WORKGROUP FOR GLOBAL AIR PERMIT POLICY DEVELOPMENT FOR TEMPORARY OIL AND GAS DRILL RIGS

MEETING

November 14, 2013

Anchorage, Alaska

Present:

Bill Barron
Bill Britt
Gordon Brower (telephonic)
Alejandra Castano
Alison Cook (telephonic)
Tom Damiana (telephonic)
Alice Edwards
Joshua Kindred
Kate Kaufman
John Kuterbach
Ann Mason (telephonic)
Jim Neason
Denise Newbould
John Pavitt
Eric Pierson (telephonic)
Sally Ryan (telephonic)
Jim Shine
Rebecca Smith (telephonic)
Erin Strang
Jeanne Swartz

Brad Thomas
Al Trbovich (telephonic)
Barbara Trost
Tom Turner
Ben Wedin

P R O C E E D I N G S

(On record at 1:05 p.m.)

MS. EDWARDS: Why don't we go ahead and we'll do introductions.

UNIDENTIFIED MALE: Sure.

MS. EDWARDS: I'm not sure if we have Gordon on the phone yet. He was going to call in from Barrow today because he got weathered in. So hopefully we'll have him here shortly if he's not on the line already.

MR. BARRON: It's that time of year. Let's move on.

MS. EDWARDS: It is that time of year, so we'll just keep going. Why don't we do introductions in the room. And before we start, we are going to transcribe things so if you're on the periphery and you do end up speaking it would be helpful for you to get to a mic. That will really help us make sure we capture what's going on. It will probably also help the people on the phone hear what's going on and it sounds like we have a number of people on the phone today. Two of our workgroup members, Gordon Brower is supposed to be on the phone today and Mike Munger will be joining us by phone at some point during the meeting we hope. So why don't we go around the room and just do introductions and I'll start. This is Alice Edwards, Director

of Air Quality for DEC.

MR. THOMAS: Brad Thomas. I'm here on behalf of the Alaska Support Industry Alliance.

MR. KINDRED: Josh Kindred, Regulatory and Legal Affairs Manager for AOGA.

MS. TROST: Barbara Trost, DEC Air Quality Monitoring.

MR. BARRON: Bill Barron, Director of Oil and Gas.

MR. SHINE: Jim Shine, Department of Natural Resources, Commissioner's Office.

MR. TURNER: Tom Turner, DEC Air Quality.

MS. NEWBOULD: Denise Newbould, ERM.

MS. CASTANO: Alejandra (indiscernible) Alaska.

MS. STRANG: Erin Strang, ERM.

MR. WEDIN: Ben Wedin, Nordic Calista Services.

MR. BRITT: Bill Britt with Hilcorp.

MR. KUTERBACH: John Kuterbach, DEC.

MS. SWARTZ: Jeanne Swartz, ADEC.

MS. KAUFMAN: Kate Kaufman, Hilcorp.

MR. NEASON: John Neason, Nabors Alaska.

MS. EDWARDS: Great. So can I -- can we go ahead and get the folks on the phone? And for the folks on the phone, if you're new to any of our workgroup calls if you will send us a email to -- probably to Jeanne or to Jim or Tom on the website we can make sure that we get you onto our mailing list. And also all of the meeting materials should be available up on the

website. So can we just go ahead and see who we have on the phone?

MR. PIERSON: Eric Pierson with Caterpillar Incorporated.

MS. EDWARDS: Hi, Eric.

MR. PIERSON: Hi.

MS. RYAN: Sally Ryan, CARDNO Entrix.

MS. COOK: Alison Cook, BP.

MR. DAMIANA: Tom Damiana at AECOM.

MS. MASON: Ann Mason, SLR.

MR. TRBOVICH: Al Trbovich, SLR.

MS. EDWARDS: Is there anyone else on the phone that hasn't identified themselves?

MS. SMITH: Rebecca Smith, DEC.

MS. EDWARDS: Great. Thanks everybody. We have one late arrival here. I'm sure we'll have a few more, but if you want to go ahead and introduce yourself.

MR. PAVITT: Hello. I'm John Pavitt from EPA.

MS. EDWARDS: Great. So just to do a quick agenda check. We sent out to the members of the workgroup a little bit of suggestion for the agenda today and I'm open to any suggestions from the workgroup members if there's any changes. We were thinking about rather than sort of having separate sections after the 3:00 o'clock break that we sort of combine that into one sort of session on discussion and defining our follow-up activities and next steps. And I haven't heard any objection

from the -- any of the other workgroup members about that change, but open discussion on that or any other changes to the agenda you all might have.

MR. BARRON: I'm good.

MS. EDWARDS: Everybody good? Okay. So I don't know if we have a prior meeting summary at all to go through this time. It -- the meeting summary's online, is it not?

MR. TURNER: Correct.

MS. EDWARDS: Okay. So if you have any -- if any of the workgroup members have any comments on that prior meeting summary just let us know and we'll get it adjusted accordingly.

So I think the agenda today is at the last meeting we kind of left it with an idea that the industry folks would go back and come together and put together sort of a proposal to start with related to more of a monitoring approach in lieu of a permitting approach for temporary drill rigs. And they did go ahead and do that and sent that back out to the group and so that's available up on the website as well and all the workgroup members should have it available to them. So I thought we'd start by sort of walking through that and then we can -- the workgroup members, we can maybe have some initial feedback and thoughts on it and then we can move on from there. So the idea is sort of between now and a natural break point we'll do that and then after that we continue our discussion on the proposal and details and defining what we want to do next, what our

follow-up steps would be. Before we leave today I would like to kind of have a feeling for what our next steps are and sort of when we might meet or want to meet as this group again based on where we arrive at based on our discussions on actions and next steps.

So that's sort of what I foresee happening based on the agenda today. So with that maybe Brad or -- we can get a walkthrough of the proposal from the Alliance and AOGA.

MR. THOMAS: Yeah.

MS. EDWARDS: Okay.

MR. THOMAS: So this -- the proposal's built around employing monitoring to show that the drill rigs are in compliance and don't threaten compliance with the national ambient air quality standards. So I'll go through the program elements that we propose and take questions at the end.

MS. EDWARDS: Before you start, did you someone just join us on the phone.

MR. BROWER: Yeah. Good afternoon. This is Gordon Brower with the North Slope Borough.

MS. EDWARDS: Great, Gordon. We're glad to have you. We just took a look at the agenda and Brad's getting ready to sort of walk through the proposal from AOGA and the Alliance. So if you have any questions as we go along please feel free to chime in. And if you're -- if you have -- and if there's.....

MR. BROWER: All right.

MS. EDWARDS: And if there's -- this goes for anybody on the phone. If you're having trouble hearing anything please let us know.

MR. THOMAS: Okay. The program elements consist of seven in total. And again, we propose to demonstrate that the rigs don't threaten compliance with the national ambient air quality standard via monitoring presentation, if you will, or program. We'll -- so the first element is to assemble all the data that's been collected to date around drill rig activities and present that to ADEC in the form of a report or modeling -- or not modeling files, but monitoring files, Excel spreadsheets that contain all the data. So ADEC's got it, they can see the QA QC. So all the data that's been collected on rigs to date will be brought to the table.

The second thing would be to continue at a pad in Alpine and a pad in Prudhoe Bay for at least two years. There's no (indiscernible) for at least two years the ambient monitoring that's going on now. So in Alpine at the drill site called CD-1 there's a full blown ambient monitoring station that records PM-2.5, PM-10, NOx, SO-2, CO and ozone. We'll continue that for at least two years and bring that data forward to DEC, DNR for their review. And we'll continue this -- the program on A Pad within Prudhoe Bay and the pollutants collected there are -- Alejandra?

MS. CASTANO: I believe all the ones we stated. I'm not

sure about ozone, but Alison's on the phone. She can confirm.....

MR. THOMAS: Okay.

MS. CASTANO: .....what we do have.

MR. THOMAS: We collecting ozone at A Pad, Allison?

MS. COOK: Yes.

MR. THOMAS: Okay. So we'll continue both those programs for at least two years. But again, no end in sight in either case.

The third program element, a subcommittee we proposed will be made consisting of State representatives and representatives from industry to look at all that data that's been collected and, you know, make sure everybody's comfortable with it. You know, evaluate it and conclude hopefully that it's good data, it can be used to base decisions on.

The fourth program element will establish a -- we call it a leadership team to periodically meet and assess the monitoring data that's been collected and look for trends, look for in particular violations of ambient air quality standards if they occur and see if anything needs to be done about that. And what that leadership team will do, how it behaves, how often it meets, what the action thresholds are would be defined by the leadership team when it's brought together. We didn't put any detail on what the leadership team does or what it is, but it will evaluate the ambient data as it's collected to determine

action items. And along with that, you know, they'll look at not just the ambient data that's been collected, but they'll look at, you know, past and planned future drilling activities to see if there's any major differences or anything of concern that arises.

The fifth program element, we can -- we'll show -- we already have done quite a bit of modeling, but we can show to everybody's satisfaction that the impacts that we're concerned about around drill rigs are the one hour standards, the impacts in respect to the one hour NO2 standard in particular. And we can show that that's a near field impact, it's not extended in distance. So that will then support that the ambient programs are good and that the ambient data that's been collected to date is good, it shows what's important to show.

Then, you know, we'll also show that the modeling, it doesn't really matter where drill rigs are, whether they're on the North Slope, Cook Inlet, Brooks Range, it -- because the impacts are near field. The meteorology implied or the local topography is of very small importance because the impacts happen right near the pads. So the modeling will demonstrate that.

The sixth program element, we'll -- we can show what technology improvements have been made on the drill rigs over time. You know, we'll bring that information to bear, you know, more formally than just us saying it. But the engine

replacement rate's been on the order of about two to three per year, you know, on drill rigs. And that's engine replacements that affect lower emitting engines with each replacement because with the EPA's Title 2 program the engines are increasing in tier level with each replacement.

And the seventh program element we propose is for DEC to tell us the steps that need to be taken, identify the steps that need to be taken, lay out the plan for amending 18 AAC 50 to regulate the drill rigs as we propose via a monitoring approach rather than a programming approach.

So at eye level those are the seven program elements. So if anybody has any questions you're free to ask.

MS. EDWARDS: Questions. Gordon, do you have any questions on the proposal?

MR. BROWER: I probably would if I was able to be there and to kind of look at what's being described. I have a hard time visualizing sometimes when we're having to -- you know, try to hear it without being present. And I didn't have the proposal in front of me. I was looking through my email and I thought I had received the proposal some time ago, but I wasn't able to locate that.

MS. EDWARDS: Okay. Gordon, are you at a place where you're near your computer?

MR. BROWER: Yeah, but it looks like we just had a power outage and my computer just turned off and everybody else's in

the building just turned off, so.

MS. EDWARDS: Okay. Well, if you do get your computer back it is posted on the drill rig web page for this meeting. So if you get your power back on during the meeting you might pull it up there. At least you'd have a visual reference of it.

MR. TURNER: Excuse me, Alice. Rebecca, are you still on the phone?

MS. SMITH: I am, Tom. I -- and I just (indiscernible). I'm -- Gordon, I'm going to go ahead and send you those documents so that if your power comes back on you'll be able to see them without having to do the roundup of that page to find them.

MR. BROWER: All right. Thank you.

MS. EDWARDS: Okay. Bill, did you have anything you wanted to share?

MR. BARRON: Yeah, I've got a couple of questions. And first I'd like to say that I think it's -- this -- wherever we land this is a really good first step by the industry and I appreciate the effort and the thought that went into this. Because we've talked a lot about the difference between actual data and modeling data and the value of trying to marry the two, but you can't marry the two if you don't at least take data to figure out how the systems are working.

You talked about CD-1 and A Pad and with all the drilling activity that is potentially in the forecast and on the horizon

why those two pads? Are those the two most active pads? If you're a skeptic you would say that those are the two least active pads and you're trying to cook it. So I mean if we try and go through this in a public way -- and I'm not saying you are. I'm just saying if you're a skeptic how do you build the reputation that these are the two most responsible and representative pads on the North Slope and how does that then compare to something that you might have in the Cook Inlet?

MR. THOMAS: And I'll speak for Alpine, for CD-1. And Alejandra, you and Alison can jump in on A Pad. But CD-1 is a pad that also consists -- it's a very active pad. It's one of four pads in the Alpine facility and it gets high level (indiscernible) from drill rigs. So it's a pad that's very active for drilling. But it's also got the advantage of being a conservative location because this pad is also the Alpine simple processing facility. So we're not only recording a good number of drill rig impacts on that pad, but overseeing the effects of drill rigs and the nearby, you know, PSD major facility. So that's why we have CD-1. It's got the infrastructure plus it has the conservatism for the ambient impacts being measured. And it gets a lot of drill rig station, so.

MS. CASTANO: So as for A Pad, and Allison Cook can correct me if anything I state is incorrect, but it wasn't originally placed -- the monitoring station wasn't originally placed there for drilling rig activities per se. It was in

support of monitoring data that we were collecting as kind of more of a background station. That said, however, with the data that we've shown in past presentations there has been drilling activity at A Pad obviously over the past couple of decades and there will be continued drilling activity there as well. Alison, anything you want to add?

MS. COOK: No. Well, I'll just say that we -- that it's a very well established station. It's been there for over 20 years. It's -- in addition to kind of measuring background it also measures the dispersion from the major impacts that we think that we would have. The most impacts are maximum impacts that we would have that are near the gas plants, the central gas facility and the central compression plant. And that's where we have an additional air monitoring station that we call the CCP station measuring the maximum concentrations and the A Pad station is our downwind station that measures how the concentrations disperse as they go downwind. So it measures that as well. And like Alejandra said, the station wasn't put in there with the intent of measuring drill rig emissions, but it has over the years and we currently in the last few -- in the last couple of weeks we've had one rig there and I think we have a second rig going there. So it does measure drilling activity, but it wasn't placed there specifically for that purpose.

