



January 10, 2011

William Bates
Underground Injection Control Branch
Water Division (WU-16J)
EPA Region 5
77 W. Jackson Blvd
Chicago, IL 60604-3590

Raymond Vugrinovich
Michigan Department of Natural Resources and Environment
Office of Geological Survey
PO Box 30256
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RE: Draft Permit for a Proposed Class I Waste Injection Well Beeland Group, LLC,
EPA Draft Permit # MI-047-1I-0001

Dear Mr. Bates,

Tip of the Mitt Watershed Council, on behalf of its 2,300 plus members, would like to provide comments on the draft permit for Beeland Group, LLC to construct and operate a deep well in Emmet County for the disposal of non-hazardous waste.

As a means of introduction, Tip of the Mitt Watershed Council, founded in 1979, is a non-profit organization whose purpose is to protect, restore, and enhance water resources, including inland lakes, rivers, wetlands, ground water, and the Great Lakes. We base all our programs on sound science and policy analysis, and have garnered respect for our work from local, state, and federal agencies, businesses, fellow environmental organizations, and citizens.

We appreciate the opportunity to offer comments to ensure activities within Northern Michigan are taken with careful consideration to protect the health of our ground and surface waters, and the citizens and visitors who rely on those water resources. Because safeguarding our waters is paramount to our mission, the Watershed Council has thoroughly reviewed the permit application and draft permit for the proposed injection well. We are working to ensure that all activities comply with current regulatory standards and that any adverse impacts to surface and groundwater are prevented.

Preventing Malfunctions of the Injection Well

The fluids to be injected into the well stem from the Bay Harbor and East Park properties designated by the Environmental Protection Agency (EPA) as a Comprehensive Environmental Response, Compensation, and Liability (CERCLA) site. As such, the contaminated water, or leachate, is considered a hazardous substance warranting, at the current time, an approximately \$120 million dollar cleanup effort. According to the permit, the fluids to be injected are to be comprised of "recovered groundwater and surface waters, both treated and untreated." While cement kiln dust and associated media are considered exempt from the hazardous waste designation under the Resource Conservation and Recovery Act (RCRA), injection of UNTREATED collected leachate should not be permitted. The pH of untreated collected leachate can exhibit the characteristic of corrosivity, and, therefore, without the exemption, could result in a hazardous waste designation pursuant to RCRA. The well is constructed to accept non-hazardous waste only and injection of collected leachate that has not been pH adjusted could result in malfunctions potentially causing significant contamination of ground water. Specifically, untreated or non pH adjusted leachate typically has a pH above 10, but it has been as high as 13.6. Such a high pH could result in the potential for scale and corrosion problems. To prevent such problems from occurring and to protect ground water from possible contamination that could result, the EPA and Michigan Department of Natural Resources and Environment (MDRNE) should specifically prohibit injection of leachate that has not been pH adjusted and require regular monitoring - more than just quarterly testing - to ensure that fluids have indeed been pH adjusted prior to injection.

Characteristics of Injected Fluids

CMS has been conducting remedial investigations for the impacted areas along Little Traverse Bay to determine the extent and characteristics of the cement kiln dust contamination. The remedial investigations are confirming that each seep pile possesses unique characteristics. However, given the differences found among the various chemical parameters between seep piles, there is no true representative sample of what will be injected into the well. Sufficient sampling prior to injection should be required to ensure that the concentrations of chemicals of concern for any and all fluids to be injected meet the criteria outlined for injection into a non-hazardous well. Additionally, the EPA and MDNRE should require monitoring and reporting on a more frequent basis, at least initially, to ensure that the fluids to be injected meet the standards set forth in the permit. Furthermore, the permittee should be required to report the results of the injection fluid analyses more frequently than quarterly.

Financial Resources to Close, Plug, and Abandon the Well

According to a 2003 United States General Accounting Office (GAO) report, current financial assurance requirements may not ensure adequate resources are available to close a deep injection well. If adequate financial resources are not available, the public cost associated with the project outweighs any private interest as there will be a significant burden to the taxpayers of the community and potential contamination to

underground drinking water sources. Unfortunately, the only test of whether financial assurances are adequate will occur when the well needs to be closed. At that time, if the finances are inadequate, drinking water is at risk of contamination and the public will likely bear the cost of closing the well. Given that uncertainties about the adequacy of final assurance requirements have been raised by EPA officials, the EPA's Office of Inspector General, and the GAO, as well as the proximity to Lake Michigan and Walloon Lake, the EPA and MDNRE should take necessary precautions by requiring additional financial assurance that will ensure all costs associated with closing the well and facility are adequately accounted for.

Proximity to Surface Waters

The location of the deep injection well is in close proximity to many important water resources including wetlands, Walloon Lake, and Lake Michigan. One of the primary threats associated with injection wells is surface spills. As such, the surface facility needs to be designed in a manner to ensure that any potential spill or accident does not contaminate these surface waters. The MDNRE should require extra precautions and conditions with respect to the surface facility plans.

Recommendations to Minimize Potential Adverse Impacts

- **Prohibit injection of leachate that has not been pH adjusted from the Bay Harbor properties and East Park. These fluids may possess characteristics of hazardous waste (corrosivity) that could result in malfunctions threatening ground and surface water.**
- **Require adequate initial testing and additional regular reporting, more frequently than just on a quarterly basis, to ensure that fluids meet the acceptable criteria for injection.**
- **Require additional financial resources to close, plug, or abandon the injection well to ensure that the public and water resources are not at risk from a lack of funds.**
- **Require additional precautions with the surface facility to ensure surface waters are protected from any potential spill or accident.**

Conclusion

With the above modifications, Tip of the Mitt Watershed Council would support drilling of the deep injection well and use of the well to dispose of the leachate collected at Bay Harbor Properties and East Park. CMS, the owner of Beeland, currently received approval to discharge the leachate into Little Traverse Bay. This method of disposal allows mercury and other contaminants of concern to directly enter our water resources lowering the water quality of Lake Michigan. Use of a deep injection well could avoid these discharges into the aquatic ecosystems where mercury and other contaminants can accumulate

through ecological processes. Therefore, deep injection is the preferred method of disposal if the well is properly constructed, operated, and maintained and our recommendations to the permit are made.

We urge the EPA and MDNRE to give careful consideration to the comments provided and suggest modifying the proposal to minimize adverse impacts to obtain a solution that benefits not only the remediation efforts at Bay Harbor properties and the citizens and visitors to Northern Michigan, but also the water resources themselves.

Thank you again for the opportunity to comment. Please feel free contact me with questions or concerns regarding the comments provided at jenniferm@watershedcouncil.org or 231-347-1181.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jennifer McKay".

Jennifer McKay
Policy Specialist

cc: Ralph Dollhopf, EPA
Kevin Adler, EPA
Bob Wager, DNRE
Elaine Pelc, DNRE