. I do not have any questions. Thank you.

HEARING EXAMINER ORTH: Thank you. Commissioner Engler, do you have a question for Mr. Powell?

COMMISSIONER ENGLER: No, I do not. Thank you.

HEARING EXAMINER ORTH: Thank you. And Madam Chair?

CHAIRWOMAN SANDOVAL: I only have a couple. One, do you support this rule?

THE WITNESS: I do.

CHAIRWOMAN SANDOVAL: Do you feel like it was a collaborative process?

THE WITNESS: I do, and I would even elaborate on that a little bit. I've been with the Division for probably 15 years or almost 15 years, and I would say this is probably a more collaborative overall effort than I've ever seen in a rulemaking.

CHAIRWOMAN SANDOVAL: Thank you. I actually don't have too many questions; they have been answered in one way or another. And I know this hasn't come up yet and maybe rebuttal testimony will be a more appropriate place.

HEARING EXAMINER ORTH: Hold on, Madam Chair. Ms. Fox, would you please mute yourself.

CHAIRWOMAN SANDOVAL: Let's see. In 27.D, it would be 3, and so it's not in the Division's version, it's a proposal by EDF. I just wondered if you had any comments on the feasibility, or practicality, or position at all, but, again, if -- I'll read it to you -- if this is more suited for rebuttal testimony, that's fine.

Okay. So it says the -- it's under the venting and flaring during production operations. "The operator must notify the Division at least 48 hours prior to conducting uploading or well clean-up. Clean-up activities, except where the operator must act more quickly in order to minimize waste, in these cases the operator must notify the Division as soon as possible prior to conducting uploading for well clean-up activities."

Do you have any comments on that?

THE WITNESS: I did review that. We did look at it, we did not look to adopt it. In my opinion, it would add potentially hundreds of notifications to the Division a day, depending on different operations that are going on in

the state.

So why that venting and flaring is still being captured under the reporting section, I didn't feel that -- or we didn't feel that the inclusion of it with a 24-hour reporting function would be beneficial for the Division.

CHAIRWOMAN SANDOVAL: Okay. You talked about on one of your slides, which I don't have up at the moment, why some of the pipeline mapping requests were or were -- not requests -- pipeline mapping requirements within the rule were included -- I think it might be helpful for me to understand what the challenges are for the Division in some of those cases, you said, you know, there have been problems where -- I don't remember your exact words, but where there has been some sort of release and the Division doesn't know whose pipe it is.

Can you just walk through an example scenario of what that might entail? That would be helpful. And I mean, without including any sort of operator location or information, please.

THE WITNESS: So I'm going to use a very generalized example that is similar to things we've seen and may not be specific to a specific instance. But say there's a gas release in an area that has H^2S involved. You can't get close to their actual release point because of the H^2S involved until you get air packs, those kind of things, to

safely respond.

The Division doesn't have a way to identify those pipelines that are in that radius to see who those operators may be so the shutdown process could get started. There is times where we've worked with emergency management where they weren't able to quickly identify whose pipelines those are either, especially if it's in relation to like a pipeline corridor where there could be seven different pipelines in an area and we can't identify who all the operators in that corridor are.

So by having this information and having this information both current and knowing what we are dealing with as far as what kind of pipelines, one, the current so we know who all to contact, and then if say the pipeline is exposed and we know that it's an eight-inch pipeline and all of the pipelines in that corridor are four-inch except for one main eight-inch transmission line, we know exactly whose pipeline that was so we can get that pipeline properly shut in, reducing that risk to human health and the environment.

CHAIRWOMAN SANDOVAL: So you believe it prevents waste?

THE WITNESS: I do.

CHAIRWOMAN SANDOVAL: And it would also protect human health and the environment?

THE WITNESS: Absolutely.

CHAIRWOMAN SANDOVAL: Okay. Thank you, I think that adds some context. I'm trying to figure out what I said on this next note I wrote. Hold on. In 28, Part 28.8.C.1, in part of the -- in part of 1 towards the end, it says a plan should include procedures to reduce leaks and releases such as routine maintenance, blah, blah, blah. I'm wondering if leaks and releases is a little duplicative or if something different is intended by those two terms?

THE WITNESS: I think they are duplicative. I think some people refer to them as leaks and some people refer to them as releases. In our rules we always refer to them as releases in Part 29 which is our (unclear) rule, so I think it probably is duplicative.

CHAIRWOMAN SANDOVAL: Okay. Thank you. And then I just had a question on stripper wells or the wells that are exempted that are over -- I'm sorry -- under the 60 MCF. Other than the exemptions for metering and flaring, are they covered by the rule and AVO, in AVO there's a different time frame, are they completely covered by this rule?

THE WITNESS: They are. But again, I would say that the areas where you mentioned exemptions, they're not specific exemptions. Under the meter there is an exemption for meter, but they still have to the provide the estimations and the accounting that go along with that. For the flares, if they go out to retrofit that flare, they have

to bring it to current design. So I would say it's more of allowing that different method than it would be a straight exemption because they are still covered by the rules.

CHAIRWOMAN SANDOVAL: Okay. In some of those low-flow, low-pressure instances, and maybe this would have been more appropriate for Mr. Bolander, but is the measurement, it sounds like not feasible?

THE WITNESS: So Mr. Bolander would be better assessed to answer this, but I will answer it based on the information I have gained from him through this process. Measurement of the low flow, low pressure is more infeasible, correct.

CHAIRWOMAN SANDOVAL: Okay. Do you believe that this rule can still achieve the waste reductions for low flow or, you know, the stripper wells just as much so as it does for non-stripper wells?

THE WITNESS: Yes. Because their estimations have to be independently verifiable. They have to give us the methods that they are going to be using initially. And any time they change those methods, they have to give us updates to those changed methods. So we are still getting, in my opinion, competent information of the venting and flaring from those wells.

CHAIRWOMAN SANDOVAL: Okay. Thank you. I think that is my last question. Thank you, Mr. Powell.

THE WITNESS: Thank you, Madam Chair.
HEARING EXAMINER ORTH: Thank you, Madam Chair.
Mr. Ames, do you have any follow-up for Mr. Powell?
MR. AMES: Madam Hearing Officer, I have no redirect, and I ask that Mr. Powell be excused.
HEARING EXAMINER ORTH: Thank you very much, Mr. Powell, for your testimony and you are excused.
MR. AMES: Madam Hearing Officer, that concludes OCD's direct case.
HEARING EXAMINER ORTH: Thank you, Mr. Ames. So we have been going just for an hour. Let's talk about what happens next as if I remember it. Mr. Feldewert has already offered his opening statement, so I believe, Mr. Feldewert, that we would go directly into your witnesses.
I have just one question there, whether you would be presenting your witnesses in the order in which you identified them in your prehearing statement or whether you are planning a different order?
MR. FELDEWERT: I think at this point the initial set of witnesses, one, two, three and four, I think, will be in that order. And I'm prepared to go with our first witness, Mr. Smitherman, if you can give me maybe ten minutes to kind of reset here?
HEARING EXAMINER ORTH: Yes. I would like to

take a ten-minute break before you start. So let's take ten minutes and come back at 3:37. Thank you.

(Recess taken.)

HEARING EXAMINER ORTH: We are back after a break. Having finished direct presentation of the Oil Conservation Division, we move now to the direct presentation of New Mexico Oil & Gas Association.

Mr. Feldewert, if you would, please.

MR. FELDEWERT: Yes. Thank you, Madam Hearing Officer. The first witness we will call is Mr. John Smitherman who I believe is on the screen.

HEARING EXAMINER ORTH: All right.

Thank you, Mr. Smitherman, if you would please raise your right hand. Do you swear or affirm that the testimony you are about to give will be the truth, the whole truth and nothing but the truth?

THE WITNESS: Yes, ma'am, I do.

HEARING EXAMINER ORTH: Thank you. If you would spell your name for the record.

THE WITNESS: Last name is Smitherman, S-m-i-t-h-e-r-m-a-n.

HEARING EXAMINER ORTH: Thank you. Whenever you're ready, Mr. Feldewert.

MR. FELDEWERT: Sure.

JOHN R. SMITHERMAN

(Sworn, testified as follows:)

DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Would you please state your name again and identify by whom you are employed --

A. Certainly.

Q. -- and in what capacity?

A. My name is John R. Smitherman. I'm currently employed by New Mexico Oil & Gas Association or NMOGA. I'm a senior advisor.