MR. BARRON: Okay. I -- but I think you see the thrust of my concern is that if you're putting in something -- we're

talking about a multi-year program and if the sites that we're monitoring the air to show the validity of air sampling versus modeling has sparse or limited drilling activities I'm beginning to wonder the -- how much value that is and is -- are there better places to put the -- that's all I'm asking is, is there a way to make sure that those are the best places? I mean I tend to agree that CD-1 is probably a really good place because it gets both production operations and drilling on a continuous basis. Just wondering about A Pad and is there an alternative site. And so now to the question of, you know, Cook Inlet. Do we think that that is -- the activities associated on the Slope would also be representative of similar activities in the Inlet?

MR. THOMAS: I do. I do because the Slope activities occur with drill rigs that if anything are probably slightly bigger than what they have in the Cook Inlet. And since the impacts are right at the pad edge or on the pad or very near the pad that's not going to be different in Cook Inlet. The pollutant at issue is one hour NO2. The ambient air quality standard we're concerned about that we can't model compliance with because we model compliance with everything else, but it's one hour NO2. So the impacts we record on the Slope, be it A Pad or CD-1, I just don't see them being any different in Cook Inlet because the station may need to be hit for, you know, an hour at a time to record a one hour concentration of NO2 to see what it is. There's no reason to believe Cook Inlet would be

different. Kate.....

MS. KAUFMAN: No. I mean, as you said, the rig size and the Cook Inlet rigs we use down there are probably slightly smaller and we have, you know, certainly transient operation there. So, you know, our view is that the monitoring data collected on the Slope would generally be representative of our Cook Inlet operations or if not slightly worse. And that's -- you know, if they're achieving compliance it's -- you know, we can feel confidant that we are as well.

MR. THOMAS: We stay on pads on the Slope for -- and I'll look at Steve. Steven Hubert (ph) is our billing department. He came in late. I don't think -- did you sign in, Steve?

MR. HUBERT (PH): No, I didn't.

MR. THOMAS: Well, then when you do -- make sure you do that, but when we have a rig drilling new hole on pad it's a six to eight week exercise or......

MR. HUBERT (PH): Generally. I mean perhaps a little -- a wee bit longer than that (indiscernible).....

MR. THOMAS: Okay.

MR. HUBERT (PH): .....but, you know, if we have severe troubles or something (indiscernible) six to eight weeks or so.

MR. THOMAS: And I believe it's a little bit less, the -- not that much time in Cook Inlet?

MR. KAUFMAN: Yeah, yeah. We're 45 days, 60 days max really on a pad and we don't stay on a pad certainly more than

the minimum.

MR. THOMAS: Okay. It's about the same time it sounds like. Okay.

MR. BARRON: Okay. In item four you referenced -- and again, we had kind of touched on this in the last meeting, that the air standards are for when the equipment is drilling, not necessarily when it's doing work overs which is kind of an interesting subtlety. And in your section four you talk about exclusive of well maintenance activities. My question to you is, is the way that you can read that is, is you're not going to be monitoring. You're going to switch your monitors off. You see, but.....

MR. THOMAS: Yeah.

MR. BARRON: .....you understand how I can read that.

MR. THOMAS: Yeah.

MR. BARRON: I'm just trying to be real clear because my goal would be to have the monitors running all the time and then be able to cross reference both when the rigs are drilling, when the rigs are doing work overs, when.....

MR. THOMAS: Right.

MR. BARRON: .....and when the rigs are shut down and then to be able to go back and track exactly what is transpiring during all those different events.

MS. CASTANO: And that's how it's been. Those monitoring stations don't get turned off. I mean they (indiscernible)

continuously. That's your question?

MR. BARRON: Well, it is, but in item four it says.....

MS. CASTANO: Okay.

MR. BARRON: .....the summary of drilling operations exclusive. I mean it's very -- it's almost highlighted because it's put in brackets, exclusive of well maintenance activities. And my suggestion is, is that those activities be included, identified in the timeline, but identified and recognized as ongoing activities and maybe to just -- if nothing else to make sure that there's a full and complete set of data.

MR. THOMAS: I don't have an issue with that.

MR. BARRON: The other thing that as you were going through it, Brad -- two things. One is I guess I need a little bit of help and maybe we can do this -- well, we can do it here I think. The monitoring stations, I guess the goal would be to work closely with DEC in terms of where your receiving stations are, where -- you know, and -- you know, is there -- because the dispersant is kind of, you know, what's the profile, what's the plume model look like, where do things fall out, you know, near pad, away from pad. So I would think that there would be some sort of concert agreement in terms of how those stations are laid out, upwind, downwind, et cetera. Is that inherently implied in this or is -- or are you guys just designing where you put your receiving stations with your own best technology, but not necessarily in accord or in agreement in dialogue with

DEC?

MR. THOMAS: The CD-1 station was put in specifically to monitor drill rig impact, so we modeled a rig on a well line to see where its impacts would be and that's where we put the station.

MR. BARRON: Okay.

MR. THOMAS: And that was in the air quality (indiscernible) plan submitted to ADEC. A Pad because it wasn't put in for the purpose of monitoring drill rigs, I don't know where its location is compared to where the rig impacts would be. So that's something we probably have to assess.

MS. CASTANO: Yeah. It's actually in the middle of the well line of that pad. But we have to look (indiscernible).

MR. BARRON: But you've got receiving stations, you know, strung out in a way that have near pad, just off pad, away from the pad.

MR. THOMAS: When you say receiving station.....

MR. BARRON: Well, sampling stations or is there just one?

MR. THOMAS: Just one.

MR. BARRON: It's one? Okay.

MS. CASTANO: It's one. It's one monitoring station.

MR. BARRON: That's kind of what I'm trying to get my head around.

MS. CASTANO: It's in a -- I mean we can provide that information and it's actually I think been provided in our

monitoring data reports that we submit, a picture of where it is on the A Pad if that helps.

MR. BARRON: Yeah, it would because.....

MS. CASTANO: Okay.

MR. BARRON: .....I would get that (indiscernible).

MS. CASTANO: So Brad, (indiscernible).....

MS. TROST: (Indiscernible).

MS. CASTANO: .....stations he wanted put in the area of maximum impact, so at least we are measuring the maximum potential impacts from the rig.

MR. BARRON: I guess that’s kind of my question is, is thinking about, you know, how things disperse and I’m trying to understand are we measuring at the right location or should we be measuring at multiple locations at each one of these pads to identify is there a difference of -- with wind is that dispersion different than -- do you see what I’m saying? I mean having a monitoring station in line, just off pad, a little bit further off, you know, location, if that’s possible. I just think about we used to do noise monitoring on some rigs that I worked on and we put it out -- spaced out in distance to try and get an idea of how that sound attenuates over different kind of terrain. And you had to do that because of the distance issue. You had to make sure that there was -- you had that data. And I don’t know that that is the same for air, but I would think that it would be.

MR. THOMAS: It's a little more involved with air because.....

MR. BARRON: Probably.

MR. THOMAS: .....the pad size -- I'm thinking the pad is probably 30 by 50. Tom, you can correct me if I'm wrong, but so you have to have a 30 by 50 foot pad (indiscernible) tundra if you wanted to space it out. Then you'd have to get power out to each one of those spots and the station is -- itself is very -- you know, very involved. It's got a lot of equipment in it.

MR. BARRON: Okay.

MR. THOMAS: It would be, you know, a little difficult to do that.

MR. BARRON: Well, and that's something I would just look at DEC to kind of help out is whether or not the location of the monitors is acceptable. I mean I don't know not being an air technical kind of guy, but I mean that's.....

MS. EDWARDS: Well, and I did send out to the workgroup members some of my initial questions and some of them sort of lead into that type of discussion as well which I think is understanding the data that we have, that industry's already collecting, and where those monitors are located and what we're observing at those monitors. But also being able to look at that network of monitors and see is -- are -- do we think that they're situated in a way that lends itself to the type of activity that we want to look at and the information that we

want to get. And that was -- some of my questions sort of stem around that question as well.

MR. BARRON: Okay. So I'm not completely off in left field.

MS. EDWARDS: No. I think that there's definitely some work to do I think on a very technical level to kind of look at this.....

MR. BARRON: I agree.

MS. EDWARDS: .....look at the data that's there and look at the sites that are there together and sort of.....

MR. BARRON: Okay.

MS. EDWARDS: .....make sure that we're comfortable at least on the Slope that where we have the monitors and what we're doing makes sense for what we're trying to.....

MR. BARRON: Right.

MS. EDWARDS: .....accomplish through this activity.

MR. BARRON: Okay. That would make me a whole lot more comfortable if I knew that you guys had come to kind of closure technically. Because I mean there's a whole lot of technical stuff here that needs to get ironed out and -- so that when -- at the end of the day when we do look at the data we can all go yep, it makes sense, it's valid, et cetera.

MS. EDWARDS: Well, and -- because of course what we want in the end is when we -- you know, when we present a plan like this out to the public and EPA and we want to get approval for

it we want people to be able to feel comfortable that it.....

MR. BARRON: Exactly.

MS. EDWARDS: .....is going to be able to demonstrate that we're continuing to comply with the standards.

MR. BARRON: Right. The other thing, and I think it's last on my list. I'm not -- and it may be in the -- hidden in the small print, but I think there needs to be something in your overall plan about if you're monitoring -- and I don't know -- again, excuse my ignorance, but I don't know if you're seeing instantaneous readings or whether or not you have to go out and grab the data. But is there a way to establish kind of tripwires if you see that you're approaching a threshold that you have ongoing routine activities that you would curtail, operations that you would change if you were approaching any thresholds of pollutant?

MR. THOMAS: We do review the data at least daily.....

MR. BARRON: Okay.

MR. THOMAS: .....and sometimes on a real time basis. On Alpine the -- there's -- PM-2.5 and one hour NO2 are fed straight into the control room and it's alarmed. So if the readings get high, get elevated, the control room operators get an alarm, they can see what's going on. So it is reviewed in real time or at least daily there. And A pad I know it's at least daily.

MS. CASTANO: A Pad is also -- we would get a call

directly if there was an exceedence at that station or if there was any problem, you know, with the equipment that we weren't able to get data. That's -- the reason for that is because it's part of our QAP.....

MR. BARRON: Right.

MS. CASTANO: .....or how that process works.

MR. BARRON: Okay.

MS. CASTANO: So we would get alerted pretty much immediately.

MR. BARRON: Okay. I just think as part of your program here I think it would be good to at least clearly identify if you can activities that you would curtail or actually -- and you may already have them in your operating procedure manual of what you're going to stop if you get close to a threshold point. And I think that's kind of one of those things is we do this, again we're trying to match model with actual, but what we don't want is to just exceed just because we're going to keep running just normal business. All right? We just -- we still want to make sure the environment is protected as we do it in this manner.

MR. THOMAS: Yeah. You know, in the years that we've collected data I can tell you where we've had issues. It's the guy parking his truck next to the station.

MS. CASTANO: That happens.

MR. THOMAS: So what would we curtail? You know, move your truck. That's generally because what causes the elevated

readings. The routine operations from the Alpine plant, it's -- that is 20 percent of the standard.

MR. BARRON: I understand that. I'm just saying as part of the protocol here I think there needs to be -- just like in anything else, if you reach a threshold point for whatever reason, you know, guy parking the truck, whatever, you have action items to take that then are immediately taken. All right? So that you don't breach the threshold.

MR. THOMAS: Yeah, (indiscernible).

MR. BARRON: Just because you want to breach them. No, I don't think that's the right -- I mean.....

MR. THOMAS: Right.

MR. BARRON: .....I know things happen, but if things happen what are you going to do about it. That's what I'm asking. So as part of the protocol I think that just needs to be as a -- as some sort of line item in here is these are the action steps taken at X and these are the next actions at Y and X and Y are different thresholds.

But I -- you know, to me this is a great start. I like the idea a lot about -- and I've said it numerous times. As a old reservoir engineer I know that the first time I run a model and then I have a year of production I know my model's wrong. So I've got to go in and change the parameters of my model to make sure that it's matching actual data because the actual data is really what's happening. So we just need to make sure the

data is satisfactory to the agencies. All right? It's got to match whatever testing protocol DEC comes up with and you guys can work through and then start working the issue of how does that match -- what do you need to do to the model to start matching data. To me that's critical. But this is a great opportunity I think. That's all I've got.

MS. EDWARDS: Thanks, Bill. I posted -- I sent sort of my prelim -- DEC, some of DEC Air Quality's sort of preliminary thoughts on the proposal out to the workgroup and they've been posted as well and I don't think we need to go through them in -- not as in detail, but maybe I would highlight just a couple of things which I think Bill has also mentioned. And one of them is, you know, on the second program element about the existing air monitoring sites and again trying to figure out are they the right sites for what we're trying to look at. And so a lot of the detail questions that we provided sort of center around, you know, sort of what do those sites represent, are they representing what we think we would need for this in the context of thinking about do they represent what we would need for this type of program. And then also thinking about how they would -- how would they translate or how could you translate them to other parts of the state or other parts of the Slope that don't have monitoring. So if we start to see expanded drilling in other -- on other parts of the Slope or, you know, if you talk about Cook Inlet how does that data translate and is

that going to be reasonable to assume that that -- that we could do that.

We also submitted some questions sort of about -- on program element three about the review of the data, that maybe we want to -- that we thought maybe we should think about sort of what that subcommittee and workgroup would do when -- and what happens with the results. I think there's some implied actions that come out of that, but it's not specified very well so it might be a piece for us to talk about from -- more in detail. Sort of like what are we going to do when we get this information back from the technical folks about the monitoring data.

Sort of the -- similar to what we just talked about on thresholds on program element number four, if we have this leadership team that's periodically reviewing the data, the trends, doesn't really speak to yet sort of what actions would happen based on what we're seeing, what would they do, how would they work through that. And Brad eluded to that as well when he said we -- there's really not the detail there yet.

On the modeling, we had a bunch of sort of really technical pieces on modeling that I think depending on -- not knowing exactly what you have done or what you're planning to do there may be some things that could be done or looked at. And that would be another -- maybe another technical discussion to have with the right group of technical folks. We know that

there are a couple of things going on nationally with regard to modeling improvements. Some of the ones coming out of the American Petroleum Institute, it sounds like EPA's going to be approving some of those soon perhaps. So -- but we don't know how that fits into sort of the modeling that's been done to date and whether it will help on the modeling side.

