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Northville, MI 48168
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Ms. Eurika Durr, Clerk of the Board
Environmental Appeals Board
U.S. Environmental Protection Agency
1201 Constitution Avenue, NW
WJC East Building, Room 3334
Washington, DC 20004

Via Electronic Mail Filing

RE: Filing of Petitioner Response to EPA and Permittee / Respondent Muskegon Development Company's Response to Petition No. 18-05 – Permit No. MI-035-2R-0034-UIC

Dear Ms. Durr:

Enclosed, please find Proof of Service and Petitioner Response to Permittee and EPA Responses to Petition No. 18-05 regarding the above referenced matter.

Please do not hesitate to contact me with any questions and concerns you should have.

Sincerely,

Emerson Joseph Addison III
emerson.addison@gmail.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL APPEALS BOARD

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IN THE MATTER OF:

MUSKEGON HOLCOMB CLASS II WELL PERMIT

PERMIT NO. MI-035-2R-0034

APPEAL NO UIC 18-05
PERMIT NO. MI-035-2R-0034-UIC

---

PETITIONER RESPONSE BRIEF
TO
PERMITTEE / RESPONDENT MUSKEGON DEVELOPMENT COMPANY AND EPA RESPONSE BRIEFS
TO PETITION NO. 18-05

**CERTIFICATE OF SERVICE**

9 November, 2018

I hereby certify that copies of the foregoing Permit Appeal for MI-035-2R-0034 in the matter of UIC Class II Permit MI-035-2R-0034, Holcomb 1-22, Appeal No. UIC 18-05, were served by Electronic Mail (email) the following persons, on the day of 9 November, 2018:

By electronic filing to:

* Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board
1200 Pennsylvania Avenue, NW
Mail Code 1103M
Washington, DC 20460-0001

By electronic mail to:

* Muskegon Development Company
c/o: Gina A. Boozer, Esq.
Joseph E. Quandt, Esq.
Khun Rogers PLC
412 South Union Street
Traverse City, MI 49684
gabozzer@krlawte.com
jequandt@krlawic.com

By electronic mail to:

* Bill Myler, President, Muskegon Development Company
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By electronic mail to:

* David Bell, Lead Engineer, Muskegon Development Company
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By electronic mail to:

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By electronic mail to:

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  Associate Regional Counsel
  U.S. EPA, Region 5
  77 W. Jackson Blvd (C-14J)
  Chicago, IL 60604
  Tel. (312) 886-6613
  Email: turner.thomas@epa.gov

I personally spoke with Bill Myler, President of Muskegon Development Company on 13 August, 2018 to verify that service by email was acceptable and that he had received my Permit Appeal, which was also served by email.

DATED: November 9, 2018

Sincerely,

Emerson Joseph Addison
17210 Maple Hill Drive
Northville, MI 48168
emerson.addison@gmail.com
248-348-5401

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## TABLE OF AUTHORITIES

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## STATEMENT OF COMPLIANCE WITH WORD LIMITATION

This brief compiles with the 14,000-word limitation found at 40 C.F.R. § 124.19 (d)(3). See 40 C.F.R. § 124.19 (d)(1)(iv).

## I. RESPONSE TO MUSKEGON DEVELOPMENT COMPANY FACTUAL BACKGROUND AND STANDARD OF REVIEW ARGUMENTS

Muskegon Development Company argues that none of the issues references a specific permit condition, that the issues raised in my challenge are not appropriate for review, and that none of the issues my challenge raises are based upon identifiable criteria set forth in SDWA or UIC regulations, and that my petition (18-05) should be dismissed.

Muskegon Development Company has erred in its analysis of my petition and has overlooked a number of issues raised which do warrant review. Thus, the argument that I do not raise a specific permit condition is false. There are a number of conditions of the permit which I do raise in my petition, which are addressed below in the Response to Arguments section. In addition, there are a number of ambiguous conditions in the permit which, of themselves, are issues that warrant review.

Moreover, even if my petition did not raise a specific issue, it does draw attention to ambiguities in the law and contradictions and erroneous policies. These issues do constitute reason for review. Indeed, Muskegon Development Company acknowledges this in their Response Brief Introduction and Factual Background on page 7, where the standard for board review is described:

> "Namely, the identification of a permit condition and an explanation of how the condition is based on a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants review."
>
> - Muskegon Development Response Brief, p.7

The argument that my issues are not based upon identifiable criteria is also a poor argument, as ambiguities and inconsistencies in EPA policy and guidelines have already satisfied the conditions for review. There are also inconsistencies with EPA policy when viewed in relation to SDWA and UIC guidelines stemming from ambiguous guidelines and EPA policy and questions of regulatory jurisdiction. One of the issues raised in my petition is, ironically, the ambiguity of EPA regulations. Further, many of the public comments submitted do raise identifiable criteria in SDWA and UIC regulations, comments which were referenced in my petition and address in this Response Reply Brief.

