

School/Facility: Bonnie Branch Middle
Location: Room 45
Date of IEQ Report Form: April 12 and 18, 2017 (Repeated by custodial and teaching staff)
Date(s) Investigated: April 10, 24, May 2, and 11, 2017
Date of Report: July 10, 2017

IEQ Concern:

Individual detecting a musty/moldy odor and experiencing a general health symptom.

IEQ Investigation Process:

Identify deficiencies that may impact IEQ and/or sources of odor concerns. Typically includes the following depending on the nature of concern, but not limited to:

- interview/questionnaire of concern individual(s)
- inspection above drop ceiling (condition of roof deck, pipe insulation, return air plenum)
- inspection of ventilation system (operation of variable air volume box and outdoor air dampers, check controls, measurements of carbon dioxide, temperature and relative humidity, sources near outdoor air intake, measure return and supply air volume, cleanliness of coils, liner and condensate pan)
- inspection of exterior
- inspection below drop ceiling (housekeeping, sink and floor drain traps, signs of past and present moisture concern via visual and/or moisture meter, mold growth, ensure connection of current and capping of abandoned sanitary vents, odorizers, excessive plants and fabric items, identify potential pathways, and measure volatile organic compounds, carbon monoxide, and lighting)

Findings:

- A shrub is located directly outside the right window. The shrub was not emitting an odor, but was up against the brick (no air space to dry damp brick after rains).
- Three minor brown water stained ceilings were observed. The art room is located above the classroom.
- Staff sent a communication during the investigation indicating windows were leaking during a rain event.
- The exterior wall had a metal cover plate within the brick (above, but between the sets of windows) with some gapping around the edges.
- A balometer was used to measure air volume from the two RTU air supply diffusers. The mechanical prints call for 225 cubic feet per minute (CFM). The diffusers were measuring 82 and 103 CFMs which exceeds the +/- 10% allowance.

Corrective Actions:

- Grounds Services will trim or remove shrub along exterior wall during the summer break to allow for air space between the wall and shrub. Work Order #29754.
- Once identifying no existing leaks, Building Services replaced the stained ceiling tiles.
- Building Services water tested the windows, found leakage between the window panes, and wet sealed/glazed/caulked the window.
- Building Services caulked around the small metal cover plate located on the exterior wall.
- Building Services is confirming CFM deficiencies during the summer break and will investigate as necessary during the remainder of the year in order to provide any further recommendations. Work Order #29753.
- Building Services dismantled and cleaned components of the fan coil unit to eliminate it as a possible odor source.