ESI Environmental Solutions, Inc.

www.esi4u.com (410)-867-6262

Discovery Environmental Inspection Report

Project Contact Information

Alex Baylor Environmental Specialists Environmental Safety Office 13306 Old Marlboro Pike Upper Marlboro, MD 20772 301-952-6760 alex.baylor@pgcps.org	Perrywood Elementary School 76,137 square feet	Bryan Harrington Certified Indoor Environmentalist Environmental Solutions, Inc. 6114 Drum Point Rd Deale, MD 20751 410-867-6262 Bryan@esi4u.com

Property Location

501 Watkins Park Drive, Largo, MD 20774

Date of Inspection 4/30/2019

Prepared By: Bryan Harrington

Certified Indoor Environmentalist (CIE)

Dear Mr. Baylor,

The results of the inspection and testing performed Perrywood Elementary School, which is located at 501 Watkins Park Drive, Largo, MD 20774, are concluded and the findings are enclosed. I want to thank you for allowing ESI the opportunity to service your indoor environmental needs. Included in this report are the observations, lab results, and recommendation from ESI's 4/30/2019 inspection and testing.

Background Information

The Prince George's County Public School Environmental Team has taken a proactive approach in cleaning the above-mentioned school to ensure there are no health or environmental risks related to microbial hazards. Historically elevated levels of humidity, condensation from pipes, periodic steam leaks, and outdated HVAC systems may have contributed to water damage ceiling tiles and colonization of mold spores in various areas of the school.

Purpose

ESI was engaged to inspect the school in a random sufficient manner. Classrooms, administration offices and common area building materials and contents, will be visual inspected for water damage and microbial growth.

In each location inspected, the indoor air quality will be tested for elevated levels of carbon monoxide and carbon dioxide, in addition to measuring the relative humidity and temperature. Microbial hazards within the breathable airspace will also be tested.

Based upon the visual assessment, instrument readings and lab results, ESI will determine if additional remediation in required.

Observations and instrument readings

The following table is designed for this project. Some of the fields may not be filled in due to not being applicable during the time of the inspection. You will notice either a '**YES**' or 'NO' in the table. '**YES**' indicates that mold and/or water damage was detected and 'NO' indicates it was not. If '**YES**' is noted, remediation recommendation will be included for the area inspected.