Q. Mr. Smitherman, do you have a degree in petroleum engineering?

A. Yes, sir.

Q. How long have you been working in the oil and gas industry?

A. Roughly 40 years.

Q. If I turn to what's been marked as NMOGA Exhibit C --

MR. FELDEWERT: -- which, Madam Chair, Members of the Commission, it should be in a large black binder that was provided to the Commissioners. There is NMOGA exhibits -- it has NMOGA's prehearing statement at the beginning of it, and then NMOGA's Exhibits C through M. If you all have that in front of you, I intend to largely utilize that along

with their other notebooks, rather than trying to maneuver around the screen.

Q. So if we turn to NMOGA Exhibit C, Mr. Smitherman, do the first two pages, C1 and C2, accurately summarize your educational background and work experience?

A. Yes.

Q. This indicates that your work experience has been focused on the Permian Basin of New Mexico and Texas; right?

A. It has. Almost all of it. For about six years before that, it was mostly Texas and Louisiana Gulf Coast, but other than that, very much focused on the Permian Basin in Texas and New Mexico.

Q. And it indicates that over time you began to, to manage various operations. But do you have, you know, field experience, Mr. Smitherman?

A. I've got a tiny bit of field experience, actual hands-on, mostly summers while I was in college. But as basically an operations manager of production operations and drilling, I was in the field a lot.

Q. Did you manage a number of field workers?

A. Oh, yes. I have probably had hundreds under my responsibility through my career.

Q. And eventually, as you moved through your career, you became vice president of operations; right?

A. That's correct.

Q. Okay. Does your 40 years of experience include New Mexico vertical and horizontal well development?

A. It does, vertical, horizontal, oil and gas.

Q. So have you -- you have actual experience then in drilling wells?

A. Yes, I have actually set wells from spud to completion, but that was in my training phases. I have been a drilling supervisor, so I managed a group of drilling engineers and oversaw drilling operations --

Q. And that would then --

A. -- in my career.

Q. Would that include completing and start-up operations?

A. It did. As our company grew, we did finally split the drilling and completions away from production operations, but for most of my career, production operations included the regular operations and normal day-to-day production, but also drilling and completions.

Q. And do you intend to draw on that experience in conducting -- or in addressing each of these different phases with the Commissioners?

A. Certainly.

Q. Do you also then have, as a result of your employment, actual experience in operating and maintaining wells for their productive life?

A. Yes, absolutely.

Q. Have you become, as a result of your work experience, familiar with the infrastructure of oil and gas operations?

A. Absolutely. We, in fact, owned infrastructure from both upstream infrastructure and midstream as well.

Q. When you say midstream, when you say midstream, does that include gathering systems?

A. Yes, specifically gas gathering, water gathering, if you will, and even water gathering systems.

Q. And in fact Mr. Smitherman, did you manage gathering operations for a period of time?

A. We did. I should say I did, yes.

Q. So you are familiar with the challenges that are involved?

A. Yes.

Q. Your resume indicates that you're a member of the Society Of Petroleum Engineers?

A. Yes, sir.

Q. Is that -- what type of organization is that?

A. It's a professional development organization. It's worldwide. The Society of Petroleum Engineers basically exchanges information, helps develop engineers and provides a forum for discussions of new ideas.

Q. And have you been honored as being a

distinguished lecturer for that organization?

A. I am. In fact, I'm in my distinguished lecture season right now.

Q. Okay. Mr. Smitherman, are you familiar with NMOGA's proposed modifications to the Division's rules?

A. Yes, I'm very much familiar with them.

Q. And those are contained in separate binders that we have provided to the Commissioners; correct?

A. That's correct.

Q. The small white binder that's been provided would contain the proposed modifications to Part 28 -- 27, I mean?

A. That's correct. That would be Exhibit A, I believe.

Q. Okay. And NMOGA's Exhibit B would be in a black binder, and that would contain NMOGA's proposed modifications to Part 28?

A. That's correct.

Q. Okay. Do you intend to walk through those changes with the Division?

A. I do, I'll give an overall summary of all of the modifications.

Q. Okay. Can you essentially discuss the reason for these changes?

A. Certainly. Let's back up a second here. When the informal proposed rule came out last summer, NMOGA and

IPANM basically put together a team of experts from many, many disciplines to review these rules.

Q. When you say IPANM, you mean -- that's IPA New Mexico?

A. That's IPA New Mexico, that's correct.

Q. Okay.

A. So when I, in fact, if you will, Commissioners and others, when I say NMOGA, also think IPANM, IPA New Mexico, because they have collaborated with us in reviewing these rules and crafting the suggested modifications.

Q. Okay. Now, on these suggested modifications, when I looked at these notebooks, these modifications, we got them paginated for easy reference; right?

A. Exactly.

Q. Okay. And then the changes are reflected in red editions or black strikeouts; correct?

A. That's correct.

Q. Okay. When you look through this and you see blue text on these exhibits, what does all of the blue text indicate?

A. All of the blue text is in essence narrative. It's explanations for any kind of modifications that NMOGA has authored. And those blue, that blue text should not be considered part of the rule. We only intend for the rule to be modified by either strikeouts or by the additional red

marks.

Q. Okay. So none of the blue language is proposed language; those are just discussions of the reasons for the proposed language?

A. That's correct.

Q. Okay. I think I interrupted you. What do you, when you look at this, Mr. Smitherman, what do you generally observe about the rules in the proposed modifications that NMOGA and IPA New Mexico have proposed?

A. Sure, thank you, Mr. Feldewert. I want to first off begin by thanking the Commission, Madam Chair, Commissioners and Madam Hearing Examiner, thank you for this opportunity to represent almost all of the oil and gas industry in New Mexico in this important matter. So thank you in advance for your kind attention.

As for my observations, first and most importantly, the Division has proposed a requirement on operators of upstream oil and gas well facilities and operators of gathering pipelines and facilities to achieve notion of leading gas capture rate of at least 98 percent by the end of 2026, separately in both the north and the south producing regions.

This would be an unprecedented accomplishment by this very important industry to New Mexico. As I think you heard in testimony earlier this week, no other producing

state in the US has accomplished such a stringent gas capture requirement. In fact, North Dakota just celebrated a 93-percent capture rate for the single month of September, six years after they put rules in place.

This 98-percent gas capture requirement is one that NMOGA and IPANM support, even while we recognize the challenge that it represents. We share the goal of responsible oil and gas operations, and as we do, we also recognize that there are events that are truly out of the control of operators, and those should be viewed appropriately. We have offered modifications to this proposed rule in that regard.

We have also offered modifications to the proposed rule that seek to recognize the realities of oil and natural gas operations in the hopes of avoiding the creation of incentives which could lead to unintended consequences or unsafe behaviors while we focus on the efforts to reduce high-pressure flaring.

We also note instances where the Division's proposed rules -- I'm going to skip that section. We've already talked about that a lot.

We have also proposed rules that seek to increase the collection of data from the industry. We understand the Division needs sufficient data to do their jobs, and we support effective reporting, but note areas, we will note

areas, where we think the requests are duplicative, and/or they're excessive, and/or we believe are actually unhelpful because the data being sought are either impossible to report with sufficient accuracy.

NMOGA has therefore offered modifications, one, to improve reporting of episodic gas venting and flaring events; two, to make routine monthly reporting more comprehensive; and, number three, to ensure the quality of reported volumes by eliminating reporting of data that cannot be measured or even estimated with sufficient accuracy for production accounting reporting.

NMOGA's modifications will actually improve the value of the data the industry reports, and that will be relied upon by the Division and others. Bad data is inappropriate to inform current enforcement for future policy.

Further, some of the information the Division seeks is available from already existing sources with no additional effort by operators. Another area -- we see areas of the proposed draft where the meaning of certain passages is not crystal clear. So NMOGA is offering changes that are intended to clarify what we believe were the Division's intent.

Finally, to areas of improvement over the informal rule that came out last summer, this includes

reduction of the some of the prescriptive measures and relies more on setting goals and letting operators have flexibility to make those goals.

So NMOGA applauds those changes, and you will see some support as we move through our modifications. So thank you again for this opportunity to address the Commission today.

Q. Okay. What I want to do, Mr. Smitherman, is kind of get down to the nitty-gritty of the actual language changes we have proposed, okay?

A. Certainly.

Q. So we can talk about those. And I think the best place to start is I want to focus on some definitions where we remain different from what the Division has, has modified. Okay?

A. Certainly.

Q. So we are going to be skipping back and forth a little bit between what I call the black notebook dealing with Part 28 and the white notebook dealing with Part 27, okay?

