

From: noreply@smartcomment.com
Subject: Proposed Draft Regulations Addressing Hydraulic Fracturing and Additional Clarifying Amendments comment
Date: March 29, 2018 at 8:45:32 PM EDT
To: dcs@DamascusCitizens.org

Thank you for your comments on the Proposed Draft Regulations Addressing Hydraulic Fracturing and Additional Clarifying Amendments. Your comments have been received.

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Proposed Draft Regulations Addressing Hydraulic Fracturing and Additional Clarifying Amendments

The following excerpted brief and attachments were filed with the Pennsylvania Environmental Hearing Board in a case involving the spreading (actually dumping, as a disposal method) of liquid drilling waste, euphemistically called 'brine,' on unpaved roads in Farmington Township, Warren County, PA. DCS member, Siri Lawson lives there and is impacted by the wastes being dumped. Her declaration of the impacts she has suffered is attached. Also attached is the submitted declaration by B. Arrindell, Director of DCS, the NGO filing this comment. Her Affidavit explains the background and gives additional details of DCS' involvement with the oil gas drilling wastes here called 'brine', but what the DRBC wants to IMPORT into the Delaware Basin.

I want to emphasize that liquid wastes from oil and gas drilling if allowed into the Delaware Basin, whether 'treated' at a CWT or not will be spilled, dumped illegally, or the result of accidents with similar human health impacts occurring. CWT 'treatment' is very minimal - this issue dealt with in another comment. In the area around where Siri lives the cancer rates have gone way up and many people of all ages are sick. Import these wastes in the Delaware Basin and the DRBC will be responsible for importing a lot of sickness. DCS urges the DRBC to prohibit the importation of all gas and oil

drilling wastes into the Delaware Basin.

L BACKGROUND^[L]_[SEP]1. DCS is a non-profit 501(c)(3) grassroots citizen organization dedicated to protecting public health and the environment fl'om impacts caused by the oil and gas industry. Since its founding in 2008, DCS has dedicated its activities and its resources to working with federal, state and local organizations on a regional, national, and international level to educate regulatory agencies and the public about the adverse and most often irreversible environmental impacts of oil and gas development. This is especially true for the contamination and impacts caused by the predominant technology used on 95% of all new oil and gas well operations, known as high volume hydraulic fracturing ("HVI{F" or as the totality of the processes involved are often known as "fracking")^[L]_[SEP]2. Appellant, Ms.Siri Lawson, has been a member of DCS since 2008. Her most significant contribution over the years to the organization has been on oil and gas waste disposal issues and, in particular, the disposal of contaminated liquids that are produced by the millions of gallons at the well head. These waste materials are a combination of the post-fracturing flowback of injected fluids, highly saline formation fluids, and other chemicals and hazardous liquid materials released by the fracturing. These oil and gas waste fluids are called "brine" and application of this brine has been classified by some townships and counties in Pennsylvania and New York as a "beneficial use" of the material for dust control and road stabilization on unpaved roads and as a deicer in winter.^[L]_[SEP]3. As discussed in the attached affidavit of Ms. Barbara Arrindeil, Director of DCS, the oil and gas industry waste fluids classified as "brines" contain large concentrations of toxic substances including heavy metals (barium, chromium, cadmium, lead, and radium), volatile toxic chemicals (including benzene, ethylbenzene, toluene and xylene - often referred to as BTEX), surfactants (such as 2-butoxyethanol) pesticides, corrosive materials (chlorides, bromides, and ammonium), carcinogenic and radioactive substances including uranium, radium, radon, and the radioactive decay products of these radioactive elements. We never know the actual formulation for any particular well because the oil and gas companies have exemptions from major provisions of various environmental protection laws and further withhold this information claiming business confidentiality. We recently obtained a chemical analysis of the hazardous and toxic substances in oil and gas waste materials proposed to be spread over a commercial space as a dust deterrent. The table of results shows that the concentrations of many materials were orders of magnitude greater than

EPA maximum contaminant levels. This data is reproduced and discussed in more detail in Ms. Arrindell's affidavit.^{[L]4} Spreading fracking waste material on unpaved roads allows the waste solution to be absorbed into the soils beneath the road surface and in the ditch on either side of the road. Eventually the more soluble components of the chemicals spread on unpaved roads will reach groundwater, contaminating it so as to make it unsuitable for drinking, bathing and other domestic uses. Agricultural uses, such as drinking water for livestock and domestic animals, can become contaminated and deaths among farm animals and pets due to oil and gas activities have been reported across the Commonwealth.^{[L]5} Increasingly, adverse health impacts have been documented in areas where brine spreading has been permitted. As described in Ms. Lawson's affidavit attached to this brief, she has had her family's health significantly compromised by exposure to brine material from the oil and gas industry.^{[L]6} Ms. Arrindell's affidavit also discusses interim results of detailed health effects surveys conducted by DCS under a protocol developed with the Agency for Toxic Substances and Disease Registry ("ATSDR"). Attached to Ms. Arrindell's affidavit is the symptoms reporting form that is part of the DCS/ ATSDR Survey Form.^{[L]7} In approximately half of the 45 PA surveys completed and filed with ATSDR to date, responding households report brine spreading on roads as one of the industry activities that have adversely affected their quality of life. In their Surveys they list a number of adverse effects such as chronic headaches, nose bleeds and other sinus conditions, respiratory issues, skin irritation, nausea, and significant joint and back pain that have occurred since drilling activities began around them. These families live in areas mostly served by dirt, gravel or unpaved roads.^{[L]8} DCS has compared DEP lists of municipalities where brine spreading has been approved to where these families live and found that 3/4 of the households reporting brine being put on local roads are in municipalities without permits from the state to do brine spreading. Ms. Arrindell reports that DCS has under way a review of areas where brine spreading has been approved and where these health impacts have been found.^{[L]9}...^{[L]10} Under the current requirements provisions of the Clean Streams Law are being violated.^{[L]11}13. Disposal of the brine wastes by spreading it on unpaved roads will significantly increase the exposure of DCS members and affiliates to toxic materials in the water, air and land where the spreading is occurring and downstream. If brine spreading continues to be allowed broadly across Pennsylvania it will undermine DCS ability to protect the environment and individuals living in

close proximity to brined roads, roadsides, other areas where they would be exposed to airborne contaminants or surface or groundwaters contaminated by chemicals in the brine materials or downstream in impacted waterways.^[REDACTED]14. Ms. Lawson has presented in her affidavit attached to this brief that her health has been heavily impacted by exposure to the brine spreading chemicals applied to the unpaved roads that she and other members of her family use daily.^[REDACTED]02/15/2018

Attachment(s):

Affidavit of Siri Lawson12final.pdf

Affidavit of Barbara Arrindell 12.pdf