IAQ/*TfS* Committee Voluntown Public Schools

Indoor Air Quality/Tools for Schools September 12, 2013

**To: Members of the IAQ/*TfS* Committee**

Paul Ricard ------------ Director of Maintenance & Facilities

Mary Rollins ----------- School Nurse

Hillary Sirois -------- VEA

Toula Wyland ----------- School Readiness Teacher of Three-Year Olds

Diana Ingraham ---------- Board of Education and grandparent

Alycia M. Trakas --------- Principal

Elaine Lee, Ph.D. -------- Director of Special Education

Ron Millovitsch ---------- First Selectman

From: Adam S. Burrows - Superintendent of Schools

**Re: Tools for Schools Meeting on Tuesday, September 17, 2013**

**Board of Education Meeting Room from 1:30PM to 2:30PM**

========================== Agenda =============================

1. Review committee membership (parent representative is needed)
2. Review IAQ/TfS Policy #3513.2 approved on 7-13-06 *(attached)*
3. IAQ/TfS Survey and Walkthrough
4. IAQ/*TfS* priorities and budget considerations for 13/14
5. Five-Year Maintenance Facility Plan *(attached)*
6. Completion of SDE Form ED050 regarding the current status of our facilities
7. Evaluation of the VES roof
8. Heat and humidity in some classrooms – *Report from Val Lord*
9. Stairway to Constitution Field
10. Green cleaning update
11. Solar Photovoltaic System (ENCON 300,000 plus KWH per year proposal)
12. School Community Safety *(Status of School Security Competitive Grant Program or SSCGP)*
13. School Nurse – *2012-2013 Annual Report and 10-126 requires the completion of an annual “District Asthma Reporting Summary Form” for pre-determined grade levels by the state. This is due to the state in September. Mrs. Rollins listed six (6) Kindergarteners and eight (8) seventh graders in the 10/11report and the report for 12/13 is due to the state in mid-September).*
14. Faculty/Staff Handbook – Cleanliness and Maintenance Section
15. Paul Ricard will attend a CIRMA hazardous materials workshop in Plainfield on 9-18-13
16. Developing 14/15 budget *(PA 13-60 requires list of maintenance items 2 months before town meeting)*
17. Other
18. Suggestions for IAQ/*TfS* Agenda for Wednesday, October 16 at 9:30AM
19. Adjournment

Future 13/14 meetings are on the following Wednesdays at 9:30AM in the Board of Education Meeting Room: October 16 November 20 January 15 February 19

March 19 April 23 May 21 (if needed)

***IAQ/TfS or Indoor Air Quality/Tools for Schools*** is a preventative and proactive program developed by the Federal Department of Environmental Protection Agency (EPA) to monitor and improve indoor air quality (IAQ) in school buildings. *Tools for Schools* (TfS) builds indoor air quality awareness throughout the school community, focuses on low-cost, common sense solutions, and encourages careful resource planning so that long-term indoor air quality issues can be remedied.

The Board of Education approved an IAQ/TfS policy #3512 (a-c) requiring our school district to establish an indoor environment resource team to implement air quality guidelines. We have successfully implemented and met the requirements of the IAQ/TfS program by completing a training course and updates presented to VES faculty and staff by the Sate Department of Health.

**#3513.2(a)**

**Business/Non-Instructional Operations**

**Indoor Air Quality in District Facilities**

The Voluntown Board of Education recognizes that the maintenance of acceptable temperature, relative humidity, and adequate fresh air ventilation in school buildings is a primary objective in the creation and maintenance of an optimal learning environment.

# Indoor Air Quality in Existing Facilities

The Superintendent of Schools or his/her designee shall implement an indoor air quality program that provides for ongoing maintenance and facility reviews, in accordance with all applicable state statutes, necessary for the maintenance and improvement of the indoor air quality of all facilities.

The Voluntown Public Schools shall report annually, in a manner as required, to the Connecticut State Commissioner of Education on the condition of its facilities, its long range facilities program, and on its air quality program.

Prior to January 1, 2008 and every five (5) years thereafter, for any school district facility that has been constructed, extended, renovated or replaced on or after January 1, 2003, the Board of Education shall provide for a uniform inspection and evaluation program of indoor air quality within such buildings, such as the Environmental Protection Agency's Indoor Air Quality for Schools Program.

