April 17, 2014

Meeting Notes Summary – Technical Subgroup of Workgroup for Global Air Permit Policy Development for Temporary Oil and Gas Drill Rigs

Date of Meeting: Thursday, April 17, 2014

Time of Meeting: 14:00 – 15:00

Location of Meeting: Air Conference Room, ADEC Building, 410 Willoughby Ave., Juneau, AK 99801 and Teleconference

Technical Subgroup of Workgroup for Global Air Permit Policy Development for Temporary Oil and Gas Drill Rigs (Subgroup) Members present in person: Deanna Huff, ADEC/ AQ; Dan Fremgen, ADEC/ AQ

Technical Subgroup of Workgroup for Global Air Permit Policy Development for Temporary Oil and Gas Drill Rigs (DRWG) Members present in Anchorage office: Mike Gravier, ADEC/ AQ; Brad Thomas, ConocoPhillips (CPAI); Ben Wedin, Nordic–Calista Services (Nordic);

Technical Subgroup of Workgroup for Global Air Permit Policy Development for Temporary Oil and Gas Drill Rigs (DRWG) Members present by phone: Alan Shuler, ADEC/AQ; James Renovatio, ADEC/AQ; Bill Barron, ADNR; Tom Damiana, AECOM; Randy Kanady, CPAI; Alejandra Castano, BP; Wally Evans, Hilcorp

Public members present in Anchorage Office: John Neason, Nabors

Public members present by telephone: Kate Kaufman, Hilcorp Energy (Hilcorp); Ann Mason, SLR; Tom Chapple, HMH Consulting; Josh Kindred, Alaska Oil & Gas Association (AOGA)

Meeting Facilitator: Rebecca Smith, ADEC/AQ

1) Introductions

The meeting commenced at 14:00. Rebecca Smith welcomed all the participants and asked for introductions, first from the participants present in person and from the participants joining the meeting by telephone.

2) Review of Drill Rig Activity Categories presentation provided by Brad Thomas and Discussion

AOGA and ASIA produced a presentation on possible Drill Rig Activity Categories. They went back and forth to settle on the categories.

Premises: When you look at all the monitoring data that's been supplied, they feel that all drilling scenarios have been covered.

Drilling impacts are near field and are driven by fuel use, not the amount of equipment on the pad.

AOGA/ASIA did initial modeling to show that fuel use is the driving and factor and came up with the categories where fuel use limits based on additional modeling could be used.

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If all the emissions are run through two stacks (one for engines and one for boilers), the results show that as fuel use increases, the emission increase regardless of the number of drills rigs and pad configuration.

If all the emissions are spread out, then they look like the monitored data.

The categories are divided by what regulations will bear.

- Category 1—Rdi
 - Routine drilling at isolated pads, i.e. not adjacent to or contiguous with a Title I permitted facility (MG1 distance threshold is 1/4 mile)
 - Drilling on pad < 2 years
 - Have data that shows that these don't threaten the NAAQS
 - Majority of drilling is this category
- Category 2—OD
 - Offshore drilling (Cook inlet)
 - Category 1 conclusions can be met here as well
- Category 3—Ddi
 - Development drilling at isolated pad
 - Drilling on pad >2 years
 - Complicated
 - Inside wagon wheel, > 2 years brings more regulatory requirements
- Category 4—RDc
 - Routine drilling contiguous with/adjacent to a TI permitted facility
 - o Co-located with a TI facility
 - Drilling on pad < 2 years
- Category 5—DDc
 - Development drilling contiguous with a TI permitted facility
 - Drilling > 2 years
 - o There are few of these facilities
 - Pt. Thompson
 - Liberty
 - Endicott
 - Kuparuk 1B
 - CD1
 - Northsat
 - Ugaruk

Alan wanted to know what exactly AOGA and ASIA mean by "isolated".

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Isolated pads are those not adjacent to, contiguous with, or on a TI permitted facility; i.e. CPF1 has a TI permit because of the processing facility, so CD1 is not an isolated pad (it's at CPF1).

The Wagon Wheel concept makes it complicated to define some sources.

Dea—What is the meaning of the categories? Where do we go from here? What is the tie-in with fuel use?

AOGA/ASIA asked that if their premises hold up, does the info provided allow ADEC to conclude that the categories wouldn't violate?

Dea—so if the maximum fuel use seen so far is used, it is likely that conclusion could be made. AERMOD runs may show that up to 7,000 gal/day may not violate the NAAQS, but at some fuel use threshold, there may be violations of the NAAQS in the modeling.

AOGA/ASIA are hoping to persuade ADEC that the data will show that a limit of XXXX gal/day won't violate the NAAQS so that that limit should be subject to little or no regulation.

Dea—So does this mean AOGA/ASIA is bringing modeling back into the discussion?

Brad—modeling is being brought back into the discussion because the Technical Subgroup needs to offer the Options Subgroup more information and options than are currently available. However, the model fails because of Appendix W requirements to use 24/7 running and PTE.

Tom D.—appreciates clarification; Appendix W does cause problems.

Brad—As frustrating as modeling is; it is approved by the agencies. Think this effort should lead to something approvable.

Alan-not sure Appendix W is broken... How do we deal with transient sources?

Can AOGA/ASIA provide some clarification on the definition of "isolated" and examples? Shouldn't the definition also include "or on"?

Brad—yes, definition should include "or on"; they'll add that and examples to the slides and send back.

Industry thinks Category 1 will be an easy one for ADEC to deal with once they provide all the information and data. Fuel limit should equal generally allowable activity...

Dea-What is the timeline on ADEC receiving the supplemental info?

Brad—they're working on it; it's largely done; should be done to the point they can prepare a presentation in 2 weeks.

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Rebecca—the next Option meeting is May 15 and the next Main Workgroup meeting is May 20; that's not going to allow much time for review.

Brad—asked Tom if the modeling could be done to meet internally within a week so they could get the data to ADEC by April 25?

Tom—thinks that's feasible.

Dea—use of CD1 data to review by others as a modeling exercise, even though it has normalized values and no actual concentrations.

3) Next meeting planning

Brad will be out the week of April 28; wants to make sure AOGA and ASIA are in agreement on data before they give it to ADEC.

Monitoring group will be out the week of May 12-16.

Alan will be in the Juneau office May 5-7 and then out in the field on May 8

Rebecca will poll members to find out when during the week of May 5 will work, as the subgroup will need to meet again before the Options Subgroup meeting.

Action Items Generated From April 17 DRWG Technical subgroup Meeting:

- AOGA staff will get modeling information to ADEC by April 25
- ADEC will review the modeling information before the next meeting
- Rebecca will poll on members' availability for another technical Subgroup meeting the week of May 5 and will try to schedule it before Jeanne returns.
- Next meeting will be to discuss the modeling results.
- The next Options Subgroup meeting is scheduled for May 15; the Technical Subgroup will need to be prepared to brief that group.
- The next Main Workgroup meeting is scheduled for May 20; Technical briefing will be needed for that meeting as well.

Respectfully submitted,

Rebecca Tyson Smith, ADEC/AQ