Muskegon Development Company also argues that my arguments regarding water withdrawal, aquifer levels, and contaminant levels in water supplies fall outside the SWDA and UIC programs. Again, this argument is flawed because the EAB has discretion to review matters of erroneous law or policy. These comments do raise issues regarding EPA regulations and guidelines which are clearly erroneous and, therefore, subject for EAB review.

Lastly, even if the EAB chooses to dismiss my petition and disqualify all of my arguments, it is still within the discretion of EAB to review this permit decision:

> "the EAB may also elect to review the initial decision on its own initiative, in which case the initial decision would not become final agency action." 40 C.F.R. § 22.27 (c)

It is also codified in the Environmental Appeals Board Practice Manual (page 55) that:

> "The EAB may decide on its own initiative to review any condition of any RCRA, NPDES, UIC or PSD permit issued under part 124, provided that it acts within 30 days of the service date of notice of the permit issuer's action." 40 C.F.R. § 124.19(p)

In this particular case, the last action of the permit issuer was to file a response brief, which was filed on 10/18/2018.

It is well within the authority of the EAB to review this permit, regardless of whether or not my arguments and challenges are accepted; however, it is my assertion that my arguments are legitimate and valid, as I have highlighted a number of inconsistencies, contradictions, and erroneous facts and conclusions of law.

## II. RESPONSE TO ARGUMENTS

### A) Response to:

- **EPA Claim 1 Objection**
- **Muskegon Development Company Objection A (Failure to address Comments 25, 26, and 27)**

First, the EPA admits that it did not specifically identify comments 25, 26, or 27. It describes this as an editing omission. But if this is merely an editing omission and no response is warranted, why excuse it as "an editing omission"? Why excuse this oversight at all?

Whether or not the substance of the comments was adequately addressed is for the board to decide, but there are the issues of what constitutes "significant comments" and of "clear error or abuse of discretion."

The term "significant" is subjective. What are the standards the EPA uses to determine if a comment is "significant" or not? Are these comments not significant to the community? To the person who made them? To the people whose water is being put at risk?

There is also the question over "discretion." The EPA has the discretion to answer all comments. If these comments are so easily addressed, or have already been addressed as the EPA claims, should it not take the extra few seconds to acknowledge these comments? Is it not an abuse of discretion to not acknowledge the comments of concerned and frightened citizens, especially when it is so easy to do so?

Muskegon Development Company also claims that this challenge should be thrown out. Muskegon Development Company cites a number of laws that are 30 or more years old, or nearly so. It cites a Clean Air challenge from 1992, in which the ruling states that the "challenging party alleges the agency acted in an arbitrary and capricious manner." *Citizens for Clean Air v. United States Environmental Protection Agency*, 959 F 2d 839, 845-6 (9th Cir. 1992).

I remind you that on page 8 of the Permit Issuer Response Brief (attachment #1), the EPA admits to this editing error: “Although EPA did not specifically identify these comments by number (an editing omission)...”

Indeed, I believe I have made the argument that the comments in question were mistakenly ignored (which the EPA concedes). The EPA intended to address these comments, but made an omission error. The EPA then claimed that these comments were not significant. Because the EPA intended to address the comments, but then suddenly changed tone to cover for an omission error, it acted in a “capricious manner.”

Again, the EPA argued the lack of direct response was an oversight, then it argued that the comments were not significant enough to address individually, thus indicating an intent to address said comments. If the EPA had an intent to address these comments, doesn’t that demonstrate that the EPA believed they were significant enough to address, and that perhaps the claim that these comments are not significant enough to address is simply covering for a mistake?

The claim that the comments are not worth addressing is an arbitrary excuse meant to cover for an oversight.

This is especially unfortunate, given that it would only take a few minutes to respond to these comments and it would mean a great deal to the people who live in the area and who submitted comments. If the EPA wants the public to trust it, should it not take the extra few minutes to at least list the comments?

