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February 13, 2013

Brenda Weis, Director
New Bedford Health Department
1213 Purchase Street
New Bedford, MA 02740

Subject: Release of *Health Consultation: Evaluation of Indoor Environmental Conditions and Potential Health Impacts, New Bedford High School*, February 2013

Dear Ms Weis:

The Massachusetts Department of Public Health, Bureau of Environmental Health (MDPH/BEH) has finalized its report titled *Health Consultation: Evaluation of Indoor Environmental Conditions and Potential Health Impacts, New Bedford High School* (February 2013). A copy of the report is enclosed. This letter provides a summary of the major findings of the report; a copy of this letter will be sent to all interested individuals and organizations. The full report will be made available to the public on the MDPH website at www.mass.gov/dph/environmental_health; within the *Environmental Health Investigations* link, click on New Bedford. A hard copy of the full report will be provided upon request.

As you may be aware, this report was first released in September 2011 as a draft report for public comment. The health consultation was conducted in response to concerns raised by staff at New Bedford High and Keith Middle Schools and neighbors who live in close proximity to the schools regarding the presence of environmental contaminants, particularly polychlorinated biphenyls (PCBs), and whether or not exposure to such contamination may have impacted health. Following the report's release, interested parties were given six weeks to submit comments on the document to the Massachusetts Department of Public Health, Bureau of Environmental Health (MDPH/BEH). MDPH/BEH received approximately 36 pages of detailed comments. MDPH/BEH prepared the final report which includes revisions, as warranted, based on the comments received. A detailed Response to Comments is provided as Appendix G in the final report.

In response to the September 2011 release of the public comment draft of the report, the City of New Bedford reported on a number of steps that had been taken to address MDPH/BEH recommendations. In addition, State Senator Mark C. Montigny and Representative Antonio Cabral asked the MDPH/BEH to return to New Bedford High School on August 17, 2012 to conduct a visual inspection of actions undertaken by the City of New Bedford at the school since the time of the City's response to the September 2011 draft public comment report. Appendix H of the final report contains specifics on what the City reported in its comments on the draft report as well as MDPH/BEH observations from August 2012.

While the enclosed final report was updated in response to the public comments received, the major findings did not change from the public comment draft report findings. We have made many editorial changes and additions to the report to improve its clarity and provide more information and a fuller explanation of both the methods and reported findings.

The report has three major components: (1) an indoor air quality assessment of the New Bedford High School (NBHS) including an evaluation of PCB sampling data from inside the high school, (2) a review of information related to health concerns (including cancer) among current and former staff, and (3) an evaluation of serum PCB results from a voluntary testing program that MDPH/BEH offered as a public service. Since the draft report was released for Public Comment, MDPH/BEH has updated the Health Concerns section of the report to incorporate information on seven additional cancer diagnoses received via emails from a public advocacy group in New Bedford (i.e., CLEAN). This information included newly reported diagnoses as well as clarification on individuals previously reported, e.g., changed spelling of individuals' names previously reported. In addition, MDPH/BEH has included indoor air sampling data for PCBs that were not available at the time of the September 2011 draft report's release. Finally, MDPH/BEH added Appendix H to the report; this appendix documents actions reported to be completed by the City to address the recommendations made following the MDPH indoor air assessment of the building. (While this report focuses on the NBHS, MDPH is issuing a separate final report to address the concerns of neighbors of the Parker Street Waste Site. You will receive a separate letter summarizing this report, with a copy of the full report.)

Based upon an exposure assessment assuming a worst case scenario, MDPH/BEH concluded that exposure to PCBs at levels detected at the NBHS would not be expected to present unusual cancer concerns for staff or students in the short- or long-term. For an adult employee, MDPH/BEH assumed that exposure occurred to the maximum concentration of PCBs ever detected in indoor air at NBHS for 8 hours per day for the entire school year for 37 years (the number of years for the longest serving employee). For a student, MDPH/BEH assumed daily exposure to the maximum detected concentration for 8 hours per day for 4 years.

Based upon all information available/provided to MDPH/BEH, the overall pattern of cancer types among current and former NBHS staff and students appears to be consistent with that of the state as a whole. There were many different types of cancer diagnosed over more than 30 years, with the most frequent diagnoses among NBHS employees being the most

common types of cancer diagnosed in the general population. The most common type of cancer reported was breast cancer, which affects 1 out of every 8 women in the U.S. It is also important to note that breast cancer might be expected to occur more frequently given the demographics of this population, particularly as it relates to those at greater risk for developing breast cancer (women who are more highly educated, women of higher socioeconomic status, women who have had no children or those whose first pregnancy occurred when they were over the age of 30). To calculate a precise prevalence rate of breast cancer among school staff, additional information would have to be provided by school officials and/or City officials. MDPH/BEH would be happy to meet with the City of New Bedford Health and School Departments and the New Bedford Educator's Association to discuss the breast cancer experience at the NBHS and whether additional follow-up is feasible based upon the availability of local information.

Serum PCB testing conducted by MDPH/BEH showed that all participants who are current or former staff members or students at NBHS had serum PCB levels within the typical variation seen in the U.S. population and do not indicate unusual exposure opportunities to PCBs at NBHS (i.e., participants fell within the 95th percentile). According to the U.S. CDC, the 95th percentile of NHANES data is helpful for determining whether levels observed in public health investigations are unusual.

The MDPH/BEH Indoor Air Quality Program's inspection found a variety of issues at the NBHS. The respiratory and central nervous system symptoms (e.g., headaches, dizziness) reported by some NBHS staff at the time of the initial inspection appear to be consistent with more routine indoor air quality problems, notably less than optimum ventilation. Recommendations were made in several areas to improve the indoor air quality at the NBHS. These included recommendations specific to the HVAC system, PCB-containing building materials, the pool area, science-related activities, chemical usage at the school, and moisture and mold issues. The City of New Bedford has reported implementing many of the recommendations made by MDPH. Appendix H summarizes the actions taken at the school to improve indoor environmental conditions. The MDPH/BEH Indoor Air Quality Program has also agreed to conduct a follow-up inspection of the NBHS when further improvements are completed.

The final report now includes an Executive Summary, as requested in the public comments, a glossary of technical terms, and several new figures and graphs to more clearly present some of the findings.

We have an extensive distribution list that we compiled at the time of the release of the public comment draft report and, as mentioned earlier, will distribute this letter to those interested individuals and organizations on our list (including all those who provided public comments as well as those who participated in the serum PCB testing). If you have any

questions about this letter or the full report with its response to comments, please contact us at (617) 624-5757.

Sincerely,



Suzanne K. Condon, Associate Commissioner
Director, Bureau of Environmental Health

Cc: Representative Antonio Cabral
Senator Mark C. Montigny
Mayor Jon Mitchell
New Bedford Educators Association
American Federation of State, County, and Municipal Employees – South Shore
Office
CLEAN
Tarah Somers, Agency for Toxic Substances and Disease Registry
Jim Murphy, US Environmental Protection Agency
Molly Cote, Massachusetts Department of Environmental Protection
Other Interested Individuals and Organizations
Martha J. Steele, Deputy Director, BEH
Jan Sullivan, Director, Community Assessment Program

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