Methodology

Company conducted site inspections that included visual inspection, collection of field parameters (temperature, relative humidity, and carbon dioxide levels), measuring moisture content of building materials, pressure differentials, and airborne particle counts. The indoor air quality (IAQ) methodology is included.

Measurements-Temperature and relative humidity were measured with a Mannix digital thermo hygrometer under normal air conditioning operating conditions. Carbon dioxide was measured using a Telaire direct-read meter. Field measurements are considered a guide to trends within site conditions and are used for comparison purposes only.

Recommendations

on the findings of the investigation the company recommends the following things:
(1) Remove all mold growth or water damage at least 2 feet beyond any visible mold growth using engineering controls such as negative pressure containments with a pressure differential of at least 5 PASCAL's. Seal all openings prior to work commencement.
(2) Perform intrusive inspections of the walls adjacent to the leaking air conditioning unit in the sub level. If there is mold in this area remove using engineering controls
(3) Replace all stained or damaged ceiling tiles.
(4) Clean and service all air handlers that service the areas. Replace pig hair or fibrous filters with high efficiency pleated filters and replace filters at least quarterly or sooner if needed.
(5) After air handlers have been cleaned and serviced, re-inspect each area for temperature and relative humidity to ensure they are below the ASHRAE comfort parameters.

Introduction

The company is pleased to present this summary of the water damage inspection proformed at Schmeikel Boy Sausages. Building occupants reported a pig like and musty odor in several areas of the plant as well as scratchy eyes, sore throats, and runny nose. The company was hired to do a full investigation of the property. Water intrusion and/or suspect visible mold growth (SVM) was located in several areas including render area #1, pig humping area, and the sub level. Air Handler Units were inspected and found to have a heavy dust load and biological growth in the drain pans.

Methodology

Moisture Content Within Building Materials-To measure moisture content of building materials, The company utilizes two instruments, a Trammex pin less and Delmhorst BD-2100 pin probe.

Pressure Differentials-Pressure differentials were measured utilizing a Gastec irritant smoke testing tube. The direction of the smoke emitted from the tube indicates the ambient air flow direction or pressurization. This method is used to determine positive and negative pressures between rooms, rooms and ceilings, and the interior and exteriors of buildings.

Air Handler Units-To evaluate the general condition of the Air Handler Unit the company conducted visual observations of the accessible Air Handler Unit components (air filter, return air ductwork, cooling coils, blowers, drip pans, and exterior metal casings).

Particulate Air Sampling-Airborne particle counts were collected in all offices/rooms specified by the Clients or Building Managers using a Lighthouse 3016 Handheld Laser Particle Counter. These counts were compared to each other as well to the outdoors, and evaluated for trends between offices/rooms as well as the location of potential areas of concern inside the building.

Findings

The following data is the result of the onsite tests. Findings can be found on the first page following this report. They are arranged by Zone-Areas for each particular Zone-Findings for each particular Area-Measurements for each particular Finding.

Conclusion

Water damage and mold growth has been found in some inspected areas:
(1) Render area 1 has a strong musty odor and 50 feet of warped and sticky baseboards. Baseboards were removed and no suspect mold was found on the drywall behind the baseboards.
(2)Pig Humping Area has a pig like disgusting smell, SVM on the southeast wall from the floor to 3 feet up the wall, northeast wall had SVM behind wall paper in the wall cavity (as seen from a previous inspection cut), and there were 5 water stained ceiling tiles in the area.
(3)Sub Level on the northeast wall adjacent to the air handler is wet. No mold growth is visible on the surface of the wall however inspection cuts were not performed in this area. The air handler has a heavy dust load and mold growth on the inside of the cabinet. The filter has a medium dust load.

Temperatures and relative humidity are abnormal. The pig humping area has an increased humidity. This may be due to the dust load of the air handler servicing the area. All others areas seem to be within the ASHRAE guidelines. Thermal comfort is often the source of indoor air quality complaints. ASHRAE suggests that most people will be comfortable with temperatures between 68 - 76 degrees Fahrenheit (^{o}F) and a 40 - 60% relative humidity however these ranges may change depending on the time of year, outside temperature or the specific use of the space.

Certification

The Company has prepared these protocols for remediation. The protocol follows methods and procedures consistent with customary practices or standard of care. Remediation of water damaged or mold-contaminated environments must take place in professional manner to ensure the safety of workers and building occupants.

These protocols were prepared for the exclusive use of the Client and their representatives. The contents shall not be used or relied upon in any way by others without prior written approval of the company. The opinions and protocols presented are based on information provided to the company as of this date, conditions at the time of the inspection, and our professional expertise. If you have any questions please feel free to contact us.

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