



ENVIRONMENTAL STEWARDSHIP DEPARTMENT/
NEW BEDFORD CONSERVATION COMMISSION

CITY OF NEW BEDFORD
SCOTT W. LANG, MAYOR

June 15, 2007

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
1 Congress Street, Suite 1100 – CPT
Boston, MA 02114-2023

RE: Notification Clarification and Written Certification
Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste and
Request for Waiver of 30 Day Notification
New Bedford High School

Dear Ms. Tisa:

The City of New Bedford ("City") submitted, through its consultant TRC Environmental Corporation (TRC), a *Notification of Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste and Request for Waiver of 30 Day Notification* for the above-referenced location on June 14, 2007 for your review. The work involves the cleaning of air handling systems, duct work, and surfaces at the High School. The notification was prepared for the City by TRC under the provisions specified in 40 CFR §761.61(a): *Self-implementing on-site cleanup and disposal of PCB remediation waste*.

The subject Site is owned by the City and is located on Hathaway Boulevard in New Bedford, Massachusetts. TRC provides Licensed Site Professional (LSP) services for those portions of the project subject to the Massachusetts Contingency Plan (MCP; 310 CMR 40.000) as well as other engineering and environmental services at the Site in support of remediation and closure.

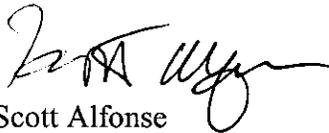
In order to comply with the notification requirements of 40 CFR Part 761, our submittals have been forwarded to Gerard Martin of the Massachusetts Department of Environmental Protection (MassDEP) for review and comment. There is no local government environmental agency within the city or county to which notification of the remediation could be forwarded, given that this work is being conducted in conjunction with the City's Department of Environmental Stewardship. However, the notification shall be sent to the Mayor's Office of the City. In addition, the City will provide a copy to the City's Health Department.

Certification Pursuant to 40 CFR 761.61(a)(3)(i)(E)

I certify that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at the offices of TRC, Wannalancit Mills, 650 Suffolk Street, Lowell, Massachusetts, 01854 and at the office of the Director of Environmental Stewardship, City Hall, 133 William Street, New Bedford, Massachusetts 02740, and are available for EPA inspection.

If you have any questions you may contact TRC's David M. Sullivan, LSP, CHMM at 978-676-3565 or via e-mail at dsullivan@trcsolutions.com, or me at 508-979-1487 or via e-mail at Scott.Alfonse@ci-New-Bedford.ma.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Alfonse".

Scott Alfonse
Director, Department of Environmental Stewardship

CC: David M. Sullivan, LSP, CHMM, TRC
Gerard Martin, Massachusetts Dept. of Environmental Protection

**Notification of Self-Implementing On-Site Cleanup and Disposal of
PCB Remediation Waste and Request for
Waiver of 30-Day Notification**

**Cleaning of Air Handling Systems, Ductwork, and Surfaces
New Bedford High School
New Bedford, Massachusetts**

Prepared for:

City of New Bedford
Department of Environmental Stewardship
133 William Street
New Bedford, Massachusetts 02740

Prepared by:

TRC
Wannalancit Mills
650 Suffolk Street
Lowell, Massachusetts 01854

Project No. 114808

June 2007

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	BACKGROUND	1
3.0	APPLICABILITY AND WAIVER REQUEST	2
4.0	CHARACTERIZATION	3
5.0	REMEDIAL APPROACH.....	4
6.0	PROJECT MONITORING.....	5
7.0	VERIFICATION AND OTHER SAMPLING	5
8.0	ESTIMATED WASTE VOLUME, WASTE MANAGEMENT, AND WASTE DISPOSAL.....	6
9.0	NOTIFICATIONS, REPORT AND PUBLIC PRESENTATION	6
10.0	PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION	6

APPENDIX

APPENDIX A	November 17, 2006 Report of Findings – New Bedford High School Indoor Polychlorinated Biphenyls Sampling
------------	---

1.0 INTRODUCTION

On behalf of the City of New Bedford, TRC Environmental Corporation (TRC) has prepared this Notification of Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste and Request for Waiver of 30-Day Notification for Cleaning of Air Handling Systems, Ductwork, and Surfaces at New Bedford High School (NBHS) in New Bedford, Massachusetts.

