

## School Environmental Inspection Summary For 2009 – 2010

**School Name:** Boston Arts Academy  
**Address:** 174 Ipswich Street, Boston, MA 0215  
**Date of inspection:** 2/18/2010  
**Inspector(s):** Maria F. Carvalho  
**Integrated Pest Management Plan Available at Inspection:** N  
**Number of areas inspected:** 46  
**Source of Drinking Water:** City Water

Environmental Issue	Number of areas with the Condition	Percentage of areas inspected with the condition
Leaks/Water Stains	3	6.5 %
Visible Mold Growth	0	0 %
Overt Pest Sign	0	0 %
Clutter	0	0 %
Dust	3	6.5 %
Cleaning needed	0	0 %
Repairs needed	2	4.3 %
Improper Chemical Storage	0	0 %

	Normal Indoor Range	Average outside the school	Average inside the school
CO <sub>2</sub> level	375 – 1,000 ppm	445	600
CO level	0 - 9 ppm	0	0
PM <sub>10</sub> (airborne dust) level	0.00 - .05 mg/m <sup>3</sup>	0	0
VOC level	150 – 300 ppb	0	0
Temperature	68 – 75 degrees	42	69

Bathrooms: Items/Conditions	
Number of bathrooms inspected:	6
Total number of urinals	18
Number of non-functioning urinals	0
Total number of toilets	30
Number of non-functioning toilets	0
Number with bad stall doors	2
Number of toilets without toilet paper	0
Number of bathroom sinks	16
Number of broken sinks	0
Number of soap dispensers	11
Number of broken dispensers	1
Percent of bathrooms without adequate soap	0 %
Percent of bathrooms without paper towels	0 %

## **How to Read the Data – What all the Numbers Mean**

**Number of areas inspected** – This is the number of areas in the school (classrooms, offices, hallways, etc.) where access was attempted by an environmental inspector during the school survey. The number of unlocked rooms indicates the number of areas where access was achieved for inspection. For most schools, it is not possible (nor productive) to conduct air monitoring in every individual classroom, office, hallway, bathroom, and closet. Thus, the inspector visited a sample of rooms in the school that were representative of the rest of the school; areas that shared air quality with neighboring spaces; and rooms identified based on questions and concerns from employees.

**Leaks** – This is the number of rooms that have evidence of one or more water leaks. This could include water stains or discoloration on walls, floors, or ceiling tiles as well as active leaks where water is present. Leaks are of concern because persistent moisture can promote mold growth as well as encourage insect or rodent infestations.

**Visible Mold Growth** – Mold and mildew are often asthma triggers. Often they can look like grey-black powder near the water-damaged areas or spots or patches of various colors. When attempting to rid an area of mold and mildew, it is most important to find and eliminate the water source in order to make sure the mold doesn't grow back.

**Pests** – These are counts of the number of rooms visited where the inspector saw signs of pest infestation including dead insects, insect parts, traps, rodent droppings, etc. Pests are of concern for sanitation reasons as well as being sources of animal dander that can be an asthma or allergy trigger. Boston Public Schools are implementing integrated pest management (IPM) plans designed to control pests without using heavy amounts of chemical pesticides. IPM strategies include conducting pest surveys, blocking entrances such as holes or cracks that let pests into the building and eliminating sources of food and water (leaks, trash, food crumbs, etc.) that attract pests, and using minimal amounts of pesticide only where necessary. BPS will be requiring community and extra curricular school building user groups to cooperate with the plan's implementation.

**IPM Plans Available** – “Yes” indicates that an IPM Plan has been submitted to the MA Department of Food and Agriculture and is in use and available for inspection in the principal's office.

**Clutter** – It is important to control clutter in the classroom as it can contribute to the buildup of dust, hide places where mold might be growing, block ventilation, or provide places for pests to hide. Clutter includes books or other materials placed on ventilation units, piles of loosely organized papers or student projects, visual aids scattered around a classroom, etc.

**Dust** – There should be as little visible surface dust in the school as possible. Indoor dust is made up of outdoor dust, human residues such as dry skin flakes, and material released from items within the school. Dust mites are extremely small organisms that feed on skin flakes. Dust and dust mites are both asthma triggers. Dust and dust mites thrive in carpeting. Damp mopping of floors or vacuuming of carpeting should be done regularly to reduce dust. Minimizing clutter in the classroom and wet wiping of solid surfaces can also control dust.