A. Super. I've got both of them up now.

Q. So let's start with the black notebook dealing with Part 28. And one of the areas where we have a remaining language change to discuss involves the definition of new gathering pipeline on Page 3 of NMOGA Exhibit B.

It's at the bottom. Do you see that?

A. I do see that.

Q. Okay. Can you explain why we are ask -- we suggest the Commission add the additional language "constructed and placed in service"

A. Certainly. There is a distinction between pipe that might be already in the ground and it's idle and sections of pipe that would be newly constructed, and we wanted to make sure that this rule applied to those newly constructed pieces or sections, if you will.

Q. Okay. Then if I look at the definition of malfunction, if we go back maybe a page or two, the definition of malfunction is found on -- I'm sorry, it's on that page right above where we were, I apologize.

A. Sure I see it.

Q. Now, when we deal with a definition like this of malfunction, it's essentially the same both in Part 27 and in Part 28; right, Mr. Smitherman?

A. That's correct.

Q. Can you explain why the, the NMOGA believes that the word "substantially" should be removed as well as the word "reasonable"?

A. Yes, certainly. Both of those two words take what should be, in essence, clear and makes them subjective. For example, you say an operator, control of an operator

that disrupts operations and requires correction.

Who is going to decide what is substantial? It seems to us that if you've got a malfunction, you shouldn't have the ability to kind of Monday-morning-quarterback whether that was, quote-unquote, substantial or not.

And same thing for reasonable control. The operator either kind of has control of a situation or it doesn't, and putting the word "reasonable" in there creates a subjectivity to it that makes it unclear.

Q. So this would, in your opinion, this would assist in providing some regulatory certainty to operators?

A. Absolutely, certainty and clarity.

Q. Okay. And would cover instructions that would otherwise meet these rather high threshold language that we see here?

A. That's correct.

Q. Okay. Now, I want to talk about the definition of "emergency." Okay?

A. Certainly.

Q. And we can probably stay in the same notebook. It's over on Page 1, it carries over to Page 2 of NMOGA Exhibit B. Now, this is set up where you have the basic definition of emergency and then a number of exceptions, Mr. Smitherman. Okay?

A. Yes.

Q. Again, we see that in the basic definition, NMOGA seeks to strike the word "substantial"?

A. That's correct.

Q. And is that for the same reasons you just discussed?

A. For the exact same reason; this creates a subjectivity to it that reduces certainty and clarity.

Q. All right. Now, having said that, I thought we could work from this notebook. I just see that there is a change that's unique to upstream; right, Mr. Smitherman?

A. Yes, that's correct.

Q. Okay. So, I apologize. Let's move over to the white notebook, under the definition of "emergency," which is on Page 3 of NMOGA Exhibit A.

A. Yes.

Q. And we see that in Subpart G.2, which is what's unique to this upstream version of emergency, we see where we propose an opening clause be added to this Subpart G.2?

A. That's correct.

Q. What's the reason for that?

A. Well, I'm going to refer you down to Subpart 4 first. The Subpart 4 talks about what I'm going to call a short-term event where a midstream facility has become disrupted, shall we say.

And so as you deal with the realities that

Subpart 4 are aimed at, you've got a situation where the gas takeaway, the gas gathering system has limited capacity. And you look back at Section 2, and it also deals with a situation where the gas takeaway capacity is limited.

We wanted to make sure that we didn't conflate the two. In essence, in Item 2 we really are referring to a long-term gas capacity limitation, and in Item 4, you are really talking about a short term. So we are just trying to create clarity with this edition.

Q. Okay. Then I'm looking at the, towards the end of G.2 we strike the phrase, "or exceeds sales contract volume of natural gas." Do you see that?

A. I do.

Q. What's the purpose of that?

A. Well, clearly there was a desire from the Division to, in essence, avoid the definition of emergency if an operator exceeded some, maybe some contractual limitation in how much gas an operator could produce.

I have never seen such a limitation, and in all of the people that were on our team, literally there's over 80 people on our team reviewing these rules over the past six months, we have not seen that, and quite frankly that included both upstream and midstream representatives.

So, in essence, I don't see the purpose for that. I don't think it will ever come up. It certainly hasn't

come up in my career. And that being the case, then it wouldn't be an issue at all, but it also suggests then that the Division may have a right to review private contracts, and we're concerned about that.

So we see no purpose, we see no benefit to the Division to have that language in there and we see some danger, if you will, in it, so we thought best just strike it.

Q. Based on your experience, Mr. Smitherman, do these gas sales contracts, do they sometimes reference a minimum volume?

A. Well, they can reference a minimum volume. They can also reference, I will call it, a short-term minimum and a long-term minimum, if you will. You can have a minimum volume, but you start having to pay a penalty because you drop below a certain volume. But mostly they will refer to a minimum volume that an operator has to produce to the gas gatherer so that that gas gatherer can, in essence, recoup the capital that they've invested. And there will be a period of time that the operator has to produce that volume, and if he doesn't by that particular time, there are consequences to that.

Q. But in your experience, they don't, for example, impose a maximum value?

A. No, I have never seen that.

Q. All right. Now I want to talk a little bit about some of the limitations, additional limitations to the exception from emergency, which are important, right, because that means that if they fall within these exceptions, it's kind of against operators for the gas capture purposes?

A. That's correct. And those are very important.

Q. Okay. And when you look at these exceptions to "emergency" that the Division has put forth, based on your 40 years of experience, what should the Commission keep in mind when they look at these exceptions?

A. Well, let me give you a little background. I am here today at least partly because I completed this 40 year career in the oil and gas industry, mostly focused on operations. That means I have had 40 years of experience that give me perspective that others may not possess.

That includes understanding how to communicate priorities within a company so that employees' efforts are aligned and also understanding employees don't always make the correct decisions, even as they are trying to do right by their employer.

So why are both of those two observations important? The oil and gas industry is multidisciplined and logistically complex. In order to meet the difficult challenge of a 98-percent gas capture requirement, we need

everyone pulling in the same direction. We need those employees managing drilling schedules, facilities engineers working with reservoir engineers, designing proper facilities, gas marketing professionals doing what they need to do to ensure that adequate takeaway is available when needed.

We need field construction crews and their managers doing their part to stay on schedule. Of course we need our field personnel who maintain, operate, and repair our facilities and respond when things go wrong. We need everyone pulling in the same direction if we're going to meet this challenge.

So how do you get somebody -- how do you get that whole group aligned? When this rule is passed, operators will make gas capture an even more prominent thing in their communications with their employees. It will be a message to everyone in the company involved in New Mexico. It will involve incident reviews, so that the company can improve their performances; it will be progress reports will be communicated on a routine basis; it will be included in reminders at staff meetings, morning field crew meetings.

Gas capture performance will likely be a part of compensation reviews, just as other EH&S metrics are today. It will be a repeated message because that's what it will take to create the aligned team effort needed to be

successful in meeting this challenge.

The goal of this communication campaign will be to have gas capture on the minds of every employee as they perform their tasks every day.

So let's look at emergencies kind of from the top level. There are two main categories of emergencies here, emergencies at midstream facilities that cause upsets at upstream facilities, and emergencies within a single operator's facilities.

So let's start by looking at how the proposed rules address the first category. As is clear from the proposed rules, when a midstream operator has an upset that could cause venting or flaring in upstream facilities, they want that midstream operator to not only address their issue, but also to communicate with all affected upstream operators so that they can respond to any venting or flaring events at their sites.

Further, the Division wants those upstream operators to respond to those events quickly. In fact, I think Mr. Lepore said with alacrity, urgently, I think were the words he used, so that venting and flaring can be minimized.

The Division had recognized that this type of upstream venting or flaring is beyond the control of the upstream operators, so they allow four hours of response

time -- I think they call it a free pass -- before further vented or flared volumes are counted against an operator's gas capture performance.

While we agree with the concept, we do not believe that four hours is adequate to safely and effectively respond. We want you to think about something. Consider that many of these events are going to be caused by extreme weather, extreme weather events, winter storms, spring and summer thunderstorms, so in essence, our field workers are going to be responding to these events in extreme weather.

Now, we have great employees, team players who work hard for the company. That's their team, right? These workers, because of these communications that we have been talking about, will know that beyond a certain time, this lost gas is going to count against their company.

Without adequate time, some of our workers may take it upon themselves to maybe drive a little too fast when you've got ice and snow on the ground, or maybe drive a little faster than we would like them to when it's raining cats and dogs. I'm not talking about speeding over the speed limit, I'm just saying going a little faster than they should because they know they need to get there with that alacrity that Mr. Lepore talked about.