2.0 BACKGROUND

TRC was retained by the City of New Bedford (City) to perform indoor air sampling and other environmental testing for polychlorinated biphenyls (PCBs) in the interior of NBHS located on Hathaway Boulevard in New Bedford, Massachusetts (see Figure 1). Up to this point, TRC had acted in an advisory capacity for other air monitoring activities by another consultant at the newly constructed Keith Middle School (KMS), but was retained for the NBHS sampling when scope and scale of the NBHS sampling effort required additional technical and equipment resources.

TRC performed the required air monitoring work in accordance with the draft Indoor PCB Sampling Plan (Plan) prepared on an expedited basis and submitted to Ms. Kimberly Tisa, PCB Coordinator for United States Environmental Protection Agency (EPA) Region 1 on August 21, 2006 for review and comment. Sampling was initiated on Tuesday, August 22, 2006 and completed on August 23, 2006. The results of this work were presented at a public meeting held on August 31, 2006 and are documented in detail in TRC's November 17, 2006 *Report of Findings – New Bedford High School Indoor Polychlorinated Biphenyls Sampling*.

TRC concluded the following:

- The results of laboratory analysis of air samples collected from NBHS air ranged from 0.0024 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to $0.31 \mu\text{g}/\text{m}^3$, with one result in excess of the Acceptable Long-Term Average Exposure Concentration of $0.3 \mu\text{g}/\text{m}^3$. The detected $0.31 \mu\text{g}/\text{m}^3$ concentration does not correspond to a risk that exceeds any Massachusetts Department of Environmental Protection (MassDEP) benchmark.
- A one-time result in excess of Acceptable Long-Term Average Exposure Concentration does not constitute an immediate hazard to current occupants. The Acceptable Long-Term Average Exposure Concentration ($0.3 \mu\text{g}/\text{m}^3$) represents a long-term risk level based on 25 years of daily work place exposure. MassDEP's risk benchmarks will not be exceeded by a single or even multiple detected concentrations that are higher than $0.3 \mu\text{g}/\text{m}^3$ provided the long-term average is at or below this concentration.
- Building materials are an important, although not necessarily exclusive, source of the PCBs in the indoor air at NBHS. Sampling data suggests that dust in vents and caulking materials are important contributors. Other potentially significant contributors are tile and baseboard mastics. Miscellaneous sources are also present (hydraulic oil, few remaining ballasts, etc). Local and regional PCB contamination is also a factor likely contributing to indoor air levels.

- Airborne PCB concentrations detected in NBHS are similar to other schools and public buildings based on TRC's review of other available data. This NBHS data agree with prior published data that highlight a global issue with PCBs in indoor air directly attributable to PCB contaminated building materials.

TRC's data suggest that PCB-contaminated dust, especially in the ventilation systems, is an important contributor to the levels of PCBs found in indoor air. Data have shown that the dust deposition inside ducts could contain PCBs up to 36 parts per million ("ppm"), with an average ventilation dust PCB concentration of 6.7 ppm. As outlined in TRC's August 31, 2006 presentation of recent NBHS air, bulk, and wipe PCB results, there are a number of initial remedies that could be implemented to reduce the PCB burden in NBHS, and other remedial measures that can be safely scheduled and implemented over time. The removal of this deposited material in the ventilation system and in areas of long-standing dust accumulation as described herein is expected to improve the indoor air quality of the school and reduce airborne PCB concentrations as a first step in the remediation of the PCB indoor air contamination of NBHS.

3.0 APPLICABILITY AND WAIVER REQUEST

The available data suggests that the source of PCBs detected in the indoor air of NBHS originates from pre-1978 building materials (the high school was built in the late 1960s and early 1970s) and source concentrations are less than 50 ppm total PCBs, with the primary sources consisting of PCB containing building materials. NBHS was also built on the site of a City-owned burn dump PCB containing waste materials from a variety of sources was apparently disposed. Investigation of contaminated fill on the NBHS campus has not detected PCB contamination in excess of 50 ppm, although concentrations in excess of 50 ppm were identified at the nearby Keith Middle School property, the Bethel AME property, and at private residential locations.

While lines of evidence strongly indicate that Toxic Substances Control Act (TSCA) regulations regarding PCB cleanup (specifically, 40 CFR Part 761) may not apply, the possibility exists that PCB contaminant concentrations could be encountered in the course of performing this first stage of remediation. Given the significant logistical and schedule constraints inherent in performing this work, the City has conservatively opted to pursue Self-Implementing On-Site Cleanup and Disposal of PCB Remediation Waste consistent with 40 CFR Part 761.61(a).