And then also sort of thinking about future, you know, what we have now versus what we see in the future and how do we deal with that and what do we project in, you know, as far as trying to think about preventing, you know, growth that would lead to problems with the ambient air quality standard. So we sort of know what's been going on. Do we see bigger things happening and -- or more drilling occurring?

And we are interested in understanding more about the technology improvements. Clearly that I think is important and I'm not sure we understand very clearly sort of what the replacement schedules are, so I was happy to kind of get a little bit of that from you today. But sort of how the equipment is scheduled for replacement, how often are these getting replaced and so what we can see for turnover as things because we know the newer ones will be cleaner than the older ones.

And then of course the last one, we clearly will need to work with you all to better clarify what we need in order to make a case to EPA and to the public that this -- what this

program will do and how it will protect air quality and be able to defend that both in the public forum, but also to have something that EPA can look at and be comfortable as it's doing the job that we need it to do to protect air quality, you know, maintain good air quality and protect air quality in the future.

So that's sort of the gist of what I had put into those -- that we had put into those initial questions and comments back. And I think I also agree that it's -- I think there's a lot of pieces here and that it's a good start and a good framework to start with and I think we can build on it. So.....

MR. BARRON: Yeah.

MS. EDWARDS: .....that's sort of my general thoughts on it.

MR. BARRON: Yeah. I guess as a follow-up to that, I'm not seeing anything that is any major hurdle here as far as, you know, not going forward with this as the primary plan. I'm not seeing any big red stop signs at all. I'm saying these are some discussions and dialogues we need to have to fine tune it and -- but otherwise this is a good way to go.

MS. EDWARDS: So I don't know if anybody else has any thoughts I didn't cover.

MR. TURNER: Alice. There's a couple of issues. I went and flew down to Seattle. This is Tom Turner for the phone people. And I was going back over the transcripts. I'm kind of looking at this from a process viewpoint and I'm going on quite

a bit of what you talked about, Bill, about how do you match what a model does to what is practical and pragmatic. So when I look back -- because I'm a process guy. I'm not an engineer. I had the pleasure of working with them and sometimes people get stuck and oh, this looks like it's going to work and then as you get more and more data or information or you look at the big picture it doesn't always work. So the couple of things that -- when I go through the transcript that I'm seeing is one of our purposes that everybody has stated more than once, protect ambient -- protect air quality. The next question, it's got to pass Clean Air Act and the really gatekeeper to that is EPA.

Okay. So I did go down to Seattle for the pollution prevention conference. I did meet with some Region 10 people in EPA and said what's going on -- this is what we've got going on with the drill rigs, what's going on in the rest of the Region and what's happening. And so from a perspective of protecting air quality the current system we have is working, but they are coming up with new standards and they will continue to have new standards. And this standard and this system got set 10 years ago when industry came to DEC and says we don't want these auxiliary engines and stuff into a Title 5 permit, we need to have some type of other system, so we set up this drill rig system. So things are progressing rapidly with technology and stuff, so now we have new standards. We have a 10 year old tool that's used to in effect show us we're protecting air quality.

And so when you're going to change that system and it has to be defendable to EPA, which is what -- I'm kind of sitting back. Because I'm the reg guy. I look at how you put this into the regs which EPA generally likes. If it's in the reg they're comfortable. And those -- lots of times on the other side within the spirit they're like, well, if it's not in the regs we're not going to do it. So, you know, it's a good place to have an agreed upon rule.

When you look at the current approach that's working and we're going to change that at all and we have to protect air quality and we're using an old tool now we're coming up with, well, we're going to replace it with a newer tool and that new tool is going to be monitoring. But there's still other tools we haven't looked at. EPA's looking at across the Region, across the country about can we use Monte Carlo modeling which is a different statistical approach to approach it. If we're going to do a monitoring scheme they're asking questions or questions will be raised about how long do you have to keep some type of protection in place. Because the reason -- from one perspective you can look at the reason these aren't showing any violations is, well, they have a permit that's protecting the air. So if you remove that permit that's protecting the air what -- again, what happens when all of a sudden you see that air's not being protected because of how the operations are going. From an industry viewpoint I'm always hearing the

operational guy step in and go, well, we want flexibility because they don't want to get too stuck in a system and, again, a 10 year old tool.

So if you're going to go to a monitoring scheme the question is what's the transitional period, how do you work it into the regs, how do we get it past EPA. And so we have this framework of monitoring, but there could be some other options. You could redo the regs. Because I think Gordon's point was very well taken about can you do a registration program. In other words, once you remove the permitting process and you have to look at this from the perspective of the public and you have to look at it from the perspective of EPA protection how do we come back in again to say, well, we have to tighten up emission controls or EPA comes up with a new standard that all of a sudden we have to come up with a new permitting regime. How do we keep it within the existing system, but allow that flexibility. And there's a couple of ways you might be able to do this and I'm looking at what we did when we had to do best available retrofit technology which all the oil folks had to get kind of dragged into. And what you do is maybe you can design a reg that actually says if you do certain things you get exit points. So we set up a monitoring scheme. Someone shows up and says I'm on high line power. You exit out because we know that high line power doesn't have the same emissions. In Wyoming they're starting to use natural gas engines. But you could say

we have certain types of technology, we have tier three, tier four engines. That could be an exit out of a permitting process. You can say we're going to have a monitor on site and then there's some type of controls over a period of time, a year or two, where the rig is registered, we get that monitoring data. We see that it's not causing damage and then there's something in that permit that says -- or the registration that says if you violate out, like you've pointed out, can we step back in and put in some type of controls.

If you had something like that within a reg package you might be able to sell it. I think you can present it to EPA. EPA's going to tell us what we can't do. They're not going to tell us what we can do. And I do think, you know, the initial purpose of this workgroup when you look at the history, what industry's concerns are, what DEC's concerns are, to protect the air quality, if you get it into -- let the technical aspects be worked out, but then you present it within a regulation package where you still have an assurance of being able to protect air quality and give industry some flexibility that might be able to fly within a sale. And I'm just -- and I know people are -- I like the monitoring scheme. There's lots of elements of it that work, but it's kind of a new tool and if you're going to get rid of an old system that from everyone's perspective, from an environmental viewpoint is working, you're going to have to demonstrate that tool working for a period of time. You might

have to have a two year transition plan. We might have to look at other elements of what else constitutes a drill rig operation. And there still is the follow on question that dragging these drill rigs in, in the first place is what do you do with all those auxiliary engines. Do you put them into the Title 5 permit which could be a good way of doing it or is there another way of being able to control the emissions from those auxiliary units in a different format?

So I've kind of been sitting back watching all this and I'm kind of playing the kind of role of throwing some obvious things out here, but the fundamental goal we have is how -- as a group what do we do best to protect air quality that's going to pass the Clean Air Act and EPA. And it's -- somewhere along the line it's probably going to have to be worked into a reg or SIP. I think if it's just in a SIP I don't think they'll fly for it. I think we're going to have to show them this is what we're doing to ensure that our monitoring scheme is in fact -- that's all that's doing is telling us there isn't a problem. What happens when there is? And from what I'm hearing, what I'm reading in the journals, when I'm talking to my industry co-parts on the other side there's a lot more activity coming. You know, particularly if this tax stays in place there's a good possibility there'll be significantly more investment and more drilling activity on the Slope. The other side of that too is you could design it within the regs where you could do it

regionalized. We have that within our energy permits now. So Cook Inlet has a different type of system that can work for Cook Inlet that's far different than the North Slope.

So just a couple of things that would -- could work within this monitoring scheme that I think should be considered as elements to be included within what will pass EPA and show protection of air quality.

MR. BARRON: Yeah, this is Bill. You know, I appreciate that. I guess I'm, you know, also kind of a process guy and I look at this as trying to answer a couple of really critical questions first. And to me part of the issue is, is the tool that we're using in terms of the model with the change in standards by EPA, you know, I think everybody was fairly comfortable in working through when you had the original plan and the original specifications as stipulated. When those changed, that's when the wheels fell off. Right? Going to an hour model, suddenly that's a change. Now we're trying to demonstrate, I think in this process we're trying to demonstrate over a long period of time with good data that that model doesn't work. Now if EPA's coming up with new models I think that kind of fits within this program that then they can say here's the real data, does the new model that's being proposed, is it better, is it worse, is it closer? I mean I think this is an ongoing activity. I don't think -- in my mind this was not the end all because we just don't know what new activities are

going to take place. We've got to be always thinking ahead of how do we manage our process, how do we manage our equipment and how do we protect the environment and still go forward. So I agree with you, but I don't think this is an end all kind of product.

MR. TURNER: Well, and that's the suggestion, it's a good start, but could you -- and that's why I keep falling back to my experience of what I've seen within the regulations. Because that -- EPA always looks at our regs and if they don't like something they say why is it in your regs. And I've gotten into more discussions and all the consultants know this, all industry knows it, I've sat across the table and said, well, we don't have to do it because it's not in the regs. Well, then fine, we'll put it into the regs. And they said, well, we don't want it in the regs, we're going to do it anyhow. So we have to have that insurance to do and protect the public's trust. And I do think -- I'm always looking at how do you do flexibility within the regs because (indiscernible) operational people can't be stuck with we get to do it today and we can't do it tomorrow.

MR. BARRON: That's a huge issue.

MR. TURNER: Yeah. And so the question is, is I've seen that sometimes like the -- and that's why I keep going to (indiscernible). While it was difficult to go through at the time, you can design regs that say if you fit this you're out. If you're this way you're out. If you do a Monte Carlo which

might work much better for the Cook Inlet and EPA uses our approvable modeling system that works. If you set up an extensive modeling system on the North Slope, and that still has to be determined and I am not a modeling -- a monitoring expert. But if you set up a monitoring system someplace, again, what would that look like, what's the transition period of time and what's the kick in controls when it -- if it doesn't work. But you just can't say tomorrow we're going to put up a monitoring program and all the permits disappear. They're going to require some type of transition or at least to demonstrate that within the regs.

So I think if you've got the technical people starting the work on what works for monitoring and at the same time I think it would be important at this point -- from day one there was some discussion about EPA should be involved. My experience with them in these kind of issues is you're not going to get EPA coming in and saying thou shalt do this. But they're not going to also come in and say -- they're not going to be obstructionists. They're going to help us try to find a solution that helps protect air quality through their existing process which is generally a reg or a SIP. And that's -- you know, so somewhere along the line we need to start including them. I'm concerned -- I worry about money within my field of tech services. We do the fees that everyone pays and I'm always looking at, well, how do I pay for something. Because I don't

get general funds. I have to figure out a way to charge you, industry. And so the question is if you set up a monitoring program how do you pay for it. The other thing that you have then is when you're walking through these processes and you're running it through a SIP how do you match that money for value. I don't want to be putting a lot of work into this with the team and the effort that everyone's been going through without knowing where EPA's coming from. Because we could present it to them, like no, I decided I want it blue. You know, they could do color schemes on us for all we know. So the thing is I think somewhere along the line, we're far enough along on this path we need to start having them at least sit at the table. I appreciate John here, but they've got some good people that are looking at trying to find a solution for this because they know that these standards are pretty touch.

MR. BARRON: Yeah. Well, to be clear, as I read through this and I'm just skimming item seven. I mean to me it was really clear here that this was not an idea of simply going to a monitoring program and all permits go out the door. This to me was a plan to work our way through what data have we collected, how does that match the modeling, what do we need to do with the modeling, what do we need to do with regs, what do we need to do with SIPs, but we do it with data, we do it with knowledge, not just a black box. And so to me this is a phased approach of let's get good information, let's get real data, let's match it

with models, let's tweak models so that it starts matching the data, let's work within our existing permit scheme. The permits don't go away, but I think we need to work within the framework that this monitoring program allows us to do and then you've got a technical team, you've got a leadership team and then item seven is working collectively together to try and figure out what's the right approach until something new changes. So that's kind of the way I'm seeing this. Am I reading that wrong? Is this -- isn't that the way the approach was presented?

MR. THOMAS: I'll give you a very longwinded answer because I want to address a lot of things that Tom brought up. One of the points we've been trying to make from the very beginning is that the national ambient air quality standards are protected and the drill rig regulatory program within the air program was meant to protect the ambient air quality standards. Its genesis was based on a concern the ambient air quality standards were threatened. So the point we've been emphatically trying to make is that we've got a lot of data, a lot of ambient air quality data that shows that the ambient air quality standards have not been threatened and they won't be because the emission rates are just going down. So the historical data we've collected shows we're okay and there's every reason to be confidant that it's just going to get better because the engine emission rates are going down. So the point of the program, the

program was based on model concern that there was -- the NOx could be threatened based on model output, but real data shows that concern may not have been totally accurate. I mean we may not have needed the program is the point we're trying to make.

The second point, in 99 plus percent of the cases that permits have been issued for drill rigs don't impact their emissions. Those rigs would emit at a certain rate, at the rate they emit, with or without the permit. And if the permit's lifted, if it's gone, the rig emissions will not increase. In fact they'll only go down over time because of the engine replacements and the higher tier engines going in. So the permit program, Tom, you mentioned that it works, it protects the ambient air quality. I guess I contend that it doesn't. It's protected anyway by the rigs in their normal activity, their normal operations. And if the program is lifted -- again, and this is one of the questions that ADEC raised in the document. If the permit program is lifted the emission rates will not go up. And the level of activity in the fields, it's not going to appreciably increase either. I mean the only thing that would make the level of activity increase in the fields would be economics. And, you know, we -- there's been a lot of talk about a new tax regime in the state. There might be a couple more rigs and I'll let Steve address this. Like for Conoco we might go from a total of, what, five active rigs to six or eight? So not a lot, not an appreciable increase. You

know, when you compare that, when you put that in perspective compared to the Permian Basin, the Williston Basin where there's 100s and 100s of drill rigs active, you know, if we go from five to eight drill rigs, you know, that's a very small amount.

And finally, you know, so if we made the point that the national ambient air quality standards have always been protected and it's only going to get better over time, though I don't see the permits going away right away because there's work to be done. That's been my objective is I just don't think the permitting program is necessary because the rigs don't threaten compliance with the ambient air quality standard, but there's steps to take to get there.

MR. BARRON: And that's all I'm trying to say is this is a primary step to figure out what we need to do in the future, not necessarily flush what we've got. Keep what we've got until we can prove that we need to change it. Prove that we need to change it, not imply.

