



August 17, 2016

Howard County Department of Public Works  
9250 Bendix Road  
Columbia, Maryland 21045

Re: Supplemental Information for  
June and July 2016  
Indoor Air Quality Assessments

To Whom It May Concern:

Skelly and Loy, Inc. performed Indoor Air Quality (IAQ) Assessments at 12 different schools within the Howard County Public School System (HCPSS) and recently reported to Howard County Department of Public Works (DPW), the assessment activities, methodologies, and findings and conclusions. The Howard County DPW has asked Skelly and Loy to provide supplemental information, and we are doing so herein.

For the 12 schools assessed recently for indoor air quality within the HCPSS, as a whole and in general, the types and concentrations of airborne mold found in and outside of the schools are typical for public schools in similar geographic regions of the United States for the time of the year the assessments occurred. These types and concentrations of airborne mold spores do not normally pose a health risk.

The minor occurrences of water damage observed at some schools are typical of those found in schools in general. HCPSS is removing and replacing all identified water damaged materials. No major or widespread concerns were identified regarding the presence of indoor airborne mold spores or the causative mold growth. Overall, the observations made during the assessments indicate that the HCPSS and maintenance staff at each school is doing a good job of controlling indoor moisture and mold growth, resulting in the protection of health of students and staff. Also, the overall levels of comfort parameters at the schools assessed were in line with those typical of public schools for similar regions and time of the year. While some measured parameters did fall outside of their ideal comfort ranges, none of these occurrences result in increased health risks.

Regardless and to err on the side of caution, some follow-up recommendations are being made, including using a meter to assess the relative moisture content of some building materials, performing additional visual inspections in a few areas (including any areas exhibiting elevated moisture content), and replacing water-damaged or stained ceiling tiles previously identified. Further airborne mold sampling and analysis is not recommended at this time. To help parents, faculty, and students better understand and interpret the assessment findings, the following background information on mold is offered.

Whether real or perceived, concerns regarding building IAQ have become a common topic in recent years. Of particular interest is mold. Building occupants often ask what the results of IAQ investigations mean and how to interpret the data generated through such

investigations. Such questions arise whether the building assessed is a health care facility, an office building, a manufacturing facility, a hotel or dormitory, a place of worship, a residential home, or a school.

Mold is ubiquitous, meaning that it is commonly found throughout the natural and man-made environment. In order to grow and reproduce, mold requires three criteria to be met. These include moisture, a food source (organic matter such as paper, wood, cloth, etc.), and the "seeds" from which mold growth starts (called spores). The public should be cautioned that wet or moist building materials do not automatically result in mold growth. Airborne concentrations of mold spores can, and do, vary widely depending on geographic area, time of year (and even time of the day), time lapse since recent precipitation, wind speed and direction, and proximity to mold sources. Other factors affecting mold growth and airborne concentrations include availability of food sources, moisture content of building materials, humidity levels, and even air filtration. Concentrations of airborne mold can be higher in a person's home than at their work or school. Certain mold Genera are typically more common in the outdoor natural environment than inside the manmade environment while others are more commonly found in the manmade environment. The presence of airborne mold inside of a building does not necessarily mean there is active or past mold growth inside the building. Mold spores can enter a building through the building envelop (walls, floors, windows, piping and duct work penetrations, etc.), attached to materials and goods brought into a building, and even attached to building occupants and their clothing.

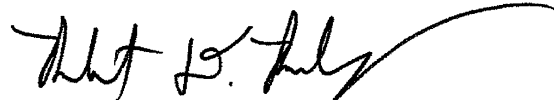
Because of the factors and difficulties in determining who may be susceptible to airborne mold exposure and what concentration of which mold Genera is unacceptable, there are currently no regulatory standards or acceptable thresholds established by any health and safety organization or body.

Most health concerns for indoor mold are a result of direct exposure with mold. During the assessments, mold growth was not observed on any portions of the school or its contents that would be accessible to students. Material identified exhibiting mold growth was typical and was limited to pipe insulation above ceilings in one school. HCPSS is in the process of replacing all such insulation.

If you have any questions regarding this project or the recommendations presented herein, please contact us. We thank Howard County for the continued opportunity to provide our environmental consulting services and look forward to assisting you in the future.

Sincerely yours,

SKELLY and LOY, Inc.



Robert D. Rowley, CIH, CSP  
Director of Industrial Hygiene Services

Enclosures

cc: MBI/R10-0163.019

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