To be clear, our companies don't want workers to

take personal risks, but people are people, and they've heard messages that we have given them, and they want their company to meet the gas capture target.

So personally, I prefer 12 hours for this response time, but we talked to our teams, and they talked to their field folks, and they believe that they can get by with (unclear) eight hours that we've recommended. So what I'm asking you all to do is let --

MS. FOX: Objection, Madam Hearing Officer.

A. Excuse me?

MS. FOX: Objection.

HEARING EXAMINER ORTH: Okay, Ms. Fox?

MS. FOX: Mr. Smitherman keeps referring to his team and their opinion, hearsay objection, in their opinion.

HEARING EXAMINER ORTH: I'm sorry, what is the nature of the objection?

MS. FOX: Hearsay. Mr. Smitherman keeps referring to the opinion of his team of 80. That's hearsay.

HEARING EXAMINER ORTH: I see. Mr. Feldewert?

MR. FELDEWERT: Well, if I had known we were going to follow hearsay objections, we would have made a similar objection. As you know, this is a rulemaking proceeding in which the rules of evidence are very lax, and Mr. Smitherman is here to provide insight on why NMOGA as a group has proposed these changes.

So the information that is necessary to understand these changes comes from NMOGA as a group, and you can't have that understanding unless you have communications with the members. So I ask you to overrule the objection so he can move on.

MS. FOX: Madam Hearing Officer, I agree that this is a rulemaking, I agree the rules of evidence don't expressly apply. This is an extreme case of hearsay where he's essentially giving the opinion on behalf of 80 people.

He can give his opinion for NMOGA on his, on his own behalf, but he is not permitted to give the opinions of 80 people in this proceeding.

MR. AMES: Madam Hearing Officer, OCD would object, too, but perhaps less strongly. It is clearly hearsay. The rules, as Mr. Feldewert said, the rules of evidence don't apply, so we need to be careful not to go too far. In addition, Mr. Smitherman is an expert, you know, I would say, based on his experience and so forth, and I think he can testify to his own opinion, and it would carry sufficient weight without him having to rely on the unknown multitude who support his efforts.

MR. FELDEWERT: Let me add one thing.

HEARING EXAMINER ORTH: Mr. Feldewert.

MR. FELDEWERT: When we all agreed at the beginning we would not have to qualify our witnesses as

experts, okay, I have not qualified him as an expert. I can if I need to. A witness who is qualified as an expert is authorized to rely on hearsay as part of his expert opinion. So this objection does not apply for here for my witness.

MR. BIERNOFF: Madam Hearing Officer, perhaps the witness can disclose the other missing 79 members of this obvious panel, and having that information might help the rest of us understand who exactly is providing this opinion testimony.

HEARING EXAMINER ORTH: Ms. Paranhos, anything to add on this objection?

(No audible response.)

HEARING EXAMINER ORTH: I don't hear anything from Ms. Paranhos. So really, I'm inclined to overrule the objection based on all of the reasons given by both Mr. Feldewert and Mr. Ames, acknowledged by Mr. Ames, mainly that it's rulemaking number one, that Mr. Smitherman is an expert, number two. But I do like Mr. Biernoff's suggestion that, in fact, if Mr. Smitherman is going to share the opinions of a team, he referenced a team of 80 reviewing this rule, that he should give us some indication of who that team is comprised of.

So the objection is overruled, but Mr. Feldewert, I will ask you to draw him out on that point.

BY MR. FELDEWERT:

Q. Mr. Smitherman, you mentioned that there was a group of individuals who examined these rules in addition to yourself?

A. I did. I might just restate what I said and maybe make this go away.

Q. I would like to move this forward. I mean, these people who are objecting are the same people that were concerned about time, so whatever you can do to move this forward, go ahead.

A. Let me try it again. I'm going to restart. I actually prefer 12 hours, but NMOGA is recommending eight hours, as you can see in Exhibit A. I am urging the Commission to please give our neighbors, our field workers ample time to respond safely and effectively. And if you are on the fence between two numbers, please take the higher number, please round up.

So the second major concept in dealing with NMOGA emergency events --

HEARING EXAMINER ORTH: Hold on, hold on. Would you please give us just a little information about the nature of the folks who were on your review team? I'm not asking for 80 names, just give us some information about the type of folks you had on your review team.

THE WITNESS: I will do my best, Madam Examiner. We had members of NMOGA, typically those in companies, who

created a task force, we created a task force that I helped coordinate. That included experts from many, many facets of our business, both midstream and upstream. And they included engineers, they included folks who dealt with gas marketing contracts, they included experts in measurements, they included experts in hydrocarbon fluid properties, they included folks who were experts in operations, both upstream and midstream, they included legal experts that could help us understand regulations.

We had regulatory experts, many regulatory experts, who were experts not only in New Mexico regulations, but regulations across other states and federal regulations. So as you can see, it was a very, very capable group of people who provided input to this process to come up with Exhibits A and B that you see in front of you today.

HEARING EXAMINER ORTH: Thank you very much. Go ahead, Mr. Feldewert.

MR. FELDEWERT: Thank you.

Q. So Mr. Smitherman, is it your opinion that when you look at something like the four-hour time frame, that the Commission should consider the impact that having too short a frame can have on the ability of operators and their employees to effectively address the situation?

A. That's correct. We want to give these people time to get to the field even after notification, and we do

appreciate that proposition by the Division to respond, as I said, many times these events are going to happen, it's going to be at night, it's going to be raining, it's going to be below freezing. Those are the kind of things that cause many of these midstream upsets that then spill over to the upstream.

Q. Okay. So let me stop you right there. Operator gets notification that there is a problem with the upstream and now they have to deal with it, okay?

A. Correct.

Q. Take us through what has to happen. What's after notification?

A. Well, of course, you know, who received that notification. It might have been someone in the central office. That message has then got to go to the field, someone has got to decide where is that going to be; I have an impact, potential impact on our upstream operations and then decide not only who, but maybe how many of our leased operators need to physically respond. They are called, maybe woken up in the middle of the night, and they have to get in their vehicles, maybe drive by the office to get some information or swap out to the company vehicle, and they have to drive to the field.

There is also communication that then goes on between the upstream company representatives and the

midstream. Midstreamers also have to respond. I've been kind of thinking mentally about how the upstream operator responds, but the midstreamers are responding as well. They have to send their people out in the middle of the night perhaps, in bad weather perhaps, to whatever site has caused this issue. They need to get out there and assess what was the problem; is this something that can be handled in 30 minutes, or is this some major event that's going to take a long time.

Q. Now, let me stop you right there. You're talking about the midstream, their evaluation of how long this upset is going to occur, is that important for downstream operators to understand what they need to do?

A. That's essential. If it's going to be a short term, let's say it's going to be 30 minutes. Well, you're probably still going to send your people to the field to make sure that operations are still (unclear) even though that it might be resolved before you even get out there. But if it's several hours, you're going to have to decide how to manage that. You may have the opportunity to shut wells in, but you also may have the opportunity, if you've got multiple connections, to be able to send your gas to a different gas gatherer so there's no interruption in production and no flaring, or minimized flaring.

So you've got to have a communication between

those two, which is what the Division has talked about. They want to ensure communication between the midstream and the upstream. That's why they basically said you've got a notification requirement on the midstream sector.

Q. Okay. So you get your notification, you figure out who the people are and who you need to get out there, they get themselves ready, they get themselves out of bed or whatever they've got to do to get themselves ready to go out to the field. Now they've got to go out to the field, what are the challenges that they face going out in the field, whether you're in the Northwest or down in the Permian?

A. Well, it's not like going down the street to a 7-11. It's a long way in many cases and many of those miles of road are not paved road. You've got gravel-leached roads, and they have snow on them and they have water on them. You can't go very fast on those things because it's just the nature of those bumpy roads, so you drive out to the field.

And let's also imagine you've got a midstream operation, midstream malfunction that might have affected several of the company's upstream facilities. And that company may decide, I can't just send my normal lease operator out there, I need to send a couple of others because we need to get to all of those facilities quickly.

Q. Now, once you're there, you pull up. Then what

do you have to do?

A. Well, you've got to assess, first of all, is it safe to get out of your car, and if you have got a lightning storm going on, you'd better not get out. But you've got to get out, you've got to look at what's going on, you've got to assess the safety of the situation, make sure that it's safe for you, and then you've got to basically see what is going on at your facility and what you need to do.

If you've going to respond by shutting in wells, there is typically communication that needs to go on between you and the home office, if you will. Sometimes that's easy, sometimes it's not. Many places in the field you pick up your cell phone and you have no bars, you can't communicate.