Muskegon, in a similar line, argues that the EPA is not required to respond to each comment:

> “In fulfilling its obligations, permit issuers are not required to respond on an individual basis to each discrete comment submitted by members of the public, in the same length and level of detail as the comment itself.”
>
> - *See, e.g., In re Wash. Aqueduct Water Supply Sys.*, 11 E.A.D. 565, 587 (EAB 2004); *In re Hillman Power Co., 10 E.A.D. 673, 695-97 & n.20* (EAB 2002).n

This decision is not applicable, for the issue is not whether the response to comments 25, 26, and 27 was adequate or not, but rather that there was no mention of these comments and there was no response given to them at all, despite the fact that the EPA has conceded its intent to address these comments.

Several other cases that Muskegon cites also use ambiguous phrases to define scope of remarks that receive a response. For example, *In re Hoechst Celanese Corp.*, 2 E.A.D. 735 (Adm’r 1989), *In re Spokane Reg’l Waste-to-Energy Applicant*, 2 E.A.D. 809 (adm’r 1989) the language used by Muskegon to describe is: “The permit issuer need only ‘describe and respond to all significant comments irrespective of their merit’… and its response can be in proportion to the substantive merit of the comments.”

Again, these arguments do seem to imply that some sort of response is warranted, even if it is only a brief response. For, once again, the EPA has conceded that it meant to respond to these

comments, but made an omission error. In other words, the EPA thought these comments were worth responding to, until it forgot to respond to them, then changed its mind.

Moreover, the language used in these cases is, once again, ambiguous: “significant” and “substantive merit” are both subject to interpretation and discretion.

Both the EPA and Muskegon Development Company are hiding behind ambiguous language to cover an omission, an omission which would only take a few minutes to fix by issuing a brief response.

Also, this admitted error of omission (at the very least, the EPA admits there was a numbering error and they intended to address these comments) makes people nervous and warrants questions about what other errors might have been made in the permit process, ultimately whittling away at public trust in this institution which is about to allow more oil and gas operations in a rural and residential area, operations which, once done, are permanent.

**B) Response to:**
- **EPA Claim 2 Objection**
- **Muskegon Development Company Objection B (Petitioner has failed to demonstrate that EPA’s environmental justice analysis warrants review)**

There are a number of problems with the EPA Response to Claim #2 (that the EPA failed to consider Environmental Justice for the community).

On page 2 of the EPA Response, under “III: Factual and Procedural Background,” the EPA defends its review process:

> “The Region conducted a full review of the Permit application in reaching its decision. This review included an evaluation of the geology of the injection and confining zones. Further, the Region reviewed and considered the the documents submitted by the permittee – including the well construction, proposed operation and monitoring plan for the well; plugging and abandonment plan; and financial assurance information. The Region made its Permit decision after determining that the permittee’s application satisfied the regulatory requirements for Class II wells.”

This claim does not take into account the EPA Environmental Justice evaluation (assuming one was actually done, as is claimed). Indeed, this statement makes no mention of Environmental Justice, and suggests that the review was based solely on data, assurances and the permit application provided by Muskegon Development Company, which is suspect. Upon closer examination of the EPA response, a possible explanation for omitting Environmental Justice concerns appears:

The EPA does NOT actually consider Environmental Justice when issuing permits, as it is not allowed to deny a permit based on Environmental Justice grounds.

Indeed, considering that later in its challenge, the EPA has cited *Envotech, LP, 6 E.A.D. 260 (EAB 1996)*, where it was ruled that the EPA had no authority to deny or condition a permit if the permittee was in full compliance with the statutory and regulatory requirements. The Board further

defined this position: “the Agency must issue the permit, regardless of racial or socio-economic composition of the surrounding community and regardless of the economic effect of the facility on the surrounding community.” *Id., at 280-281*.

In other words, in the same response in which the EPA claims to have performed an Environmental Justice evaluation, the EPA also cites a 22-year-old case in which it was ruled that the EPA is NOT ALLOWED to deny a permit for Environmental Justice reasons if the petitioner is in compliance with statutory and regulatory requirements.

At the very least, this is confusing and contradictory, and this project should not go forward, at least until the EPA can draft a consistent Environmental Justice policy, one which, I recommend, takes into account the various conditions (age, disability, veteran status, etc.) that I have already raised.

By the statements the EPA has submitted in response to Claim 2, it is both unclear that they considered Environmental Justice, and that the EPA is even allowed to consider Environmental Justice.

