TOWN OF WINTHROP

Town Hall, 1 Metcalf Square, Winthrop, MA 02152 Telephone: 617-846-1301

Richard A. Cifuni
Facilities Manager

Winthrop Middle School / High School
Indoor Air Quality Assessment

August 15, 2014

Mr. James McKenna
Town Manager
Town of Winthrop, MA 02152

Dear Manager McKenna:

The purpose of this letter is to give you an update on the status of work performed or scheduled to be performed, in order to address the short-term recommended corrective actions as recommended by Mr. Michael Feeney, Mass Department of Public Health. These action steps were recommended and should respond to the findings report of Mr. Feeney to the Superintendent on August 6, 2014. The purpose of these action steps is to improve the overall air quality at the Winthrop Middle School / High School.

The short term recommendations were identified and deemed to be reasonable corrective measures given that the estimated usage of the facility as a school building will be limited to two years. This response letter presents the results of a building inspection conducted on August 14, 2014, by the Winthrop Building Commissioner Al Lagee, Facilities Manager Richard Cifuni, Senior Custodian Steve Nickerson and the Chelsea Building Commissioner.

It is our assessment that most recommendations fall in one of three categories:

1. (Category 1) - WMS/WHS staff cultural / behavior issues – defined as the staff awareness of how its/their respective work spaces are to be managed throughout the school year.

2. (Category 2) - Regular Maintenance – defined as the way the building is consistently maintained and serviced.

3. (Category 3) - Maintenance Plans / Code issues – defined as schedules/plans in place or to be implemented to maintain a clean and provide for a healthy school environment, and also address building code issues.

All issues cited by Mr. Feeney related to Category 1 have been corrected during the annual summer cleaning of the school. Going forward, under the direction of principal Eileen Belastock and Superintendent John Macero, the staff working at the WMS/WHS will be educated as to what measures must be taken to ensure a safe learning environment for both the students and staff.

Many of the issues related to Category 2 have been corrected with a remaining few currently still to be addressed.

Issues related to Category 3 are ongoing and will be scheduled as needed with consideration given to the fact we expect the use of the current school building to be 2 years.

To follow is a brief assessment of the recommendations made by the Bureau of Environmental Health and the status of such:

1. Operate all ventilation systems throughout the building continuously to maximize air exchange.
    - Largely a category 1 issues that will communicated to staff for the upcoming year.

2. Consult with an HVAC engineering firm to assess and repair ventilation system components.
    - Category 2 issue - An engineering firm was hired to assess/diagnosis all the univents in the building and provide a report specifying parts and services needed for each univent.
    - Cooling and Heating Specialist was hired and performed the repairs outlined in the report in addition to cleaning all univents serviced.

3. Remove all blockages / debris from univent and returns to ensure adequate air flow.
    - Category 1 issue which has been corrected and will be monitored on an ongoing basis.

4. Replace all HVAC filters and perform regular maintenance.
    - Category 2 issues – Filter changes and regular maintenance scheduled to be performed and completed the week of August 17, 2014 by Cooling & Heating Specialists Inc.
    - The cleaning of all ductwork in the athletic facility areas is currently underway by a licensed contractor.

5. Consider adopting a balancing schedule every five years for all mechanical ventilation systems.

- Category 3 issue – Not applicable knowing the usage plan for the school is only 2 years.

6. Use openable windows to supplement fresh air in the classrooms during occupancy.
   Category 1 issue - to be communicated to the staff.

7. Adopt adequate cleaning practices to minimize common indoor air contaminants whose irritant effects can be enhanced when the relative humidity is low.
   - Category 1 and 2 issues that are currently corrected as the custodial staff has done an excellent job with the summer cleaning.
   - Principal Eileen Belastock will work with the staff to have the school maintained and cleaned, and that a safe environment be assured on a regular basis.