So you've got to assess what you can at the site, perhaps maybe drive off a little bit and find a little hot spot where you can, but it takes awhile to assess what is going on and it takes awhile to communicate with the midstream to understand the timeframe that you need, and then you've got to make a decision within the company as to how to respond.

Q. All the while making sure that you're doing this in a safe fashion?

A. Correct.

Q. Okay. In your experience, Mr. Smitherman, having

been doing this for 40 years, is four hours after notification sufficient time for a prudent operator to safely address venting and flaring events caused by gathering system upsets?

A. Many, many times it will not be close to adequate.

Q. In your opinion, is eight hours a more appropriate time to balance the concerns that the Division has and in real, real-world operational situations that operators face out there?

A. That's exactly what NMOGA recommends.

Q. Okay. I want to go then to the next proposed change, I think what maybe didn't come out here, you were talking about G(4); right, 27.8.G(4)?

A. Yes.

Q. Okay.

A. I barely remember that, but yes.

Q. And there's a different -- okay, there's a similar -- well, there's not because it's an upstream.

So let's go to G(5), okay, in Part 27 which would be on Page 4 of our NMOGA Exhibit A.

A. I see that.

Q. Okay. Now, this is a circumstance where we are proposing a change to Subpart 5; right?

A. Correct.

Q. By striking "including a recurring equipment failure"?

A. Yes.

Q. And there's a similar change to the definition of "emergency" in Part 28?

A. That's correct.

Q. Okay. Now, what is the problem with this provision as written if they don't accept our change?

A. The word "negligence" is a very strong term, number one, and what I see here in this very short passage is, in essence, an operator who has recurring equipment failures is in essence deemed a negligent operator. And I think it's a terrible mischaracterization. It has no time limits on it, it has no recognition that this is a complicated, or I should say complex system that sometimes these pieces of equipment are sometimes difficult to diagnose the first time.

Q. And in your opinion, Mr. Smitherman, and based on your, experience are there recurring equipment failures that occur that are beyond the operator's control?

A. Yes, no doubt about that.

Q. Can you give us an example? You said there is complicated equipment out there. Can you give us an example of recurring equipment failures that are not the fault or so bad they're negligence on the part of the operator?

A. Sure. You can have an operator, an exemplary operator that, for example, has a compressor, that's a pretty good poster child for this. That's a complicated piece of equipment. And that compressor can fail. And sometimes -- well, let's do it differently.

A compressor can fail, the operator can call in a mechanic -- it might be a company mechanic, it could be a third-party professional mechanic that comes in to help diagnose and repair the compressor. That makes that person who we've relied on and believes does a good job, we're happy to pay him, comes in and diagnoses what he thinks the problem is, and he may make a change. And start the compressor back up, everybody's happy, he drives off and two days later the compressor fails again.

Well, perhaps he didn't quite understand what the failure was. He did the best job he could, he was not negligent, he was not being poor quality maintenance or anything like that. He was trying his best to fix that compressor, and he comes back in, diagnoses it again, makes another change. And sure enough, it starts back up again, everybody's happy, he drives off, and a week later, the compressor fails again. Same compressor, and this time he finally finds something that he hadn't seen before and makes the change and gets it running again.

Now, that is not a negligent operator. They have

done the best they can, they have hired an excellent mechanic to come fix their compressor, and it simply took some time to find the right solution.

Q. So Mr. Smitherman, when you read this the way it's written, you have recurring equipment failure, you are automatically deemed negligent, and therefore, the incident, flaring and venting incidences are not excused; right?

A. That's correct. It requites anybody that has recurring equipment failures a negligent operator and I think that's extreme.

Q. Okay. And based on, just to be clear, based on your 40 years of experience, does recurring equipment failure always mean that you've got a bad operator out there who's negligent?

A. Clearly not.

Q. Okay. Now, I want to talk then about the change to Subpart 6.

A. Yes.

Q. In this we see both a change in Part 28 and -- I'm sorry, Part 27 and then a similar change to the definition in Part 28; right?

A. Yes.

Q. And Subparagraph 6 says, as written, "three or more emergencies experienced by the operator," this is operator specific --

A. Correct.

Q. -- "within the preceding 60 days is deemed not to be excused unless the Division determines otherwise." Okay?

A. I see that.

Q. All right. Now, I want to talk about that last clause in a minute, but let's just talk about the first change that NMOGA proposes. They proposes to add "at one site for similar causes."

A. Correct.

Q. Okay. Is there two components to that?

A. Yes.

Q. We have "at one site."

A. That's correct.

Q. And then we have "for similar causes."

A. That's correct.

Q. Okay. Can you give us an example of why it would be appropriate to add the phrase "at one site"?

A. Certainly. In fact, it has come up already in these proceedings this week. You get extreme weather events, you get a thunderstorm, a line of thunderstorms that moves through Southeast New Mexico, which I've seen many, many times. And that thunderstorm can cause malfunctions and maybe one operator has five or six locations that are disrupted by that.

And in essence, that would mean that only two of

those events would be considered an emergency and the rest of the four would be held against the operator, and in essence, the operator had no control over that event.

Q. Okay. And then what would be an example of why you would want the phrase "for similar causes"?

A. Well, as I said before, these facilities can be complex, they have lots of moving parts, and even an exemplary company with a top, top-notch maintenance program can have things go wrong. And to have, let's say, a dump valve (unclear) on the first stage operator, it's operating at say 300 pounds. The dump valve cuts out, sends all of the fluid to a lower pressure, say a hundred pound separator, and that overwhelms that separator and the pressure relief valve goes off and sends gas to the flare.

It happens, it's not the fault of the operator, he could not have foreseen it, even if he has an excellent maintenance program. Then two weeks later, you could have a lightning strike in the area, knocks out some electronics on the site completely out of the blue, not even something the operator can prevent against.

And I say that because I heard earlier, well, you know you had lightning out there, why don't you build your facilities to withstand that. We can talk about that a little bit later. Let's just talk about the fact that it can happen, and all of a sudden you've got two events at the

same site. Well, if you have another event that's not related to anything, let's go back to that compressor.

Compressor fails. Again, you have an excellent program, you're an exemplary operator, and all of a sudden that event that you could not have foreseen, did not have control over, counts against you. We don't think that's fair.

HEARING EXAMINER ORTH: Mr. Feldewert, I didn't want to interrupt Mr. Smitherman's train of thought, but it is 4:32. We do have a single public commenter, and I see her here among the attendees. We'd like to take her comment and then go back to Mr. Smitherman.

MR. FELDEWERT: Certainly. Can we be excused for five minutes?

HEARING EXAMINER ORTH: Yes, yes, absolutely. Thank you.

So this is the 4:30 public comment session in this hearing, Case 21528, an OCC rulemaking. My name is Felicia Orth, the Hearing Officer appointed by the Commission to conduct this hearing. We also have our Oil Conservation Commissioners on the line.

There was a single attendee who signed up for this comment session, and it's Karen Weber. (unclear)Baylen, will you unmute her.

Ms. Weber.

MS. WEBER: Yes.

HEARING EXAMINER ORTH: I can hear you. If you would please keep your comment to just a few minutes, please.

MS. WEBER: I understand, yes. My name is Karen Maria Weber. I live in Santa Fe, and first of all, I want to thank you for this opportunity to offer my comments.

As you know, New Mexico is among the top producing states in natural gas and methane. As you also know, it's a greenhouse gas, which I understand is 30 to 80 times more potent than carbon dioxide. And unfortunately, in New Mexico currently there are not requirements in containing methane and any related pollution.

In fact, these operations also emit ozone-forming pollutants that worsen up emphysema and asthma. And on a personal note, as a teacher of young students, I see many children with asthma. And the prospect of it being worse really horrifies me.

These pollutants also immediately affect the health of all New Mexicans and most acutely those living in the communities in the adjacent areas. Yet not only are its impacts being felt in this way, methane is a leading cause of emissions contributing to climate disruption which we are already seeing in New Mexico with changed weather patterns and droughts forced on us, all of which affect water supply,

already an issue here in agriculture, as well as affecting the rest of the country and the world basically.

So in fact, methane is responsible for approximately 25 percent of the warming we experience today. So considering these facts, I wanted to make comment to look to your leadership to protect the people of New Mexico now and in the future, and I urge you to adopt rules to reduce this methane waste.

And again, I thank you for your time.

HEARING EXAMINER ORTH: Thank you very much, Ms. Weber. Just in case, let me ask if there is any other member of the public who signed up to make public comment this week who has not already spoken and might want to offer it now.

