



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

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December 23, 2013

William French
W.L. French Excavating Corporation
3 Survey Circle,
North Billerica, MA 01862

RE: TEWKSBURY – St Mary Cemetery

Dear Mr. French:

On December 11, 2013, you contacted this office seeking the Department's position on several matters pertaining to the September 20, 2013 Consent Order for the cemetery expansion project at the subject site. The agency's response in this regard is provided below:

Volatile Organic Compounds (VOC)

Under the Consent Order, concentrations of any VOC present in a soil shipment must be less than 10% of its MassDEP Reportable Concentration value applicable to residential (i.e., S-1) soils, as determined using the MassDEP "Compendium of Analytical Methods" (CAM) testing procedures and protocols.

At issue are the analytical Reporting (Detection) Limits achievable in "routine" VOC analyses, which are adequate for common soil contaminants, but are too high for less common compounds, such as 1,4-Dioxane. When these uncommon contaminants are present, laboratories must employ special sample preparation and testing procedures to achieve the appropriate detection levels. You have asked whether it is necessary to employ these special procedures on soils that are not expected to contain these uncommon contaminants.

Consistent with the flexibility provided in CAM and in the Massachusetts Contingency Plan (MCP) on the choice of analytes and Reporting Limits, we believe use of "routine" VOC testing procedures, with typical Reporting Limits (i.e., 0.1 to 0.9 mg/kg) is sufficient and compliant with the requirements of the Consent Order, as long as the soil being tested is unlikely to contain these less common contaminants, based upon site history, use, and other available and relevant site-specific information. However, if you elect to employ the special procedures on soils, MassDEP will not object. Be advised, though, should the results of any special laboratory procedures indicate a reportable concentration, you must comply with requirements of M.G.L. c.21E and the MCP and nothing in the ACO excuses noncompliance.

Nickel

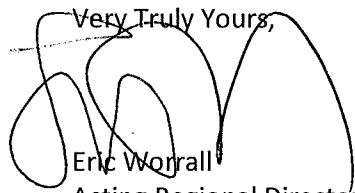
Under the Consent Order, concentrations of Nickel in soil shipments must be at or below 20 mg/kg, which is the current Reportable Concentration for this contaminant in residential (S-1) areas. You have indicated that detections of this metal have been reported up to 40 mg/kg in soils generated at construction sites where there has been no release of hazardous chemicals, including Nickel, suggesting that these levels are of natural origin.

Based upon historical databases, Nickel has been shown to be naturally occurring in Massachusetts soils up to 48 mg/kg, with even higher values reported in more recent studies conducted in the greater Boston area. As such, it is not unreasonable to assume that values up to 40 – 50 mg/kg may indeed be “background” at any given site in the greater Boston area.

Naturally occurring levels of metals in soil are not regulated by M.G.L. c. 21E or the Massachusetts Contingency Plan, except if they are moved to other locations where indigenous concentrations are significantly lower, in which case they may be classified and regulated by the Department as a “release”. However, the most current scientific studies on Nickel have demonstrated that it is significantly less toxic than previously believed. For this reason, and as you know, imminent changes to the Massachusetts Contingency Plan anticipated in early 2014 will increase the current S-1 Reportable Concentration of 20 mg/kg to 600 mg/kg.

Given the latest information on “background” levels of Nickel in Massachusetts, and the pending changes to its Reportable Concentration, the Department will exercise its enforcement discretion and allow the re-use/filling of soils with naturally occurring levels of Nickel up to 50 mg/kg at Saint Mary’s as part of the cemetery expansion project.

Please let me know if you have any additional questions or concerns.

Very Truly Yours,

Eric Worrall
Acting Regional Director

CC: John Fitzgerald, Heidi Zisch - MassDEP