8. Ensure roof and plumbing leaks are repaired and replace any water damages ceiling tiles.
   - Category 2 issue – This work is ongoing and part of regular maintenance. Roof and plumbing leaks are addressed as soon as they are discovered and this will continue to be the case.
   - The roof was examined on August 14th by the building commissioner with only one area of potential concern noted and which is presently being addressed.

9. Determine if interlocking ceiling tiles contain asbestos
   - It was determined that the interlocking ceiling tiles are not asbestos tiles.

10. Clean partition wall between rooms 107 and 109 with an anti-microbial agent
    - Category 2 item which has been corrected

11. Seal holes / breaches where pipes from univents and sinks penetrate into the crawlspace or wall cavity with appropriate fire-rated sealant to prevent movement of odors/particles from all cavities and sub floor areas.
    - Category 2 & 3 issue – work to correct this issue is currently underway and will be re-inspected by the building commissioner prior to the start of the 2014-2015 school year.

12. Repair broken/unused fixtures or decommission completely.
    - Category 2 issue – parts and fixtures have been ordered to remedy this issue with installation expected to start the week of August 17, 2014.

13. Ensure plants, trees and shrubs are located at least five feet away from exterior walls/foundations.

- Category 2 & 3 issue – currently being addressed with additional assessment as to risks scheduled for the week on August 17, 2014

14. Re-point cracks and missing mortar to exterior of building
    - Category 2 & 3 issue that is preformed as needed; no obvious trouble areas are currently identified.

15. Store cleaning products properly and out of reach of students with all product use given prior approved by the school department.
    - Category 1 issues that will be communicated to the staff

16. Refrain from using air fresheners and deodorizers to prevent exposure to VOC' s
    - Category 1 issue that will be communicated to the staff

17. Ensure that there is a dedicated exhaust fan in the kiln room used every time the kiln is in use.
    - Category 1 issue - There is currently a dedicated exhaust fan in the Kiln room operated by a switch; the requirement if making sure it be turned on when the kiln is in use will be reiterated to the staff.

18. Relocated or reduce the amount of material stored in a classroom to allow for adequate cleanings of such rooms.
    - Category 1 issue that will be communicated to the staff

19. Clean air diffusers, exhaust/return vents and personal fans periodically of accumulated dust.
    - Category 2 issue- Currently underway and will continue through the week of August 17, 2014.

20. Clean chalk and dry erase marker trays of accumulated dust and debris regularly using a damp cloth.
    - Category 1 issue that will be communicated to the staff. Currently all chalk and dry erase trays are clean and ready for the start of the 2014-2015 school year.

21. Consider replacing tennis balls with latex free tennis balls or glides
    - Category 3 issue that has been corrected

22. Ensure areas operating photocopiers and lamination machines are located in well ventilated areas.
    - The location of photocopiers and lamination machines for the 2014-2015 are currently being evaluated to optimize the ventilation surrounding these units.

23. Investigate function of marked-out device on ceiling of teachers' lounge and repair or replace as needed.
    - This issue as been corrected as the device was removed

24. Encapsulate exposed fiberglass insulation around univent pipes in classrooms.
    Category 3 issue which will be revaluated during the maintenance service the week of August 17th.

25. Ensure regular air testing for Carbon Monoxide and nitrogen dioxide is conducted and recorded in facility logbook.
    - Category 2 issue that is ongoing

In conclusion, many items in the findings report of Mr. Feeney were found to be corrected, while several items will be addressed in the next few weeks prior to school opening. Based upon this thorough walkthrough by your inspection and facilities teams on Thursday August 14, 2014, we plan on continuing to monitor the progress through the start of the school year with regular inspections.

Please let me know if you have any questions.