(No audible response.)

HEARING EXAMINER ORTH: Did I mute myself? I'm sorry. Okay. Well, that was the only public commenter we had sign up for the 4:30 session today. We have two sessions every day between now and January 15th. Written public comment may also be submitted to Florene Davidson whose contact information is on the Oil Conservation Division outreach and public engagement web page.

We can return now to the technical case. Let me see if we have Mr. Feldewert back.

CHAIRWOMAN SANDOVAL: Before we start back up,

can we clarify just how late we intend to go today?

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

CHAIRWOMAN SANDOVAL: I don't have a particular preference. Commissioner Kessler, do you have any preferences for today?

COMMISSIONER KESSLER: We can go until about 5:15.

HEARING EXAMINER ORTH: I think you said 5:15. Yes? Okay. All right. So, Mr. Feldewert.

MR. MOANDER: Madam Hearing Officer, this is Chris Moander. I wanted to chime in on scheduling a little bit. I'm still working on --

CHAIRWOMAN SANDOVAL: Why don't we talk about -- I would prefer to talk about this offline.

MR. MOANDER: Okay.

CHAIRWOMAN SANDOVAL: Thank you.

HEARING EXAMINER ORTH: All right. Thank you.

So Mr. Feldewert, if you would, please, lead Mr. Smitherman through some more questions and come to a good stopping point at or about 5:15.

MR. FELDEWERT: All right. I will do my best.

HEARING EXAMINER ORTH: Thank you.

JOHN R. SMITHERMAN

CONTINUED DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Mr. Smitherman, we were addressing "at one site," the purpose of that language, "for similar causes," the purpose for that language. You mentioned, I think, "for similar causes" you had reasons why you might have three successive events within the 60 days; right, it would be at no fault of the operator?

A. Correct.

Q. Now, the Division does have a clause on here at the end that says, "unless the Division determines the operator could not have reasonably anticipated the current event." Do you see that?

A. I do see that.

Q. Okay. Now, we have proposed to strike that.

A. That's correct.

Q. What's the thought process behind that? I mean what's the thought process in not leaving this at the Division's lap?

A. Well, again, you talked about regulatory certainty and clarity. That's certainly a major thought here. Two aspects of this: Number one is how long will it take to get a response to understand whether or not an event that has occurred to an operator is going to be considered, in essence, a forgiven event.

Number 2, think about it from the other way. If

you've got some kind of extreme weather event, it doesn't just affect one operator; it affects lots of operators, and many of those operators are going to be basically inundating the OCD with requests for, in essence, review of their situation. So it really seems to be a burden on the OCD as well.

Q. Okay. Now, the other thing I don't want to lose sight of here is that for this exception to emergencies to apply, we are talking about three or more emergencies experienced by the operator within a period of 60 days.

A. That's correct.

Q. So we're talking about emergency events. In your experience, just because an operator has three or more emergencies in 60 days, does that mean, always mean they're a bad operator or that they've been negligent?

A. Certainly not. And as it's written, you're talking about three emergencies across an entire reporting region. That certainly doesn't represent a bad operator.

Q. But at the same time, the Division is trying to balance addressing those circumstances where you do, right?

A. And I understand that, and we understand that and support that. And that's why we offered what we thought was a better balance, that is, lessens the administrative burden but it also allows enough limitations that it should allow the Division to weed out those patterns that we heard about

earlier this week and seeking patterns to find operators who really aren't doing their best.

MR. FELDEWERT: Madam Chair and Commission, I'm going to do something a little bit different I've done in prior rules and I found it to be helpful, so I'll leave it up to you.

At this point I intend to move to a slightly different subject, but I'm offering you the opportunity to ask any questions you may have now on the subjects that we've already covered before we forget them.

HEARING EXAMINER ORTH: Let's see, Commissioner Kessler, do you have questions right now?

COMMISSIONER KESSLER: I don't. I think we've heard everything that we need.

HEARING EXAMINER ORTH: I believe she said she did not.

Commissioner Engler?

(No audible response.)

CHAIRWOMAN SANDOVAL: I don't believe he is on, I don't see him.

HEARING EXAMINER ORTH: All right. And Madam Chair, do you have questions right now?

CHAIRWOMAN SANDOVAL: This isn't going to preclude me from asking questions on this topic later, right?

MR. FELDEWERT: No.

HEARING EXAMINER ORTH: Not at all.

CHAIRWOMAN SANDOVAL: I mean I think one of my questions is you provided a whole lot of anecdotal evidences. Is there anything concrete to provide on this topic of emergency, on anything of these, the things you spoke about?

THE WITNESS: When you say concrete, I'm not exactly sure what you mean. Can you help me out with that, please?

THE COURT: Do you have any specific examples that you could provide? You know, there was a lot of, you know, I think talking of what that scenario might look like, but is there actually anything concrete, scenarios that have happened, any actual data or evidence that could be provided? Because all of that seems pretty anecdotal, like a nice story.

THE WITNESS: Yeah, well, and I appreciate that. I guess from my perspective, it is a memory of things that had happened to the company that I worked for that I was personally knowledgeable about in one of several roles through 15 or 20 years of my career.

I probably couldn't name an actual chapter and verse, if you will, a date, but I have seen this happen. I have been in New Mexico when it snowed and ice storms come

through and you look across the area and maybe a particular area sees a lot of flares flow. Well, it's because the midstream compressor has gone down because of really, really cold temperatures, and it affects the upstream facilities. It's not just one facility; it's several, it's several operators and several facilities for each operator.

So I'm not sure that I can give you an actual date and location, but I can tell you that I have seen that. It's not just a story; it's relating what I've seen.

THE COURT: Well, I think Mr. Bolander testified to the exact same thing that was just talked about, that when the midstream goes down. Are there any mechanisms, let me ask this, are there any mechanisms for producers, either through their contracts, et cetera, to encourage, push, et cetera, the midstream operators to do better?

THE WITNESS: There are. You can find language in contracts, not every contract, but you see language in contracts that guarantees that. Not in all of them. It depends on the ability to put those provisions in the contract.

A lot of it comes down to who are you going to contract with. You can have several gas gatherers who are in the area and you may find that you like the reputation or the path of one over another. And you may chose them because of that. So sometimes it's having experience in the

area that help you pick the right one, and develop relationships, and get to the point where they're calling you when they need to.

But the most responsive gas gathering companies are the ones we always like to do business with, because regardless of whether it was required by state rule, we needed communication between the midstream company and us.

CHAIRWOMAN SANDOVAL: All right. I think that's maybe all I have for now.

HEARING EXAMINER ORTH: All right. Thank you.

Mr. Feldewert, if you would continue, please, with your questions.

BY MR. FELDEWERT:

Q. So Mr. Smitherman, I want to now, we're still within definitions, but now we're talking, I want to talk about some related definitional changes. Okay?

A. Certainly.

Q. And I believe they involve completions, initial flowback, separation flowback, startup of production, and production.

A. Okay.

Q. This is purely a Part 27 upstream issue; right, Mr. Smitherman?

A. That's correct.

Q. Okay. And when you look at Part 27 and you look

at these language changes to these definitions, could you please explain the purpose of these related changes?

A. Certainly. There are a series of phases, in essence, a well construction that all kind of work together. You've heard some of the comments already and testimony from others this week, and in essence, what we would, what we see, number one, we see in the Division's intent, apparent intent, is that we are very much aligned with the Division's intent, with maybe one exception, but very much so aligned with them in concept.

But sometimes the language that the Division uses is different than we're used to and that is common in the industry. And that language that's common in the industry has been established now for many years through, quite frankly, the air emissions matter that the EPA put out called Quad O, Quad Oa, and it establishes definitions through these different phases of a well construction process.

Q. And have we proposed language changes to be consistent with those Quad Oa definitions?

A. We have, we've tried to be consistent word for word where we can with Quad Oa. The industry understands Quad Oa. You don't run afoul of someone misinterpreting something. The Division seems like they are trying to define the exact same point in time or point in the phase of

a wellbore's completion process. But since you're using different words, it could be interpreted differently, and we don't see any benefit to that.

Q. Okay. And is there another aspect of using the Quad Oa definitions that impacts the completion operations definition?

A. Certainly. The completions definition -- and shall we just describe the difference between Quad Oa and the Division? Is that what you're asking me about right now, Mr. Feldewert?

Q. Certainly. Well, let me ask you this. We do have with one definition, though, that was not utilized by the Division that's from Quad Oa; right?