In addition, the City requests a waiver to the 30-day notification requirement to facilitate implementation of the initial remedy during the NBHS summer vacation schedule. A bid package was prepared and contractors were allowed to visit the site in order to provide proposals to conduct the remediation. The City is in the process of selecting one of the contractors to complete this work and would like to initiate this work as soon as a selected remediation firm is under contract. This work is expected to take most of the summer to complete and time is of the essence in order to have the school ready for the fall semester.

4.0 CHARACTERIZATION

As documented in TRC's November 17, 2006 *Report of Findings – New Bedford High School Indoor Polychlorinated Biphenyls Sampling*, TRC's data suggest that PCB-contaminated dust, especially in the ventilation systems, is an important contributor to the levels of PCBs found in indoor air. Characterization of NBHS indoor air, bulk materials, and wipe sampling was conducted in cooperation with EPA and with direct EPA oversight in August 2006. The following summarizes the extensive sampling conducted at NBHS by TRC:

Twenty-three (23) Indoor Air Samples for PCBs using low-volume air sampling techniques:

- 17 Classroom samples
- 3 Hallway samples (include re-sampling of prior BETA high hit).
- 1 Cafeteria sample
- 1 Boiler room sample
- 1 Auditorium sample
- 1 Girls Gymnasium sample
- 1 Automobile shop sample

Two (2) background air sample locations for PCBs using high-volume sampling techniques:

- Play ground
- Front of main office

Thirty-three (33) bulk samples various building materials for PCB analysis:

- 9 Vent dust/residue samples
- 1 Filter material and dust from air handling system sample
- 5 Tile and base molding mastic samples
- 5 Caulking and glazing samples (2 exterior)
- 5 Paint samples
- 2 Polyurethane foam samples (upholstery and gym pads)
- 2 Wall/ceiling tile samples
- 1 Air compressor oil sample
- 1 Oil/water auto lift sump sample
- 1 Floor drain contents sample

Twenty-two (22) wipe samples of various building materials:

- 1 Unit heater coil wipe
- 2 Unit heater exterior air inlet wipes
- 2 Tops of cabinets/bookcases in class room wipes
- 1 Top of light fixture wipe
- 1 Window sill wipe
- 6 Ceiling vent wipes (incl. dup)
- 1 Wall heater feeder pipe wipe

- 3 Locker bottom wipes
- 1 Floor drain wipe
- 1 Auditorium speaker wipe
- 3 Duct/vent surface wipes

Please refer to Appendix A, which contains a complete copy of TRC's November 17, 2006 *Report of Findings – New Bedford High School Indoor Polychlorinated Biphenyls Sampling*, for additional details.

5.0 REMEDIAL APPROACH

TRC's remedial approach for this first phase of work consists of the following:

- Ducts: The cleaning of all supply, return and exhaust ducts in the school (approximately 21,450 feet of duct work of varying cross-sectional area).
- HVAC Components: The cleaning of an estimated 20 central HVAC components, fans coils and intakes.
- Perimeter univent and corridor heaters: The cleaning of units and replacement of filters of an estimated 250 units.
- Return exhaust vents: The cleaning of an estimated 120 return air exhaust vents (the approximate linear footage of return air vents is 8,700 feet).
- Surface cleaning: The cleaning of exposed horizontal surfaces with visible dust accumulation but primarily surfaces 8-feet above the floor level that are not routinely cleaned. This applies to areas where dirt has accumulated and was not cleaned as part of the normal maintenance of the school. An initial estimate of the area subject to cleaning is approximately 93,000 square feet (ft²). The school is also asking for a separate cost item to clean the enclosed spaces under the lockers which are difficult to access. The school has approximately 4,000 hallway lockers included under this separate cost item.

To accomplish this work, TRC prepared comprehensive bid specifications consistent with applicable Commonwealth of Massachusetts public bidding rules to secure the services of an appropriately qualified contractor. The ventilation system will be cleaned using source removal mechanical cleaning methods designed to extract contaminants from within the system and safely remove contaminants from the facility. It is the contractor's responsibility to select Source Removal methods that will render the HVAC system visibly clean and capable of passing cleaning verification methods consistent with National Air Duct Cleaning Association (NADCA) Standards and other specified tests using dry decontamination methods. The dry decontamination methods will effectively remove accumulated deposits without using organic or aqueous solvents, which could leave unpleasant or irritating odors and cause undue concern regarding indoor air quality.