It begs the question: Why would the EPA tell us that they have considered Environmental Justice, then claim its own guidelines (which it cites in response to this challenge) state that it is not allowed to consider Environmental Justice?

There is also the question of: “What, exactly, are the Environmental Justice Standards?”

Muskegon Development Company, on page 15 of its Permittee Response Brief to my challenge, claims that, “Petitioner does not identify the proper standards governing the environmental justice review conducted by the EPA.”

This is not true. I expressly mentioned a number of factors which should be considered as part of an Environmental Justice evaluation (age, disability, veteran’s status, poverty, etc.).

Further, both the EPA and Muskegon Development Company fail to “identify the proper standards governing the environmental justice review conducted by the EPA.” At the very least, they fail to identify standards that would actually be allowed to affect the issuance of the permit, which, according to *In re Envotech, LP.*, 6 E.A.D. 260 (EAB 1996), the EPA argues is not even possible.

In order for this argument to have merit, the EPA must first clearly define what their Environmental Justice criteria are. The EPA fails to do this. Indeed, these guidelines are poorly-defined and ambiguous at best. Do these uncertainties and ambiguities exist because, as the EPA has argued, it does not actually have authority to deny a permit for Environmental Justice reasons if the paperwork is in order? Honestly, this sounds like there is no binding standard for Environmental Justice at all.

Muskegon Development continues to argue on page 15 – 16 of its Permittee Response Brief that “Further, environmental justice concerns cannot be used by the EPA to deny issuance of a UIC permit.” *Envotech, 260 E.A.D. at 280-281*.

Muskegon Development also argues (page 16) that, “Petitioner attacks EPA’s method for conducting it [sic] environmental justice analysis, which is clearly not a challenge to a permit

"condition," and further does not explain how the EPA's methodology was in error, or an abuse of discretion."

Again, both Muskegon and the EPA have argued that the EPA is not allowed to deny a permit based on Environmental Justice criteria. Neither the EPA nor Muskegon Development has offered a serious set of guidelines for Environmental Justice, nor explained exactly what authority the EPA DOES have regarding Environmental Justice guidelines, despite claims the EPA took Environmental Justice into consideration.

In other words, the error is that the EPA is not allowed to consider Environmental Justice at all, even thought it claims that it has carefully considered it during the permit process.

Muskegon then argues on page 17 of its response that, "Petitioner fails to present any finding of fact or conclusion of law that is clearly erroneous, fails to present any important statement of policy that warrants the EAB's discretion to grant review of this challenge, and fails to identify the basis for the EAB to exercise that discretion."

Again, I argue that claiming to have considered Environmental Justice, then presenting an argument that states the EPA is not allowed to consider Environmental Justice is clearly erroneous, or at the very least, an excellent example of "doublethink" (Orwell, 1984). Indeed, how is it even possible to identify a "basis for the EAB to exercise that discretion" if the EPA is not allowed to "exercise that discretion" in denying a permit for Environmental Justice concerns?

So did the EPA consider Environmental Justice or not? Is the EPA allowed to consider Environmental Justice or not? If it is not allowed to consider Environmental Justice, why does it bother, or claim that it fully considered Environmental Justice?

This is a very serious contradiction in policy, and clearly demonstrates that EPA policy and guidelines are fundamentally erroneous, contradictory, and flawed.

**C) Response to:**

- **EPA Claim 3 Objection**
- **Muskegon Development Company Objection C (Petitioner fails to identify a permit condition or requirement regarding his claim that pre-existing risks to drinking water were not addressed)**

The language used to describe "pre-existing risks to drinking water" is irrelevant. It could have been worded in a number of ways. The EPA is responsible for considering risks that already exist in the area for the project in question. This could also be considered part of an Environmental Justice evaluation (which I have already established is vaguely defined and contains contradictory language, among other problems). In this case, the project has the potential to significantly impact drinking water in a community where private wells are the source of water, as this area is not connected to a city water supply.

The EPA claims it has considered such pre-existing risks as orphan wells. It also claims to have considered Environmental Justice conditions affecting the community. One of the conditions of Environmental Justice is industry that is already present in the community.

Indeed, the EPA wrote in its Response to Comment #20:

> "EPA considers a number of factors in review of a permit application, including environmental justice to identify areas where people are most vulnerable or may be exposed to different types of pollution, in order to assure that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies."

