

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590
ATTN: WU-16J

APPEAL FROM FINAL PERMIT FOR THE JORDAN DEVELOPMENT, LLC WELL IN GLADWIN
COUNTY, MICHIGAN; U.S. ENVIRONMENTAL PROTECTION AGENCY PERMIT
NUMBER MI-051-2D-0031

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BACKGROUND

On October 30th, 2017 I wrote a letter to Janette Hansen of the EPA expressing my concern over a request from the Jordan Development Company, LLC to inject fluid into a well near Chapel Dam and Eaton Roads in Gladwin County, Michigan. I requested a formal public hearing to oppose this proposal regarding Grove # 13-11 well, draft permit # MI-051-2D-0031.

On June 19th, 2018 a Public Meeting and Hearing was held at Gladwin High School in Gladwin Michigan. I attended this meeting, along with approximately 300 other very concerned citizens to hear comments and get facts by Janette Hansen of the EPA with regards to the proposed Class II injection well. I also offered public comment at this meeting along with many other citizens. Many people asked questions and made comments but I don't feel that many of our concerns were met with factual answers, but rather issues brought forth were simply avoided or directed to the next question. At points it seemed that Janette Hansen of the EPA was more concerned with the reaction of the representative from Jordan Development, LLC than with the concerns of the residents of Gladwin County. She looked to him for approval prior to answering any questions about Jordan Development, LLC and their plans for the injection well.

On October 28, 2018 I received a letter from the United States Environmental Protection Agency titled, Final Permit for the Jordan Development, LLC well in Gladwin County Michigan; U.S. Environmental Protection Agency Permit Number MI-051-2D-0031. This letter was postmarked 10/26/2018. I am writing to challenge erroneous statements in the Response to Public Comments Letter and to request the Environmental Appeals Board exercise discretion in policy consideration and overturn this permit decision.

STANDARD OF REVIEW

The Environment Protection Agencies Final Permit for the Jordan Development, LLC well in Gladwin County Michigan; U.S. Environmental Protection Agency Permit Number MI-051-2D-0031 "is based on either a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants review." *Id.* (citing 40 C.F.R. § 124.19(a)). The petitioner challenging the permit decision bears the burden of demonstrating that review is warranted. *Id.* Here, the EPA premised its issuance of the Final Permit for the Jordan Development, LLC well in Gladwin County, Michigan US EPA permit # NI-051-2D-0031 upon clearly erroneous facts and a lack of exercise in discretion with regards to environmental impact and citizen's concerns.

1. Public Comment # 13 (Pg. 8)

Public Comment #13 (Pg. 8), is clearly erroneous in that it states the public offered no specific sources for statistics supporting the fact that Class II Injection UIC wells leak. The EPA Public Hearing transcription record documents numerous places where evidence was presented to the EPA as well as requesting the EPA's most current data. The EPA summation of the public concern over leaking wells is clearly erroneous and needs to be reviewed.

2. EPA Response # 13 (Pg. 8)

In EPA Response #13, The EPA is lacking discretion in its response to public concern over the possibility of a "leak" in the Class II Injection well by not considering the evidence from other states with UIC well data. Evidence presented from other States UIC well failures have not been considered. To further show the lack of consideration, the EPA failed to recognize this information as having even been presented by the public (as demonstrated above in SOR #1).

3. Public Comment #16, EPA Response #16 (P. 10)

The EPA is lacking discretion in its Response to Public Comment #16 (Pg. 10). The EPA cites the Endangered Species Act with regards to public concern over wildlife and how this Class II Injection well will not threaten or harm endangered species. It does not respond to how the Class II Injection well could affect un-endangered fish and wildlife in general thereby not addressing the concern expressed by the commenter.

STATEMENT OF REASONS

I respectfully request that the Board review the following issues: Final Permit for the Jordan Development, LLC well in Gladwin County, Michigan United States EPA permit # MI-051-2D-0031.

Public Comment # 13 (Pg. 8)

Public Comment #13 (Pg. 8) is clearly erroneous in that it states the public offered no specific sources for statistics supporting the fact that Class II Injection UIC wells leak. The EPA Public Hearing transcription record documents numerous places where evidence was presented to the EPA as well as requesting the EPA's most current data. The following are such statements made at the EPA Public Hearing on June 19th, 2018 at Gladwin High School:

- On Pg. 10 of the EPA Public Hearing Minutes, Mr. Roberson states, "By your own research, there's been 457 leaks in just eight states, and that's just between 2006 and 2012. 50 percent of those were directly related to storage wells just like the ones you are trying to bring to our community. That is according to you guys research". He also goes on to comment, "Pennsylvania alone had 271 confirmed cases of water contamination last year from brine storage".
- On Pg. 22 of EPA Public Hearing Minutes, I, Amy Kruske state that there were "6,000 spills in 2014 in just four states".
- On Pg. 47 of EPA Public Hearing Minutes, LuAnn Kozma states "As well casing failures do happen, and we need to know that failure rate. You do know the failure rate. In fact, In 2016 your own study showed thatfrom December 13, 2016, specifically saying that injection wells are a source of contamination, that's your own EPA information."