A. That's correct.

Q. Startup of production?

A. Startup of productions, correct.

Q. And what was the purpose of adopting that definition from Quad Oa, how does that impact the definitions that the Division has proposed?

A. We have talked about this as being a very important topic. I think almost every witness has talked about this in one way or another so far, but this idea of after you have done a fracture stimulation on a well and you have an initial flowback period, and then you've got a particular definition for when you enter the separation

flowback phase, and then there is also a particular definition for when the flowback separation phase ends and normal production operations begin. And we are suggesting that that language, that that concept be adopted in these rules.

Q. Okay. And does that allow the Commission to replace the 30-day provision that we see in the completion operations definition?

A. It does. Quite frankly, the actual physical thing that's going on in the field in this completion and these definitions of when you move from one phase to the other, might or might not, in fact mostly don't, conform to a particular 30-day, 31-day period of time.

So it causes confusion between what we would normally consider one phase as viewed by the EPA, for example, or other industry representatives, for example, and how the Division might view it.

Q. And this is an area, Mr. Smitherman, you're intimately familiar with based on your experience; right?

A. That's correct. I have done many, many wells.

Q. What it takes to move from drilling, to completion, to startup, to production?

A. Exactly.

Q. Okay. Would you turn to what's been marked as NMOGA Exhibit C-10, and it would be in the large notebook

that we provided the Commission, the large binder that has the Exhibits C through M. Would you please explain to us what you're showing here on Exhibit C-10?

A. Certainly. C-10 is one of the series of exhibits that will walk us through this concept.

Q. Okay.

A. In essence, we're going to talk about a well life timeline and basically show you kind of birth to death of what a wellbore looks like. So that's why I talk about drilling, completing, and operating. It's a fairly simple, almost cartoonish look at the life of a single well.

Q. Okay. And what are you showing us then with how do you build on that in C-11, the next page?

A. Certainly, certainly. What I'm trying to do is trying to give some perspective to, in essence, the life of a well. I think maybe Mr. Powell or Mr. Lepore might have said something the same, that the life of a well, the completion operations is a very, very, very small part of the timeline of a well's life.

This timeline is to scale. Now, obviously it's not every well that's got a 30-year life, but this is a typical life of a well. And a little bitty red ball on the left side of this timeline that moves from the spud on the right side to, in essence, plug and abandonment -- excuse me, spud on the left side and plug and abandonment on the

right. All of that drilling and completion phase happens in that little red ball. And the whole of the rest of the life is the black bar that takes you the rest of the 30-year life.

Q. Okay. So then move to Exhibit C-12.

A. Yes.

Q. Now, this is the exhibit where we show the Division's definition on the left-hand side; right?

A. Correct.

Q. Around currently they're using a 30-day period.

A. Correct. And they've actually changed that in this particular -- in their latest version.

Q. Okay.

A. But it's in this slide because this is what it was before the last iteration. But I can talk from it, it's okay.

Q. All right. Go ahead.

A. As I mentioned earlier, that little red bar is the drilling and completion life. Part of that is the drilling and the rest of it is completion. So now we're going to focus in on the completion and the phases of that completion.

So let's first look at the term "completion operations." The Division has provided a definition of "completion operations." And NMOGA has provided a

definition of "completion operations." And they are similar, especially now that they, that the Division has removed the words "on the earlier of 30 days after commencement of separation flowback." They have moved that to a different definition. It's not gone, it's just moved to a different term.

Q. Okay.

A. So in essence, what they say -- I'm sorry. Their current language says it's the period that begins with the initial perforation of the well and the completed interval and concludes at the end of separation flowback. That's what their proposed language says.

Q. And how are we different?

A. We use the term "startup production," as the end term. We also start from the first perforation. So there's no difference there, and quite frankly, the startup of production is the end of separation flowback. So we are actually exactly the same conceptually, but we're using different words.

Q. Is the term startup of production that we utilize, is that defined in Quad Oa?

A. It is. We use that term exactly.

Q. And just to jump ahead, is that shown on Exhibit C-15?

A. It is. As you can see on C-15, EPA uses startup

of production and NMOGA uses the exact same words until you get to the very end of it. You see in the EPA Quad O and Quad Oa definition, you see "produced water," comma, "except as otherwise provided in this definition." And that refers to completely different issue. That refers to, in essence, (unclear)L-dar requirements. So this doesn't have anything to do with this (unclear). So we will see, except for those words, NMOGA's wording is exactly the same as the EPA Quad O, Quad Oa.

Q. Okay. So we are using a well-defined term to ascertain when completion ends?

A. That's correct.

Q. Okay. And if I go back to Exhibit C-13 --

A. I see that.

Q. Okay. And what are we showing here?

A. This is the initial flowback period. We've talked about that quite a bit this week. This is the period of time after a well has been hydraulically stimulated, and drill-out has been completed, and initial flowback begins. So it -- in Quad Oa definition is the period during a well completion operation which begin at the onset of flowback and ends at the separation flowback stage.

And you'll see that NMOGA's words are the exact same. The Division is actually the same, not necessarily using the same words, it's the same concept. So again, if

they're going to use the same concept, why not use the same terms that Quad Oa offers that's well known in the industry so that there is no (unclear).

Q. And then we see the term on the next page, Exhibit C-14, the Division has a term "separation flowback;" correct?

A. That's correct.

Q. And we will have proposed a change again to line up with Quad Oa?

A. That's correct. As you will see here on this slide, the NMOGA language is exactly word for word the EPA Quad O, Quad Oa language. Now, the Division has changed their definition, their wording, since this slide was, was established. So this is where they move the 30-day concept. It currently says it means separation flowback means the period during the completion operation that begins when it is technically feasible for separator to function and concludes no later than 30 days after the commencement of initial flowback.

So there's that, and I don't want to be pejorative but that arbitrary 30-day period that, that, in essence, says that's when you have to end separation flowback and it may or may not come conform to the realities on the ground, it certainly doesn't conform to the Quad Oa definition.

Q. So rather than using an arbitrary timeframe, NMOGA is suggesting using a definition that's well known and it's utilized by other agencies to determine when you have separation flowback?

A. That's correct.

Q. Okay. And then NMOGA Exhibit C-15 we've already addressed; right?

A. That's correct.

Q. Okay. And then we get to C-16 which is the definition of production operations?

A. That's correct. You'll notice here the EPA doesn't define that because, in essence, they, I guess, assume that once you start up production, then you are in production operations.

Then NMOGA has offered a modification of this definition, partly because the Division had one, and so we are offering that the production operations means that the period that begins upon the startup of production and concludes when the production ceases and wells are plugged and abandoned. Once again, lining up exactly hand-off from the separation flowback period and start of production, and that's exactly the same conceptual point that we begin production operations by definition.

The Division deviates from that concept again by putting this, and again I don't want to be pejorative, but

this arbitrary 30-to-31-days time period upon separation flowback, they basically say that production operations begins on the earlier of 31 days following commencement of initial flowback or when production -- excuse me, permanent production equipment is placed into service, and that's the difference between the two.

Q. And again, our use of the term startup of production to re place that 31-day timeframe comes directly from the Quad O definition?

A. It comes directly from Quad O and it conforms to the physical reality.

Q. And at startup of production, the definition is on the prior slide, C-15?

A. That's correct.

Q. Okay. Now, Mr. Smitherman, I want you to utilize your expertise and put these definitions into content as you move from drilling to completion in production operations. And is that, if we turn to slide C-17, does that assist you in doing that?

A. It does, thank you very much. What this slide shows is, again, it's a timeline. Time is moving from the left to the right, you see the blue arrow that has title time elapsed since spud. And below that arrow I've got three what I will call physical phases of wellbore construction and operation.

The drilling operations, the physical act of drilling the well; the completion operations, again, the physical act of all the things that are involved in completing a well; and the production operations, again, the physical operations.

And I tried to put below that some definitions of where these different phases are and tried to illustrate the differences between how NMOGA is proposing these definitions and how they compare to the Division. And I guess some of the biggest items here are, you see the next line below (unclear) drilling and completion and production, I've got 30-day timeframe may or may not conform to the physical status.

And probably the most important of those two lines is the bottom one where you've got initial flowback starting at the low vertical black line, and it may or may not end when -- that 30 days may or may not be the same exact time as startup of production. I've got it drawn where it could be before that or after that. As I said before, it's arbitrary. It doesn't conform to the physical realities on the ground.

Q. So my understanding that the primary -- is it my understanding that the primary difference between what the Division's is offered and what we have offered is that we are eliminating this 30-day provision; right?

