Edmunds Inspections & Assessments, LLC

Home Inspections * Mold Assessments * Environmental Consulting
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Mold Report

May 1, 2023

At the request of Muhlenberg Job Corps, Edmunds Inspections and Assessments, LLC conducted a mold assessment of the property located at 3875 KY-181 N Greenville, KY 42345. **This assessment is a reflection of the conditions at the time of testing only and does not warrant future conditions of the property. This is a limited assessment of accessible areas.**

Moisture

Previously, there were elevated humidity levels in the recreational building located on the property of Muhlenberg Job Corps. This was due to deficiencies with the HVAC system. The system has since been removed and the humidity levels are now within acceptable levels. Within the loft HVAC equipment area, there had been roof leaks and condensation drainage deficiencies that caused mold growth. These areas were dry at the time of this assessment.

<u>Mold</u>

Once the HVAC systems were removed, some mold remediation was conducted. However, within the attic space/utility room of the recreational building, there is still visible mold growth. Visible mold was found on the drywall in the utility room and inside of the HVAC ductwork.

Swab samples were collected from the visible mold growth on the drywall and a bulk sample of the drywall next to the HVAC duct was taken. Indoor air samples were collected from various rooms of the building. All of the sampled areas are listed in the attached laboratory data. A "control" sample was collected from outside the building. The samples were shipped to an AIHA laboratory for analysis. The data accompanies this report.

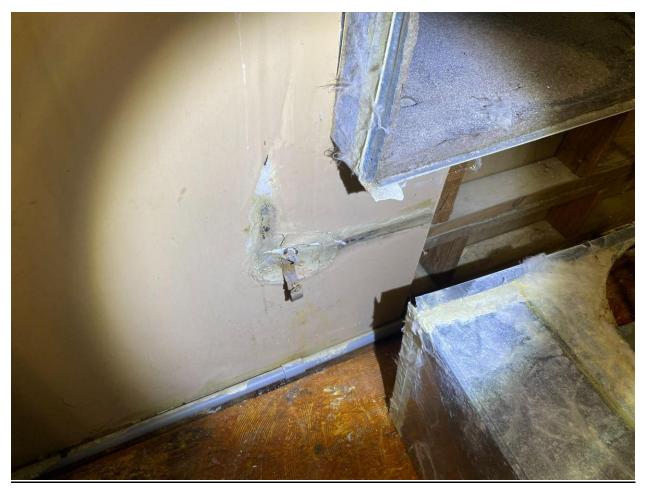
Fortunately, the indoor air samples indicate that the air quality is not affected.

Edmunds Inspections and Assessments, LLC found visible and analytical evidence of unusual mold growth on the sampled surfaces from the attic space/utility room. The sampling data indicates unusual mold growth on the drywall and HVAC ductwork in the recreational building.

