

**DEC Division of Air Quality
Initial Questions and Comments
Alaska Support Industry Alliance/Alaska Oil & Gas Association
Draft Outline of an Alaska Transportable Drill Rig Air Quality Management Approach**

General Overarching Comments/Questions:

- 1) The outline appears to be focused primarily on the existing North Slope oil and gas production fields. It is not clear how the approach in the outline is envisioned to apply to Cook Inlet or other areas of the state or North Slope (e.g. foothills).

Background Section:

- 1) The background section makes statements that the modeling is over estimating impacts. While that may be the case, we have not seen definitive modeling vs. monitoring studies that would back up this claim. Are you aware of any peer-reviewed reports that support the claim that modeling over-estimates actual air quality impacts? If so, would industry be willing to share those reports with us?
- 2) The section refers to “voluminous” data. While industry has presented some data, we think that “voluminous” is a bit overstated. There is very little ambient monitoring data from the Cook Inlet area and what data there is may not include drill rig impacts; a recent DEC review of the North Slope data indicated that the data provided to us was not sufficient for drawing conclusions regarding drill rig impacts.
- 3) The section implies that the survey of states revealed no issues with NAAQS compliance. We think this is an incomplete characterization of the regulatory framework around drill rigs in other states. Since the drilling practices in the Lower 48 are different from those in the Alaska temporary drill rig program (i.e.: drill rigs are generally on pad for only a few weeks-then move, drilling is not adjacent to Title V sources, Lower 48 drill rigs do not use the number and size of ancillary devices while drilling as seen in Alaska), they should not be used as a direct comparison to drilling conducted under the current Alaska permit program. Also, in almost every state, production operations are permitted and those production operations are closer to our temporary drill rig operations than are the Lower 48 initial drilling activities.

Program Elements:

- 1) On Program Element #2 related to the three existing air monitoring sites and the commitment to continue monitoring for at least the next two years, we had the following questions:

- The industry monitoring sites noted are all located on the North Slope. Are they intended to represent ambient air quality data for the Cook Inlet Oil Fields or any other part of the State that could have oil or gas fields?
 - From industry's perspective, where does the maximum air quality impact from drilling occur? Is it near the drilling pad? Does it occur miles downwind? Is the impact homogeneous throughout all of Alaska?
 - Considering that pollution typically disperses with distance, what type of impact(s) does industry believe these three monitoring sites represent? Are they maximum impacts, regional background impacts, or transport impacts?
 - Does industry believe three sites along the North Coast of Alaska are sufficient to describe overall air quality conditions for the larger North Slope area, including the National Petroleum Reserve, Alaska (NPRA)?
 - What types of drilling activities does industry believe these three sites represent? Would all drill rig types and levels of operation be represented by one or more of the sites?
 - Does industry believe that all three stations should be considered equally in evaluating the potential impact from drilling activities?
- 2) For Program Element #3 that establishes a subcommittee to review existing monitoring data, we understand that we will need to work on the timing for this task given that the work group meeting was delayed. We think that thirty days is not a lot of time for a group to complete an in depth analysis of new, un-reviewed monitoring data. We may want to consider whether that is a realistically achievable timeframe for this program element. In addition, we had the following questions to consider:
- What will the sub-committee and work group do with the results?
 - What are the next steps if the sub-committee should find that the network of existing monitoring sites is inadequate?
 - How will the subcommittee handle Cook Inlet oil fields?
- 3) Program Element #4 would set up a leadership team to periodically review ambient air quality conditions and trends. The element as drafted does not address how or when that group would need to take action. We think we would need to discuss what ambient air pollution levels would trigger action and what corrective actions the industry needs to take should the Leadership Team discover violations of the air quality standards or trends that might lead to air quality violations. What would the timelines be for implementing corrective actions?
- 4) Program Element #5 includes an industry near-field dispersion modeling study. We have the following questions related to modeling efforts:
- Are there current modeling studies that show drill rigs can comply with the 1-hour NO₂ standard?

- Will the proposed modeling analysis address the range of rig configurations that currently occurs within the State? In addition to the variation in rig size, there is also variation between onshore and offshore drilling configurations, and in the emissions associated with highline power vs. conventional drilling.
- Will the modeling analysis represent the various topographical and meteorological conditions that occur across the State? For example, the modeling approach for assessing impacts from a Cook Inlet drilling platform is very different from the modeling approach for assessing onshore operations. Meteorology also varies by location. For example, offshore meteorology differs from onshore meteorology, and North Slope meteorology differs from Kenai Peninsula meteorology.
- Will the modeling analysis incorporate the model improvements recommended by the American Petroleum Institute (API) to the U.S. Environmental Protection Agency (EPA)? EPA recently announced their intention to release these API-recommended improvements by late November. Do the current permits restrict actual emissions? If so, would drill rig emissions increase if these permits did not exist?
- Does industry foresee a need for more or larger drill rigs in order to meet their future drilling needs? If so, would the modeling analysis represent the impacts from future operations?
- Would the API-recommended model improvements allow industry to demonstrate compliance with the 1-hour NO₂ standard, even when using permit allowable emissions?

5) Program element #6 includes documenting technology improvements to drill rigs that reduce emissions. We think that technology is an important component to this approach. We have some basic questions that would help us better understand how often drill rig upgrades occur and industry's thoughts related to technology upgrades as a part of an overall solution:

- What is the current replacement schedule for a drill rig engine?
- Would industry be willing to accept some kind of requirement that would make an agreed-upon replacement schedule enforceable?
- As an alternative idea, would industry be open to some type of incentive for reducing their drill rig emissions?

6) Program element #7 would clarify and set out the steps that need to be taken to make changes to the existing regulation and State Implementation Plan and the on-going approach in the interim. In the most basic terms, to make changes approvable by EPA, DEC would need to meet the minimum federal permitting requirements and protect ambient air quality. This means not only maintaining air quality at healthy levels but preventing deterioration of air quality to unhealthy levels. We need to think not only in terms of what is happening now, but also about the future. We need to have an approach that can address both current and future activities to ensure that good air quality is maintained.