**PM<sub>10</sub> (Respirable Dust)** – PM<sub>10</sub> stands for particulate matter (dust and other dust-like materials) that is small enough to be inhaled into the deepest parts of the lungs, and can cause health problems. The national ambient air quality standard is 0.05 milligrams per cubic meter of air (mg/m<sup>3</sup>) for long-term exposure and 0.150 mg/m<sup>3</sup> for a single 24-hour period. Possible sources of elevated indoor PM<sub>10</sub> levels are construction activities, tobacco smoking, inadequately vented furnaces, water heaters, stoves,

and other appliances burning fuels. Outdoor respirable dust levels vary considerably and must be taken into consideration when evaluating indoor exposures. Indoor airborne dust levels are often similar to the outdoor air level except for buildings with well-filtered central ventilations systems where indoor airborne dust levels are often lower. One important effort for controlling dust in school buildings is to ensure that construction/renovation work is done in areas that have been isolated from the rest of the building (plastic barriers, etc.) and that proper cleanup is done in the work area and surrounding areas when the job is done. Also, it is best to conduct all such work during hours when the school is not occupied, if possible.

**Carbon Dioxide (CO<sub>2</sub>)** – Carbon dioxide is a natural gas breathed out by humans and other animals or produced by combustion. It can accumulate in buildings with poor ventilation. Its outdoor concentration is about 375 parts per million (ppm). Indoor levels usually tend to be higher than outdoor levels. An indoor level greater than 1,000 ppm while the building is fully occupied can mean the building has inadequate ventilation. Carbon dioxide levels may reach higher levels during the cold weather, when windows are usually closed. Though such high levels are not, in themselves, toxic, the carbon dioxide level is an indicator that can give the inspector an idea about possible build-up of other substances in the air that could impact health but for which there is no monitoring equipment.

**Carbon Monoxide (CO)** – Carbon monoxide is a toxic gas released during the burning of fuels in open fires, appliances, and internal combustion engines, like cars. Inhaling carbon monoxide can cause headaches, fatigue, fainting, brain damage, or even death if its concentration is high or the exposure continues for a long period of time. The national ambient air quality standard for carbon monoxide is 9 ppm (parts per million). Therefore, values well below 9 ppm are safe.

**Volatile Organic Chemicals** – Volatile Organic Chemicals (VOC's) can aggravate respiratory problems like asthma. The levels of organic vapors in the outdoor air are typically 70-100 parts per billion (ppb). The normally expected indoor air concentration range is 150-300 ppb.

VOC's are found in building materials, furnishings such as carpeting and furniture, white board markers, air fresheners, common items such as glass and floor cleaners, some types of paints, varnishes, and other chemicals used in schools. Anytime chemical products are used, it should be in a very well ventilated area (open the windows if possible). If VOC levels are high, efforts should be made to determine their sources, which chemicals are present, and their potential for toxic effects.

BPS purchases low VOC cleaning products and construction materials to the extent feasible, and discourages bringing unauthorized home purchased consumer cleaning products into its schools. If renovation or construction that involves painting, surfacing, or other work that involves VOC-releasing chemicals is planned, it should ideally be done after hours or during school breaks when the building is unoccupied. Regardless of when such work is done, the work area should be isolated from the rest of the building and should be well ventilated. If possible, time should be provided for off-gassing and curing before reoccupation. Choose low VOC products over high VOC products (low-VOC products usually note this on the product label) when they are shown to perform well in use.

**Chemical Storage** – Some rooms throughout the school may contain chemicals such as art supplies, cleaning supplies, or science class materials. This item counts the number of such rooms where the inspector found chemicals being stored incorrectly. For example, concentrated cleaning products should not be stored on top of a teacher's desk and science classroom chemicals should be stored in an organized manner in proper cabinets that can be locked.

**Repairs needed** – This item on the report is a count of rooms visited in the school where the inspector found repairs that needed to be made. These could include replacing light bulbs; malfunctioning fans or Unit Ventilators; patching holes in walls; repairing doors and lock sets; or replacing a leaking sink

faucet, paper dispenser, or damaged toilet. For follow-up information on the status of repairs, please contact the school principal or site council.

**Non-functioning Toilets** – Toilets that are poorly functioning, missing pieces, leaking, loose, or otherwise broken.

**Non-functioning Urinals** – Urinals that are poorly functioning, missing pieces, leaking, loose, or otherwise broken.

**Non-functioning Sinks** – Sinks that are poorly functioning, have either no hot or no cold water, missing pieces, leaking, loose, or otherwise broken.

**Missing Stall Doors** – Stall door is missing, cannot be closed, has a missing or non-functional latch, or is otherwise in poor repair.

**Number of Soap Dispensers** – Number of soap dispensing fixtures present. Bar soap or liquid soap dispensing bottles may be provided in lieu of dispensing fixtures.

**Number of Broken Soap Dispensers** – Number of soap broken dispensing fixtures present.

**Percent of sinks/fixtures without adequate soap** – Percentage of bathrooms where soap dispenser fixtures with soap, bar soap, or dispenser bottles with soap are absent or not present in sufficient quantities.