The inspection and evaluation program shall include, but not be limited to, a review, inspection or evaluation of the following:

1. The heating, ventilation, and air conditioning (HVAC) systems;
2. Radon levels in the air and water;
3. Potential for exposure to microbiological airborne particles, including fungi, mold, and bacteria;
4. Chemical compounds of concern to indoor air quality, including volatile organic compounds;
5. Pest infestation, including insects and rodents;
6. Pesticide usage;
7. The presence and plans for removal of certain hazardous substances identified under federal law;
8. Any ventilation systems other than HVAC;
9. Plumbing, including water distribution systems, drainage systems, and fixtures;
10. Moisture incursion (leaks);
11. The facilities' overall cleanliness;
12. Building structural elements, including roofing, basements, and slabs;
13. The use of space, particularly in areas designed to be unoccupied; and
14. The provision of indoor air quality maintenance training for building staff.

**#3513.2(b)**

**Business/Non-Instructional Operations**

**Indoor Air Quality in District Facilities**

Heating, ventilation and air conditioning systems shall be maintained in accordance with the prevailing maintenance systems, such as Standard 62. The Board of Education directs the Superintendent of Schools or his/her designee to ensure that such systems shall be operated continuously during the hours in which students or school personnel occupy school facilities (except during periods of scheduled maintenance or emergency repairs) or at other times when it can be demonstrated that the air supply meets the Standards 62 requirements for air changes per hour.

Records shall be maintained on the maintenance of the school district's heating, ventilation, and air conditioning systems for a period of not less than five years. Such records shall be available to the public upon request.

# Indoor Air Quality in New or Renovated Facilities

In order to secure appropriate indoor air quality in the school, the following requirements shall be specified to the architect or design professionals responsible for the construction project:

1. Adherence to the requirements defining minimum air circulation in the State Building Code which apply only when constructing new space;
2. The building/space meets or exceeds the American Society of Heating, Ventilation and Air Conditioning Engineers (ASHRAE) 62-1999 standard, "Ventilation for Acceptable Indoor Air Quality", which considers chemical, physical and biological contaminants that can affect air quality as referenced by the State Building Code adopted pursuant to Connecticut General Statutes 29-252;
3. Using the ASHRAE 62-1999 standard, achieve a minimum ventilation rate per occupant of 15 cubic feet per minute of outdoor air, and account for potential noise within ductwork as a result of increased air velocity;
4. Design and placement of air handling equipment shall be done in a manner as to be accessible to inspect and maintain the equipment, therefore mechanical rooms are desirable versus exposed rooftop unit or units hung above suspended ceilings;
5. Fresh air intakes must be located, whenever possible, away from all types of vents and exhausts on roofs. further, air intakes and ventilation windows must be sufficiently distant from bus loops and loading docks;
6. In construction of new school buildings, radon mitigation systems should provide a vapor barrier and protection from under-slab humidity;
7. Selection of carpet, adhesives and other synthetic materials should be made to minimize emission of odorous and irritating volatile organic vapors which degrade air quality;
8. Appropriately designed pitched roofs whenever possible to reduce the potential of moisture intrusion;
9. Consider the economic feasibility of air conditioning to achieve dehumidification;
10. Consider installation of temperature/environmental control systems, which monitor temperature and other factors helpful in monitoring and diagnosing heating, ventilating, air conditioning (HVAC) systems.
11. When renovating an occupied building, provide for the mechanical control of airborne pollutants associated with the construction process.

**#3513.2(c)**

**Business/Non-Instructional Operations**

**Indoor Air Quality in District Facilities**

## Indoor Air Quality Committee

The Voluntown Board of Education establishes an indoor air quality committee for the school district to increase awareness of environmental facts affecting the health of school facility occupants, including air quality, water quality and radon.

The committee must include at least (1) one administrator, (2) one maintenance staff member, (3) one teacher, (4) one school health staff member, (5) one parent of a student, and (6) two members-at-large from the school district. This policy prohibits any school board member, superintendent or administrator from preventing a school safety committee, established under current law, from addressing indoor air quality issues affecting the health of school facility occupants.

**Legal Reference:**

Connecticut General Statutes.

* 1. Duties of Boards of Education.
  2. Approval of plans and site. Expense limit.
  3. Review of final plans by the Commissioner of Education; exceptions, role of local officials.

(Cf. 6585 Construction of School Facilities, Site Selection)

PA 03-220 An Act Concerning Indoor Air Quality in Schools.

**VOLUNTOWN PUBLIC SCHOOLS**

### Voluntown, Connecticut

**Policy Adopted:** **July 13, 2006**

**Voluntown Public Schools**

**Five-Year Maintenance Facilities Plan (As required by the annual facilities report to SDE)**

*Requirement: district-wide plan that is complete and up-to-date, projecting at least five years out recognized by both the town and school board as an official plan.*

***It is important to note that over the past six years the Board of Education has authorized and funded the completion of several major projects. Therefore, our facilities are in good order and there is a short list of upcoming projects. This is especially helpful during these difficult economic times.***

*Submitted by: Adam S. Burrows – Superintendent of Schools*

*Paul Ricard -------- Director of Maintenance and Facilities*

***2012-2013***

* Pursue authorization to submit a grant application to the State Department of Education for review of the construction of a modular building for an alternative school.
* Replace and/or repair the water heater.
* Maintain the roof and repair, as needed.
* Review applying for a grant that updates a section of the roof for the installation of solar panels, and pays for the complete cost through energy savings of by a projected reduction of 90,000-110,00 KWH per year over 25 years.