6.0 PROJECT MONITORING

TRC understands the sensitivity of the issues associated with this project and will provide competent experienced project monitors to inspect the work. The focus of the monitoring will be to provide current information utilizing a combination of real-time monitoring of dust and pressure differential measurements, and off-site laboratory analysis that will enable the TRC project monitor to audit contractor performance and provide an initial assessment of cleaned areas. The TRC project monitor will also collect field measurements and/or samples before reactivating the ventilation system.

TRC assumes 40 PCB Aroclor wipe samples (plus QC) to verify dust removal performance in ducts and in accessible areas of visible dust accumulation (note that the selected contractor will also be required to demonstrate conformance to the specifications through wipe and other sampling). TRC assumes the wipe samples will be analyzed under the laboratory's standard 2-week turnaround to avoid rush analysis surcharges. Budget is also included for field instrumentation (e.g., dust monitors, velometers, etc.).

7.0 VERIFICATION AND OTHER SAMPLING

Verification. TRC's specification clearly states that the Contractor shall verify system cleanliness through Surface Comparison Testing or the NADCA vacuum test specified in the NADCA standards. All cleaned surfaces must have PCB levels that are <10 micrograms/100 square centimeters (10ug/100cm²). NADCA vacuum test and wipe sampling will be performed by TRC after the contractor has determined that they have completed the cleaning.

TRC assumes 40 PCB Aroclor wipe samples (plus QC) to verify dust removal performance in ducts and in accessible areas of visible dust accumulation. TRC assumes the wipe samples will be analyzed under the laboratory's standard 2-week turnaround to avoid rush analysis surcharges. Budget is also included for field instrumentation (e.g., dust monitors, velometers, etc.).

Indoor Air Sampling. At the conclusion of dust and accumulated accessible visible dust removal by the qualified contractor, TRC will conduct one round of 24 hour air monitoring for PCB Homologues at the same 23 indoor locations (and 2 exterior background locations) sampled by TRC at NBHS in August 2006 following the August 2006 TRC prepared and EPA-approved plan.

Supplemental Diagnostic PCB Source Sampling. TRC will conduct additional bulk and wipe sampling in the two classrooms with the highest concentrations of indoor air PCBs (i.e., B-240 and A-114-3) to clarify the relative contributions of potential PCB sources in these locations, with potential application to targeting PCB remedial actions of bulk materials to the rest of the school. For budgetary purposes, TRC assumes the collection of 5 wipe and 5 bulk samples (plus QC) from each room for PCB Aroclors.

8.0 ESTIMATED WASTE VOLUME, WASTE MANAGEMENT, AND WASTE DISPOSAL

Estimated Waste Volume. TRC estimates that less than 10 tons of contaminated dust, debris, personnel protective equipment (PPE), and materials used in decontaminating air-handling ducts.

Waste Management. Waste materials and PPE will be stored on-site in Department of Transportation (DOT) approved containers, or equivalent, and be appropriately labeled. TRC will work closely with the City to assign an appropriate, secure accumulation area either on the NBHS campus or at a nearby City owned facility. All PPE will be removed in an area designed for personnel decontamination.

Waste Disposal. Waste materials generated by this project are proposed to be disposed of at the Model City Landfill located at 1550 Balmer Road in Youngstown, New York.

9.0 NOTIFICATIONS, REPORT AND PUBLIC PRESENTATION

TRC will provide written notification to federal, state, and local authorities prior to initiating remedial activities.

TRC will prepare a written report suitable for posting on the City's website documenting the results of the ventilation and accumulated accessible dust removal, post-removal air sampling, and supplementary PCB diagnostic source sampling. TRC assumes presentation of the results (PowerPoint) at one public meeting. The PowerPoint slides will also be suitable for posting on the website.

10.0 PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION

The proposed cleaning of air handling systems, duct work, and surfaces at NBHS will be conducted under the direction and supervision of the following:

David M. Sullivan, LSP, CHMM
TRC Environmental Corporation
Wannalancit Mills
650 Suffolk Street
Lowell, Massachusetts 01854

Office: 978-656-3565
Fax: 978-453-1995
E-mail: dsullivan@trcsolutions.com

APPENDIX A

November 17, 2006 Report of Findings – New Bedford High School Indoor Polychlorinated Biphenyls Sampling