The language the EPA uses indicates that the EPA does (or at least, claims to) consider other industries in the area. For example, it might consider agriculture (which this area has a lot of). Specifically, the EPA attempts to identify and consider "areas where people are most vulnerable or may be exposed to different types of pollution." I argue that this is a pre-existing risk that the community is already being asked to bear, or, if the EPA would prefer this wording, that this community is already "exposed to different types of pollution."

There are also some problems that become evident when the actions are followed to their logical conclusions. For starters, if you drain aquifer levels, then the proportion of toxic substances that are already pre-existing in the rock layer will increase. Water has an effect of diluting hazardous substances. A small amount of radon dissolved and accumulated in a swimming pool is far less dangerous than the same amount of radon dissolved and accumulated in a gallon of drinking water.

Muskegon Development Company argues that I did not provide a specific "requirement that mandates that EPA factor in "pre-existing risks" to drinking water, and does not explain how EPA's determination constituted a clearly erroneous finding of fact or conclusion of law." (#15 – 10/19/2018 – Permittee Response Brief).

This claim appears to contradict the EPA response to Comment #20, which argues that the EPA considers many factors, including environmental justice considerations (which I have already established as poorly-defined and contradictory, at best) to "identify areas where people are most vulnerable or may be exposed to different types of pollution, in order to assure that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies."

I would also argue that being dependent on private well water is an additional risk for this community.

Once again, both the EPA and Muskegon Development Company are falling victim to their own contradictory logic, and poorly-defined and ambiguous criteria and guidelines. George Orwell would agree with me. So would Joseph Heller, for that matter (Catch 22).

It is well within the discretion of the Environmental Appeals Board to deny this permit, or at least hold it up until these contradictions and regulatory ambiguities can be addressed.

**D) Response to:**

- **EPA Claim 4 Objection**
- **Muskegon Development Company Objection D (The EPA's responses to "in-scope" comments was adequate, and the EPA was not required to, and review is not proper for those issues raised during the public comment period that fall well outside of the SWDA and UIC regulations.**

The EPA claims that it is not within its agency to regulate withdrawal of water and that this is the responsibility of the State of Michigan. However, it can be argued that allowing the State of Michigan to regulate water withdrawal is a violation of Environmental Justice policies, given that the State of Michigan has a terrible track record of protecting the water (Flint, Wolverine Tanning).

Also, there is the matter of how water withdrawal, especially at high levels (such as UNLIMITED amounts) changes the amount of water in the aquifer, thus diminishing the remaining water's ability to dilute toxic substances already below ground, thus increasing concentration levels.

Certainly the Environmental Appeals Board has the discretion to consider this.

But it is also important to remember that, if Environmental Justice is fully considered, and USDWs represent the SOLE SOURCE OF DRINKING WATER FOR THIS COMMUNITY (which they do), then the effects that UNLIMITED withdrawal might have on the local community could be quite severe.

It is also important to note that water testing is expensive, and this is not a wealthy area. Certainly asking poor people to have additional water testing for their USDWs (again, their ONLY source of drinking water). Complete testing for all risks involved (both new risks posed by this project and other risks, such as agriculture or other industries) can cost more than $600. People in this area were having a hard time affording water testing before. With this project, they will need to test for additional elements / toxins / etc., which will add even more money to the cost of testing.

The EPA has already admitted in its (ambiguous and contradictory) Response to Comment #20 that it considers other factors "to assure that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies."

Certainly, expensive testing of the sole source of drinking water is another factor.

Muskegon Development Company goes on to cite *In re: Core Energy, LLC, UIC* Appeal No. 07-03, slip op. At 3 (Dec. 19th, 2007); *accord In re Federated Oil & Gas of Traverse City*, 6 E.A.D. 722, 724 (EAB 1997) (Holding that the board has no authority to intervene on issues outside the permit process).

Muskegon Development Company seems quite fond of arguing that the EAB and the EPA have no authority to regulate… well, much of anything relating to oil and gas operations, provided the paperwork is in order.

Due to the contradictions apparent in asking a regulatory agency not to regulate and the contradictions highlighted in Response to Comment #20, this matter is a matter of discretion, which the EAB does have the authority to consider.

Thus, I argue that the issues raised in these comments are within the permit process. In fact, the act of appealing to the EAB is indeed part of the permit process.

**E) Response to:**
**- EPA Claim 5 Objection ("In Scope Remarks"; Seismicity Risks)**

The EPA claims that it analyzed and considered all the relevant factors that could affect seismicity in the area. The EPA cites Oklahoma as being different due to geology.

