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December 14, 2023

Virgin Islands Department of Education Maintenance Division ATTN: Mr. Davidson Charlegmagne, Territorial Facilities Manager 2133 Hospital Street Christiansted, VI 00820

RE: MOLD REMEDIATION IAQ CLEANING FINAL REPORT OF CLASSROOMS B101 THRU B116, B121 AND MAIN OFFICES AT THE JOHN H. WOODSON SCHOOL, ST. CROIX

Dear Mr. Charlegmagne,

As per your request, we performed an Indoor Air Quality (IAQ) Cleaning/Microbial Remediation of rooms B101 thru B116, B121 and the main office located at the John H. Woodson School, St. Croix from November 16th thru December 4th, 2023.

We contained each room and HEPA vacuumed all surfaces, contents and items. All surfaces and items were then wet wiped using an anti-microbial broadband disinfectant. The contained area was also placed under negative pressure to prevent possible microbial cross contamination prior to disturbance.

The microbially contaminated areas were remediated and surfaces were cleaned via HEPA vacuuming to remove any potentially loose contaminants/particles. The walls and surfaces were wet were wiped with Shockwave, an EPA registered anti-microbial and disinfectant.

Air scrubbing was performed during the entire remediation to ensure the capture of any potential airborne pollutants.



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OBSERVATIONS:

We retrieved one indoor air clearance sample per room. All samples were taken using Standards of Practice for the Assessment of Indoor Environmental Quality/Mold Sampling per Indoor Environmental Standards Organization (IESO). One air sample was taken outside in the main courtyard to determine the normal fungal ecology of the school, as mold spores naturally exist in the outdoor environment. Air sampling was performed for mold and other related particulate contaminants.

We have attached lab results and created a simple chart and spread sheet that shows the area, date of sampling and the total mold spore count in the air on the day the testing was conducted.

The goal we are looking for in air sampling is to have considerably less mold spores in the indoor air than outside. That threshold for this specific project is less than 1,000 mold spores per cubic meter of air.

Our personal max threshold for indoor mold spore levels in the indoor environment is 2,000 spores per cubic meter of air. With proper air filtration on HVAC units, the particulate count (including mold spores) should be lower than outdoors on high level days.

In some rooms, air samples results were above 1,000 spores per cubic meter of air. Additional air scrubbing was performed in those rooms to reduce the mold spore count to an acceptable level.

The rule of thumb for good indoor air quality is to have substantially less mold indoors than outside. When your indoor air contains **more than ten times** the mold spores of that of the outside air then further investigation is warranted because a problem may exist. There are exceptions to that rule such as there should not be any Stachybotrys or Chaetomium mold found indoors because the associated health effects are far more pronounced than most other molds. Another exception would be that extremely high outdoor mold spore counts are rare and may occur with moderate wind, extremely dry and/or high relative humidity.

Please note that the air sampling performed represents a snapshot of what is in the air at the time of testing. Mold spores are microscopic particles that and move around based on airflow and surrounding movement. This means that the spore count can be higher or lower in an indoor environment depending



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on the traffic throughout the area, pressurizations such as doors opening and closing, cross ventilation from windows being open and the air conditioning air handler turning off and on.

An inspection of the HVAC Air Handling Units (AHU) servicing the rooms indicates the need of comprehensive cleaning. Most of the AHU's were not operating at the time of the remediation. Several rooms had the windows open to the outdoor air.

The ceiling plenum is open to each room as well as the hallways. This allows air flow from outside to inside thus carrying pollutants.

CONCLUSIONS:

Based on the remediation performed and completed, there is no immediate threat to life, safety or health of occupants in the area where the service was performed.

Currently, there are no Federal standards or recommendations for acceptable exposures to airborne concentrations of mold or mold spores. According to the Occupational Safety and Health Administration (OSHA), most typical indoor exposures to mold do not present a risk of adverse health effects. Mold can cause adverse health effects to persons with sensitivities. For those persons that are sensitive to mold, exposure can cause symptoms such as nasal stuffiness, eye irritation, wheezing, or skin irritation. Severe reactions may occur among person exposed to large amounts of mold. Severe reactions may include fever, shortness of breath, headaches, sore and scratchy throats. Potential health concerns are important reasons to prevent fungal growth and remediate existing problem areas.

As we are not medical doctors, we do not offer any advice on health issues and recommend that a proper medical professional be consulted with on any emerging health issues.

RECOMMENDATIONS:

We <u>HIGHLY RECOMMEND</u> that the HVAC air handler servicing each room be professionally cleaned. All HVAC and duct cleaning should follow National Air Duct Cleaners Association (NADCA)



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ACR 2021 and American Society of Heating, Refrigeration and Air Conditioning Engineering, Inc (ASHRAE) Standard 180. All work conducted in part based on the New York City Department of Health Guidelines, the Assessment and Remediation of Fungi in the Indoor Environment and the IICRC S-520 Standard and Reference Guide for Professional Mold Remediation. This task should be performed by a company that has at least one Air Systems Cleaning Specialist and Ventilation Systems Mold Remediator on staff to ensure that the job is done correctly and according to the above-mentioned standards.

We <u>HIGHLY RECOMMEND</u> that you have the HVAC system be inspected annually as per the NADCA ACR 2021 recommended inspection schedule to ensure its cleanliness and optimum performance.

If you need further assistance or information, please don't hesitate to call.

This concludes this report.

Respectfully,

Addison P. Christian,

CIEC, Certified Indoor Environmental Consultant

CHC, Certified Healthcare Contractor

CCHM, CICTI Certified Healthcare Manager

ABI, Asbestos Building Inspector

ACS, Asbestos Contractor/Supervisor

CMR, Certified Mold Remediator

CMI, Certified Mold Inspector

LBI, Lead Building Inspector

ASCS, Air Systems Cleaning Specialist

CVI, Certified Ventilation Inspector

VSMR, Ventilation Systems Mold Remediator

WRT, Water damage Restoration Technician

FSRT, Fire & Smoke Damage Restoration Technician



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CBRS, Certified Bio-Remediation Supervisor CTT, Crime Scene & Trauma Cleanup Technician EDS, Environmental Disinfection Specialist