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 218	2441717	N/A	48.3%	74.8	801	001	8,312	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4’	Drywall	1	0	12	3	0	4	2
YES	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• There were 3-4 water damaged ceiling tiles within this location. • The indoor air quality should not pose environmental or exposure risks at these levels. The total spore count was 0 Count/M^3 and no elevated levels of Carbon monoxide (001 ppm) or Carbon dioxide (801) were detected.								
Recommendations								
• Remove the water damaged ceiling tiles and place in a contractor’s bag for proper disposal. Replace as needed.								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 169	2441738	NO	46.6%	81.3	744	001	8,084	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Windows
2x4’	Drywall	1	0	16	0	0	4	2
YES	**YES**	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• There were 5 water damaged ceiling tiles within this location. • There was a loose section of vinyl base cove to the right of the Storage Room (233) door. There was suspected mold growth on the drywall, behind the vinyl base cove. • The indoor air quality should not pose environmental or exposure risks at these levels. The total spore count was 1,520 Count/M^3 and no elevated levels of Carbon monoxide (001 ppm) or Carbon dioxide (744) were detected. • The prominent genus detected, Cladosporium species, is the most common identified outdoor fungus. The levels detected in Room 169 may be indicative of air exchange with the outdoor air.								
Recommendations								
• Remove the wallboard 12 inches up from the floor along the wall right of the Storage Room (233) door. • Remove the water damaged ceiling tiles and place in a contractor’s bag for proper disposal. Replace as needed.								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 106	2441737	N/A	50.4%	79.3	937	000	10,159	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4’	Drywall	1	3	13	7	1	2	1
YES	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• There were 3 water damaged ceiling tiles within this location. • The indoor air quality should not pose environmental or exposure risks at these levels. The total spore count was 1,160 Count/M^3 and no elevated levels of Carbon monoxide (001 ppm) or Carbon dioxide (744) were detected. • The prominent genus detected, Cladosporium species, is the most common identified outdoor fungus. The levels detected in Room 106 may be indicative of air exchange with the outdoor air.								
Recommendations								
• Remove the water damaged ceiling tiles and place in a contractor’s bag for proper disposal. Replace as needed.								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 162	2441744	N/A	56.5%	73.7	835	000	7,932	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4’	CMU and drywall	1	24	2	11	1	2	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• There were no signs of visible mold growth in this location. • The indoor air quality should not pose environmental or exposure risks at these levels. The total spore count was 360 Count/M^3 and no elevated levels of Carbon monoxide (001 ppm) or Carbon dioxide (744) were detected.								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 142	2441729	N/A	57.7%	74.1	853	000	8,214	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4’	Drywall	1	27	3	8	1	2	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• There were no signs of visible mold growth in this location. • The indoor air quality should not pose environmental or exposure risks at these levels. The total spore count was 40 Count/M^3 and no elevated levels of Carbon monoxide (000 ppm) or Carbon dioxide (853) were detected.								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 113	2441735	N/A	55.3%	73.5	866	000	8,538	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4’	CMU	1	4	8	7	1	2	1
YES	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• There was 1 water damaged ceiling tile along the exterior wall. • There were no signs of visible mold growth in this location. • The indoor air quality should not pose environmental or exposure risks at these levels. The total spore count was 200 Count/M^3 and no elevated levels of Carbon monoxide (000 ppm) or Carbon dioxide (866) were detected.								
Recommendations								
• Remove the water damaged ceiling tile and place in a contractor’s bag for proper disposal. Replace as needed.								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 135	2441743	N/A	53.5%	74.8	862	000	8,012	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4’	Drywall	1	28	3	9	1	2	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
• There were no signs of visible mold growth in this location. • The indoor air quality should not pose environmental or exposure risks at these levels. The total spore count was 120 Count/M^3 and no elevated levels of Carbon monoxide (000 ppm) or Carbon dioxide (862) were detected.								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 150	2441736	YES	48.7%	74.4	745	000	6,356	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Windows
2x4’	Drywall	0	1	1	16	1	2	7
YES	NO	NO	NO	**YES**	NO	NO	NO	NO
Observation Notes								
• There were 4 water damaged ceiling tiles within this location. • There was suspected mold growth on the underside of the “U-shaped” table. A surface swab sample was collected and “Moderate” Cladosporium species was identified on the underside of the table. • The indoor air quality should not pose environmental or exposure risks at these levels. The total spore count was 80 Count/M^3 and no elevated levels of Carbon monoxide (000 ppm) or Carbon dioxide (745) were detected.								
Recommendations								
• Remove the water damaged ceiling tiles and place in a contractor’s bag for proper disposal. Replace as needed. • HEPA vacuum the underside of the “U-shaped” table to remove surface growth. Then damp-wipe the underside of the table with ShockWave or equivalent.								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.
Outdoors	2441707	N/A	40.1%	86.2	665	000	N/A
Observation Notes							
• The total spore count was 1,400 Count/M^3 and the prominent genera were Cladosporium (600 Count/M^3), Ascospores (360 Count/M^3), Basidiospores (280 Count/M^3), and Aspergillus/Penicillium (120 Count/M^3).							

Interpretation of Lab Results

In the enclosed Air Cassette Analysis report, you will notice Fungal Identification, which is the genera detected in the breathable airspace, both indoors and/or outdoors (control sample). The Raw Count is the actual number of spores counted on the slide, and the Count/M^3 are the spores per cubic meter of air. The Other particles are non-living particles such as dander, mycelial fragments, pollens, etc…

In order for humans to be exposed indoors, fungal spores, fragments, or metabolites must be released into the air and inhaled, physically contacted (dermal exposure), or ingested. Whether symptoms develop in people exposed to fungi depends on the nature of the fungal material (e.g., allergenic, toxic, or infectious), the amount of exposure, and the susceptibility of exposed persons.

Susceptibility varies with genetic predisposition (e.g., allergic reactions do not always occur in all individuals), age, state of health, and concurrent exposures.

Air Sampling Lab Results

SanAir Technologies Laboratory

Name: Environmental Solutions, Inc
Address: 534-A Deale Road
Deale, MD 20751
Phone: 410-867-6262

Project Number: 501 Watkins Park Dr
P.O. Number:
Project Name: Perrywood Elementary
Collected Date: 5/2/2019
Received Date: 5/3/2019 9:25:00 AM

SanAir ID Number
19021186
FINAL REPORT
5/6/2019 3:05:14 PM

Analyst: Martin, Brice

Air Cassette Analysis

ND = None Detected. Blank spaces indicate no spores detected.