MS. CASTANO: What we should also note is that some of the data that was collected at least at A Pad has been since before the drill rigs were permitted. So we do have a body of data that sort of addresses both of those scenarios and we have not seen violations in either side of that line.

MS. TROST: Just -- this is Barbara and I'm with the Air Monitoring group in DEC. So one thing just to remember. The whole idea of why modeling came up is, for one, it allows to

look at different scenarios and it's usually a lot cheaper than monitoring. So I was surprised to hear that there is a proposal out to do additional mon -- or to do monitoring on the North Slope. And while the proposal right now just focuses on existing sites there are rules of what -- how monitoring is performed and that is pretty much dictated. So we will have to look -- and there are no decisions made yet, but we'll have to look at whether or not these stations are representative and whether or not they represent not just the North Slope, but if they could be used for Cook Inlet. And that's going to be not that easy to do. We're talking about a completely different ecosystem. Without monitoring data already for the Cook Inlet that we can then compare we would probably have to combine that with some other modeling. Will any of that -- trying to use -- usually use monitoring data from an area that's that far away is going to be a lot of work. I'm not saying it can't be done, but we'll have to really dig into the datasets that we have and try to come up with a good rationale because we'll have to defend it and it has to make sense.

And so it could easily be that the working group sits down or the technical group sits down and comes up with a need for an interim three, four years of more data, more stations that would be out there to cover -- to study this and to produce additional data so that we can justify it. And I don't know, I mean I don't set the stations up for industry, but I would assume that

a monitoring station is easily $100,000.00.

MR. THOMAS: Easy.

UNIDENTIFIED FEMALE: (Indiscernible).

MR. TROST: So I'm just throwing that out so that people are aware that before we walk through all of this is that there could be quite an increase in cost additionally.

MR. KINDRED: This is Josh Kindred with AOGA and I think -- I'm relatively new to the position. I am new to the subject matter. But I think when I looked at the questions from ADEC and our original proposal I think the question that's important here as we move forward is from industry's perspective is the cure going to be worse than the illness. I mean I think when we look at this where -- I think Tom's point that the permitting establishes that it works because we're not violating the ambient air quality standards. I think we have a different philosophy which is no, what this shows, what this data will show is that the permitting isn't necessary and I -- and Brad touched upon this. But ultimately our goal is can we convince the agencies that we need to convince that that is true here, that this is a fact that drill rigs in Alaska both currently, historically and moving forward are not a concern when it comes to the air quality standards. And I think what I'm hearing, and I have a very elementary understanding of this issue, is that what -- what's being contemplated is actually substituting the modeling air permitting system with a monitoring air permitting

system and I don't know that that's necessarily -- and again I don't speak for everyone here, but I don't know necessarily that that would be considered a efficient movement. I mean I don't know that that's necessarily what we want to exchange. What we might be able to do is persuade the people that need to be persuaded that there is no need for this air permitting and I think we can do that with the data and I think that's Brad's position. But I think your point is a good one which is maybe this is a discussion that happens before we exert the resources if we aren't necessarily having the same conversation. If ultimately what you contemplate or what others here contemplate is more monitoring sites, monitoring Cook Inlet, continuous monitoring past the two year point or past the four year point, that may alter the variables in such a way that it may no longer be financially viable. So I -- and I don't know if that's a conversation that we have today, but it is something that I think we should keep in mind.

MR. TURNER: So I do want to point out the whole concept that the purpose of what a permitting process on a drill rig is. And I think this is an interesting discussion. I want to take a little -- I come from a pollution prevention background. I don't particularly think permits are our best vehicle. I'm not necessarily -- and I'm not necessarily speaking for the whole agency. I'm speaking from a pollution prevention perspective of someone who's constantly seeing these changes. If you could

demonstrate that air quality is protected not only from this data and give it some type of assurance that it's working that doesn't necessarily mean that we have to continue the existing program as it looks. And so, you know, my pollution prevention background actually comes from hazardous waste. The best way to avoid hazardous waste is not to have it. You know, if industry is doing some of these rapidly changing technologies that are reducing emissions there might be a time that we might not need certain types of permits, but in order to pass the Clean Air Act and get by EPA you're going to have to demonstrate it. It's going to have to be defensible. And so how do you set up a process of change within this reg system that we have and I think that is kind of a discussion you might, you know, look at with the drill rigs. We're not saying that the drill rig necessarily is going to stay or go away. That was the whole purpose of this. The tool's not working, monitoring's another tool. Is Monte Carlo another way of doing it? Is there a registration program that you can do it with? And I do think that this was a -- you know, the initial discussion here got us actually talking. What they discussed at the beginning of the workgroup when I read the transcripts -- that's why I always bring a transcriptionist is so I can go see what I said even. Everyone said, well, we might need to break down to some subcommittees and look at various options. Okay? So there are different options here that we may be able to agree upon to do

what DEC needs to do. Our job is here. My job as a public servant is to protect the public's trust of air quality. Your job is to produce oil. But everybody here in the transcript says your job is also to protect air quality. And so how do we look at the data, how do you set up a system to review the data to make sure that that fundamental belief and that fundamental comment everybody's goal here is still intact. Because the judgment here will be EPA and the Clean Air Act and if we fail we'll have third party people stepping in and suing us or dealing with that. I do think it's reasonable within the context of this framework to be able to pursue those discussions, but you're going to have to bring in the technical experts like Barbara's group who are going to have to look at the data which we haven't seen it all. There might be other data on the Slope we haven't looked at. I mean those kind of discussions probably need to take place and maybe not in the context of a full workgroup meeting. Maybe you break down to subcommittees. So we have to start out and come back to various elements. And again, I'm going to stress my very strong opinion that somewhere along the line you're going to need to bring EPA in on this so we don't put a lot of effort in for something that's going to be very expensive and only have to be told no, you can't do it. And I think, you know, they have some good technical expertise in this and they're going to tell us yeah, we'll accept that. They generally tell us what they don't

accept when you're giving them something. So, you know, I think those levels of coming to a solution here that really do need to be explored a little bit deeper.

MR. BARRON: Yeah, and this is Bill. I -- again, you know, some of the options that you threw out, like Monte Carlo. That's just another model. Right? And while I enjoy -- whether it's Monte Carlo or Latin hypercube or whatever.....

MR. TURNER: Got it.

MR. BARRON: .....whatever statistical variation you want to play with it's still a model and if you can't match the model with data it doesn't matter what the model is. It's always got to be trued with data.

MR. TURNER: But the modeling does use different types of data elements. It depends upon which data element everyone chooses they want to use.

MR. BARRON: But if we've got actual data through this process then -- and we can look at the Monte Carlo. I mean I think that's a good idea. But again, it can't be looked at in a vacuum. It can't be looked at in isolation.

MR. KUTERBACH: I think -- Bill, I think you're exactly right. And I know we had looked at modeling of, what, the permitted allowable emissions versus the actual results, but do we -- have we had a detailed look at modeling the actual emissions versus the actual monitoring?

UNIDENTIFIED MALE: Yeah.

MR. THOMAS: I'm not sure we've shared that data with you, but we've done it.

MR. KUTERBACH: Okay. So I mean that would be something useful to look at.

MR. BARRON: I mean I think that's part of the -- a technical workgroup to sit down. I think that's kind of the framework that you've got here is one of the elements is that technical teams come together and do exactly that. I think this.....

MR. KUTERBACH: Yeah.

MR. BARRON: .....this is kind of -- that's why I'm kind of excited about this idea is before we make decisions -- and I agree we need to bring EPA in. I mean even though he's in the room and we're talking in third party to him, you know, I think it's important that we understand and can look at ourselves in the mirror and say, look, we've done our due diligence, we've looked at the data, we've looked at various models. We've looked at the new models coming in that are being approved and authorized and reviewed and this one works better than that one for our environment or these are the variables that we have to tweak to get it to work. I get that. But if you can't -- you know, you've got to have the data and the data's got to be shared that's real and everybody's got to agree that this is valid data, which is a critical element that I feel from DEC and I appreciate that. You know, the data has got to be validated.

That's the foundation for making decisions. All right? And yeah, at the same time, you know, the industry coming up with new fuel, so whether it's high line power or whether it's gas, whether it's, you know, the new engines. All of that stuff is still going to be in the mix and it's just -- I agree with Brad. It's just going to get better in terms of emissions from a rig. But I'm not ready to say to one of Brad's points that we're only going to increase by two to five rigs on the Slope. I mean I think we've got opportunities either through -- you know, some of the last lease sales we've had are targeting shale developments. I mean we need to -- that train is coming and we need to be prepared for it and that's why I'm excited about having real data that we can match to models so that then we can use those models to help predict what we might have if we do have 200 wells drilled a year, you know, six to 10 new rigs just to do shale development. I mean that's where my head's at. I'm trying to get ahead of the problem, but I want to get ahead of it with the marrying of technologies to understand what I'm saying is actually technically founded and based.

MR. TURNER: And that's kind of what I've been looking at is how do you get ahead of the technology. I agree on the discussion of the data. I mean I work around engineers and scientists. I've had to learn over time. Anybody who knows me knows I try my best. Is how does it defend the law, how is it going to look. So the second part of that is that data also has

to be defendable to a public scrutiny and to the EPA changes. And I do think, again, you can build flexibility within the existing reg process for this upcoming which I see increased development that's going to take place and the changes in technology. But those regs have to be flexible enough to keep a framework in place to ensure that EPA is comfortable.....

MR. BARRON: Right.

MR. TURNER: .....with the data coming in and then we can change over time. I mean my group doesn't read a new -- we get through a reg package every year and we've got it down. We can generally get it through -- unless industry screams a lot we can generally get it out in six months. So if -- as -- I think we need to start looking at those regs as a vehicle of being able to.....

MR. BARRON: I agree.

MR. TURNER: .....keep the structure in place until such time -- because that's what EPA looks at. If it's in the reg they have a tendency that we just have to submit the SIP and we usually can get away with -- actually get away with, but they accept it. Let me reframe my term.

MS. EDWARDS: But I guess one -- a couple of the things that I kind of just wanted to kind of highlight that I've heard that I've been -- as I've been listening is a couple of things. I understand that industry believes that the data that's out there should support not having any real structure at all for

these particular activities. I'm a little concerned, as you just mentioned, Bill, that when you were talking about shale oil development there's a lot of effort going into trying to promote additional activity. And while we have great people in the room that can predict -- maybe have better crystal balls on the future than I do, I got to -- you know, I need to plan for what I think is at least a reasonable scenario of the future and I am concerned about growth outstripping, you know, the benefits that we're getting from perhaps technology improvements over time and things like that.

But I also wanted to point out something that Tom said that I think is also something that we could consider. You know, I think we have a lot of technical work to do and I think I hear pretty much agreement around the table that we need to do this technical work and get our technical experts working on this. But I also think that there are opportunities to have different approaches and maybe more than one approach to dealing with different situations or different parts of the state or, you know, various aspects of this issue. So I think that as -- but I also think before we can really get there and figure out what makes the most sense we do need to figure out this base piece that we're talking about here and what we have, what data do we have, do we have enough of it, do we need some more, do we need to get different -- do we need some different monitoring sites, can we translate it. All of these issues which I see as

being pretty hyper technical issues in some respects, we need to work through those and get a little more better feel for that. But I also think that as a group as we look towards a process for trying to improve upon the situation we have now, you know, that there are a number of different things we can do, not only with models but with different approaches. And they don't -- you know, we said we wanted to come up with sort of a global policy. That may not be where we can end up and that's okay. But I think if flexibility is what's needed then we need to make sure we have the right arsenal of tools available to make the case that whatever the activity is we're protecting air quality, that we've got adequate sidebars in place to protect for the future and the oar that we have threshold or triggers that we can use to try and deal with situations that come up. So I think we have the framework to start that process and I think I'm hearing great -- lots of great ideas around the table, so.

MR. BARRON: Yeah, I'm in accord with that summary. I mean we've got to get the base first and understand where we go from there. I'm not prepared at this juncture to say which way we're going to go. I need to see data. And I agree, we need to keep options open because we may decide after looking at the data that maybe in fact we do need a site in Kenai somewhere. You know, I'm not -- and we'll just figure out how to do that. But again, it's -- you know, we've got to be transparent and we've got to make sure that everybody appreciates what we're

doing and how we're doing it and that it's an open process. Because we -- at the end of the day they are going to be regs. But again, regs need to be flexible because things change. But what you don't want to do is have something in place that is based -- fundamentally based on either bad data or no data. And it's -- then it becomes arbitrary and whimsical and that's what is really bad when you're talking about something this technical.

MS. EDWARDS: Before anyone else chimes in I want to check in with our folks on the phone, make sure -- whether anybody has anything they want to add from -- on the phone. Gordon (indiscernible).

MR. BROWER: Yeah, this is Gordon. Who all is on the phone other than myself?

MS. EDWARDS: Well, a whole host of folks. So we have Eric from Caterpillar. We've got Sally Ryan, Alison Cook from BP, Tom Damiana, Ann Mason, Al Trbovich, Rebecca Smith. I don't know if we've had anybody else join. So there's a number of folks on the phone.

MR. BROWER: All right.

MS. EDWARDS: But you're the only workgroup member on the phone at the moment. I haven't heard Mike Munger join in yet.

MR. BROWER: All right. So I do have some thoughts though, but I did get my email back up and I read through the Alliance and AOGA draft outline for the Alaska transportable

drill rig air quality management approach. And the purpose of it is for the existing mechanism or minor sort of permitting of drill rigs, to replace that with a program of -- that relies on air quality monitoring data elective as an active role in (indiscernible) and manage actual impacts and making in compliance with the national air quality standards. There's some concerns that I see with that, that way of managing, because you would not be readily available to determine -- if there was a exceedence detected, but where that came from. And -- because drill rigs are mobile and an active oil field in the arctic up here has many stationary sources. The CPS and every one of those areas have these flaring jets NS things like that and that -- to me that would be the most concerning of managing a problem. And that's my own personal view because I've taken videos of those flares and then seen the impacts of those flares 200 miles to the west or -- yeah, to the west where my cabin is and seeing this arctic haze. And I still think that we need to determine if there is a problem. I had seen data or information that we had folks collect information from the lower 48 permitting drill rigs, minding that there are some subtle differences in the -- in these drill rigs, but they accomplish basically the same thing. That -- and in other states that the permitting was not there and not seen as a problem, but in comparison to the number of rigs in Alaska. And that's kind of concerning to me that we -- we're going to set out to regulate

something we would have to believe that there is a problem that we need to regulate. But having such few rigs in Alaska that participate the -- you know, I had thought of different ways of making it more flexible (indiscernible) capable.

