

S. Jane Jacobs
Albany, Ohio 45710

September 21, 2013

Ms. Susan Hedman
Regional Administrator
US EPA Region 5
Chicago, IL 60604

RE: Testimony Submitted for US EPA Audit of Ohio ODNR UIC Program

Dear Ms. Hedman,

My name is S. Jane Jacobs. I am a resident of Alexander Twp., Athens County, 7031 Meadowbrook Road, Albany, Ohio 45710. I worked for 30 years in the fields of mining engineering, hydraulic engineering with the federal Natural Resources Conservation Service, regulating the coal mining industry with ODNR, administrating the ground water complaint program (coal and industrial minerals), and I recently retired from Ohio Environmental Protection Agency. At Ohio EPA, I worked in all aspects of regulating and protecting Ohio's ground water. I am on good terms with the people in the industries I regulated (power plants, superfund sites, domestic landfills, municipal wellfields, RCRA sites, major city WWTPs,) and the citizens who involved me in their issues. I am an expert witness in hydrogeology and have won cases that have gone to court. In my environmental career, I participated in countless well run public meetings and have written responsiveness summaries.

1. I hope you will address the concerns of the smarter citizens of Ohio pertaining to an outdated set of UIC Class II regulations that have not been enforced. Please, via your audit, provide forward thinking and forward planning water protection with full transparency and engagement of the public as every other environmental regulatory agency has been able to accomplish, yet ODNR – Division of Oil and Gas refuses to. The ODNR - Division of Oil and Gas are running their program like a bunch of wildcatters (2nd definition). They refuse to host public meetings with all documents related to the project available for public comment. They are not responsive to inquiries. It appears they are colluding in environmental injustice. They taunt, ridicule, and bully the environmental community. They have not been brought up to speed with the stakeholder model of environmental regulations. Please insist that the ODNR – Division of Oil and Gas make all records pertaining to UIC injection wells available in a manner that is helpful to citizens who what to know what is in the injection fluid, how much injection fluid from where, is going where. Please be sure the records are complete and address the possibility that fluids may be migrating outside of the target injection zone.

2. Regulators, Engineers, and Designers of the nuclear power industry in Japan were confident to believe their projects were fail safe. Regulators in Ohio and US EPA did not believe earth quakes would be caused by UIC wells. Colorado did not expect flooding in their oil and gas fields.

As a hydrogeologist for Ohio EPA, I inspected the Aristech UIC Class I injection well at Haverhill, Ohio. For several years I witnessed the MIT, RAT, Gama Log and Cement Bond Log and every year this Class I well passed the inspection tests to determine if the well was properly constructed and maintained. Although the Class I well passed all integrity tests, the injection waste fluids migrated 1300 feet **upward** into the Rose Run formation. The injection zone was the Mt. Simon at about 5500 feet deep. Because the company exceeded the injection pressure of the target zone, the Mt. Simon formation was damaged by the excessive injection pressure and fluids left the target zone and migrated **upward**. If a big company like Aristech can not install and maintain a functioning UIC well, where is the confidence that the mom and pop UIC Class II disposal wells in Ohio and the major player wells are functioning according to the designed?

3. Please consider revising the UIC Class II well design standards for frack fluids to be comparable to Class I well designs. The volume and quantity of frack fluid is more similar to a hazardous waste than historical oil field brine.
4. Please be aware there are no regulations prohibiting injection of frack fluids into Source Water Protection Areas of public water supplies. What is the point of the effort by water purveyors and regulators to define environmentally sensitive areas around their well fields and reservoirs if there are not companion siting regulations for UIC Class II wells? Please consider the extreme need for siting prohibitions and preclude locating UIC Class II wells in Source Water Protection Areas.
5. Please consider the need to install ground water monitoring wells to determine the location of the waste front movement from the UIC well to surrounding sensitive areas.
6. Please consider the fact that Ohio may one day be a water exporting state. Forward thinkers envision the future need to export water to drought prone regions of the nation. Please consider the future use of our water resources and do not let lax regulation and poor regulations pertaining to oil and gas frack disposal wastes turn a renewable resource into a non renewable resource. Why is Ohio the dumping ground for frack wastes from other states? What is the difference in Class II regulations? Why do drillers want to dispose of frack waste in Ohio? Why is it more economical? Is it a Region 3/ Region 5 regulatory approach?

7. The UIC Class II Ginsberg well in Athens County, Ohio is an old, violation prone, outdated well. If the well was an airplane, or even a car I am sure you would not fly on it or drive it. The Ginsberg well has a history of pressure problems and violations that have gone unmitigated. Perhaps in the old days when the well was taking a small amount of brine, pressure violations did not concern ODNR. Since the well is now a large frack waste UIC well, I believe it is not suitable and is not functioning as it was designed. I believe this well has outlived its useful life and should be properly abandoned. Please conduct a thorough investigation to determine if the Ginsberg well is really the kind of well that is suitable for frack waste. There are unmapped orphan gas wells in the area of the Ginsberg well.
8. Please send me a copy of your audit results.

Thank You for your work to protect the environment. Please help Ohio ODNR Class II UIC program become a stake holder friendly program to all stake holders, not just the stake holders who pay their salary from the UIC waste disposal fee. It is bad enough that the well operator does not have to lease the land that is being ruined by frack waste.

Please do not hesitate to call me if you have questions.

Very Truly Yours,

S. Jane Jacobs