Singh, Angela K (DOA)

From: Colombie, Jody J (DOA)
Sent: Wednesday, August 07, 2013 12:38 PM
To: Singh, Angela K (DOA)
Subject: FW: comments on HF regulations
Attachments: DCC HF Comments 8.5.2013.pdf; 2013-04-01-DCC-Fracking-Comments.pdf

You may have received these, but not sure.

From: Hannah Ragland [mailto:hbragland@hotmail.com]
Sent: Monday, August 05, 2013 4:21 PM
To: Colombie, Jody J (DOA)
Cc: Foerster, Catherine P (DOA); Seamount, Dan T (DOA); Norman, John K (DOA)
Subject: comments on HF regulations

Ms. Columbie-
Attached are comments from the Denali Citizens Council for this second round of input on regulations related to hydraulic fracturing, as well as our original comments. If there will be a call-in number for the hearing in Anchorage, please let me know.
Thanks!
Hannah Ragland
907-687-2403

Denali Citizens Council

Advocating for Denali's Wilderness, Wildlife and Way of life.

August 5, 2013

Via E-Mail to:

Cathy Foerster
AOGCC Commissioner
cathy.foerster@alaska.gov

Dan Seamount
AOGCC Commissioner
dan.seamount@alaska.gov

John Norman
AOGCC Commissioner
john.norman@alaska.gov

Jody Colombie
Special Assistant to the Commission
jody.colombie@alaska.gov

Re: Supplemental Comments on Proposed Changes to AOGCC Regulations Related to Hydraulic Fracturing in Alaska

Dear Commissioners and Ms. Colombie:

Thank you for the opportunity to comment on the Alaska Oil and Gas Conservation Commission's June 2013 revisions to its regulations related to hydraulic fracturing. On behalf off the Denali Citizens Council (DCC) board and members, I submit these comments as a supplement to comments previously submitted by Bessenyey & Van Tuyn, L.L.C. on behalf of DCC, dated April 1, 2013, and to comments submitted jointly by The Wilderness Society and other organizations (referred to as joint comments in this supplement) both on April 1, 2013 and during the current round of public comment.

DCC has closely tracked regulations related to oil and gas exploration since shallow gas exploration in the Healy Basin was first proposed. The Healy Basin Gas Exploration License surrounds the largest community in the Denali Borough (Healy), and underlies several subdivisions and remote residential areas. The license area also contains lands, including the Stampede Townships, which have long been recognized by the state, residents, and visitors as valuable for recreation and wildlife habitat. Many of our members live within the Healy Basin license area, and we hope the commission considers our comments carefully in determining how to best protect our freshwater resources.

Public Notice and Chemical Disclosure

We applaud AOGCC's changes to align chemical disclosure requirements before and after fracturing operations and provide actual or maximum concentrations of chemicals. We also appreciate the requirement of "amount and type(s) of base

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fluids and additives" rather than "material."[1] We encourage AOGCC to require this in pre-fracturing disclosure requirements as well. We cannot support excluding freeze-protect fluids from pre- and post-fracturing disclosure requirements, especially considering the health and safety risks associated with the chemicals often associated with such liquids. We appreciate AOGCC expanding the area of direct notice to landowners from one-quarter to one-half mile, although we urge you to consider expanding the area for direct notice to all landowners and affected parties within a 10-mile radius of a well. We continue to encourage AOGCC to incorporate interagency consultation in the permitting process, as well as appropriate Borough, City and tribal government authorities.

We continue to be concerned about how readily available permit applications would be to the general public, both before and after fracturing. Including detailed chemical information before fracturing operations is critical to protect public interests in clean drinking water supplies, especially in areas with existing or potential residential and agricultural use. Aquifer extent is unknown in the Healy Basin, and little is known about the groundwater resources throughout much of the state. In a USGS publication released in 1999, it is clearly stated:

> *"Information on subsurface geology, ground water, and permafrost is sparse in Alaska, and for many places no data are available. In large parts of the State, the surface geology is not well known. It is difficult to extrapolate hydrologic conditions from the few areas where they are known to different localities that have similar geologic settings because local variations in geologic and permafrost conditions significantly affect the occurrence and movement of ground water."*[2]

The availability of information on ground water is still sparse in much of Alaska. Seismic events, well blowout, faulty casing or other malfunctions could trigger contamination. There is not enough knowledge about the areal extent of local aquifers to determine who and where could be impacted by contamination. Although fracturing operations could more readily impact those who live closest, those outside that half-mile radius could certainly be impacted as well.[3] Public notice must be adequate to inform all individuals who could be impacted.

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[1] AAC 25.283(h)(2) and 20 AAC 25.283(h)(3)

[2] From US Geologic Survey, Ground Water Atlas of the United States, (USGS publication number HA 730-N, 1999), by James A. Miller and R.L. Whitehead. Accessed at http://pubs.usgs.gov/ha/ha730/ch_n/ on August 2, 2013.

[3] See Brain Fontenot, et al. (Just Accepted Manuscript, publication date July 25, 3013). An evaluation of water quality in private drinking water wells near natural gas extraction sites in the Barnett Shale Formation. Environmental Science and Technology, DOI: 10.1021/es4011724. Identifies increased contamination in water wells located within 3 km of natural gas wells when compared to water wells located more than 14 km from natural gas wells. Accessed at http://pubs.acs.org on August 2, 2013.