Those are my views and I tend to think that to regulate something we look at it holistically and if there is a major issue with it that's what we -- that's how we deal with it. And we had come to some conclusion about -- and I'm trying to recall back to some of the other meetings that we had that -- how did we get in this position to begin with and was it hastily determined that these Title 5 and these minor source permitting was the way to go or was it forced upon us in some way by EPA.

MS. EDWARDS: Gordon.

MR. BROWER: I still think there's alternative ways of doing this and those alternative ways would satisfy the EPA too and making it less cumbersome. At the same time I still do have concerns about the shale oil possibilities on conventional development and what we've seen in the lower 48, but I think we can still capture those when the need arises. I hope some of the -- I'm getting this right on this proposal here. It seems to me it would change from minor source permitting to just a mere monitoring concept and I just see a few issues that will arise from monitoring that in an existing gas field and those sources would -- other sources in the field that could affect the drill rig would I think be some of those concerns. And I'll

stop at that.

MS. EDWARDS: Thanks, Gordon. So Gordon, if I understood correctly, so you're thinking if we went to more of a monitoring approach that one of the concerns would be how do you know what to take action on to correct a problem if you saw it. Because you have the rigs within the construct of the overall field, so is there a way to know what activity is actually creating the high concentration. Is that sort of the idea behind your concern?

MR. BROWER: Yeah. I looked at -- I was reading through this and I think that's the gist of the topic is this proposal and looking at air monitoring outside of Nuiqsit and those things. You know, many of the public hearings I have attended over there that had concerns the topic would come up as what's all this yellow haze, arctic haze looking stuff out here and who's -- that would be their main concern and I couldn't think that all that stuff was coming from the drill rig and the exploration activity. And in fact a consultant commissioned from the Borough to try to review sources that would affect possible arctic haze conditions up here and we had videos of this stuff that was videotaped for 30 miles and where it came from, I think CTF-2 or something like that in Deadhorse and it was primarily caused by flaring and those sources.

MS. EDWARDS: So if I might follow on to Gordon's question maybe for Brad or Alejandra or Josh. When you see a -- if we

had this concept of looking at, you know, some sort of a threshold that would stimulate an action of some sort, you said there's a feedback mechanism back into the operations from the monitoring site. So how do you figure out what's -- committee, can you explain maybe how -- I don't know if you're the right people. Can you explain, committee, to Gordon and myself how that actually works so that you know sort of where you would need to take an action?

MR. THOMAS: Well, we've developed a good -- excuse me, a good baseline of what the ambient concentration should look like. You know, at CD-1 we've been monitoring now for over a year, so we know, you know, what to expect at the station. And early in the year this year we did see some elevated particulate matter readings. The alarms went off, so we concluded we had an unusual condition. So we investigated and found a malfunctioning boiler. So we know what the readings should look like based on the track record we've developed and when elevated concentrations occur we just look for what's unusual and we find it.

MS. EDWARDS: So in that case, you know, you might -- it might be unusual, it might be -- it could be anything, but you just go look for the source of the potential anomaly. Okay.

MR. THOMAS: Yeah.

MS. CASTANO: And Alison, if you're still on the phone, I believe we have cameras, right.....

MR. THOMAS: Yeah, we do.

MS. CASTANO: .....near those stations or on the stations? So in the event that we do see a false reading maybe from somebody parking a truck too close or bringing some equipment on that isn't supposed to be right at the intake we would be able to know whether that was a fake positive or not.

MR. THOMAS: Right.

MS. CASTANO: Is that right, Alison?

MS. COOK: We don't currently have cameras, but because we're monitoring, you know, basically real time we get a report. And this just happened about a week ago. We got a report of high readings and we sent our environmental advisor on site. He took a picture of some equipment that shouldn't have been staged next to the monitoring station and basically we got the equipment that was -- should not have been staged near the station moved. But it's because we're getting real time data that's sort of viewed at a minimum on a daily basis that we can respond quickly when there's a need. And we are looking at putting -- installing cameras, but we don't currently have them installed.

MR. THOMAS: I'm glad you said that, Alejandra, because the station we have.....

MS. CASTANO: Yours I think do, yeah. And as Alison said, I mean we have eyes that we can literally send out there on a moment's notice to go check out what -- where the source would

be coming from.

MS. EDWARDS: Gordon, did you have anything -- did you have any follow up or any other thoughts? I feel like maybe I cut you off here a minute ago.

MR. BROWER: No, but it's good to listen and hear what -- the dialogue and it's -- it kind of turns the squirrel cage around. So but it's good to listen. I think meeting have been too far in between here. Went to fish camp too long and it's -- it takes a little while for me to get caught up again. But trying to participate and reading the material, so.

MS. EDWARDS: Thanks, Gordon. Can I ask a -- just a quick question of the room? Because we've been talking for about an hour and a half now, so do you feel like we're kind of at a point where we might want to take a break?

UNIDENTIFIED MALE: Yes.

UNIDENTIFIED FEMALE: That's good.

MS. EDWARDS: Okay. So for the folks on the phone, we're going to take -- is 15 minutes enough?

MR. BARRON: Sounds good.

MS. EDWARDS: We're going to take a 15 minute break. I'm going to put you all on mute on our end so you don't have to listen to all the room noise, but we'll be back about -- I guess it would be about quarter till 3:00.

MR. BROWER: Okay. Sounds good.

THE REPORTER: Off the record at 2:31.

(Off record at 2:31 p.m.)

(On record at 2:47 p.m.)

THE REPORTER: Okay. We're back on the record at 2:47.

MS. EDWARDS: Okay. Great. So we have the group back together here in the room. I just want to check in with folks on the phone. Did we have anybody new join on the phone? Okay. So Bill and Greg and Josh, I think what we had thought what we would do next is -- I mean the discussion so far has been good. I guess do we want to start moving towards where do we want to go next with the group and the activities and what we see as sort of next steps or.....

MR. BARRON: Yeah, I think so.

MS. EDWARDS: .....how to proceed?

MR. BARRON: Yeah.

MS. EDWARDS: Okay. So I'm going to open the floor a little bit here. It seems -- but I will make I guess one initial thought. It seems pretty clear to me we need to get a group of technical people together. I'm not quite sure how we identify who all those people are. I mean I know we can do that, from our side of DEC we can figure out who to bring to the table. I don't know on industry side or if there's anybody -- other folks that we want to have pulled in on the technical side. But it seems like we need to figure out how to constitute that group and then figure out sort of what do we want to have them do. I think we have a -- at least an outline of that in

the proposal.

MR. BARRON: Right. I think so too.

MS. EDWARDS: But then how long do we think it's going to actually take to do that and which may drive sort of our next steps as a.....

MR. BARRON: Yep.

MS. EDWARDS: .....bigger group.

MR. BARRON: Yep.

MS. EDWARDS: So I'll just -- I'll start there and see what you guys think.

MS. THOMAS: Well, the -- we're talking about one group to start with or more than one group?

MS. EDWARDS: Well, I guess that's the question. I know we need somebody.....

MR. BARRON: Let's talk about it.

MS. EDWARDS: We can talk about it. I know we at least need a group to look at the monitoring data that you already have.

MR. BARRON: Yeah. So that group needs to look at the data and look at how the data was collected and whether it's, you know.....

MS. EDWARDS: Where the sites are and what they represented and that sort of stuff.

MR. BARRON: The sites are and the validity of the data and the quality of the data. I mean it's just got to be a QA QC

of what you've already got. I think, you know, ground truth in it is important.

MR. THOMAS: Let me shift you to steer, Barbara. There's a couple of ways we could handle that. We could supply you all the data, all the objectives around the monitoring associated with the data and you could review it on your own or we could give it to you and we could come together every other week to discuss the progress. A goal maybe of within four to six weeks including -- I like the latter approach better. (Indiscernible).

MS. TROST: Well, I think on the other one we can do milestones as well. But it depends on how much data you have in terms of -- and then we'll have to figure out who else would be involved on our side and who else you have in there. You know, six weeks puts it right at the end of the year. We have kind of a busy season. So -- but yeah, I think we should maybe see what you pull together and then talk about some of the milestones. It's hard to commit when we don't know, when I don't know how much you're dumping on me.

MR. THOMAS: Okay.

MR. BARRON: You know, I -- let me -- I'm struggling here a bit. I don't think that -- and again, I'm real flexible here. This is open dialogue time. I'm not comfortable with just DEC in isolation looking at the data. I think it's real important that the industry and the regulatory bodies come together to

look at that data together and be able to have the dialogue about what is it, where did it come from.

MS. TROST: That always happens.

MR. BARRON: Okay. But that's not.....

MS. TROST: I mean we're not just -- I mean that's sort of what I think.....

MR. BARRON: .....that's not what I was hearing, so I just want to make sure.

MS. TROST: Well, I guess I -- that is sort of a given because they're -- you know, just looking at spreadsheets is not going to give us what we need.

MR. BARRON: Okay. I just.....

MS. EDWARDS: So I mean it.....

MR. BARRON: .....thank you. I just wanted to clarify.

MS. EDWARDS: So it sounds like what we really need is -- I mean the folks who haven't seen the data or aren't familiar with the data need the opportunity to get it. Now whether or not -- and look at it and then probably ask some questions back on various things. There's a couple ways you could do that, but it seems like you would have some key folks on the industry side that know those datasets or helped collect that data that could then, you know, either help introduce the data and then let folks go back and look at it and maybe come back together to deal with questions or things that come up. So it seems like we need to identify who those key people are for the datasets that

you have and we can identify the people on our side that would.....

MS. TROST: Well, I would just say once you can send the data, however you're -- that works best then we can set up another call with whoever we decide who needs to be -- look at what the volume is and then decide on a timetable for work. I mean that makes more sense to me than -- I mean we can figure out the first meeting too if that helps, but not knowing who's going to be involved it might be a little bit more difficult.

MR. KUTERBACH: Would this include the monitoring modeling data comparison that hasn't been shared yet?

MS. EDWARDS: Well, and I guess that's the other question is, is if we have one group that's looking at the monitoring data then do we need another group that's looking at the modeling pieces that already exist.

MR. KUTERBACH: Well, and that's my question is, is it one group or is it two.

MS. EDWARDS: Or is it two. And that -- I think that is the question that maybe Brad was getting at was is it two different groups of people or is it one group of people.

MR. THOMAS: There's -- I think there are three technical tasks.

MS. EDWARDS: Okay.

MR. THOMAS: One is to review the monitoring data that's been collected as well as what's being collected. One is to

take a look at the modeling and the third task is to get a sense of drilling activities looking at (indiscernible) moving forward. Right? Is there any other.....

MR. BARRON: No, you know, I think it's -- I mean maybe I'll insert a two A.

MR. THOMAS: Okay.

MR. BARRON: All right? You look at the data you've got, you look at the model you've got. Somewhere along the line you got to marry those two together and that's my two A. And then do a cross correlation between a -- to me it's the same group working through a process that says this is what we've got, this is how it looks and how do those match. Is there a way then to -- and in my mind is -- and at the same time you've got another group setting -- or agreeing that how do you monitor going forward and maybe that's the same technical group. Different objective, but same probably technical group. And then looking at alternatives, is there a new model, is -- can we tweak the model we've got, what kind of activities need to take place modeling wise to get it to match the data. Is that even possible. And is there some things you can just say it's not going to work and you pitch it. I mean that doesn't -- that might happen. Or it might be a new model that comes up that this technical team looks at. But to me you've got to look at what you've got, what influenced that, I mean your estranged parking or a -- you know, a bad flare or whatever. I mean you

get all that cataloged. You look at then the model, match the two and then work your way through that. I mean I -- and that -- to your objective they're showing that maybe there shouldn't be any permitting maybe as an end result because of what you're showing. But I mean it's still part of a systematic understanding of you narrow down what are the known knowns. All right? I mean and the database of known knowns becomes bigger and bigger and that's a good thing.

MR. THOMAS: From -- I'll just put this on the table to start. From, you know, the question how many groups, perhaps just one to do all that because from our side I think we could do this with the same group of people.

MS. CASTANO: With the same people, for us anyway, yeah.

MR. THOMAS: Yeah.

MR. BARRON: Yep. That's what I'm thinking.

MR. THOMAS: (Indiscernible) same people. You guys, you might want to move people in and out because you've got modeling experts and monitoring experts.

MR. BARRON: Could be different. I mean I think it's one -- I think you have a -- one technical sub-team that then reports back to this group, right, whenever our periodic meetings are as to how the sub-team -- a technical team review of where do they stand, what are they seeing, what -- do they are they making any preliminary conclusions, is there any gotchas out there that we're -- that they're seeing and then

maybe kind of do a quick segway. Maybe there's another sub-team that is technology. All right? Is there -- are there new things on the horizon from a modeling things? And while the technical team is working through the data maybe there's a technology team that's looking at what other things are out there that nobody has heard or seen yet or maybe it's stuff that EPA is bringing to the table that can be interfused. But I think work the data first.

MR. THOMAS: Yeah.

MS. EDWARDS: So if we have one group and we can identify who those monitoring and modeling experts are how soon could we pull that group together?

MR. THOMAS: I would propose the first week of December.

MR. KUTERBACH: And it's going to depend on -- I mean obviously if we're going to have a modeling input that's primarily Alan Schuler. Because we need.....

MR. THOMAS: (Indiscernible) Arizona?

MR. KUTERBACH: Who's a very limited resource for us and we have several important PSD projects that we're working on as well. So I wouldn't want him to commit him to be at any particular meeting until we check the workload schedule and see where the other important projects that we have going are in his schedule.

MS. EDWARDS: Right.

MR. BROWER: Sorry to leave. This is Gordon. I'm back.

