

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	Port Towns Elementary School 77,586 square feet	Bryan Harrington Certified Indoor Environmentalist Environmental Solutions, Inc. 6114 Drum Point Rd Deale, MD 20751 410-867-6262 Bryan@esi4u.com
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Property Location

4351 58th Avenue, Bladensburg, MD 20710

Date of Inspection 4/24/2019



Prepared By: Bryan Harrington

Certified Indoor Environmentalist (CIE)

Dear Mr. