Air Sampling and Analysis for Mold in Hills Building UMass

Christine Rogers, PhD
Environmental Health Science
SPHHS

First floor surface samples

Introduction

Building occupants highlighted potential areas of mold growth or were identified as suspect areas during a visual inspection of the building on October 12, 2011. Three areas were identified that warranted surface sampling and microscopic examination.

Methods

Suspect surfaces were examined using tape samples. Clear tape is pressed onto the surface and removed and attached to a microscope slide for later examination. Tapes were mounted in lactic acid with cotton blue stain and a coverslip applied. The tape was scanned microscopically at low power over a broad area. Closer inspection of particular areas of the tape was performed at 40X magnification. The method is not quantitative but is an excellent way of determining if mold growth is present on a surface and allows for identification of the type of mold.

Results

Room 105 – air conditioner face grille – in dirty condition
Small areas of Cladosporium growth were apparent. There was a large amount of debris present including many pollen grains that had been deposited from previous seasons.

Recommend occupant use a wet cloth to clean the area. The occupant has requested that the air conditioner be removed.

Radiator in the stairwell NE corner of building – slight shadowing of particles apparent;
occupant complaint of mold odor in stairwell
Minor amounts of particle debris apparent from microscopic examination

Recommend custodial services wipe the area with a damp cloth

Room 131 window sill – window area had evidence of prior moisture intrusion; small 3” x 3” black area identified on window sill which looks to be the result of watering of potted plants
Extensive growth of Ulocladium and Penicillium/Aspergillus present

Recommend containment of surface mold growth and removal. Temporary containment achieved by sealing the surface with duct tape. Request submitted to Physical Plant to clean and seal the affected area.