Richard A. Cifuni
Public Facilities Manager
Town of Winthrop
100 Kennedy Drive
Winthrop MA 02152
(617) 846-1341

Cc: Al Lagee – Building Commissioner – Town of Winthrop
Cc: John Macero – Superintendent of Schools – Town Of Winthrop
Cc: Eileen Belastock – Principal – Winthrop High School

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
250 Washington Street, Boston, MA 02108-4619

ARGEO PAUL CELLUCCI
GOVERNOR

WILLIAM D. O'LEARY
SECRETARY

HOWARD K. KOH, MD, MPH
COMMISSIONER

July 8, 1998

Dr. Joan Connelly
Superintendent of Schools
Winthrop School Department
E.B. Newton Elementary School
45 Pauline Street
Winthrop, MA 02152

Dear Dr. Connelly:

As you know, the Bureau of Environmental Health Assessment (BEHA) was asked to provide assistance and consultation by the Winthrop Board of Health regarding indoor air quality issues and health concerns at the Winthrop Middle School.

On June 4, 1998, Michael Feeney, Chief of Emergency Response/Indoor Air Quality (ER/IAQ), BEHA, conducted a site visit with William Frazier, Winthrop Board of Health; Larry Powers, Chief, Winthrop Fire Department; Robert Trainer, Senior Custodian, Winthrop Middle School; Tom Giancristiano, Winthrop School Department; Lester Tolson, Winthrop School Department; and Jeanne Maggio, Winthrop Board of Health. This visit was prompted by the reported transport of students to the local hospital due to the possible presence of noxious odors in classrooms 114.

Air tests for carbon monoxide were taken with a BioSystems PhD_2 carbon monoxide detector. No measurable levels of carbon monoxide were detected in any tested classroom during this inspection. Air tests for total volatile organic compounds (VOCs) were taken with a HNu Systems Photoionization Detector. No unusual sources of VOCs were detected within classroom tested, however BEHA staff did identify several conditions which can have an adverse effect on indoor air quality.

As described to BEHA staff by school officials, several students in classroom 114 nearest the exterior window reported symptoms of nausea and headaches. This classroom was cleared of students. Concurrent to this incident, a refrigerator truck had idled at the loading dock for one hour during a delivery. The school loading dock is located directly below the windows of classroom 114.

During this visit, the windows of classroom 114 were open and the unit ventilator was off. The exhaust ventilation in this classroom was functioning. The interior of classroom 114 and adjacent classrooms (113, 115, 217, 219, 200, the art room and wood shop) were examined for point sources of materials that could have caused this incident. No source was identified within the school during this inspection.

During this inspection, a different refrigerator truck from the previous day made a delivery to the school at the loading dock. The odor of diesel fuel exhaust was noted entering the windows of classroom 113. The combination of the open windows and functioning exhaust system could enhance the entrainment of diesel or gasoline exhaust through the open window. The symptoms reported by students, when considered in combination of the timing of the food delivery and condition of the ventilation system, indicate that diesel exhaust penetration through windows of classroom seems to be the most likely cause of this incident.

In addition, teachers had indicated that vehicle exhaust odor in classrooms near the loading dock is a chronic problem. In an effort to address these concerns, it appears that the unit ventilators for these classrooms were deactivated to prevent exhaust entertainment.

To eliminate this problem in the short term, school officials had committed to having food deliveries limited to after school hours to prevent vehicle exhaust entrainment. Adopting this action permanently would be advisable. If limiting deliveries to off-hours is not practical, several options should be considered. Preventing trucks from idling during deliveries would be effective to reduce vehicle exhaust, but this option may not be practical for refrigerated trucks. (The refrigeration unit on these types of trucks runs on a separate engine from the truck engine, therefore fossil fuel engine exhaust is still produced even when the truck is not idling.) Moving the location of the loading dock, moving the location of fresh air intakes and/or limiting the opening of windows in classrooms adjacent to the loading dock are options that may be considered.

As previously noted, BEHA staff identified conditions that can effect air quality, which are separate from this incident. The unit ventilators in classrooms adjacent to the loading dock were not functioning. It is necessary for univents to function in order to control for comfort in these classrooms. In addition, these fresh air supplies need to be balanced with the functioning exhaust ventilation system.