SanAir ID Number	19021186-001			19021186-002			19021186-003			19021186-004		
Analysis Using STL	107C			107C			107C			107C		
Sample Number	2441717			2441738			2441737			2441744		
Sample Identification	Room 218			Room 169			Room 106			Room 162		
Sample Type	Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5		
Volume	25 Liters			25 Liters			25 Liters			25 Liters		
Analytical Sensitivity	40 Count/M^3			40 Count/M^3			40 Count/M^3			40 Count/M^3		
Background Density	1+			1+			1+			2		
Other	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**
Dander	13	520	n/a	34	1360	n/a	15	600	n/a	44	1760	n/a
Fibers	1	40	n/a	1	40	n/a	5	200	n/a	2	80	n/a
Mycelial Fragments												
Pollen				1	40	n/a						
Fungal Identification	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**	**Raw Count**	**Count/M^3**	**%**
Alternaria species							1	40	3			
Ascospores												
Aspergillus/Penicillium				3	120	8				3	120	33
Basidiospores				1	40	3	2	80	7			
Bispora like				1	40	3						
Cladosporium species				33	1320	87	25	1000	86	6	240	67
Polythrincium species							1	40	3			
Smuts/Myxomycetes												
TOTAL				**38**	**1520**		**29**	**1160**		**9**	**360**	

Signature: Brice Martin Date: 5/6/2019 Reviewed: Johnathan Wilson Date: 5/6/2019

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Air Cassette Analysis

ND = None Detected. Blank spaces indicate no spores detected.

SanAir ID Number	19021186-005			19021186-006			19021186-007			19021186-008		
Analysis Using STL	107C			107C			107C			107C		
Sample Number	2441729			2441735			2441743			2441736		
Sample Identification	Room 142			Room 113			Room 135			Room 150		
Sample Type	Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5			Air Cassette - Micro-5		
Volume	25 Liters			25 Liters			25 Liters			25 Liters		
Analytical Sensitivity	40 Count/M³			40 Count/M³			40 Count/M³			40 Count/M³		
Background Density	1+			1+			1+			1+		
Other	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**
Dander	32	1280	n/a	11	440	n/a	22	880	n/a	13	520	n/a
Fibers				1	40	n/a				1	40	n/a
Mycelial Fragments							1	40	n/a			
Pollen												
Fungal Identification	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**	**Raw Count**	**Count/M³**	**%**
Alternaria species												
Ascospores												
Aspergillus/Penicillium				1	40	20						
Basidiospores							1	40	33			
Bispora like												
Cladosporium species	1	40	>99	4	160	80	2	80	67	2	80	>99
Polythrincium species												
Smuts/Myxomycetes												
TOTAL	**1**	**40**		**5**	**200**		**3**	**120**		**2**	**80**	

Signature: Brice Martin Date: 5/6/2019 Reviewed: Johnathan Wilson Date: 5/6/2019

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5/6/2019 3:05:14 PM

Analyst: Martin, Brice

Air Cassette Analysis

ND = None Detected. Blank spaces indicate no spores detected.

SanAir ID Number	19021186-009					
Analysis Using STL	107C					
Sample Number	2441707					
Sample Identification	Outdoors					
Sample Type	Air Cassette - Micro-5					
Volume	25 Liters					
Analytical Sensitivity	40 Count/M³					
Background Density	2+					
Other	**Raw Count**	**Count/M³**	**%**			
Dander	309	12360	n/a			
Fibers	4	160	n/a			
Mycelial Fragments	2	80	n/a			
Pollen	10	400	n/a			
Fungal Identification	**Raw Count**	**Count/M³**	**%**			
Alternaria species						
Ascospores	9	360	26			
Aspergillus/Penicillium	3	120	9			
Basidiospores	7	280	20			
Bispora like						
Cladosporium species	15	600	43			
Polythrincium species						
Smuts/Myxomycetes	1	40	3			
TOTAL	**35**	**1400**				

Signature: Brice Martin Date: 5/6/2019 Reviewed: Johnathan Wilson Date: 5/6/2019

Direct ID Lab Results

SanAir Technologies Laboratory

SanAir ID Number
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Phone: 410-867-6262

Project Number: 501 Watkins Park Dr
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Project Name: Perrywood Elementary
Collected Date: 5/2/2019
Received Date: 5/3/2019 9:25:00 AM

Analyst: Zhang, Ph.D, Richard

Direct Identification Analysis

SanAir ID: 19021186-010 Sample #:Swab Room 150 "U-Shared" Table

D1 - Direct Identification Analysis on Surface Swab using STL 104

Direct ID of Mold

Fungi	Estimated Amount
Cladosporium species	Moderate

Estimated Amount	Indication of Growth	Evidence of Mycelial Fragments/Conidiophores
Rare	Not Likely	None
Light	Possible	Some, 10 to 25% of Tape Covered
Moderate	Probable	Abundant, 25 to 50% of Tape Covered
Heavy	Significant	Throughout, 50 to 100% of Tape Covered

*Refer to additional information page for further details

Signature: [signature] Date: 5/6/2019

Reviewed: [signature] Date: 5/6/2019

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Organism Descriptions

The descriptions of the organisms presented are derived from various reference materials. The laboratory report is based on the data derived from the samples submitted and no interpretation of the data, as to potential, or actual, health effects resulting from exposure to the numbers of organisms found, can be made by laboratory personnel. Any interpretation of the potential health effects of the presence of this organism must be made by qualified professional personnel with first hand knowledge of the sample site, and the problems associated with that site.

