

School/Facility: Marriotts Ridge High
Location: Science Room 340
Date of IEQ Report Form: November 4, 2016
Date(s) Investigated: November 21, 2016
Date of Report: December 2, 2016

IEQ Concern:

Staff reported a musty smell coming from HVAC vents (front corners of the room) and prominent after lunch.

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:

- The demonstration table with sink in front of the room had a dried out drain trap.
- The demonstration table water supply was turned off within the cabinet below the sink.
- The floor drain trap of the emergency shower located in the front of the room was dried out.
- The dried out traps are located near the passive ceiling return air grilles (not supply air) to the return air plenum located between the drop ceiling and roof deck.
- Sewer gases (nuisance level) can backflow from dried out plumbing traps.
- The odor may have been noticeable at lunch time because of increased use of water and restrooms.

Corrective Actions:

- Water valve under the sink of the demonstration table was turned back on and water ran to fill trap.
- Teacher was informed to run water in all the sinks periodically so traps do not dry out.
- Custodial staff poured water down the floor drain of the emergency shower to fill the trap.
- School administration is to inform custodial staff to periodically pour water down all shower drains to fill traps.