



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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January 13, 2011

Scott Alfonse, Director
Office of Environmental Stewardship
City of New Bedford – City Hall
133 William Street
New Bedford, Massachusetts 02740

RE: **NEW BEDFORD**
Release Tracking Number: 4-0015685
Parker Street Waste Site
NEW BEDFORD HIGH SCHOOL CAMPUS

Dear Mr. Alfonse:

The Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup (MassDEP), has reviewed the information available to date regarding the evaluation conducted by the City of New Bedford (the City) of the soils on the New Bedford High School Campus for the presence of polychlorinated dibenzo-p-dioxin/polychlorinated dibenzofurans (hereinafter referred to as "dioxin"). The information reviewed includes, but is not limited to, the following:

- ◆ *Interim Phase II Comprehensive Site Assessment, Parker Street Waste Site, New Bedford High School and Dr. Paul F. Walsh Memorial Field, New Bedford Massachusetts*, prepared by TRC, dated July, 2009;
- ◆ *Memorandum, Proposed New Bedford High School Dioxin Investigation Technical Approach*, prepared by TRC, dated March 3, 2010;
- ◆ *Memorandum, Explanation of Dioxin Toxic Equivalents (TEQs)*, prepared by TRC, dated July 6, 2010;
- ◆ *Memorandum, Response to October 4, 2010 Email*, prepared by TRC, dated October 4, 2010
- ◆ *Phase II Comprehensive Site Assessment, New Bedford High School Campus at the Parker Street Waste Site, New Bedford, Massachusetts*, prepared by TRC, dated January 2011 (the Phase II);

Although MassDEP has not completed its review of the Phase II, MassDEP has reviewed the information submitted to date by the City related to the dioxin investigation, including information submitted in the Phase II. This review was conducted to provide comment to the City as to the adequacy of the City's effort to characterize the soils on the New Bedford High School Campus (NBHS Campus) for the presence of dioxin. As you are aware, the nature and extent of the contamination on the NBHS Campus

requires full delineation` to support the characterization of the risk of harm to human health, safety, public welfare and the environment posed by the Site for the current and foreseeable future uses of the property, as required by 310 CMR 40.0835(4). Based on this review, MassDEP provides the following comments, specific to the City's dioxin evaluation.

Summary of 2010 Dioxin Evaluation:

The April 2010 evaluation for dioxin was conducted on the NBHS Campus by the City, based on historical information that burning of materials known to contain or serve as precursors of dioxin compounds either occurred on the property and/or materials containing these precursors were burned elsewhere and the remains were then disposed of at the property. The soil sampling program was designed by the City's consultant, TRC Environmental Corporation (TRC) to collect soil from locations at the NBHS Campus that would likely be biased high for the presence of dioxin. These sample locations were selected in areas where there was evidence that burning had occurred indicated by the presence of ash and/or cinders; and where metals, polycyclic aromatic hydrocarbons (PAH's), and dioxin precursors such as polychlorinated biphenyls (PCBs)¹ are present at elevated levels. The intent of designing this sampling program as such was to avoid potential underestimation of the human health risk posed by the exposure to dioxin in the NBHS campus soils. A total of 5 locations were sampled in April 2010 for the presence of dioxins on the NBHS Campus.

MassDEP Comments:

MassDEP acknowledges that the approach utilized by the City to evaluate the NBHS campus for the presence of dioxin was designed to capture the worst-case conditions. An analysis of this data was also expected to allow the City (and MassDEP) to draw conclusions about potential risks posed by the presence of dioxin based on measured levels of PCBs levels on the NBHS Campus by establishing a correlation between PCB concentrations and dioxin concentrations. The 16 dioxin samples were collected from different depths at 5 locations on the NBHS Campus known, for example, to contain high PCB concentrations. This methodology was expected to capture the highest dioxin contamination levels present at the NBHCS Campus and likely result in a conservative estimation of the potential risk posed by the presence of dioxin at the NBHS Campus. However, the City's dioxin evaluation resulted in an insufficient data set to correlate dioxin-precursor levels with dioxin soil concentrations for the NBHS campus or to otherwise adequately characterize the overall level of dioxin present in the NBHS Campus soils. Therefore it is not possible or appropriate, based on the number of samples collected to date, to conclude that unacceptable risk from dioxin exists only where precursors are present above a particular threshold level.

In the absence of such a correlation, additional sampling for dioxin is necessary to complete the characterization of potential risks posed by dioxin in soil at the NBHS campus. Dioxin precursors have been detected in soil samples collected at locations on the NBHS Campus that, in the past, have not been evaluated for dioxin.

MassDEP concurs that it is appropriate to evaluate for the presence of dioxin where precursors are present. Further, sampling for dioxin is suggested at exposure points where exposure potential is likely and must be quantified. Soils that are proposed to be excavated, consolidated and capped on-Site have

¹ For the purposes of this letter, the presence of PCBs in the soils at the New Bedford High School campus is being considered by MassDEP as an indicator of the likely presence of dioxin precursors in the soils on the Campus.

no future exposure potential (by definition and through the application of an Activity & Use Limitation). As such, it is not necessary to sample such soil for dioxin. MassDEP will work with the City to develop a scope of work to address the comments raised in this letter.

Please note that MassDEP will provide the City comments on the Phase II under separate cover.

Please note that this Site shall not be deemed to have had all of the necessary and required response actions taken unless and until all substantial hazards have been eliminated and a level of No Significant Risk exists or has been achieved in compliance with M.G.L. c.21E and the MCP.

Please contact Molly Cote at the letterhead address or by calling (508) 946-2792, should you have any questions regarding the information provided herein. All future communication regarding this matter must reference Release Tracking Number: **4-0015685**.

Sincerely,



Leonard J. Pinaud, Chief
State & Federal Site Management Section
Bureau of Waste Site Cleanup

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