

Colombie, Jody J (DOA)

From: McIver, Bren (DOA) on behalf of AOGCC Cust Svc (DOA sponsored)
Sent: Tuesday, January 22, 2013 11:11 AM
To: Colombie, Jody J (DOA)
Subject: FW: Hydraulic Fracturing Comments

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From: Darrell & Cindy Birkhimer [mailto:oakfronts@yahoo.com]
Sent: Tuesday, January 22, 2013 10:57 AM
To: AOGCC Cust Svc (DOA sponsored)
Subject: Hydraulic Fracturing Comments

Alaska Oil and Gas Conservation Commission
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Anchorage, Alaska 99501.
AOGCC:

I am opposed to hydraulic fracturing on the Kenai Peninsula for the following reasons:

Hydraulic Fracturing (HF) and its environmental impacts, including surface contamination from spills, and flowback, contamination of ground water, dangers to air quality from the migration of gases and HF chemical to the surface, and the mismanagement of waste. Although there are other methods to extract these resources, such as conventional drilling or horizontal drilling, hydraulic fracturing is one of the key methods used in the United States.

➤ INJECTIONS

The most common chemical used for hydraulic fracturing in the United States in 2005–2009 was methanol, while some other most widely used chemicals were isopropyl alcohol, 2-butoxyethanol, and ethylene glycol (1). However, the injection of radioactive tracers, along with the other substances in hydraulic-fracturing fluid, is sometimes used to determine the injection profile and location of fractures created by hydraulic fracturing (2)

➤ SEISMICITY

The United States Geological Survey (USGS) reported earthquakes induced by human measures, including hydraulic fracturing and hydraulic fracturing waste disposal wells, in several locations. The frequency of these quakes has been increasing. In 2009, there were 50 earthquakes greater than magnitude-3.0 in the area spanning Alabama and Montana, and there were 87 quakes in 2010. In 2011 there were 134 earthquakes in the same area, a six fold increase over 20th century levels. There are concerns that quakes may damage underground gas, oil, and water lines and wells that were not designed to withstand earthquakes (3,4,5,6).

➤ AIR

Shale gas that is produced by hydraulic fracturing causes higher well-to-burner emissions than conventional gas. This is mainly due to the gas released during completing wells as some gas returns to the surface, together with the fracturing fluids. Studies claim that methane released from shale-gas production is a 30–100% increase over conventional gas production (7,8). Methane progressively breaks down in the atmosphere, forming carbon dioxide, which adds to greenhouse gasses more than coal or oil for timescales of less than fifty years (9,10,11,12). Elevated air levels of harmful substances have coincided with elevated reports of health problems among the local populations (13).

➤ WATER

Water-Hydraulic fracturing uses between 1.2 and 3.5 million US gallons (4.5 and 13 MI) of water per well, with large projects using up to 5 million US gallons. Additional water is used when wells are refractured; this may be done several times. An average well requires 3 to 8 million US gallons (11,000 to 30,000 m³) of water over its lifetime (14,15,16). In the United States hydraulic fracturing regions, at least 36 cases of groundwater contamination due to hydraulic fracturing have been suspected and in several cases EPA has determined that hydraulic fracturing was likely the source of the contamination (17,18,19). Federal environmental regulators made a direct link between the controversial drilling practice known as hydraulic fracturing and groundwater contamination...The EPA found high concentrations of benzene, xylene, gasoline and diesel fuel in shallow groundwater supplies that they linked to wastewater pits. The report also found a number of fracking chemicals in much deeper fresh water wells (20,21,22). While some of the chemicals used in hydraulic fracturing are common, some are known carcinogens or toxic. The 2011 US House of Representatives investigative report on the chemicals used in hydraulic fracturing states that of the 2,500 hydraulic fracturing products, "more than 650 of these products contained chemicals that are known or possible human carcinogens, regulated under the Safe Drinking Water Act, or listed as hazardous air pollutants".(23) Groundwater methane contamination is a concern as it has adverse impact on water quality and in extreme cases may lead to potential explosion. In 2006, over 7 million cubic feet of methane were released from a blown gas well in Clark, Wyoming and shallow groundwater was found to be contaminated (24) and they did not measure beta or gamma radiation.

➤ POLITICS

To regulate the hydraulic fracturing industry, some governments are developing legislation and some municipalities are developing local zoning limitations. On a global note in 2011, France became the first nation to ban hydraulic fracturing. Some other countries have placed a temporary moratorium on the practice as well. Should we in the United States do any less?

Respectfully,
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