A. That's correct.

Q. And we are using language that is consistent with Quad Oa in which operators understand?

A. Correct.

Q. Okay. In your opinion, Mr. Smitherman, do these changes accurately convey when a completion phase ends and when the production phase actually begins from a technical standpoint?

A. They do.

Q. And are they necessary to conform with the understanding of these terms by engineers and operators in the oil and gas industry?

A. It would create great clarity. Even if, if those places where we agreed conceptually, I don't see any particular value to the Division or the industry to not use the actual Quad Oa language. It just -- I don't see the benefit and I've only seen possibilities for lack of clarity.

Q. Okay.

MR. FELDEWERT: What time do we have to end here, Madam Hearing Officer?

HEARING EXAMINER ORTH: In 11 minutes.

MR. FELDEWERT: Madam Chair, Commission, does anyone have questions about these definitional changes at this point?

CHAIRWOMAN SANDOVAL: No, and I would prefer to hold questions for the end.

MR. FELDEWERT: Okay.

CHAIRWOMAN SANDOVAL: I think otherwise it's just going to extend the process even longer.

MR. FELDEWERT: Okay.

Q. Mr. Smitherman, I want you to then address the NMOGA's changes to the definition of flare or flaring and the definition of vent and venting. Okay?

A. Certainly.

Q. Am I correct that it's the same change whether you're in Part 27 or Part 28?

A. Yes, it is.

Q. Okay. Would you explain the basis for these definitional changes of flare and flaring or vent and venting?

A. Certainly. I'm going to kind of give a little bit of a high-level view of those instead of talking about the specifics point yet.

First of all, NMOGA supports rules that seek to reduce or even eliminate excessive or unnecessary venting and flaring of natural gas, we agree with that. Unnecessary and/or excessive venting and flaring constitute waste and are legitimate issues for the Division to regulate.

Even so, they're releases of natural gas and

combustion of natural gas not for beneficial use that are not excessive and are necessary for normal, safe, (unclear) upstream and midstream operations. Those releases are not waste. In fact, I think Mr. Lepore said the same thing.

So how we identify and focus on, and track, and reduce or eliminate waste without it conflating these two categories? We believe that a very effective way to do that and manage that challenge is to focus on high-pressure sources by excluding low-pressure sources of these releases in the very definitions of venting and flaring.

So I think we've talked about this a little before this week but let's talk about a few of the low-pressure sources as examples; releases from pneumatic devices, releases from storage tanks, either combusted or not, releases from equipment designed to release gas during normal operations, et cetera.

These devices are necessary for normal and safe operations and these releases are not waste. So not only should they be allowed by the Division, but they should be exclude from reporting and excluded from the gas capture calculations.

Since these releases are not waste, they are under the purview of NMED as respects air quality sometimes resulting in the requirement to combust certain volumes instead of releasing them, as their air expert determined is

the proper course of action.

We have offered modifications to the definitions of vent and venting, flare and flaring, that excludes these low-pressure sources so that we can focus on unnecessary and/or excessive venting and flaring which are predominantly from high-pressure sources. In doing so, follow the path of Colorado's Oil Conservation Commission by eliminating the low-pressure sources from the very definition of venting and flaring at the outset.

And you'll also see in our modifications we didn't just alter the modifications of the definitions; we've also offered modifications to other parts of the rule for clarity and emphasis because these are important topics.

As I mentioned, we recommended that the Division not require reporting of volumes of venting and flaring from low-pressure sources. Why is that? There is virtually no way to measure or even estimate many of these volumes with sufficient accuracy for the purposes of production accounting. We've actually heard other witnesses from the Division say the same thing.

A. As I said in my opening observations, bad data is inappropriate for enforcement or policy development. And believe me, reporting of gas releases from low-pressure sources is the reporting of bad data. Now, I want to emphasize that the elimination of low-pressure sources from

reporting and gas capture requirements calculations will not diminish the focus of these rules on high-pressure sources.

In fact, these rules as modified, suggested modifications from NMOGA will go well beyond impact and what had been thought of as routine flaring, because it will include high-pressure sources of all types.

Q. Whether routine or nonroutine?

A. Absolutely. Routine flaring is something that we've heard many, many times from our public statements. The inclusion of the modifications to NMOGA has offered will go well beyond that.

Q. So Mr. Smitherman, you mentioned unnecessary and excessive surface loss. That comes from the definition of surface waste, as I understand it?

A. That's correct.

Q. Okay. And does NMOGA's definitional changes focus on, therefore, the loss of saleable gas, gas that could otherwise be captured and sold?

A. That's correct.

Q. And your point is that these lower pressure sources, such as pneumatic controllers or vapors from storage tanks are instances where that gas cannot be captured and put into a sale line?

A. That's correct.

Q. Okay. And therefore, it does not constitute

waste?

A. That's correct.

MR. AMES: Objection, leading questions.

HEARING EXAMINER ORTH: They are leading, Mr. Feldewert, and to the extent you're summarizing his testimony, they are duplicative, I think.

BY MR. FELDEWERT:

Q. Okay. And in your opinion, Mr. Smitherman, are these low-pressure sources that have been discussed here by a lot of witnesses here today and yesterday, are they -- is that the type of gas that can be put a sales line?

A. No, not reasonably.

Q. Okay.

A. I heard other witnesses from the Division say the same thing.

Q. And you're reasonable --

A. Go ahead.

Q. In your experience, do those types of low-pressure emissions, do they constitute flaring as people commonly understand it?

A. No, they do not.

Q. And more importantly, do they constitute venting as regulators in the industry normally understand those terms?

A. No, just specifically the example of Colorado.

They clearly take those low-pressure sources out of the definition itself.

Q. Okay. Let's go to what's been marked as NMOGA Exhibit C-9.

A. I've got that.

Q. Now, does NMOGA's proposed change to the definition of vent or venting match what Colorado identified as venting?

A. Yes, it does, verbatim.

Q. And more importantly, do the exclusions and descriptions of what does not constitute vent or venting match up with what Colorado likewise determined does not constitute vent or venting?

A. Yes, that is correct.

Q. Okay. And understand we've got a couple of minutes here. If you look at C-9 and you see the Subparagraph 1.

A. Yes.

Q. 7? Do you see one of the removals from the definition of venting is the emission of gas from devices or equipment, such as pneumatic devices and pneumatic pumps that are designed to emit as part of normal operations?

A. I see that.

Q. Those are the low-pressure sources you were referencing?

A. Yes, exactly. Some of them.

Q. And we see Subparagraph 2, unintentional leaks that are not the results of inadequate equipment design, what are they talking about there, both in Colorado and in our proposal?

A. Those, those -- that term refers to the typically very, very small leaks that you will get from equipment, maybe brand-new equipment, valves, and connections, and things like that are -- they may leak a little, I'll say leak, they release a little bit of gas but they are basically -- it's not waste, it's not true venting, and, in fact, fall under the purview of NMED as this is the type of thing that they look at in our programs.

Q. In Subparagraph 3 when any reference tanks there --

A. Correct.

Q. -- what are they talking about, what type of equipment?

A. Well, they start off with an exception, let's see, downstream of a tank, unless there's no separation occurring in the equipment upstream of a tank.

So if you had a situation where you were, and I've seen this before in some, what I will call (unclear) operations, if you take your full well stream to the tank and don't separate the gas before you do so, in essence,

you'd be releasing the gas from the well. That would not be, if you will, that would not be excluded from the definition of venting.

Second part, separation equipment is not sufficiently sized to capture the entrained gas. I think that speaks for itself. Before the natural gas is being sent to the tank during circumstances with the gas cannot be sent to the gathering line or combustion equipment used to (unclear) gas is not operating. That is basically if you make a recovery and it's inoperational for a repair or something like that (unclear).

Q. In your opinion, does the NMOGA's proposed changes to the definitions of flaring and venting conform with the common understanding of those terms by oil and gas engineers and operators?

A. It does.

Q. And does the change properly focus the effort on the activities that actually constitute surface waste?

A. It does.

MR. FELDEWERT: Okay. Madam Hearing Officer and Madam Chair, and members of the Commission, I think we are at the time I had to end, right?

HEARING EXAMINER ORTH: Yes. Thank you very much, gentleman, for bringing us to this time.

We will now adjourn for the evening. I would

like to reconvene at 8 a.m. We will accept the one public commenter that we have signed up at 8:30, but I would like to see you at 8 and we'll proceed through tomorrow. So thank you all and have a good evening.

MR. FELDEWERT: Thank you.

(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 7th day of January 2020.

/s/ Irene Delgado
_____
Irene Delgado, NMCCR 253
License Expires: 12-31-21