***2013-2014***

Maintain the roof and repair, as needed.

Seek grants, if any, to upgrade lighting fixtures to reduce energy costs.

Upgrade security as recommended by the School/Community Safety Team

Place signage in the driveway to the new bus depot to ensure safety

***2014-2015***

Maintain the roof and repair, as needed.

Seek another application to a grant program that updates/repairs another section of the roof to allow for the installation of solar panels, and pays for the complete cost through energy savings over 25 years. The goal includes the complete the repair and/or replacement of the 31-year old section of the roof to support these solar panels.

***2015-2016***

Maintain the roof and repair, as needed.

Remove asbestos on the 80-foot section of a heating system pipe between the conference room and end of the hall.

Review Technology infrastructure and develop recommendations.

***2016-2017***

Maintain the roof and repair, as needed.

Update technology infrastructure based on recommendations.

***Established Annual Facilities and Maintenance Activities***

* Implement the IAQ/*TfS* policy to guide our facilities and maintenance plan-of-action.
* Attend SDE workshop(s) as per the recommended intervals to review IAQ/*TfS* updates.
* Continue the excellent safety inspections by Mr. Ricard to document the status of all systems.
* Maintain appropriate service and inspection contracts for water, boilers, ventilation systems, etc.
* Document and maintain detailed records about the operational quality of all mechanical systems which includes boilers, water pumps, filters, motors, other pumps, ventilation, etc.
* Coordinate all custodial personnel with regard to the cleaning schedule and evaluation of work.
* Maintain an inventory of custodial supplies and materials and replenish them as needed.
* Follow-through on the completion of all items listed in the annual CIRMA safety audit.
* Maintain a Green Cleaning initiative.
* Refinish the gymnasium floor to maintain a safe surface for sports and other activities.
* Support initiatives to maintain an updated Internet system and infrastructure as per our Tech Plan.
* Maintain the telephone system, upgrade in 2009-2011.
* Inspect all kitchen equipment on a regular basis.
* Complete inspections of our school grounds.
* Annually review the quality of driveways, walkways, and other paved surfaces and repair as needed
* Complete required annual notification of our Asbestos Management Program.
* Annually list our efforts to be in compliance with Green Cleaning requirements.
* Publish the required notification regarding pesticides.
* Maintain a committee to review energy conservation initiatives and potential grants.
* Review inside/outdoor lighting and utilize cost saving materials.
* Monitor on a monthly basis the use of electricity, fuel oil, and propane.
* Inspect the playground on a routine basis to maintain safety standards.
* Maintain and upgrade security and surveillance systems as needed.
* Support of the 2011-2012 bus depot built with state funds at no cost to the town.

*Maintain the facilities for effective instruction and a variety of community activities.*

* Continue to utilize an Indoor Air Quality*/Tools for Schools* Committee.
* Upgrade, as needed, technology and communications infrastructure.
* Provide SmartBoard access at all levels from pre-school through junior high school.
* Effectively store and retrieve instructional supplies and materials.
* Research and develop recommendations for Green School initiatives.
* Maintain a policy regarding use of the facilities.

*If so, is the plan implementation on schedule with necessary projects underway or imminent?*

Yes. Each regular monthly meeting of the Board of Education includes a detailed Indoor Air Quality/*Tools for Schools* report listing all repair and maintenance items that were completed, reviewed, and/or scheduled for future repair. This process is an important part of our Strategic Plan. The committee of the Board of Education is properly maintaining our facilities thus resulting in a “caught-up” status where the accomplishments have been recorded on an annual basis for these past several years and future priorities have been listed above.

*Do we have a written plan for the repair and replacement of equipment based on useful life and other factors?*

* All air handlers have been replaced as a result of systematic analysis and inspection of each unit.
* We have replaced all 20-year old air handlers above the instructional areas of the building.
* The heat recovery ventilation units in the gymnasium and the 1990 JHS wing have been maintained and are in excellent condition. The Director of Maintenance and Facilities has detailed records of all equipment and written documentation of the dates and completion of all services and/or repairs.

*Do we have a written building maintenance plan which includes general cleaning schedules, major cleaning schedules, service system maintenance schedules for all major building components, including roofs?* **YES**

*(ASB and PR on 2-9-12)*