MS. EDWARDS: Hi, Gordon. Welcome back. We were just -- Gordon, we were just talking about.....

MR. BROWER: (Indiscernible).

MS. EDWRADS: .....what we might do next and we were talking about perhaps getting a technical sub-team together to look at the monitoring and modeling aspects of this which would be comprised of folks from DEC and from industry and then have that group sort of start working through looking at the existing data, the modeling and other data that already exists and then reporting back to us at -- the workgroup at, you know, our regular intervals and starting there. We also talked about the potential of having a second sort of team that's looking more at technology issues, upcoming technologies and new things that are coming down the pike. So that's sort of where we're at. We were just talking about sort of timing for this first group and what that would look like with resources and workload and things like that.

MR. THOMAS: Yeah, I'm thinking this might be a bite that we can take care of by the end of January. Does that seem feasible?

MS. TROST: Well, I don't know how much data you have that we haven't seen yet.

MR. THOMAS: Okay.

MS. TROST: So that -- I guess that's my only hesitation. And John, I think we -- maybe on the data side we could get

started and then pull Alan in as.....

MR. KUTERBACH: Yeah. I mean Alan maybe -- you know, he may have a window of availability which he could fit right in even at the beginning of December. I just don't know. I don't want to commit him to anything until I see his schedule.

MS. TROST: Yeah.

MR. THOMAS: We're talking about I think five or six days. That's.....

MS. TROST: Okay.

MR. THOMAS: So if Alan does have difficulty would there be a fallback, an alternative?

MS. EDWARDS: I mean we might be able to use Dee to -- Deanna for -- to a certain point. She doesn't have as much permit modeling background, but she does have modeling expertise and she might be able to work some issues and then go to Alan as needed maybe for assistance if we were running into some timing issues.

MR. BARRON: Is there somebody that EPA can offer up? I mean it's a good -- maybe this is a good opportunity to bring EPA to the table in terms of a modeling position.

MS. EDWARDS: Well, we could talk with -- I could talk with Kate Kelly at the Region and see if we can get anybody from their technical folks that might be a good fit that has time to work with us. They certainly have modeling and monitoring experts down there too.

MR. THOMAS: He's got one model. Right? I think he's got the whole month of December.

MS. EDWARDS: There's a couple modelers down there.

MR. THOMAS: Are there?

MS. EDWARDS: Yeah.

UNIDENTIFIED MALE: (Indiscernible), but permit law.

MS. EDWARDS: Yeah, there's -- I mean there's a handful. They're pretty busy, but there's also monitoring folks down there too. And so we can ask. I don't know what their availability will be.

MR. THOMAS: Okay.

MS. EDWARDS: But I agree that that might be a very useful thing actually to do, especially if in the end whatever we come up with they have to look at anyway. So if they have the time to interact with us now that might be useful.

MR. THOMAS: So how about, you know, I'll work with AOGA and we can define our participants and we -- we'll pull together over the next two weeks all the datasets and all the modeling and be prepared to meet with you guys the first week of December to go into next steps and define work tasks, who and the milestones.....

UNIDENTIFIED FEMALE: Okay.

MR. THOMAS: .....and maybe set an end date. Does that sound good to you all?

UNIDENTIFIED MALE: Sounds good to me?

MR. THOMAS: Sound good?

MS. EDWARDS: Okay. Sounds good.

UNIDENTIFIED FEMALE: I'm fine with it, yeah.

MR. TURNER: So besides the technical aspect, it's been my experience that whatever the technical people come up with has to be worked in and be dependable for EPA and figure out how that works. So we might need, for lack of other words, a reg or legal framework group to kind of say how is this going to fit. And if there is going to be some of the desires that have been put out on the table of this data proving it what's going to pass muster for EPA in the public. And so we could come up with draft language for the regs, what they could look like, what a transition might be looking like.

MR. BARRON: That's exactly where I was going to propose the next team to be is kind of a regs team. And projecting.

MR. TURNER: Yeah, it would be my group. I mean we could take the lead on that. We could probably draft language. We'd need to maybe run some of that through EPA. I have to be cautious about the public process and we'll have to talk to legal about how I draft -- I mean sometimes they have to draft language in a public work setting. So I'll have to look at how to do that before I bring industry's concern. If I -- I think if I draft language and present it at the workgroup I might be okay. So I'm not sure how that.....

MS. EDWARDS: Well, we could.....

UNIDENTIFIED MALE: You can only work a straw man.

MS. EDWARDS: You can work a straw proposal.

MR. TURNER: Okay. Thank you.

MS. EDWARDS: We don't necessarily have to get it into perfect regulatory.

MR. TURNER: Okay.

MS. EDWARDS: I think the idea it to come up with the concepts or options and concepts of, you know, ideas that we could look at maybe trying to turn into.....

MR. BARRON: Yeah, I guess what's in.....

MS. EDWARDS: .....something else.

MR. BARRON: .....in my head. I'm not trying to work your business. I think of a flowchart, you know.

MR. THOMAS: Okay.

MR. BARRON: You know, if this is the result is it yes or no and if that's the branch what happens, if this is the branch what happens. I mean kind of scenario plan out a flowchart of opportunities.

MR. TURNER: So the -- there would be a regulation technical group, in other words. But we'll look at where it fits within our existing regs, what a straw man draft could look like, and then I -- we could present a flowchart about how that would work. And what I'm looking at is a flowchart about how the regs -- I don't know how to phrase this. How the flowchart moves for the end result. You know, because I'm trying to

figure out how to make regs flexible. Until I give it some thought I'll have to look at (indiscernible).

MR. BARRON: No. Yeah, I agree. Yeah.

MS. CASTANO: So you'd be looking at regulations and possibly the SIP as well?

MR. TURNER: Correct.

MR. BARRON: Right.

MS. CASTANO: As a package. Okay.

MR. TURNER: But I'm also thinking about, you know, within the -- because it has to be a defendable situation. If in fact, and I don't know what the technical data's going to prove, but I have to -- we have to start thinking about what's the end results of the technical data discussion. Because that's the thing with regs, you have to take -- you know, that's the interesting thing about air quality. Every time I'm dealing with someone in regs it's a chemical engineer or an attorney. So I have to figure out how to get that technical aspect within the regs. If the monitoring data's showing one thing how does that then get written into a reg so that reg has some flexibility.

MR. BARRON: Right.

MR. TURNER: And I don't know that answer until I look at it.

MR. BARRON: Right.

MS. EDWARDS: And I guess one of the things I'm thinking

about here because I don't want to prejudge exactly what comes out of the technical modeling monitoring discussion either, but I think maybe if we approach it to start with as sort of looking at from the regulatory or the SIP perspective sort of what sorts of options would be viable, what -- you know, what, you know, sorts of things would -- you might work, what kinds of options might be there. Nothing that's, you know, concrete, set in stone because we don't -- you know, I don't want to prejudge what comes out of the technical side either on the monitoring and modeling data. But maybe we just start laying out what sorts of things we might look at depending on what kinds of outcomes we might get from that process.

MR. BARRON: Right. No, that's exactly right. And I think -- but part of one of the branches is, is there -- are there thresholds of activity that might trip a different level. And again, just trying to think, you know, wildly optimistic about oil and gas development in the Alaskan wilderness and domestic locations in Kenai. You know, if we're robustly successful is there -- are there thresholds where something else takes place. I mean that just to me is a little box, yes, no, at this juncture.

MR. THOMAS: Now the groups and tasks we're talking now, would that occur after we get done with the technical review that we've been talking about or would that be parallel?

MR. BARRON: I think it'd be parallel.

MS. EDWARDS: That's what we were -- I was thinking -- I'm thinking people are talking about doing it in parallel. So I don't know -- that's why I made the comment that I don't want to fit whatever they're doing to prejudge the outcome of what's coming out of the technical side, but I think you have to look at what the different options are that might come out of the technical side. I think there's a couple. You know, you -- we could find the data's -- we think the data's sufficient to support that these just aren't -- there's no problem here to worry about. We could have another that says, you know, we think we need more work in that area. You know.....

MR. BARRON: Sometimes yes, sometimes no.

MS. EDWARDS: Sometimes yes, sometimes -- you know, I don't know.

MR. BARRON: And then some -- and always yes. Right? I mean.....

MS. EDWARDS: There's sort of.....

MR. BARRON: .....the three branches and then what do you do after those three branches I mean in concept?

MS. EDWARDS: To just try and at least start thinking about concepts. Maybe not getting them to the detail, you know, not knowing where that will -- where the technical piece comes up, the monitoring piece -- modeling piece comes out. You know, maybe it's more conceptual to start with and then they can -- their -- they could work details once we get a little farther

along.

MR. KUTERBACH: Do we have specific questions we want to make sure that the technical group answers as a result of their review?

MS. EDWARDS: On the monitoring and modeling?

MR. KUTERBACH: Yeah. So for instance.....

MS. EDWARDS: I had a whole list of them. But.....

MR. KUTERBACH: I mean and is that all you want to work through?

MS. EDWARDS: And I don't know if that's the whole -- I don't know if that's -- that list is, you know, accurate for everybody, but I mean I think we did put together some of those ideas.

MR. KUTERBACH: Because the way I see the technical folks reviewing this is they're going to pass judgment on the quality of the data and what it is reasonable for that data to represent. Is that fair, is that something that could be done, Barbara, for this? Not seeing -- I know you haven't seen.....

MS. TROST: No, I haven't seen it.

MR. KUTERBACH: .....the data yet. But given that our technical people are very cautious about saying yes, you can do this, or no, you can do that.

MS. TROST: I think we should be able to come up with something that is sort of scoping out what the data represents and where we would be stretching it.

MR. KUTERBACH: Okay. And then at that -- right. And at that point since there is a continuum there and it becomes a policy choice at that is, you know, how much uncertainty in this are you going to accept as a matter of the State policy dealing with it one way or the other. I guess that would come back to the full committee?

MR. BARRON: Yeah, I would think so. But I also think that as you put those boundaries of uncertainty on it that might be the focus for the monitoring phase that we're about to go into to help address those gaps. I mean that to me is a real good way of if you know what you've got in history are there gaps that you need to fill. And the only way to do that is to look at what you've got and then you can adjust your -- the plan of future monitoring to try and correct that. That's a real critical step.

MS. EDWARDS: So could this technical group perhaps -- when you see -- you know, if you come up and say okay, well, we think there's these gaps or here's what we think these monitors represent and would it be reasonable to think that that technical group could come up with some ideas or recommendations or options then to -- based on their findings related to the data quality representative, all of that stuff, on how we might fill those if we wanted to move forward with a process to, you know, kind of fill out that dataset? Does that seem.....

MR. THOMAS: That would be the objective.

MS. EDWARDS: That would be the objective, right, would be to get those options or recommendations back to the bigger workgroup? Along with whatever sort of the evaluation of the data is.

MS. THOMAS: So regarding, John, the questions that the technical working group, I've got this written down as group one, that they would answer -- you know, obviously the list that you had provided last week would be one step and if you've got any others just, you know, give them to Barbara along with those.

MR. TURNER: So back to John's question on specific questions. Based on my experience of dealing with different technical groups and often -- you know, I'm not a technical person. I've seen them I shouldn't say get in the weeds, but sometimes they're so familiar with the language and the terms they're not thinking a little bit outside of what they need to look at. So if people have questions they could route them to Jeanne and we can accumulate those questions and just simply submit them to the technical group. So if somebody.....

UNIDENTIFIED MALE: I think that's a real good idea.

MR. TURNER: .....has a question that's outside the room and just say, hey, I want to know this, we'll give it to them. Because it's been my experience technical people right away get in and start seeing the technical aspects of it and maybe not looking at it from another perspective. And we have to consider

the public's perspective on how this is going to get answered.

MS. EDWARDS: So if you do have -- I guess so that seems like a reasonable approach. So if there are other questions out there that people have on the monitoring data or that workgroup members have on the monitoring data or the modeling approaches that they would like to have the group look at or consider then get them to Jeanne and she'll make sure they get them -- they get to the group.

MR. TURNER: Before that December meeting.

MS. EDWARDS: Yeah, preferably before the December.....

MR. TURNER: (Indiscernible).

MS. EDWARDS: .....December meeting. So probably in the next two, three weeks. Right?

MR. THOMAS: Two weeks, yeah.

MS. EDWARDS: Yeah.

MR. BARRON: I think that's good, yeah.

MR. THOMAS: So group two, is there -- there would be a second group assembled maybe now?

MS. EDWARDS: For which group?

MR. THOMAS: That's what I'm asking you. Because I heard talk about another group, another sub-group to.....

MR. BARRON: Well, we actually talked about two more sub-groups. So let's talk about the one that we can talk about intelligently and that would be the regs group. I mean to me that would be the next subgroup that can start flushing out

optionality.

MR. TURNER: Yeah, I made a quick little list of just things that the reg group will look at which is, you know, where in the regs is this going to sit because that's always a concern is like what part of the regs, (indiscernible) section or not. What kind of measurements, thresholds would be required. That may not be answered until we get the technical stuff. I think we could come up with a straw man option of where this sits, what it looks like, where different options are. I mean I kind of have a framework in my head, so honestly it's kind of my thought of architect on it and then some type of a flowchart. And we could put that on paper so people can react to a straw man (indiscernible).

MR. BARRON: So who's the members of this.....

MS. EDWARDS: That was my question. I mean I.....

MR. BARRON: .....something to.....

MS. EDWARDS: .....I know we can put people to that effort obviously, but who else do you think would be -- do you -- are there folks on industry side or other -- from other aspects that would be.....

MR. BARRON: You know, I think it would be valuable to have somebody on the industry side. I don't know how many players you want to commit, but I think that would be real important to start that process.

MR. THOMAS: I wonder if it wouldn't be perhaps even

attorneys.

MS. EDWARDS: Well, I had that thought too is whether or not we needed -- it would be -- would it be helpful to have some legal support to that team just to kind of think through the construct of the federal requirements and the Clean Air Act requirements and how that fits into everything as well if you're looking at options. I don't know.

MR. KUTERBACH: Could we have a clear goal statement for this group? Maybe that'll help us pick who needs to be on it. Because I'm not really clear on what the regs group is going to do. I've heard find a place in our rules where it would sit and draft up some draft language. Is that really what it needs to be? Because if that's what the group's doing then I don't see that we really need anybody other than Tom and maybe some of our attorney support.

