COMPLIANCE MANAGEMENT INTERNATIONAL

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September 7, 2018

Mr. Dale Crans
Supervisor of Maintenance & Facilities
Williamsport Area School District
1400 West Third Street
Williamsport, PA 17701

Re: Fungal Sampling Survey Report

Dear Mr. Crans:

Williamsport Area School District retained Compliance Management International (CMI) to perform fungal sampling assessments in eight (8) school buildings in the District. CMI's scope of work included the following:

1. Perform a visual inspection and collect air samples for fungi from selected locations in Lycoming Valley Intermediate School and Williamsport Area Middle School where no fungal growth had been identified; and
2. Perform a visual inspection and collect air samples for fungi at the conclusion of bioremediation activities in the following schools:
    a. Williamsport Area High School;
    b. Cochran Primary School;
    c. Hepburn-Lycoming Primary School;
    d. Jackson Primary School;
    e. Stevens Primary School; and
    f. Curtin Intermediate School.

The onsite work was performed from August 16, 2018 through September 4, 2018 by Mr. Greg Matty, CIH, of CMI.

I. Methodology

The total airborne fungi samples were collected on Zefon Air-O-Cell spore trap cassettes using a calibrated Zefon BioPump ® Plus sampling pump flowing at approximately 15 liters of air per minute (lpm). Following the assessment, the samples were shipped to the EMLab P&K in Marlton, New Jersey, or SanAir Technologies Laboratory in Powhatan, VA for microscopic count and identification (i.e., genus) of fungi. EMLab and SanAir Technologies Laboratory are both American Industrial Hygiene Association (AIHA) accredited laboratories. All air sample results were reported in fungal spores per cubic meter of air (spores/m^3) for the purposes of this assessment.

Measurements of air temperature and relative humidity levels were made using a direct reading hand-held Extech HD500 instruments.

II. Occupational and Environmental Exposure Limits

There are currently no state or federal Health and Safety regulations or universally accepted guidelines for exposure to bioaerosols in indoor air. The American Conference of Governmental Industrial Hygienists (ACGIH) has taken the position that the development of exposure guidelines based on the enumeration of viable or total (i.e., both viable and nonviable) fungi in air is not feasible.[1]

Because there are no "absolute" exposure limits for airborne fungi, the assessment protocol called for the comparison of indoor results with results from the outdoor air. Results were also compared to what is normal or typical for an indoor environment with no sources of water infiltration as well as "typical" outdoor data provided by EMLab P&K MoldRANGE™ reports. In general, indoor results should show lower fungi counts than outdoor samples and contain similar biodiversity. The results of the visual inspection and the buildings history related to moisture and ventilation must also be considered when interpreting fungal air sample results.

III. Findings and Recommendations

The following findings and recommendations are based on conditions and sampling results as they existed at the time of this survey.

1. Air samples collected for fungi in Lycoming Intermediate School and Williamsport Area Middle School were unremarkable. Indoor air quality was not degraded when compared to outdoor levels of fungi or levels of fungi typical for a healthy, dry indoor environment. These results do not indicate that indoor sources of fungal growth and proliferation are present. No additional action is recommended.
2. At the completion of the bioremediation activities, selected rooms in each school were visually inspected for fungal growth. Air sampling for fungi was also performed in selected rooms to demonstrate the effectiveness of the bioremediation. Areas were determined to be acceptable if indoor air quality in sampled locations was not degraded when compared to outdoor levels of fungi or levels of fungi typical for a healthy, dry indoor environment and no visible fungal growth was present. At the conclusion of the bioremediation, indoor air quality from the sampled locations in all six (6) schools was not degraded when compared to outdoor levels of fungi or levels of fungi typical for a healthy, dry indoor environment. Based on the sample results clearance was achieved and the work areas were suitable for re-occupancy in the following six (6) buildings:
    a. Williamsport Area High School;
    b. Cochran Primary School;
    c. Hepburn-Lycoming Primary School;
    d. Jackson Primary School;
    e. Stevens Primary School; and
    f. Curtin Intermediate School.
3. Fungal growth and proliferation in the indoor environment is always the result of some source of water infiltration. Retain the services of a professional engineer or other qualified professional to identify and repair all sources of water infiltration. All sources of water infiltration must be identified and repaired or fungal contamination could continue to occur.

1 ACGIH, *2018 TLVs and BEIs*

Thank you for the opportunity to assist you with these assessments. Please feel free to contact CMI if you have any questions or require any additional information.

Sincerely,

Compliance Management International, Inc.

Greg Matty, CIH
Manager, Health & Safety Services