Storage room 3 off classroom 115 contained improperly stored hazardous chemicals. The following conditions were observed in a cabinet in this storeroom.

1. A bottle of nitric acid had heavy crystallization on the exterior of the container, indicating that the bottle was not completely sealed.

2. Acids are stored in a fireproof wooden cabinet. Acids can corrode insulation and wood. It is also possible that the insulation contains asbestos, which could be released when the acid erodes this material. Acids need to be stored in a cabinet that is resistant to degradation by acid.

3. Reactive materials (nitric acid and hydrogen chloride with ammonium hydroxide) are stored together. Acids should be stored away from bases.

4. Non-flammable materials (elemental mercury) are stored in the flameproof cabinet.

5. There are a number of unlabeled containers filled with unknown materials.

Please consider contacting a licensed hazardous waste consultant concerning the identification, storage and removal of these chemicals. In addition, you may wish to consult a licensed asbestos removal firm or the Lead and Asbestos Program of the Massachusetts Department of Labor and Workforce Development concerning the possibility that the flameproof cabinet insulation may contain asbestos.

We hope you find this information helpful. We have committed to the Winthrop Board of Health to conduct a full indoor air evaluation at this school after the heating season begins next school year. If you are in need of further information or help, please feel free to contact either Michael Feeney or Cory Holmes at (617) 624-5757.

Sincerely,

Suzanne K. Condon, Director
Bureau of Environmental Health Assessment

cc\ Michael Feeney, BEHA
Cory Holmes, BEHA
William Frazier, Winthrop Board of Health
Jeanne Maggio, Winthrop Health Department
Larry Powers, Chief, Winthrop Fire Department
Tom Giancristiano, Principal, Winthrop Middle School
Lester Tolson, Winthrop School Department
Robert Trainer, Senior Custodian, Winthrop Middle School

EndPoint LLC

ENGINEERS & ENVIRONMENTAL PROFESSIONALS

BY EMAIL

December 31, 2012

Mr. Eric O. Moore, Administrator
Winthrop Department of Health
Winthrop Town Hall
1 Metcalf Square, Room 5
Winthrop, MA 02152

Re: Winthrop Middle School / 151 Pauline Street (RTN 3-31070)
Filing of *Response Action Outcome* (RAO) *and Immediate Response Action* (IRA) *Completion Report* under the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000)

Dear Mr. Moore;

As required by the public involvement provisions (Section 1400) of the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000), this letter is sent by EndPoint LLC (EndPoint, an environmental consultant) on behalf of the Winthrop Middle School, to notify you that a Response Action Outcome (RAO) and Immediate Response Action (IRA) Completion report has been submitted for the property at 151 Pauline Street in Winthrop. This property is the location of a release of No. 2 fuel oil, which has been investigated and remediated under the provisions of the MCP.

Section 40.1400 of the MCP requires that the chief municipal and health officers in municipalities in which a release has occurred be notified when an RAO (which closes the site) is filed with the Massachusetts Department of Environmental Protection (MassDEP). The RAO report and related information may be obtained on line from MassDEP's Searchable Sites Database [*http://public.dep.state.ma.us/SearchableSites/Search.asp*] by entering Release Tracking Number (RTN) 3-31070.

Should you have any questions concerning this situation, please feel free to contact me at the letterhead address or my cell phone below.