MS. EDWARDS: I.....

MR. KUTERBACH: And where it's going to sit in our rules.

MS. EDWARDS: I was sort of thinking maybe it would be more of a -- if we look at what the -- you know, the potential -- we don't know what the potential outcomes are, but if we look at sort of the monitoring data points us in various directions I guess my thought would be could we get this group to sort of look at the -- not just sort of where the regs fit, but sort of how would we -- what kind of options can we craft that would then fit together to meet a federal -- federal requirements or

approvability issues or -- I know we can't do that till we have details and that's why I kind of feel like it's almost premature, but I also know that at some point we probably need to think about what kinds of options we might want to include in a program.

MR. KUTERBACH: Okay. Well.....

MS. EDWARDS: So it seems like the thresholds (indiscernible).

MR. KUTERBACH: If we're looking at it as an options group, all right, rather than finding a spot in our existing regs where it could sit, in that case then I would recommend, again, Tom, somebody from the industry side at least and probably get like Dave Bray involved on that because he knows kind of the options where we can go which would have a chance of being approvable or not. If we ask him to be helpful, he'll be helpful. If we.....

MS. EDWARDS: Dave Bray is at EPA Region 10.

MR. BARRON: Okay. Thank you.

MS. EDWARDS: Sorry.

MR. KUTERBACH: So, you know, and if that's what the group is tasked with is looking at the options given the limited, you know, kind of the approach that we're focused on here of solving this problem for the drilling rigs. And we've talked about it and we've presented kind of a pathway where we're going to use monitoring to show that there's no need for permitting of these

for ambient air quality purposes at least then what to show EPA to make that change in our SIP, to take it out of permitting and put -- you know, just eliminate it. What are we going to need to know for EPA. What are the other options that are involved based on the data that -- and of course that's going to have follow the data group, to fill the gaps in the data. What options are there for correcting the modeling data so that while it may show for the current oil industry that we don't need to permit the drill rigs can we have a method to project that onto a wildly successful shale program which has a lot more drilling and what would that take. So I see it more -- rather than a regs group more of an options group.

MR. THOMAS: And I like what you just said because it's tight, you know, it's focused. What do we have to do to implement, you know, the program proposed. What gaps need to be filled to get there. What would be in a package approval by EPA. And the last part you mentioned, if we're wildly successful, you know, how.....

MR. BARRON: Anywhere.

MR. THOMAS: .....how do you adapt to that.

MS. EDWARDS: So how do we deal with future growth or.....

MR. BARRON: Right.

MS. EDWARDS: .....or the (indiscernible).

MR. THOMAS: Yeah, that's pretty tight. That's good and it's got a mission statement. I think they can keep the group

focused.

MR. BARRON: And that's administrative. That's not necessarily technical. But that team can then feed the technical team the questions, this is what we're coming up with, can you fill this gap?

MR. KINDRED: I'm happy to attend, but I can also get Matt Cohen or Ryan Standerson (ph) involved.

MR. THOMAS: Yeah. But the approach?

MR. KINDRED: Oh, yeah. I'm (indiscernible).

MR. TURNER: So a suggestion on where this is going based on my past experience of dealing with various elements. Before we get into -- when I do regs and I have to do regs we come up and -- I think the concept of putting it just in regs is maybe not going to work. I was thinking in terms of regs because that's a structure I think in, just like a monitoring person thinks (indiscernible). I think the concept of coming up with options and how to get this through a SIP and how that works is dialogue that we need to kind of have with EPA, kind of walk it through industry and then once that gets kind of set up that's when you bring in the attorneys. Because if you start bringing them in early you're going to run into the same kind of issues you run into with a technical escopy (ph). We're going to end up in the weeds. I like John's approach of -- and then Brad, you know, kind of jumped with that, is how does this framework get put together and then once it gets put together how does

that fit then in a legal study is a different issue. And that's why I was thinking.....

MR. BARRON: Great.

MR. TURNER: .....the regs could be a legal setting. But -- so the idea is -- here is let's get the framework done. I think you and I could maybe get together and say how does this work, how do we address the goals of various competing aspect here is no drill rigs versus protecting the public's interest in air quality and then if there's a transition how would that look. Then you'll have the data coming in from the technical side. Then you can sit there and go, well, how are we going to put this into the reg. And so I think, John, you've got it kind of -- I was thinking in terms of regs because that's where everybody's going to end up putting everything. But he's right, how is this going to -- you know, what are we implementing, how long is this looking at, what are we going to need to do to ensure certain things. I think that's a different discussion than a legal discussion. And you bring in the legal discussion after you kind of get that framing out because otherwise the legal discussion calls it. Just like you don't want the technical group to call it either. It's more the goals of the workgroup kind of thing, but done in a subcommittee that can then come back and say.....

MR. BARRON: Right.

MR. TURNER: .....this is how we blend the two together.

Because then, for lack of better words, the technical group and the legal group will pull it together through some type of agreed upon path forward.

MR. THOMAS: So it almost seems like having written down the objectives of this option group, if you will, that it should come on the heels of the technical group.

MR. KUTERBACH: And I think what it can do is it could get started at the same time, okay, because with the discussion of the options they're going to look and see, well, what do we need in order to say this option's a viable option. And that information could be fed back to the technical group.....

MR. THOMAS: Yeah.

MR. KUTERBACH: .....which says, you know, does the data support this.

MR. TURNER: And we can go what do we need and maybe -- you know, particularly if Dave Bray's involved he's going to say, well, you're going to need to support that here. We go to the technical group and say EPA says we need to have support there and they can look at the data and say we have it or we don't.

MS. EDWARDS: So -- and we may not end at the -- but the two groups may not be able to end their work at the same time.

MR. TURNER: Correct.

MR. BARRON: Yeah, I actually see them starting, you know, together and then working -- you know, passing data back and

forth or a concept of back and forth. But you may come up with branches that actually disappear as you work your way through it. Go well, that's not -- this -- that option's not going to work at all, but we thought about it, whatever that option is. I mean I just -- you know, I've just -- I've seen so many different scenario planning models to know there are branches that just die. Because you work your way through it and you go that's not going to work. The cure is worse than the disease kind of thing. So yeah, I see these as two parallel paths running programs, not necessarily ending on the same day at all.

MR. THOMAS: So the third group?

MS. EDWARDS: Well, we thought about do we need some folks that are actually out there looking, actively looking for the more cutting edge technical opportunities and whether any of those are things that we should -- that, you know, we may not be in our mainstream thought at this point that may be being worked on out there.

MR. THOMAS: You're talking about modeling?

MR. BARRON: It could be modeling. That's what was jumping in my mind. I mean we talked about the Monte Carlo kind of stuff and without getting the technical team immersed in a new model, right, is there a way to look at that as a technology that might have some viability as one that -- because it's going to be on the option branch. Right? But there's also new engine technology and I know we've got people on the phone that are --

can probably lean in on where those technologies are going and what options that that might play into us. You know, new fuel sources, is there an option there that changes things? I mean those are the kind of things that -- I just don't want to walk away from the creativity and insightfulness of new technology and how that plays. Because I really kind of like the idea of having what we come up with in terms of regs being at least trying to be a little bit clairvoyant of what might be coming down the path as we write these to increase their flexibility. Because if you write regs with what you know today you know five years from now it's going to be wrong and obsolete. So I'm just trying to make sure we have some sort of group -- and no telling when they start or when they stop. I'm just trying to make sure that we think that one through so we don't lose that as an idea.

MR. TURNER: Could you make a subgroup of the options group?

MR. BARRON: Sure.

MS. EDWARDS: What if we took the modeling aspect of that, sort of the more data driven technical tool opportunities maybe in some sort of subgroup inside that monitoring modeling?

MR. BARRON: That's fine.

MS. EDWARDS: And that may be the actual sort of, I don't know, equipment technology fuels, you know, more operational technology advancement kinds of things could maybe come in under the options group somehow. It seems like that's two different

groups of people. I don't think that the folks that are developing, I don't know, new engines or new engine technologies or new retrofit technologies or whatever that is are going to be -- it's not the same -- the group that's out looking for that probably isn't the same group that's out looking at Monte Carlo simulations and other (indiscernible).

MR. BARRON: Right. No, I.....

MR. THOMAS: I think that the modeling stuff could be captured in a technical group. The technical.....

MR. BARRON: It sound.

MR. THOMAS: .....stuff, the engine -- what the future of engines are, future technology of fuels, that feels like a different group all together.

MS. EDWARDS: (Indiscernible).

MR. BARRON: That's why I'm proposing it. I think it is a different group. But then that -- they feed those to the options group and they feed that information to the technology group.

MR. TURNER: The modeling.....

MR. BARRON: Or the modeling group.

MR. TURNER: The -- back to the framework of this discussion. The discussion started because modeling's no longer an appropriate tool. We want to use monitoring as an appropriate tool. So it would make sense from my viewpoint that the modeling, whatever options are coming forward needs to be in

the technical group's toolbox. Whereas as new technology is kind of, well, we have these new engines, we have other ways that we can do it. That's kind of a whole new frame and that could be in the options group. So I do think that's correct.

MR. BARRON: It certainly could.

MR. TURNER: You're splitting two out. Modeling goes over to technical.....

MR. BARRON: That's.....

MR. TURNER: .....and new technology can be thrown over. And as new technology comes up we can throw it over to the technical.....

MR. BARRON: Right.

MR. TURNER: .....group and say, hey, what do you guys think of it and we're going to get someone calling back, boy, those engines really freeze up north, they're not going to work.

MR. BARRON: Yeah, I just don't want to lose the idea of new technologies coming in that are going to change the whole thing.

MR. TURNER: Wyoming's using natural gas engines. They're getting away from diesel fuel engines. Kind of interesting.

MR. THOMAS: Just a comment on what sounds like the direction of that conversation. When we talk about new engine technologies we're not proposing that new engine technology's being opposed. So there are new engine technologies out there. There's, you know, tier four engine, there's tier four final,

there's tier three. But, you know, we're making a case that the data that we have, you know, supports that, that we're in a good place and we don't need to make improvements beyond what's already occurring naturally. So when we talk about the technology I don't see that as an option, as one of the options for moving forward. But rather -- like you said, Bill, it's -- you know, we can look down the road to the technology changes or improves on its own. We can adapt a regulatory framework too, but rather than building the regulatory framework around that technology. Does that make sense?

MR. BARRON: Yeah, I guess it does and I'm not -- I don't know exactly where that group will land, but five years ago did you think you were going to have to model on an hour basis?

MR. THOMAS: No.

MR. BARRON: That's my point.

UNIDENTIFIED MALE: And also.....

MR. BARRON: I mean my point is let's think -- let's at least crack that window to see what is out there that we might not be thinking about or might -- that might then create new changes that we have to think about.

MS. EDWARDS: Well, and one of the ideas that I remember coming up early on in our discussions was a concept of could -- not requiring new advanced technologies per se, but centralizing them. And, you know, if we don't know what the opportunities are there then we don't know whether there are options we could

build that would encourage perhaps or incentivize new technology, new clean air technologies or new approaches that are out there or may be coming that, you know, we want to prepare for. It doesn't necessarily have to be all regulatory. There could be opportunities to actually look at options that would help bring clean air technologies.

MR. BARRON: Yeah. In trying to make sure that we keep focused why don't we table this -- my proposal is that we table this subgroup for a dialogue maybe the next meeting or the meeting after that.

MS. EDWARDS: See where we go?

MR. BARRON: But let's kind of let this one simmer for a little bit to see what people think about it. Because I don't think we're going to get to a real crisp mission statement on it.

MS. EDWARDS: I think that's a fair (indiscernible).

MR. BARRON: But if we think this one through we might and I just -- there's something out there that's kind of intriguing me that I can't put my finger on, but I just -- I hate to walk away from being able to look forward.

MR. TURNER: So just a side comment on that. I get a lot of things where people worry about imposing new technology versus incentivizing technology and I think industry needs to understand the approach that we're thinking here is incentivize, not imposing. Because, you know, we just rolled out an AOS

thing and the first question is you're going to make us do this. No, we're giving you options. I mean that's one of the beauties of air quality in Alaska is there's this constant need through self-evaluation and quality management systems to say what options are we going to provide to (indiscernible) to get industry to make sure they protect air quality. I know other times you think it's just us against them, but it's not. It's really how do you figure out so that we both are achieving the same goal.

MS. EDWARDS: So if we go forward with two -- these two sort of subgroups working sort of in parallel and cross feeding information does starting in December work for you, Tom?

MR. TURNER: Yes.

MS. EDWARDS: The other group. Okay. I guess my question is are there other things that we need to be working on or that we do need -- is there anything else that anybody's thinking we need to have the group work on right now? And then, if not, then sort of where -- you know, when do we want to check in with these groups?

MR. THOMAS: Well, we -- I think what we would need to do is meet, the Alliance and AOGA, to divide up the labor, try and figure out who's going to do what. Assemble the information that we've got that we have to -- going to get to Barbara's group and then we -- I would propose that we reconvene then during the first week of December or close to that to define

these groups' mission statements, people, milestones.

MS. EDWARDS: Oh, so this group -- okay. Sorry. I'm starting to track now. So this group would come back together in early December and set out those -- sort of formalize that? I was thinking that the subgroups would just start pulling together that week based on the.....

MR. THOMAS: Yeah.

MS. EDWARDS: .....discussion we had today. So I'm just trying to clarify in my brain what we're talking about.

MR. THOMAS: No, you're right. The -- what -- I guess what I'm feeling we lack right now is definition on -- you know, on our part of who does what. We haven't talked about it and.....

MS. CASTANO: Well, we need to talk about it.

MR. THOMAS: We need to, yeah.

MR. BARRON: I think that -- you know, and I can buy that. You know, I.....

MS. CASTANO: (Indiscernible).

MR. BARRON: .....my head was where yours was, but, you know, given that a couple of sidebar discussions need to take place to get closure and then tighten it up. I think if the primary group reconvenes in, you know, two or three weeks, right after the sidebar sort of organizational kind of stuff has happened I think that's really a good idea.