Dander - Comprised of human and/or animal skin cells. Counts may be higher in carpeted rooms and in rooms with more traffic.
Health Effects: May cause allergies.

Fibers - This category can include clothing, carpet, and insulation fibers.

Mycelial Fragments - A mycelium (plural = mycelia) is the "body" of a fungus. It is a collective term for hyphae (singular = hypha), which are the tubular units of the mycelium usually composed of chitin. The terms hyphae and mycelial fragments are used interchangeably. [This information was referenced from the mycology text "The Fifth Kingdom"]In some cases a fungal identification cannot be obtained due to lack of sporulation. Only the mycelial fragments are present, and cannot be identified without the distinguishing characteristics of the spores or the structures they grow from.
Health Effects: Allergic reactions may occur in the presence of spores (conidia) or mycelial/hyphal fragments.

Pollen - Produced by trees, flowers, weeds and grasses. The level of pollen production can depend on water availability, precipitation, temperature, and light. Pollen is usually dispersed by either insects or the wind.
Health Effects: Mostly effects the respiratory tract with hay fever symptoms but has also been shown to trigger asthma in some people.

Alternaria species - This genus compromises a large number of saprobes and plant pathogens. It is one of the predominate airborne fungal spores indoor and outdoor. Outdoors it may be isolated from samples of soil, seeds, and plants. It is one of the more common fungi found in nature, extremely widespread and ubiquitous. Conidia are easily carried by the wind, with peak concentrations in the summer and early fall. It is commonly found in outdoor samples. It is often found in indoor environments, on drywall, ceiling tiles, in house dust, carpets, textiles, and on horizontal surfaces in building interiors. Often found on window frames.
Health Effects: In humans, it is recognized to cause type I and III allergic responses. Because of the large size of the spores, it can be deposited in the nose, mouth and upper respiratory tract, causing nasal septum infections. It has been known to cause Baker's asthma, farmer's lung, and hay fever. It has been associated with hypersensitivity pneumoniti, sinusitis, deratomycosis, onychomycosis, subcutaneous phaeohyphomycosis, and invasive infection. Common cause of extrinsic asthma (immediate-type hypersensitivity: type I). Acute symptoms include edema and bronchiospasms, chronic cases may develop pulmonary emphysema.
References: Flannigan, Brian, Robert A. Samson, and J. David Miller, eds. Microorganisms in Home and Indoor Work Environments: Diversity, Health Impacts, Investigation, and Control. London and New York: Taylor & Francis, 2001.

Ascospores - From the fungal Subphylum Ascomycotina. Ascospores are ubiquitous in nature and are commonly found in the outdoor environment. This class contains the "sac fungi" and yeasts. Some ascospores can be identified by spore morphology, however; some care should be excercised with regard to specific identification. They are identified on tape lifts and non-viable analysis by the fact that they have no attachment scars and are sometimes enclosed in sheaths with or without sacs. Ascomycetes may develop both sexual and asexual stages. Rain and high humidity may help asci to release, and dispurse ascospores, which is why during these weather conditions there is a great increase in counts.
Health Effects: This group contains possible allergens.

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Organism Descriptions

The descriptions of the organisms presented are derived from various reference materials. The laboratory report is based on the data derived from the samples submitted and no interpretation of the data, as to potential, or actual, health effects resulting from exposure to the numbers of organisms found, can be made by laboratory personnel. Any interpretation of the potential health effects of the presence of this organism must be made by qualified professional personnel with first hand knowledge of the sample site, and the problems associated with that site.

Aspergillus/Penicillium - These spores are easily aerosolized. Only through the visualization of reproductive structures can the genera be distinguished. Also included in this group are the spores of the genera Acremonium, Phialophora, Verticillium, Paecilomyces, etc. Small, round spores of this group lack the necessary distinguishing characteristics when seen on non-viable examination.
Health Effects: Can cause a variety of symptoms including allergic reactions. Most symptoms occur if the individual is immunocompromised in some way (HIV, cancer, etc). Both Penicillium and Aspergillus spores share similar morphology on non-viable analysis and therefore are lumped together into the same group.

