

## Alaska Oil and Gas Association

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December 11, 2015

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### **Re: Comments on ADEC's Proposed Contaminated Sites Regulations**

Dear Ms. Schlichting,

The Alaska Oil and Gas Association (AOGA) appreciates the opportunity to provide comments on the Alaska Department of Environmental Conservation (ADEC) proposal to adopt regulation changes in Title 18, Chapter 75 of the Alaska Administrative Code, which articulates updates to the cleanup levels for soil and groundwater, as well as amending accompanying language for how such levels are calculated. AOGA is a professional trade association whose mission is to foster the long-term viability of the oil and gas industry for the benefit of all Alaskans. AOGA's members have a long history of prudent and environmental conscious oil and gas exploration and development in Alaska.

Ultimately, ADEC's proposal can be fairly separated into two categories from an analytical standpoint: (1) procedures for calculating cleanup levels; and (2) procedures for calculating cumulative risk. AOGA acknowledges that there are complexities and technical aspects related to ADEC's regulation proposal that will not be thoroughly captured in those broad categories. However, these categories are the most prudent approach to succinctly and sensibly describe AOGA's concerns. Generally, there are several aspects of the proposed regulations that are simply ill-articulated and, as a result, fail to provide adequate information for AOGA, or the public at large, to provide intelligent commentary. Specifically, the proposed regulations contain technical flaws

that undermine the viability, and perhaps the reasonableness, of ADEC approach. It is for these reasons, discussed in greater detail below, that AOGA respectfully asks ADEC to withdraw the proposed regulations to afford ample opportunity to thoroughly address these problems and consider necessary remedies in subsequent iterations.

## **I. Procedures for Calculating Cleanup Levels**

As suggested above, AOGA issues with ADEC's proposed regulations vary between flaws in the technical mandates and informational gaps or omissions. For example, Section 5.4 of the proposed regulations describes situations contemplating Valorization Factor (VF)-based cleanup levels in excess of the soil saturation limit. For liquid contaminants, VF-based cleanup levels are set equal to the soil saturation screening concentrations ( $C_{\text{sat}}$ ) if greater than  $C_{\text{sat}}$ . ADEC describes Cleanup levels in Section 1.0 in risk-based value terms. However, given that  $C_{\text{sat}}$  is not a risk-based concentration, ADEC should not incorporate it as a risk-based value in a regulatory construct. Rather, AOGA would recommend that ADEC provide risk-based cleanup levels with a notation for VF-based values to illustrate that free-phase product may be present at concentrations above  $C_{\text{sat}}$  and, thus, additional evaluation may be necessary. Furthermore, Section 5.4 also describes situations in which inhalation-based cleanup levels exceed the soil saturation limit for solid contaminants. AOGA believes that ADEC should identify all chemicals to which this situation applies with an accompanying notation informing relevant parties that the cleanup level does not account for the inhalation pathway.

AOGA would also encourage a variety of other modifications, additions, or clarifications, such as the following:

- i. ADEC should include a discussion of soil cleanup levels above the ceiling limit of 105 (10% of sample by weight) to ensure that potential users are made aware that assumptions for direct contact may be violated at or above this level. Specifically, ADEC should note such values in Table B1.
- ii. ADEC should accept and note that the relative bioavailability factor of 0.6 should be included in the soil ingestion cleanup level for arsenic, consistent with the Regional Screening Level (RSL) calculations.
- iii. ADEC should provide the source(s) of chemical-specific parameters (other than toxicity values) in Table 6. Although ADEC provides a hierarchy of sources for toxicity values in the Procedures for Calculating Cumulative Risk, it would be beneficial for ADEC to also identify the sources of toxicity values in the subject document.

- iv. ADEC should consider renaming Section 3.1.3 as well as other inhalation equation sections to effectively incorporate inhalation of vapors in addition to particulates, an issue currently illustrated in Section 3.4.3 where the vinyl chloride equation includes only vapor and not particulate inhalation.

Finally, some aspects of the proposed regulation appear to be incomplete. For example, AOGA would note that the "Introduction" section refers to Table 8 in Appendix B, yet there does not appear to be a Table 8 anywhere in the document. In that vein, AOGA also notes that portions of the document appear to be incomplete. For example, the same "Introduction" section referenced above indicates that an age-adjusted approach is used for the soil ingestion exposure pathway. This same age-adjusted approach should also be used to calculate cleanup levels for carcinogens based on other exposure pathways and media. However, the proposed regulations fail to include such instruction. AOGA assumes that this represents an accidental omission and would advocate that the document include a more complete discussion.

## **II. Procedures for Calculating Cumulative Risk**

As with ADEC's approach to procedures for calculating cleanup levels, AOGA has a variety of concerns relating to ADEC's approach to calculating cumulative risk. Those concerns are similar in nature, in that AOGA would ask ADEC to consider addressing both flaws and gaps in approach. By way of example, ADEC describes vinyl chloride in Section 1.2 as having a unique set of risk equations. However, AOGA would note that trichloroethene (TCE) also has a unique set of equations aimed at calculating mutagenic cancer risks that is absent from ADEC's proposed regulations. AOGA suggests that ADEC include this in the Section 1.2 discussion. Additionally, ADEC introduces contaminants of potential concern (COPCs) in Section 2, but fails to clarify whether the COPCs are intended to refer to chemicals with concentrations greater than one tenth of the cleanup level, as discussed in the first list item, or ADEC might intend a different meaning. AOGA asks that ADEC address this confusion by defining COPCs, as applicable to the proposed regulations, in more definite and robust terms.

Furthermore, ADEC suggests that the WHO is the principal recommended source of Toxic Equivalency Factors (TEFs) for dioxin like compounds in Section 5.2, and, in doing so, refers to Appendix C. However, this is not discussed in Appendix C. ADEC should remedy this deficiency, while also identifying other specific sources of toxicity information. Similarly, ADEC discusses chemicals not found in ADEC tables in Section 5.4 of the proposed regulations. ADEC encourages consulting the RSL table, but fails to provide additional recommendations regarding those chemicals absent from the RSL table. AOGA believes that the procedure for evaluating such chemicals should also be described in this particular section.

### **III. Conclusion**

AOGA appreciates the opportunity to comment on the ADEC's proposal to adopt regulation changes in Title 18, Chapter 75 of the Alaska Administrative Code. AOGA's members have a long history of partnership with state and federal agencies to help ensure that oil and gas operations do not adversely impact the environment in which we live and work, and we look forward to continuing this productive relationship into the future. AOGA ultimate recommendation is to withdraw the regulation changes to allow ADEC an opportunity to remedy the deficiencies and issues articulated above. Such an approach would also allow for additional public comments at a later time. If you have any questions regarding AOGA's letter, please contact Joshua Kindred at 907-272-1481 or [kindred@aoga.org](mailto:kindred@aoga.org).

Sincerely,

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