MS. EDWARDS: Okay.

MR. KUTERBACH: Couldn't that convene and just be a conference call? I mean I.....

MR. BARRON: I think yes.

MR. KUTERBACH: .....(indiscernible) together.

MR. BARRON: Yes, I think so. I mean I don't know.....

MR. TURNER: It's a lot of logistics to pull this together. It would definitely be easy just to regroup this because each side's going to go back and need to figure out what they (indiscernible).

MR. BARRON: We're trying to save you a trip, Gordon.

MR. TURNER: Yeah. I think you could easily do that by teleconference. And it wouldn't be necessarily a very long (indiscernible).

MR. BARRON: I agree.

MS. EDWARDS: So we're thinking a conference call the first week of December to just kind of formulate, make sure we have the groups formalized.

MR. BARRON: Yep.

MS. EDWARDS: Okay.

MR. TURNER: Today's the 15th. That gives you two weeks. You might -- I don't have a calendar in front of me.

MR. THOMAS: It'd probably be about three weeks out.

MR. TURNER: Three weeks out.

MR. THOMAS: The week after Thanksgiving, you know, at the earliest.

MR. TURNER: Would be the earliest.

MR. THOMAS: Yeah.

MR. TURNER: I'm thinking that -- that's what I'm thinking. If it's like the 7th is the first week it might be better to do like the 12th or the 13th. I don't know, I don't have a calendar in front of me.

UNIDENTIFIED MALE: Of course we can.....

MR. EDWARDS: There is a 2nd (indiscernible).

UNIDENTIFIED MALE: Second.

MS. EDWARDS: 2nd through the 6th.

MR. KINDRED: I don't have a strong preference first or second week.

MS. EDWARDS: I per -- go ahead. Do you have something, John?

MR. KUTERBACH: No, I'm just saying the first week's probably preferable.

MS. CASTANO: (Indiscernible).

MS. EDWARDS: I -- that's my preference. I know that I'm going to be in meetings the entire second week and so it's going to be hard for me to break out even to do a conference call. So.....

UNIDENTIFIED FEMALE: Same here.

MS. TROST: Yeah, the 5th. If we're doing it on a Thursday, the 5th.

MS. CASTANO: And we said that one's a conference call.

Right?

MR. BARRON: Yeah.

MS. CASTANO: I'll have to call from (indiscernible).

MS. EDWARDS: And I don't anticipate it will even be a very long conference call. I think we could do this is an hour.

MR. THOMAS: Yeah. Is the first week the week of the 2nd, is that what you're saying?

UNIDENTIFIED FEMALE: Yeah.

MS. EDWARDS: Yeah.

UNIDENTIFIED MALE: The week of the 2nd, yeah.

MR. TURNER: So we're looking on the 5th a conference call and Jim and I can figure that out. We can just do one of these call in numbers and come up with an agenda. We'll do it all through the webpage. That's what I just heard.

MR. THOMAS: Okay.

MS. EDWARDS: But.....

UNIDENTIFIED MALE: In the afternoon.

MR. THOMAS: Okay. That works.

MS. EDWARDS: Okay. So we'll shoot for December 5th. Let's make sure we check with the -- with Mike and I don't know, Gordon, if -- do you -- does the -- a conference call on the 5th work for you? I don't know if we still have Gordon.

MR. BROWER: I'm still here.

MR. BARRON: And we're glad.

MS. EDWARDS: Hanging on. Would that Thursday the 5th

work for you?

MR. BROWER: Yeah, it'll work for me.

MS. EDWARDS: Okay. I think it'll just be about probably an hour long conference call. Are afternoons better for you than mornings?

UNIDENTIFIED MALE: That's fine, yeah.

MS. EDWARDS: Okay.

MR. BRITT: Mike Munger will have a problem. He's got a -- it's his angle meeting.

MS. EDWARDS: Okay. So.....

UNIDENTIFIED MALE: (Indiscernible).

MS. EDWARDS: .....do you know.....

UNIDENTIFIED MALE: It's the 5th and 6th.

MS. EDWARDS: It's the 5th and 6th. So would.....

MR. TURNER: What's that Monday?

MS. EDWARDS: Monday's the 2nd.

MS. CASTANO: 2nd.

MR. TURNER: What's the Monday after that?

MR. THOMAS: 9th.

MS. EDWARDS: 9th.

UNIDENTIFIED FEMALE: 9th.

MR. TURNER: We do it on the 9th?

UNIDENTIFIED FEMALE: I can't.

UNIDENTIFIED FEMALE: Yeah, I can't either.

MR. TURNER: No, you can't. Okay. Do you want to proceed

without Mike?

MS. EDWARDS: Well, what about the 3rd or the 4th? Are either of those days any better for anybody?

MR. THOMAS: Yeah, I'm traveling Thanksgiving and I don't think I get back until late in the week. I could do the 6th, but I know some people loathe to work on Fridays.

MS. CASTANO: Yeah, I'm on a place on the 6th too, so. Someone else could participate for me.

MS. EDWARDS: Why don't we do this. Why don't you send -- why don't you just send an email out to the workgroup members and let's just find the.....

MR. BARRON: Find a time.

MS. EDWARDS: .....the day that week that seems to be the best for everybody.

MR. THOMAS: So the week of the 9th does not work?

MS. EDWARDS: Not for me.

MR. THOMAS: No.

MR. TURNER: Okay.

MS. EDWARDS: I would be -- I mean I'm happy to let John handle it.

UNIDENTIFIED MALE: You're central for this.

MS. EDWARDS: But yeah, then I'm in Seattle for meetings that whole week.

MR. THOMAS: Okay.

MS. EDWARDS: So.....

MS. CASTANO: And Brad, we can work on getting sort of our position so that we don't all three have to be here.

MR. THOMAS: Okay.

MS. CASTANO: If I can't be -- if I'm on a plane.

MS. EDWARDS: I don't think it's a -- it's going to be a.....

MR. THOMAS: Yeah, that's true.

MS. EDWARDS: .....it's -- I don't think it's going to be a big decision making call or anything. I think it's more just making sure we have.....

UNIDENTIFIED FEMALE: Communicating.

MS. EDWARDS: That we communicate.

MR. THOMAS: Right, yeah.

MS. EDWARDS: So hopefully if we can get the majority of the group together.....

MR. TURNER: Yeah.

MS. EDWARDS: .....we should be okay.

MR. BARRON: Yeah, I think so.

MS. EDWARDS: But since Mike wasn't able to be with us today -- or I don't know, he may have joined at some point. But if Mike -- if we don't have -- it would be nice to try and get Mike back up to speed and then see if we can pick a time when he can be available if that's possible.

MR. TURNER: And we can always.....

MS. EDWARDS: And Gordon as well.

MR. TURNER: There'll always be some kind of follow-up with Mike after this meeting too. After the transcript is done I'll just give him a quick update.

MS. EDWARDS: Yeah.

MR. TURNER: Just a thing for information (indiscernible). How long before you think you can get the transcripts back?

THE REPORTER: How quick do you want it back?

MR. TURNER: Quickly this time.

THE REPORTER: That's immediately, like 24 hours, a week?

MR. TURNER: No, a week.

THE REPORTER: Seven days?

UNIDENTIFIED MALE: A week.

THE REPORTER: I can put a notation on there.

MR. TURNER: Thank you.

THE REPORTER: Okay. Seven day turnaround.

MS. EDWARDS: Okay. So we'll do a conference call that first week of December, probably the middle of the week, but we'll see what works for people the best. And get that set up and noticed and the phone line set up. Other -- is that -- do we have other things we need to think about for action items coming out of today? I feel like we've made a lot of progress today.

MR. THOMAS: Yeah.

UNIDENTIFIED FEMALE: Good meeting.

MR. BARRON: I'm good. Gordon, you think of anything?

MR. BROWER: Not at the moment.

MS. EDWARDS: And Gordon, if you -- you know, I know you haven't had a lot of time to look at all the information that's presented, so if you have additional comments or thoughts please feel free to forward them to us.

MR. THOMAS: I think I've got one just overarching question.

MR. BROWER: I'll try to do that.

MS. EDWARDS: Thanks. Yeah, I just -- I want to just make sure we have the benefit of your perspective.

MR. THOMAS: So what -- you know, when we launched in June we talked about a December time by which we would have a -- you know, a plan. So what are we thinking now as far as -- what's our target to have something ready to do? Or ready to go is not the right word. What's our target to have a plan nailed down amongst us that we agree to that we can then go forward with? Any thoughts? I'm just asking. I don't have any.....

MR. KINDRED: It'll probably be difficult until we recognize how persuasive or -- how persuasive the data is I think. Probably the next meeting we'll have an idea of if we're close to what our proposal is or at least being able to persuade a little proposal's appropriate or not. And if there's follow on questions depending on how efficient our data may be then it's probably going to take.....

MR. THOMAS: Yeah, I think my propensity, my

(indiscernible) is to try to not leave this open ended, but rather have an end date in mind that we can shoot for. But that puts pressure on us to actually work within that window.

MR. KUTERBACH: Well, and any end date that we have is really a start date for getting it approved.

UNIDENTIFIED MALE: (Indiscernible).

MS. EDWARDS: And I mean I agree. We -- you know, when we set out our December timeframe originally I think we were all thinking that we had the potential that we might need some statutory assistance and thinking about the legislature convening in January and all of that. But I don't think any of the things that we're talking about really require that kind of legislative interaction.

MR. BARRON: I don't think so either.

MS. EDWARDS: So I think we have the luxury of a little of bit time to try and do this right, but I agree that we don't want to drag this on forever and ever and ever. But I think -- I agree that it's going to be difficult for us to know sort of what that timeframe's looking like until we get a better feel for how long it's going to take the technical groups to go through and do some of this. And if that takes a month or two months to do that then we still have to come back then and sort of regroup and figure out what -- where we go next and I don't know that (indiscernible).

MR. BARRON: Well, and even if the proposal that we have

so robustly said is a good first step there's two years of monitoring proposed in it. So I mean I think we're going to have to have interim. That's why I wanted the options group kicked off right now because I think there will be interim steps that we take while we continue to do the two years of monitoring. So I -- I mean I'm not sure how to answer your question, but I think we're -- it's still a work in progress. But I think there's incremental changes that can be made based on what we find out.

MS. EDWARDS: But I think as we continue to work forward that we should keep asking this question and we should -- you know, I don't -- the next meeting probably isn't the right one, but maybe the one after that we kind of see where we're at, where we think we're headed. We might have a better feel for being able to put kind of an end to when we hope to get to the end of that -- sort of this first process and have sort of a -- and, you know, maybe it is here's the plan, we're going to do this monitoring. Whatever it is, you know, but I don't have a good feel for it at this point either. But I did -- I recognize that -- I'm glad you brought that up because that was something I wanted to bring up too. Because we had talked about trying to be done and we're obviously not there yet, but I do think we just need to keep plugging away and moving this along.

MR. BARRON: Well, yeah, I -- here's what's in my mind. What I don't want is to put out something that's bad that has to

be changed. It's not bad today. It's good today, but it would be bad tomorrow just to expedite it for today. I want to give this the breadth of time that's needed to build something that has some longevity. I think that's important for the stability of the industry to know what you're working with and it's important for the State and I think it's important for the public to say this is a longer term perspective and that has value. So if it takes a little bit longer I'm more than willing to commit my time and the State's time to do that.

MR. THOMAS: Okay. We'll just keep asking questions.

MS. EDWARDS: John, did you have something as well?

MR. KUTERBACH: Nothing more from me. Thank you.

MS. EDWARDS: Okay. I thought I missed a hand signal there, so. Because, you know, we talk in code sometimes.

MR. BARRON: I knew that. Just hadn't picked up on it.

MS. EDWARDS: Other thoughts today for the greater good for the group? Okay.

MR. BARRON: Thank you very much.

MS. EDWARDS: So we'll get this next call set up, we'll get the transcript out and go from there. So I want to thank everybody for the efforts today and the effort to put together the proposal and the good discussion. I thought it was really helpful today.

MR. KUTERBACH: I do have one item.

MS. EDWARDS: I knew you.....

MR. KUTERBACH: (Indiscernible) a Mulligan (ph).

MS. EDWARDS: I knew you needed a Mulligan (ph).

MR. KUTERBACH: For this call, is this going to be a meet me number and are we going to advertise it?

UNIDENTIFIED FEMALE: What is a meet me number?

MR. TURNER: It's no problem setting up a meet me number. It would be (indiscernible) workgroup over who's all involved.

MR. KUTERBACH: That was the question to the group.

MR. TURNER: Yeah. We can set up a meet you -- a meet me number at any given place and time and we will do that when we set the meeting time.

MS. EDWARDS: And I think we could -- we can notice it. I don't.....

MR. BARRON: Yeah. Yeah, I think -- yeah.

MS. EDWARDS: .....we'll have a problem doing that.

MR. BARRON: Yeah, notice it for sure.

MR. KUTERBACH: All right. So if we do notice it then we need.....

UNIDENTIFIED MALE: (Indiscernible).

MR. KUTERBACH: .....an estimate of how many lines we're going to need.

MR. TURNER: Correct. And we need to have a decision on the meeting time within the week or we're -- we have to have two weeks notice. Either way we could do that.

MS. EDWARDS: So for those of you who are actively

participating, if you are going to join the call in December please let us know, let Tom or Jeanne know, and that way we can make sure we have enough lines for everybody on the call. Excellent. All right. I think we covered our agenda.

UNIDENTIFIED MALE: (Indiscernible).

MR. BARRON: Thanks very much everybody.

MS. EDWARDS: Thanks everybody and we'll talk to you all in early December.

MR. BARRON: Thanks, Gordon.

THE REPORTER: Off the record at 3:45.

(Off record at 3:45 p.m.)

TRANSCRIBER'S CERTIFICATE

I, Nicolette Hernandez, hereby certify that the foregoing pages numbered 2 through 106 are a true, accurate and complete transcript of proceedings of the Workgroup for Global Air Permit Policy Development for Temporary Oil and Gas Drill Rigs, held November 14, 2013, in Anchorage, Alaska, transcribed by me from a copy of the electronic sound recording to the best of my knowledge and ability.

_____ _____

Date Nicolette Hernandez