

School/Facility: Burleigh Manor Middle
Location: Physical Education Storage Closet
Date of IEQ Report Form: December 12, 2017 (School Dude)
Date(s) Investigated: December 15 and 21, 2017
Date of Report: December 22, 2017

IEQ Concern:

A “sewage” odor was observed in the Physical Education storage closet on December 8, 11, and 12, 2017. It was also reported that a faint “sewage” odor can occasionally be detected from the locker rooms.

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:

December 15, 2017

- The storage closet consists of two rooms (indoor equipment storage and outdoor equipment storage).
- No sewage odors were detected during the initial assessment.
- The indoor equipment storage room contains one return. According to mechanical drawings the return exhausts directly to the roof.
- Several sanitary traps (p-traps) within the locker room were observed for the presence of water. The traps appeared to contain water, however it should be noted that it was reported that the locker room showers are never used. Dried out traps can release sewer related gases (water acts as a barrier).

- Wind direction was assessed using historic data (Weather Underground) to attempt to identify wind patterns (wind blowing odors from roof vents into Roof Top Unit (RTU) intakes). No significant wind patterns were identified.

December 21, 2017

- A sewage odor was detected within the gymnasium, storage closet, and the boiler room which adjoins the storage closet.
- The floor drain traps within the Boiler Room appeared to be dry.
- Smoke testing indicated that air readily flows from the boiler room through pipe penetrations in the block wall into the indoor equipment storage closet.

Corrective Actions:

- Water was poured into the floor drains/p-traps within the Boiler Room.
- Administration should direct Custodial Services to pour approximately 5-gallons of water down each boiler room floor drain monthly.
- As the showers are un-used, Administration should direct Custodial Services to also pour approximately 5-gallons of water down each locker-room floor drain.