School/Facility: Northfield Elementary

**Location:** 4<sup>th</sup> Grade Storage Closet

**Date of IEQ Report Form:** December 4, 2017 (School Dude)

**Date(s) Investigated:** December 12, 2017

**Date of Report:** December 19, 2017

## **IEQ Concern:**

A leak was identified in the fourth grade science closet. The leak appeared to be coming from above the drop-ceiling and was believed to have been associated with a roof/skylight leak. The leak was investigated by Building Services (roofing) and the roof was repaired under Work Order #15510 in December 2016. It was believed that the leak may still be active.

## **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:**

- Faint water drip marks were observed below the ceiling tile within the storage closet.
- Water staining was observed above the drop ceiling on the block wall, metal conduit, and drywall. Slight water staining was also observed on the pipe insulation located above the primary area of concern.
- No elevated moisture readings were detected in the stained drywall, as determined by the use of a moisture meter calibrated to drywall.
- No obvious mold growth was observed.
- An access hole was cut into the drywall in the vicinity of the staining. No mold growth or water staining was observed on the back side of the drywall or on the fiberglass insulation located behind the drywall. The fiberglass insulation was dry to the touch.
- The water stained areas were treated with a disinfectant.

## **Corrective Actions:**

- Given the low levels of moisture detected by the moisture meter, it appears the stained drywall is associated with a historic moisture event likely associated with the 2016 roof issue. As the drywall above the drop-ceiling was likely wet for more than 48-hours, the drywall will be removed and replaced under Work Order #53784.
- After the drywall has been replaced, the area should be monitored for additional staining by Custodial Services. If additional staining occurs, further assessment may be necessary.