Did the EPA know there was a geological risk in Oklahoma before they approved all those injection wells?

If it did, then it grossly underestimated the risks, and therefore should not issue this permit until risks in Michigan are better understood, as most of us do not want to risk a bunch of earthquakes on the act of faith that the EPA has enough data to get it right this time.

If the EPA was NOT aware of the seismicity risk in Oklahoma, then why should it be trusted to fully understand the risk in Michigan?

Also, one of the primary problems with the injection wells in Oklahoma, as described on page 18 of the EPA response, is "excessively high injection pressures and fluid volumes."

The EPA has NOT limited the amount of injected water at all. This seems like it qualifies as an excessively high "limit." In addition, the EPA has set an injection pressure limit of "only" 3,238 psig. Again, most reasonable people would consider this quite high. At this pressure and with no limit to injection volume, it seems capable of fracturing rock and causing other unforeseen consequences.

This failure to limit the total amount of injected water is a serious omission, as limitless water injection is bound to have unforeseen consequences on both the aquifer the water is taken from, and the underground region the water will be injected into. Certainly it is within the authority of the EPA to consider the consequences of unlimited water INJECTION, if not withdrawal? Moreover, the EPA admitted that high injection volumes was one of the primary factors causing Oklahoma earthquakes. So the question is: Does unlimited qualify as high volume?

Indeed, the EPA argued on page 18 of its Permit Issuer Response Brief (attachment #1):

> "Studies have documented that certain injection wells in Oklahoma can cause earthquakes. However, there are a number of prerequisite factors that must exist: 1) excessively high injection pressures and fluid volumes, and 2) the existence of fault zones. The injection pressure and fluid volume for the proposed Holcomb 1-22 well, combined with the general lack of fault zones in the area, are an unlikely scenario for injection-induced earthquakes."

I would like to draw focus to the "prerequisite factors that must exist" part, where the EPA clearly states that "excessively high injection pressures and fluid volumes" are two of the risks. And again, I would like to point out that there is NO LIMIT on fluid volume and that 3,238 psig is high by most standards. Indeed, the EPA recognizes that "In general, tensile strength for sedimentary rocks is on the order of hundreds of psi." (https://www.epa.gov/sites/production/files/2015-09/documents/r5-deepwell-guidance7-determination-maximum-injection-pressure-class1-199401-9pp.pdf).

This seems like a contradiction in regulatory philosophy, and certainly a contradiction in language.

Even the State of Oklahoma has recently set limits on injection volumes due to earthquakes! Maybe it's because they have recently experienced a massive upsurge in "seismicity events."

Indeed, this is also an apparent contradiction in EPA regulatory philosophy, as the EPA asserts that it has fully considered the details of the permit. The EPA is very specific about depth of injection, type of construction, plugging, operation, monitoring, etc. Yet the EPA sets absolutely ZERO limit on the AMOUNT OF WATER TO BE INJECTED. If a volume of water equal to, say, Lake St. Clair were to be injected into this region of earth between 4948 and 5010 feet, what kind of effect would that have? Seeing as how the State of Michigan is surrounded by approximately 21% of the world's surface fresh water and has abundant aquifers, Muskegon Development Company could theoretically inject quite a lot of water down this hole.

It seems as if the EPA ought to include limits on the TOTAL AMOUNT OF INJECTED WATER. Indeed, because the EPA has gone to lengths to regulate seemingly everything else, I suspect this is an oversight or perhaps a policy error, and I therefore suggest the permit be denied, or at least held, until the EPA can issue a ruling on volume and, if necessary, create new regulations for regulating injection volume.

Given what is at risk, it does not seem unreasonable to, at the very least, ask for a lower limit on injection pressure and at least some limit on the amount of water that can be injected (and perhaps withdrawn, too).

It was argued that the EPA does not have the authority to regulate water volumes. What about injection pressure? If the EPA cannot regulate these things, why even list them on the application? Perhaps this is a matter that requires the discretion of the EAB. Certainly, the contradictions that I just pointed out are a matter for the EAB to review.

**F) Response to:**

- **EPA Claim 6 Objection ("Out of Scope Remarks")**
- **Muskegon Development Company Objection E (EPA was not required to address or respond to those "out of scope" comments Petitioner identified)**

The unlimited withdrawal of water from the aquifers can and does affect the concentrations of substances in the remaining water, as naturally-occurring (and thus, already present, or "pre-existing") toxic elements / harmful substances within the rock continue to leach into the remaining water;

however, there is now less water to dilute them. Also, high injection volume (does unlimited qualify as high?) has already been acknowledged as a factor causing earthquakes.

