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AOGCC

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October 10, 2013

Alaska Oil and Gas Conservation Commission

333 West 7th Avenue, Anchorage, Alaska 99501

Submitted online at www.doa.alaska.gov/ogc/

Re: Proposed regulations on hydraulic fracturing and workover operations: 20 AAC §§25.280, 25.283, and 25.990

To Alaska Oil and Gas Conservation Commission:

The Native Village of Nuiqsut (NVN) submit these comments on the Alaska Oil and Gas Conservation Commission's (AOGCC's) proposed regulations on hydraulic fracturing.

We have serious concerns about hydraulic fracturing. We do not want to see this activity take place within our village, and we want to protect the water in the vicinity of our village.

Chemical Disclosure. We appreciate that the draft regulations require disclosure of chemicals before and after hydraulic fracturing takes place. We believe this should apply to all chemicals—freeze protect chemicals should not be excluded. Likewise, we believe that there should be no exemptions for alleged trade secrets.

Notice. It is important for all stakeholders—including subsistence participants and tribal governments—to receive adequate notice that hydraulic fracturing will take place, and any variances issued, on land

that is of vital importance to these stakeholders. We encourage AOGCC to revise the draft regulations to provide notice to tribal and local governments, as well as complete copies of the applications for permits to drill from operators, and any variances. At a minimum, these should be placed on the web.

Water Sampling. While we currently obtain our drinking water from surface water rather than groundwater, it is important to protect groundwater that could become a future source of drinking water or that interfaces with surface water. Particularly with permafrost melting, groundwater contamination due to improper fracturing procedures is a risk. Thus, we support the requirements in the draft regulations for before and after groundwater testing. We believe that these should be extended to include surface water testing when surface water serves as a source of drinking water for a community. We suggest that AOGCC require baseline water quality sampling not just for water wells (as stated in 20 AAC 25.283(a)(5), but for all water sources within a quarter-mile of the well site prior to any fracturing activities. The North Slope is underlain by continuous permafrost, except under larger lakes and rivers, and that permafrost is up to 2000 feet thick.¹ The active layer thickness (top layer of silt and/or rock that thaws and freezes) varies from a few meters to 20 meters so well integrity is crucial to protection of groundwater that may interface with surface water.² Groundwater commonly occurs within the perennially thawed sediments, or taliks, which depress the permafrost table beneath surface water bodies, and are permeable. We support stricter well integrity standards and limited alternative design criteria so that the conditions for variance are set forth with specificity in the regulations, and that there are no waivers from these requirements.

Well Integrity. Casing and cementing around wells serve as a protective barrier to prevent the migration of fracturing fluids and methane. A well that is subject to the high pressures of hydraulic fracturing needs to have a strong casing and cementing design, and casing and cement must be maintained over the well's lifetime. We recommend that AOGCC require equipment to be designed to prevent corrosion and erosion. Monitoring programs should be required to identify corrosion and erosion over the well and equipment operating lifetime. Operators should be required to repair and replace damaged wells and equipment. We appreciate the language in 20 AAC 25.283(b) to require pressure testing of the well prior to fracturing. We are particularly concerned with the possible effects of withdrawal and injection of fluids and other materials. As the National Research Council determined, potential effects in the subsurface environment generally relate to the possible invasion by gas, oil or fracking compounds along unintended flow paths through failed oil well casing and cement seals or through artificially fractured rock.³ The potential of allowing waste and fracturing fluids to escape toward the surface is a major concern. The AOGCC should ensure that the plugging and abandonment of the wells is documented and

¹ Prokosch, Gary *North Slope Water Use and Hydrology*, DNR Water Resources Section, March 9, 2000;

² Romanovsky, V.E., et al., *Permafrost*, National Oceanic and Atmospheric Administration, November 9, 2012.

³ National Research Council Committee on the Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope, 2003

sufficient so that underground fluids do not migrate. The NPRA has experienced significant environmental effects because of the failure to properly plug and abandon wells.⁴

Flaring. In Nuiqsut, we are already subject to a great deal of air emissions from the surrounding oil and gas activities. This has led to heightened concerns about asthma and other health issues. Hydraulic fracturing could lead to a great deal of methane gas flaring, unless the Commission takes action to control flaring. The Commission should limit flaring and venting to the smallest amount needed for safety, and require operators to implement technically feasible and cost effective gas control practices during hydraulic fracturing operations. We suggest that operators be required to implement Reduced Emission Completions (RECs) to collect gas wherever technically feasible. Operators should also be required (when feasible) to use gas recovered from wells—rather than diesel—to power equipment, thereby greatly reducing air pollution. At a minimum, gas should be reinjected rather than flared.

Waivers. We are concerned about the language in 20 AAC 25.283(j) allowing operators to get waivers and variances from the rules. This broad language could allow operators to assert trade secret protections or avoid the rules altogether. It could also allow the type of waivers that the BLM granted in NPRA, allowing multi-year extensions of time to comply with the one-year plugging rule.⁵ While we understand the benefit of allowing operators to use an alternative design that meets the goals of the rules, the criteria for such alternative designs need to be explicit and limited. In no circumstance should there be a waiver from the rules. All variances should be publicly noticed with a comment period so that the public can have the opportunity to review the variance.⁶

Other Agencies. We recognize that AOGCC does not have jurisdiction over all of the permitting processes that affect hydraulic fracturing. We encourage the Commission to work with the Department of Natural Resources to prohibit hydraulic fracturing near residential areas and important subsistence areas, and to limit and control water withdrawals; and with the Department of Environmental Conservation to avoid storage of fracturing wastes in open pits and to monitor, control and issue quarterly reports on air emissions.

Thank you your consideration of these comments.

⁴ Foerster, Cathy, Testimony before the U.S. Senate Committee on Energy and Natural Resources, July 12, 2012.

⁵ *Id.*

⁶ *Id.* See Ms. Foerster's testimony: "If an oil company operated these wells, the AOGCC along with several federal agencies would force compliance with our regulations and impose fines for non-compliance. And if we didn't the public outcry would be deafening."

If the public has no notice or opportunity to comment on proposed variances then there is no opportunity for "public outcry" so public notice and a comment period are essential.

Sincerely,

A handwritten signature in black ink, appearing to read "Martha Itta". The signature is written in a cursive style with a large initial "M" and a distinct "I" and "A".

Martha Itta

Tribal Administrator

Native Village of Nuiqsut

October 08.2013