Basidiospores - From the Subphylum Basidiomycotina which contains the mushrooms, shelf fungi, and a variety of other macrofungi. They are saprophytes, ectomycorrhizal fungi or agents of wood rot, which may destroy the structure wood of buildings. It is extremely difficult to identify a specific genera of mushrooms by using standard culture plate techniques. Some basidiomycete spores can be identified by spore morphology; however, some care should be exercised with regard to specific identification. The release of basidiospores is dependant upon moisture, and they are dispersed by wind.
Health Effects: Many have the potential to produce a variety of toxins. Members of this group may trigger Type I and III fungal hypersensitivity reactions. Rarely reported as opportunistic pathogens.

Bispora like - Bispora is a ubiquitous anamorphic fungus and may be isolated from decaying wood.
Health Effects: There has been no known research on the health effects, toxicity, or allergens to this fungi.
References: C.J. K. Wang, R.A. Zabel, Identification Manual for Fungi from Utility Poles in the Eastern United States, American Type Culture Collection 1990

Cladosporium species - The most commonly identified outdoor fungus. The outdoor numbers are reduced in the winter and are often high in the summer. Often found indoors in numbers less than outdoor numbers. It is commonly found on the surface of fiberglass duct liner in the interior of supply ducts. A wide variety of plants are food sources for this fungus. It is found on dead plants, woody plants, food, straw, soil, paint and textiles. Often found in dirty refrigerators and especially in reservoirs where condensation is collected, on moist window frames it can easily be seen covering the whole painted area with a velvety olive green layer.
Health Effects: It is a common allergen. It can cause mycosis. Common cause of extrinsic asthma (immediate-type hypersensitivity: type I). Acute symptoms include edema and bronchiospasms, chronic cases may develop pulmonary emphysema. Illnesses caused by this genus can include phaeohyphomycosis, chromoblastomycosis, hay fever and common allergies.
References: Flannigan, Brian, Robert A. Samson, and J. David Miller, eds. Microorganisms in Home and Indoor Work Environments: Diversity, Health Impacts, Investigation, and Control. London and New York: Taylor & Francis, 2001.

Polythrincium species - This fungus is often associated with leaves and other plant material. There are no reports of any clinical significance or allergenic properties.
References: Ellis, Martin B., Ellis, Pamela, Microfungi on Land Plants: An Identification Handbook. England, The Richmond Publishing Co. Ltd., 1997.

Smuts/Myxomycetes - Smuts and Myxomycetes are parasitic plant pathogens. They are typically grouped together due to their association with plants, the outdoors and because they share similar microscopic morphology.
Health Effects: Can produce type I fungal hypersensitivity reactions.
References: Martin, G.W., C.J. Alexopoulos, and M.L. Farr. The Genera of Myxomycetes. Iowa City, Iowa: University of Iowa Press, 1983.

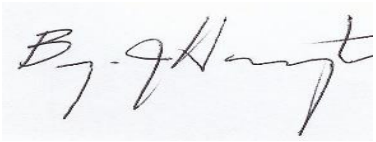
Conclusions/Recommendations

The water damaged ceiling tiles in Rooms 218, 169, 106, 113, and 150 should be removed and replaced. In Room 169, the small section of wallboard should be removed from the base of the wall right of the Storage Room (233) door.

In Room 150, the underside of the "U-shaped" table should be cleaned and treated to remove surface mold growth.

I hope you found our service beneficial. If you have any questions or concerns, please feel free to contact me at 410-867-6262.

Respectfully,



Bryan Harrington (CIE)
Environmental Solutions, Inc.

Industry References

Since the 1993 New York City Department of Health (NYCDOH) document (Assessment and remediation of *Stachybotrys Atra* in Indoor Environments) was produced, several other guidance documents have been written. This report was developed in accordance with and including:

- *Fungal Contamination in Buildings: A Guide to Recognition and Management* (Health Canada, 1995).
- *Control of Moisture Problems Affecting Biological Indoor Air Quality* (Flannigan and Morey, 1996).
- *Bioaerosols: Assessment and Control* (American Conference of Government Industrial Hygienists [ACGIH], 1999).
- *Guidelines on Assessment and Remediation of Fungi in Indoor Environments* (NYCDOH, 2000). [external link]
- *Mold Remediation in Schools and Commercial Buildings* (U.S. EPA, 2001).
- *Report of the Microbial Growth Task Force* (The American Industrial Hygiene Association, 2001).
- *Fungal Contamination: A manual for investigation, remediation and control (BECi) 2005*.
- *29 CFR 1910, Occupational Safety and Health Standards for General Industry, U.S. Department of Labor*
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