The public did in fact site sources with regards to Class II Injection well leak and failure with most of them being from the EPA.

EPA Response #13 (Pg. 8,9)

The EPA is not exercising discretion by responding to "numerous commenters giving statistics saying 4 in 10 injections wells leak", in Public Comment #13 with the statement in EPA Response #13 that "The Statistics that commenters mentioned do not reflect EPA's experience in Michigan"(p. 8). Class II Injection Well casings can and have leaked in the past in other States.

Michigan is not an island, but is in fact part of 48 other states connected to each other in the land mass of North America. There is mounting evidence that Class II injection wells can and do leak. Leaks are happening around the country with Class II injection wells, so how would Michigan be any different? Is it possible that Michigan just hasn't been fracked heavily...yet? In an article written by Abrahm Lustgarten, for ProPublica:

“A ProPublica review of well records, case histories and government summaries of more than 220,000 well inspections found that structural failures inside injection wells are routine. From late 2007 to late 2010, one well integrity violation was issued for every six deep injection wells examined — more than 17,000 violations nationally. More than 7,000 wells showed signs that their walls were leaking. Records also show wells are frequently operated in violation of safety regulations and under conditions that greatly increase the risk of fluid leakage and the threat of water contamination. “In 10 to 100 years we are going to find out that most of our groundwater is polluted,” said Mario Salazar, an engineer who worked for 25 years as a technical expert with the EPA's underground injection program in Washington. "A lot of people are going to get sick, and a lot of people may die.”ⁱ (Lustgarten, 2012)

Also an article by Elizabeth Ridlington of Frontier Group and John Rumpler of Environment America Research & Policy Center states the potential risks:

Deep disposal wells are a common destination for fracking waste, but these wells can fail over time, allowing the wastewater and its pollutants to mix with groundwater or surface water. For example, wastewater injected into a disposal well contaminated the Cenozoic Pecos Alluvium Aquifer with 6.2 billion gallons of water near Midland, Texas. In Pennsylvania, a disposal well in Bell Township, Clearfield County, lost mechanical integrity in April 2011, but the operator, EXCO Resources, continued to inject fracking wastewater into the well for another five months. The U.S. Environmental Protection Agency (EPA) fined the company nearly \$160,000 for failing to protect drinking water supplies. Nationally, routine testing of injection wells in 2010 revealed that 2,300 failed to meet mechanical integrity requirements established by the EPA. Pressure from injection wells may cause underground rock layers to crack, accelerating the migration of wastewater into drinking water aquifers. For example, at two injection wells in Ohio, toxic chemicals pumped underground in the 1980s, supposedly secure for at least 10,000 years, migrated into a well within 80 feet of the surface over the course of two decades. Investigators believe that excessive pressure within the injection well caused the rock to fracture, allowing chemicals to escape.ⁱⁱ(Ridlington)

The EPA represents (or misrepresents) data in a way that fits their agenda. The 2nd sentence in the EPA's Response #13 (Pg. 8). states “In a review of all active Class II Injection wells in Michigan over the past five years, the failure rate has been no higher than 5% in any given year”. _If 5 out of 100 wells per year leak and need repair than the probability of any particular well in that sample having a leak in the next 20 years is, unfortunately, 100%!

Public Comment #16, EPA Response # 16 (Pg. 10)

One commenter was concerned over threats to wildlife (p. 10). EPA Response #16 (Pg. 10), “The EPA review of a permit application includes a review pertaining to the Endangered Species Act. This review reached the conclusion that because there will be no new construction in the area, including no tree clearing and no earth-disturbing activities, this permit will have no effect on threatened or endangered species”(p. 10). The EPA is lacking discretion in the answer to the concern over potential threats to wildlife. The comment was not made merely with regards to concern over threats to possible endangered species but in fact to un-endangered fish, birds and other wildlife.

The concern over fish and wildlife is addressed in an article written by Amy Mall for the NRDC:

Scientists from the U.S. Geological Survey (USGS) and U.S. Fish and Wildlife Service recently published a peer-reviewed journal article that discusses the results of the investigation into a 2007 fracking wastewater spill in Kentucky. State and federal scientists found that the toxic fracking waste "killed virtually all aquatic wildlife in a significant portion of the fork." The dead and distressed fish had developed gill lesions and suffered liver and spleen damage. The lead USGS scientist in the investigation stated: "Our study is a precautionary tale_of how entire populations could be put at risk even with small-scale fluid spills." One of the things that bothers me the most about this case is that the scientists had been alerted to the fish kill "by a local resident." All spills are supposed to be reported--by the oil and gas company--to the National Response Center. (Mall, 2013)

Also the EPA is lacking discretion with regards to Grove Injection Well #13-11 as the proposed injection well sits within view of a sign that reads, “Cedar River Watershed” which supplies the Cedar River, Pratt Lake, Wiggins Lake, the Tittabawasee River and eventually the Saginaw Bay. A Class II Injection well leak or spill could potentially pollute these currently pristine waterways and lakes.