Did the EPA consider this? Seeing as how this community relies on USDWs as the SOLE SOURCE OF DRINKING WATER, this could also fall under the Environmental Justice concerns.

## III. Concluding Remarks

The concerns raised by my challenge are valid. Certainly, these concerns are valid to the community – the people who actually live here and rely on the USDWs. I have demonstrated that the EPA guidelines, especially considering Environmental Justice, are poorly-defined and often contradictory. I have also demonstrated that there are a number of problems with EPA regulations, policies and rhetoric regarding seismicity, injection volumes and injection pressure regarding this well.

Certainly the issues raised by my challenge are significant enough for the Environmental Appeals Board to use its discretion when evaluating my challenge, and indeed, to use its discretion in accepting my challenge, if the EAB feels that I have failed to make my case.

It is true that the EPA has many confusing, contradictory, and poorly-defined guidelines. So many, that it seems the EPA is trying to hide behind bureaucracy and legalese to rubber-stamp this permit, and then to avoid any and all responsibility for any consequences of this decision.

The people who live here deserve better than confusing guidelines, contradictory statements, bureaucracy and legalese.

They deserve safe water. They deserve not having to go to bed at night wondering if there will be a leak, if their water will be poisoned, if the company will really self-report, or if the well casing started leaking shortly after they paid several hundred dollars (as high as $600 - $700 for complete baseline testing, but can get higher). As evidence of the high cost of testing, I have included the Michigan Department of Environmental Quality Testing Fee Schedule in this document. This schedule can be found on the DEQ website at: https://www.michigan.gov/documents/deq/DEQ-RRD-LSS-EQP2301_454667_7.pdf

I ask the EAB to fully consider my arguments. I ask that the EAB use its discretion in this case. I ask the EAB to deny this permit.

DEPARTMENT OF ENVIRONMENTAL QUALITY
LABORATORY SERVICES SECTION, DRINKING WATER LABORATORY
http://www.michigan.gov/deqlab

# TESTING FEE SCHEDULE

- **This Fee Schedule is effective January 1, 2016.**
- See reverse side for description of sample units and unit ordering information.
- **TEST CODE must be indicated in the TESTING REQUEST INFORMATION section of the form submitted with the sample.**

## MICROBIOLOGY

| TEST DESCRIPTION | FEE | UNIT NUMBER | TEST CODE |
|---|---|---|---|
| Water Coliforms (total & E. coli) | $16.00 | 30 | BPTC |
| Heterotrophic Plate Count (MPN/ml) | $12.00 | 30 | BSPC |
| Fecal Coliform (Counts 10 - 10,000) | $15.00 | 30 | NPFC-LO |
| Fecal Coliform (Counts 10 - 1,000,000) | $25.00 | 30 | NPFC-HI |
| E. coli (Counts 10 - 10,000) | $15.00 | 30 | NPEC-LO |
| E. coli (Counts 10 - 1,000,000) | $25.00 | 30 | NPEC-HI |
| Iron Bacteria | $40.00 | 30 | BIRON |
| LT2 E. coli for EPA ESWTR | $16.00 | LT2 | BLT2 |

**NOTE**: Surface water bacteriology is intended only to estimate bacterial group populations.

## INORGANIC CHEMISTRY

| TEST DESCRIPTION | FEE | UNIT NUMBER(S) | TEST CODE |
|---|---|---|---|
| Automated Partial Chemistry (Fluoride, Chloride, Hardness, Nitrate, Nitrite, Sulfate, Sodium, Iron) | $ 18.00 | 32, 33 | R |
| Calcium/Magnesium/Sodium | $ 18.00 | 33 | CPM2 |
| CCON, CTALK, CPO4, Calcium | $ 51.00 | 33 | CORR |
| Complete Minerals (TALK, Cl, F, NO3, NO2, SO4, SI, CA, MG, NA, K, CON, PH, Hardness) | $104.00 | 33 | CMIN |
| Total Alkalinity as CaCO3 | $ 16.00 | 32,33 | CTALK |
| Ammonia as N | $ 30.00 | 36AC | CNH3 |
| Specific Conductance (µmhos) | $ 12.00 | 32,33 | CCON |
| Cyanide (available) (unchlorinated water) | $ 25.00 | 36CN | CCN |
| Cyanide (available) (chlorinated water) | $ 25.00 | 36CNa | CCN |
| Total Organic Carbon | $ 35.00 | 36TO | CTOC |
| Ortho Phosphate as P | $ 17.00 | 32,33 | CPO4 |
| pH Determination | $ 13.00 | 32,33 | CPH |
| Potassium | $ 13.00 | 32,33 | CK |
| Silica as SiO2 | $ 14.00 | 33 | CSI |

**NOTE**: Do not request more than **two test procedures** for each unit 32. Unit 33 may be used for more extensive requests.