We urge AOGCC to provide the permit application (for both Forms 10-403 and 10-404) for general public review through the Alaska Online Public Notice System, and to consider a user-friendly, searchable, and downloadable online database, as described in the joint comments. As we suggested before, the AOGCC should provide a meaningful opportunity for public review and comment, and should provide a reasoned response to comments during consideration of permit approval. At a minimum, the information as proposed in 20 AAC 25.283 (a)(5) and 20 AAC 25.283 (a)(14) should be made available to the general public prior to fracturing operations to ensure that nearby residents have the opportunity to assess and assure protection of their drinking water supplies.

We support the exclusion of any clause for withholding proprietary information. As requested in joint comments, we continue to support full disclosure. We understand that some information in permit applications (Forms 10-403 and 10-404) could be withheld as confidential under Alaska Statute.[4] Because of the potential risks of contamination, this proposed regulation should clearly state that information in permit applications for hydraulic fracturing would not be withheld as confidential, particularly information related to chemical disclosure and water quality.

Any significant changes to operations, or requests for variances or waivers should require an amendment to the permit application and the full public notice process. No waiver or variance should be allowed for public disclosure, and we refer to the most recent joint comments for additional comments on the newly proposed variance.

Geologic Formations and Freshwater Identification

Because so little is know about both geologic formations and aquifer extent throughout much of rural Alaska, the state would benefit from requiring operators to provide additional information. The state could then use that information to determine the permeability of geologic formations and the potential for contamination. We encourage AOGCC to include baseline geologic information about all formations that the well traverses, not just the fracturing and confining zones.[5] This information should include any liquids or gases associated with each geologic formation. Information about all geologic formations between the fracturing zone and surface would enable the state to make more educated decisions to protect freshwater resources. This is especially important in current and potential future residential areas and areas important for

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[4] AS 31.05.035: "***portions of an application*** *for a permit to drill an exploratory or stratigraphic test well* ***that the commission determines contain proprietary engineering or geotechnical information shall be kept confidential for 24 months*** *following the 30-day filing period unless the owner of the well gives written permission to release the application and reports and information at an earlier date.*"

[5] This could be incorporated in 20 AAC 25.283 (a)(10).

wildlife habitat and recreation. Much of the land within the Healy Basin Gas Exploration License area meets this criteria.

In order to protect valuable freshwater resources, we encourage AOGCC to expand the regulations to include additional information about freshwater resources, including aquifers and surface waters. This should include any waters expected to be used or that could potentially be impacted by hydraulic fracturing operations (whether by extraction of water, storage or disposal). We would prefer to see language in the proposed regulations[6] revised to "the identification of freshwater resources, including aquifers and surface waters, and information sufficient to provide baseline water quality, quantity, flow and depth information (including MD and TVD to the top and bottom of all aquifers), for all freshwater resources that could be impacted by any stage of fracturing operations, accompanied by a description of the methods and assumptions used."

Water Quality Data

It is unclear in these regulations whether an operator would be required to test water quality if there are no existing water wells within the proposed one-half mile radius. If there are no existing water wells, we urge AOGCC to require that the operator install at least one water wells within one mile radius of the proposed well site in order to assess water quality as required by this proposal. Water quality data collected by the operator should be made available in a timely manner to the general public and distributed directly to landowners within the 10-mile radius we have suggested, whether or not the landowners currently have a water well on the property.

We encourage AOGCC to include requirements for water quality testing of surface waters, particularly in current and potential future residential areas and areas important for wildlife habitat and recreation. This could easily be inserted into the proposed regulations alongside the criteria for water well testing.[7]

Identify and Reduce Hazards

While it is well known that abandoned wells can serve as a conduit for contamination, it is unclear how distance impacts potential for contamination, and would be dependent upon hydrology and geology. Faults also serve as potential conduits for contamination. We feel that expanding the area where operators must identify other wells and faults is important. We would prefer to see language in the proposed regulations[8] return to the original language (without a specified radius), to guarantee that all wells that may transect the confining zone are identified. Considering that fractures created by fracturing operations

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[6] 20 AAC 25.283 (a)(3). 20 AAC 25.283 (a)(11) could then be deleted.
[7] 20 AAC 283(a)(5)
[8] 20 AAC 283(a)(13) and 20 AAC 283(a)(14) (proposed regulation)

could stretch far away from the wellborn trajectory, this is especially important. We support the proposed change to require operators to describe the methods and assumptions used to determine designed fracture height and length.

We continue to support many of the requests made for updating other sections of other regulations related to fracturing operations[9] made in the joint comments dates April 1, 2013. We understand that while this may be outside the scope of these regulatory changes, we encourage AOGCC to consider updating those regulations in the near future as well.

Particularly where hydraulic fracturing operations overlap with current and potential future residential areas and areas important for wildlife habitat and recreation, we encourage the state to consider requiring that a Health Impact Assessment be conducted. State personnel could undertake the assessment, with the operator could be held financially responsible.

We notice that the proposed regulatory changes do not anticipate fiscal changes. We hope that AOGCC will consider staffing needs and request appropriate funds from the legislature to ensure that freshwater resources are indeed protected.

Thank you again for your consideration of our comments. Considering that communities in the Healy Basin will likely see some gas exploration near homes and in natural areas that are highly valued, we feel that it is critical for the state to do as much as possible to ensure that there is adequate information about fracturing operations to ensure that the best interests of residents are met. If you have any questions, please contact Charlie Loeb, President, DCC (charlie@denalicitizens.org, 907-733-6300) or Hannah Ragland, Vice-President, DCC (hbragland@hotmail.com, 907-687-2403).

Sincerely,
Hannah Ragland

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[9] Including 20 AAC 25.025, 20 AAC 25.030, 20 AAC 25.033, 20 AAC 25.200 – 25.290, 20 AAC 25.440, 20 AAC 25.990