Photos



Mold on drywall



Mold on drywall



Mold on drywall



Mold on drywall



Mold in HVAC duct



Mold in HVAC duct



Mold in HVAC duct



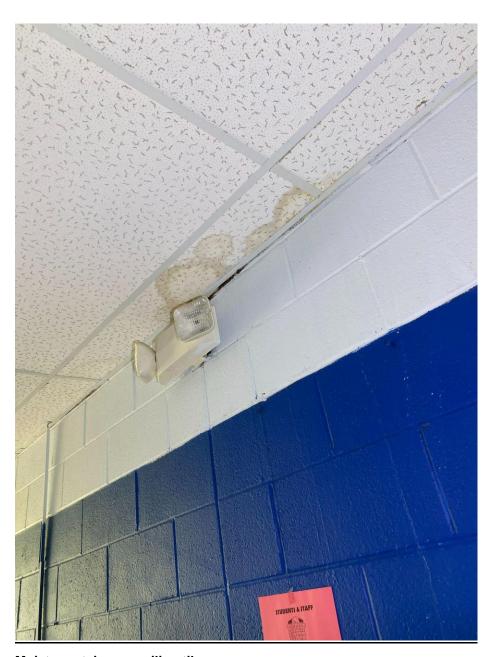
Removed drywall



Humidity levels



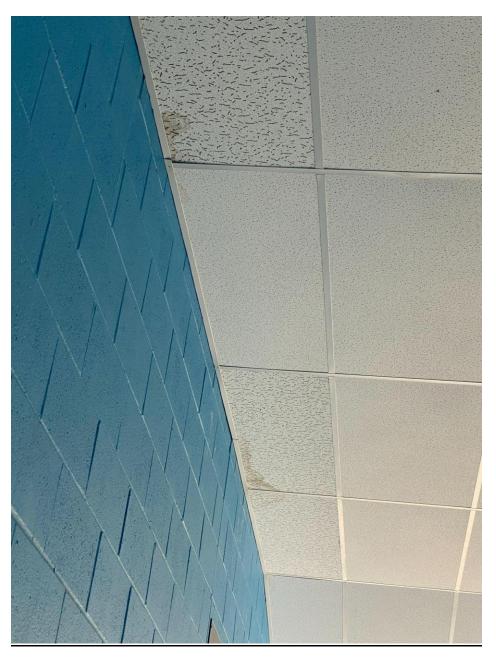
Mold on drywall



Moisture stains on ceiling tile



Moisture stains on ceiling tile



Moisture stains on ceiling tile



Mold growth

Remediation Recommendations:

1. Isolate the moisture and mold damaged areas with containment. Consult a qualified contractor for remediation.

Within each contained area, deploy a HEPA filtration unit that can be ducted to the exterior of the building. This will help to prevent mold spores from impacting the indoor air quality of the building during the remediation process. If at any time containment is breached, provide air sampling to determine if mold spores have breached containment.

Use the following formula to ensure the proper size air scrubber is in use:

To obtain the recommended six (6) air changes per hour, a 500 CFM HEPA filtered air scrubber should be deployed and ducted to the exterior of the building. The following guide or formula can be used to calculate the size of the scrubber that should be deployed or used for differing square footages.

EXAMPLE:

- A. Figure out the total square footage of the damaged area. Example: A 2,500 sq. ft home with a 10 foot ceiling will have a total cubic foot measurement of 25,000 cubic feet.
- B. Take the total cubic foot measurement of the affected area and divide it by the c.f.m. ability of the Neg-Air machine.

Example: 25,000 cubic home divided by 2,000 c.f.m. Neg-Air = 12.5. It will take 1 (one) 2,000 c.f.m. Neg-Air machine 12.5 minutes to change the air in the area 1 time.

- * It is the Industry Standard to change the air in a room 6 times per hour!
- C. Divide 60 minutes (1 hour) by the 12.5 minutes it takes to change the air in a room 1 time.

Example: 60/12.5 = 4.8. This is the number of times this 2000 c.f.m. Neg-Air machine will change the air in this size building in one hour.

In this case more c.f.m. will be needed to meet the standard of 6 times per hour.

- 2. In the loft HVAC area, I recommend removing all of the drywall since simply removing the moldy areas has not been accomplished. The moisture-stained ceiling tiles of the main level should be removed and replaced. The remediation contractor should use professional judgment to remove all moisture stained and mold contaminated materials.
- 3. After removing the drywall, HEPA vacuum and clean dust/debris from the demolition process. Then clean the framing and floors with an anti-microbial solution. To meet the mold remediation guidelines, the area should be free of visible mold growth, mold-like odors, and no dust.
- 4. I recommend replacing the HVAC ducts. Now that they have been opened up, it is clearly visible that there has been mold growth inside them. Keep in mind that it is a general industry standard to replace the ductwork every 20-25 years and these appear to be older than that, so they are coming due for replacement anyway.

***** Mold remediation projects are subject to change. Oftentimes, additional moisture damage and mold growth is encountered as part of the remediation/demolition process. These areas are inaccessible as part of a routine site investigation by the remediation contractor. You should be prepared that additional

areas may be found within wall cavities or other inaccessible areas. Sometimes, the wall cavities are opened and it is found to be much better than anticipated.

Upon completion, it is recommended to complete a post-remediation verification screening. The areas should be free of visible mold growth, dust, and mold-like odors to meet the remediation guidelines set forth in the KY Mold Remediation Regulation, 40 KAR 2:330

If you have any questions, feel free to contact me at any time.

Gared Edmunds

Environmental Health Specialist, B.S. Occupational Safety Specialist, B.S. Licensed Home Inspector #2251 Certified Mold Inspector Certified Mold Assessor