



JOHN ENGLER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



RUSSELL J. HARDING
DIRECTOR

November 26, 2002

Mr. Dennis O. Cawthorne
Kelley Cawthorne
101 South Washington Square, 9th Floor
Lansing, Michigan 48933

Dear Mr. Cawthorne:

Thank you for your October 22, 2002 and November 4, 2002 letters to Mr. Jim Sygo, Chief, Remediation and Redevelopment Division, and me, respectively, seeking approval to reuse the glass aggregate (Material) that would be produced by the Clear Horizons project from the facility constructed by Minergy Detroit LLC (Minergy). The Material would be produced by the combustion of wastewater treatment plant (WWTP) sludge from the city of Detroit. Your request is made pursuant to Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). If approved, the Material would be used by the Michigan Department of Transportation (MDOT) as granular fill and to construct embankments.

Previous correspondence from Ms. Sharon R. Newlon, Dickinson Wright PLLC, specifically asked if the Material could be used in the following instances:

1. As an additive in concrete and asphalt;
2. As a component in indoor tiles and other indoor uses; and
3. As a roadbed or construction fill on state and federal road projects.

According to R 299.4119(1) of the rules promulgated pursuant to Part 115, the Director of the Michigan Department of Environmental Quality (MDEQ) may designate a waste as a site/source-separated material (and not a solid waste) if it can be:

- Returned to the original process that generated it;
- Used in an industrial process to make a product; or
- Reused as an effective substitute for commercial products.

Conditions included in the exemptions listed above are requirements that the materials will not: (1) be speculatively accumulated; (2) be mixed with other materials that must be removed before using; (3) be applied to the land in a manner constituting disposal; and (4) cause a nuisance during storage or use. To comply with the requirement not to be used in a manner constituting disposal requires that the material either meet our inert criteria (copy enclosed) for uncontrolled uses or meet the low-hazard industrial waste criteria contained in R 299.4123 through R 299.4127 for controlled uses.

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Based on the previously submitted information from the limited testing on sludge that was processed through a pilot scale facility, we had indicated to Ms. Newlon that we would be able to authorize the controlled uses of 1 and 2, above. However, the analytical information supplied does not demonstrate that the Material has been adequately characterized and would be appropriate for use 3, above, unless certain controls were implemented.

A review of the analytical results for the incoming WWTP sludge indicates that there is large variability associated with this waste stream. Many of the parameters vary by a factor of 10 to 30 times based on the information supplied from samples collected in 1998 and 1999. Thus, we expect that the results for the Material may also contain this level of variability. The results submitted indicate that both aluminum and iron are present in the Material in excess of both the inert criteria (200 micrograms per liter [$\mu\text{g}/\text{l}$] and 300 $\mu\text{g}/\text{l}$, respectively).

We realize that Minergy would like guarantees of markets for the reuse of the Material, especially for the potential large volume use 3, above; but based on the variability of the feedstock and the minimal analytical data presented to date, the applicant has not shown that the Material will meet the Part 115 criteria. We indicated to Ms. Newlon that it may be possible to get approval for use 3 if the MDOT approved the use of the Material so that the following conditions were met:

1. The Material would be used under an impervious surface;
2. The Material would be used at least four feet above the groundwater table; and
3. There would need to be a mechanism in place to be able to track all the locations where the Material is being used so that it may be properly managed in the future if it is disturbed.

Discussions that we have had with MDOT staff regarding the use of the Material in state projects and the need to track the locations where it is being used indicate that there is currently no such mechanism in place. We believe, based on those discussions, that the more conditions the MDEQ places on the use of the Material the less willing MDOT will be to use the Material. As we stated since the first meetings on this project over three years ago, uses that incorporate the Material into asphalt, concrete, or tiles should be selected for their environmental protection as well as ease of authorization.

If appropriate uses are not found for all the Material, we would consider the Minergy facility to be a "Municipal Solid Waste Incinerator" (Incinerator) pursuant to R 299.4104(d), which would not require a construction permit or operating license per Section 11529(3) of the NREPA since the facility has a permit under Part 55, Air Pollution Control, of the NREPA, and the sludges will not be exposed to the atmosphere. However, since the incinerator is considered to be a "Disposal Area" per Section 11503(4) of the NREPA, it would need to be included in the Wayne County Solid Waste Management Plan.

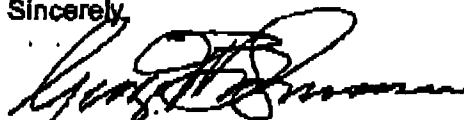
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If you have any questions or concerns related to the information in this letter, please contact Mr. Duane Roskoskey, Storage Tank and Solid Waste Section, Waste and Hazardous Materials Division, at 517-335-4712, or you may contact me.

Sincerely,



George W. Bruchmann, Chief
Waste and Hazardous Materials Division
517-373-9523

Enclosure

cc: Mr. Richard E. O'Connor, Minergy
Mr. Alan Robords, MDOT
Mr. Jim Sygo, MDEQ
Mr. Frank Ruswick, MDEQ
Mr. Lonnie Lee, MDEQ
Dr. Benedict Okwumabue, MDEQ
Mr. Duane Roskoskey, MDEQ