Sincerely,
(EndPoint, LLC)

James S. Young

James S. Young, PG, LSP
Associate / Hydrogeologist
603-425-8004 (cell)

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TOWN OF WINTHROP

HEALTH DEPARTMENT

ERIC O. MOORE / PUBLIC HEALTH ADMINISTRATOR
Town Hall, 1 Metcalf Square, Winthrop, MA 02152
Tel (617) 846-1740 X131; Fax (617) 539-0812; Email emoore@town.winthrop.ma.us

July 28, 2011

Martha Kelleher
Principal
Winthrop Middle School
Winthrop MA

RE: Follow up on inspection of Winthrop Middle School

Dear Principal Kelleher,

On June 9, 2011, a complaint was received from a parent of one of your students in the Winthrop Middle School. An inspection was carried out on June 13, 2011 and the following were observed:

1. **Hives following lunch at school-** Great emphasis needs to be placed on asking students and identifying food allergens. Kitchen staff need to be trained in food safety and allergen awareness, and nursing staff need to be adequately equipped to deal with any emergency.
2. **Mold in gym hallway near recycling area and cafeteria ceiling-** No observable mold was seen in both places although there are water stain marks on ceiling in recycling area. I was informed this was due to a pipe leak 4-5 years ago.
3. **Mice in cafeteria** – Mice traps were observed in the kitchen. Kindly review pest control and pest management plan.

We appreciate your prompt attention to these matters.

Sincerely,

Eric Moore
Public Health Administrator

Cc:
Superintendent Macero, Winthrop School Department
James Soper, Building Commissioner
Ro Sarro, Public Health Nurse

M.J. TAVARES ARCHITECTS
architecture interior design planning

RECEIVED
JAN 29 1999

January 18, 1999

Mr. Tom Giancristiano, Principal
Winthrop Middle School
Winthrop Ma 02152

RE: Insufficient Outdoor Ventilation at the Middle School

Dear Mr. Giancristiano,

This letter is long due since our last phone conversation about the above referenced problem, back in December of 1998.

My daughter Andrea Tavares, as complained several times about the air quality at the Middle School. Back in the second week of November of last year, I spoke with the school nurse who informed me that a total of 50 students were logged in her book on the Monday of that week alone, for problems with respiratory problems, colds etc. At that point I became concerned about the number of students that went to see the school nurse, and therefore, suspect that the air quality at the Middle school facility is well bellow accepted standards. By code, a requirement of 15CFM per person, to dilute indoor air Contaminants is required.

In the past, air quality tests have been done in the town school buildings, and showed very high levels of Carbon Dioxide. I believe, therefore, it would be wise to ask the State Department of Public Health to perform a new air quality test to assess the problem.

Recent upgrades to the Middle School's ventilation's systems that were recently done, oviosly did not solve the problem that has existed in the past. The existing 12"x12" diffuser located at a corner of each classroom, can not in my estimation as a professional architect, deliver the required fresh air volume required for each classroom. Base on the existing duct size, it is impossible to bring the required fresh air even if the air flow velocity was increased at the main air handling units.

Please call me if I could be of assistance to you.

Respectfully Submitted,

Manuel Tavares, AIA

CC Dr. Joan Connolly, Superintendent of schools
Mr. Edward Hazlett, Winthrop Health Department Director
Mr. Jerry Fogus, Chairman, Winthrop Board of Selectmen
Mrs. Deborah Kneeland, PTA President

520 Pleasant Street • Winthrop, MA 02152 • Tel: (617) 846-1187 • Fax: (617) 846-5619

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Town Of Winthrop
Board of Health

Edward A. Hazlett, *Chairman*
William E. Hayes
Jeanne L. Maggio

Room 5, Town Hall
Winthrop, MA 02152
(617) 846-1740

Fax No.: (617) 846-5458

February 5, 1999

MIDDLE SCHOOL
Thomas Giancristiano, Principal

RE: AIR QUALITY TEST

Please be advised that the Board of Health has ordered an air quality test be taken at the Middle School on Friday, February 12th. This was due to a complaint received by the Board of Health from the School Department.

Enclosed you will find a copy of the complaint.

Very truly yours,

William P. Frazier

WILLIAM P. FRAZIER
Director of Public Health

WPF/rcd

cc: Manuel Tavares
520 Pleasant St.
Winthrop, Ma. 02152

Board of Selectmen
Jerry Ogus

PTA - Deborah Kneeland