**For questions regarding testing visit the Drinking Water Laboratory website:**
**www.michigan.gov/deqlab**
**click Drinking Water**
**or**
**call (517) 335-8184 - Lansing**

**Laboratory Hours:**
**Monday - Friday: 8:00 am - 5:00 pm**
**Closed Saturday - Sunday**
**and major Holidays**

## ORGANIC CHEMISTRY

| TEST DESCRIPTION | FEE | UNIT NUMBER | TEST CODE |
|---|---|---|---|
| Disinfection Byproducts Rule | $175.00 | 36VO/HA | CXTM |
| (TTHM & Haloacetic Acids) | | | CXHA |
| **Volatiles (VOC)** | | | |
| Volatile Organic Compounds by GC/MS | $100.00 | 36VO | CXVO |
| Total Trihalomethanes (TTHM) | $ 65.00 | 36VO | CXTM |
| 1,4 Dioxane by GC/MS | $115.00 | 36VO-NP | CXPD |
| Methane, Ethane, Ethylene | $ 90.00 | 36VO-MEE | CXMEE |
| EDB and DBCP by GC (call to schedule) | $ 70.00 | 36VO | CXEV |
| **Semi-Volatiles (SOC)** | | | |
| Carbamates by HPLC | $120.00 | 36LP | CXLP |
| Chlorinated Acid Herbicides | $120.00 | 36HB | CXHB |
| Pesticides by GC/MS | $125.00 | 36PT | CXPT |
| Dalapon & Haloacetic Acids | $130.00 | 36HA | CXHA |
| Aromatic Compounds by GC/MS | $110.00 | 36PT | CXPA |

**NOTE**: Generally each test procedure requires **separate sample unit**. Where possible, all detected substances will be identified by mass spectral examination. Names of specific compounds of concern should be provided with sample and test request(s).

## METALS CHEMISTRY

| TEST DESCRIPTION | FEE | UNIT NUMBER | TEST CODE |
|---|---|---|---|
| Aluminum | $ 18.00 | 36ME | CAL |
| Antimony | $ 18.00 | 36ME | CSB |
| Arsenic | $ 18.00 | 36ME | CAS |
| Barium | $ 18.00 | 36ME | CBA |
| Beryllium | $ 18.00 | 36ME | CBE |
| Boron | $ 18.00 | 36ME | CB |
| Cadmium | $ 18.00 | 36ME | CCD |
| Chromium | $ 18.00 | 36ME | CCR |
| Cobalt | $ 18.00 | 36ME | CCO |
| Lead | $ 18.00 | 36ME | CPB |
| Lead/Copper for corrosion control | $ 26.00 | 36CC | CCUB |
| Lead - First draw sample | $ 18.00 | 36CC | CPB |
| Lithium | $ 18.00 | 36ME | CLI |
| Mercury | $ 18.00 | 36ME | CHG |
| Molybdenum | $ 18.00 | 36ME | CMO |
| Nickel | $ 18.00 | 36ME | CNI |
| Selenium | $ 18.00 | 36ME | CSE |
| Strontium | $ 18.00 | 36ME | CSR |
| Thallium | $ 18.00 | 36ME | CTL |
| Titanium | $ 18.00 | 36ME | CTI |
| Uranium | $ 18.00 | 36ME | CU |
| Vanadium | $ 18.00 | 36ME | CV |
| Iron/Manganese/Copper/Zinc | $ 28.00 | 36ME | CPM1 |
| Complete Metals for Private Wells (AS,SE,BA,CD,CR,HG,PB,FE,MN,Copper,ZN) | $ 92.00 | 36ME | CMET |
| Complete Metals for Public Supplies (SB,AS,BA,BE,CD,CR,HG,PB,SE,NI,TL) | $102.00 | 36ME | CMET2 |