University Outreach, University of Michigan - Flint defines the Cedar River Watershed as:

“The CRW is located in northcentral Michigan, crossing parts of Clare and Gladwin Counties. The system is a tributary to the Tittabawasee River and eventually flows into

Saginaw Bay (Lake Huron). Due to the high quality of the resources found within the watershed, it supports a very diverse recreational base. These uses include: canoeing, fishing, hiking, trapping, hunting, boating, skiing and wildlife watching. The overall high quality of the water is an attribute worth protecting. The CRW supports a variety of recreational activities that provide a great boost to the local economy. The high quality of the resource base is one of the reasons the public flocks to this area and some would call it a recreational destination. The resource base is a great source of quality of life to the area residents as well as the visitors who end up becoming residents. The CRW is centrally located in Michigan's Lower Peninsula between Interstate 75 to the east and US27 to the west. This ease of access has contributed to a large group of weekend users. (University Outreach, University of Michigan - Flint, 2010)

I and many other Gladwin County residents are concerned that if the watershed would get contaminated by a spill or leak not only would fish and other wildlife be affected but people and the economy of the area would suffer gravely as well.

CONCLUSION

I am respectfully requesting that the Environment Appeals Board grant review and remand the final permit for the U. S. Environment Protection Agency (EPA) Underground Injection Control (UIC) Permit #MI-051-2D-0031, Jordan Development, L.L. C., Gladwin County, Michigan on the basis of:

This injection will sits too close to the Cedar River Watershed and private citizen wells. The EPA has not adequately provided factual answers with regards to the possibility of a contamination of water due to a spill or a leak. I would like to see all injections wells banned in Michigan. Our State holds the largest freshwater supply in the world and the largest number of private wells. I am very concerned that this water could easily become contaminated through the loosely regulated and inadequately supervised practice of dumping oil and gas wastewater into the earth. Mr. Salazare's words are not merely fiction but could be our future:

"In 10 to 100 years we are going to find out that most of our groundwater is polluted," said Mario Salazar, an engineer who worked for 25 years as a technical expert with the EPA's underground injection program in Washington. "A lot of people are going to get sick, and a lot of people may die." (Lustgarten, 2012)

I am hopeful that one day soon we will have better, cleaner methods of energy production on a large scale basis such as hydrogen, wind and solar power. Science behind alternative energy is urgent and very necessary, but until that time protecting our fresh water is imperative! I truly want what is best for ALL of us. I read a quote by Terri Swearingen of UN Habitat that said, "We are living on this planet as if we have another one to go to."

Thank you for your consideration and time in this matter,

Respectfully submitted on this 18th day of November, 2018.

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(989) 426-4215

Table of Authorities

University Outreach, University of Michigan - Flint. (2010, December). *Cedar River Watershed Management Plan*. Retrieved from Little Forks: <http://www.littleforks.org/wp-content/uploads/2011/06/CRWMP-Finalv2.pdf>. pg. 5, 6

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Mall, A. (2013, August 29). *Fish and wildlife: entire populations at risk even with small fracking spills*. Retrieved from NRDC: <https://www.nrdc.org/experts/amy-mall/fish-and-wildlife-entire-populations-risk-even-small-fracking-spills>. pg. 5

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document, PETITION FOR REVIEW Final Permit for the Jordan Development, L.L.C. well in Gladwin County, Michigan: U.S. Environmental Protection Agency Permit # MI-05102D-0031, and related Exhibits, upon the following parties through certified mail:

Janette Hansen
Hansen.janette@epa.gov
U.S. EPA Water Division
UIC Branch (WU-16J)
Chicago, IL 60604

Dated at Gladwin, MI this 24th day of November of 2018.

Amy L. Kruske
4887 Anglers Lane
Gladwin, MI 48624

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document, PETITION FOR REVIEW Final Permit for the Jordan Development, L.L.C. well in Gladwin County, Michigan: U.S. Environmental Protection Agency Permit # MI-05102D-0031, and related Exhibits, upon the following parties through certified mail:

Jordan Development, LLC
1111, 1503 N Garfield Rd,
Traverse City, MI 49696
Phone: (231) 935-4220

Dated at Gladwin, MI this 24th day of November of 2018.

Amy L. Kruske
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