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To: Edward Hanlon/DC/USEPA/US@EPA
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Subject: DRAFT Hydraulic Fracturing Study Plan

Mr. Edward Hanlon
Designated Federal Officer (DFO)
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Comments/Concerns on the DRAFT Hydraulic Fracturing Study Plan:

- Concern over the cement used in well casings; will the cement withstand the high pressures and chemical makeup of the hydraulic fracturing fluids over time? What will be done when cement cracking occurs and wells fail? Will mechanical integrity testing of all wells at regular intervals become a mandated requirement?
- Without prior identification of all the chemicals used in the hydraulic fracturing fluid, how can a wastewater treatment plan be developed?
- How will the wastewater be analyzed if radionucleotides are introduced during the hydraulic fracturing process? And what method will be used to remove them from the wastewater?
- How will EPA determine the toxicity of hydraulic fracturing fluids if they are not allowed access, due to CBI, to the identity of the chemicals involved? And how would this affect the treatment of the unknown wastewater constituents? What toxicity limits will be placed on hydraulic fracturing fluid?
- Numerous chemical reactions occur within the mixing of the hydraulic fracturing fluid and more with the additional contact with the natural constituents in the formation where the fluid is injected. How will the analyses of this mixture be performed and what will be the major issues of concern as to the identity and toxicity of this mixture?
- Due to the toxicity of the hydraulic fracturing fluid, pit liners should be required for all gas-drilling operations which store the wastewater in order to prevent infiltration or migration of the fluids into the surrounding environment.
- Low “flowback” recovery rates should be a major issue of concern and should be a reportable requirement at every gas-drilling site which injects hydraulic fracturing fluids.
- “Fluid leakoff”, as mentioned can exceed up to 70% of the injected volume. This is a major concern if well is close to or penetrates a formation containing groundwater sources of water to be used for human or agricultural use. Further testing, of the composition of the underlying formation to be drilled, should be mandated in order to prevent excessive fluid leakoff.
- Hydraulic fracturing fluids should not be allowed to be introduced into publicly owned treatment works (POTW) due to the high levels of toxic and corrosive materials present in the fluid. Treatment facilities for the sole purpose of treating hydraulic fracturing fluids should be the responsibility of the hydraulic fracturing fluids-producer and user.
- What, if anything, is being done to protect human health and the environment during the interim of this study?

- Why is a technology, which has failed many times, being allowed to continue without the proper studies being conducted first? Why was it allowed to proceed, and then study the impacts later?

- Why are UICs and Air Quality impacts being left out of a study on gas well hydraulic fracturing fluids? They are all environmentally-related.

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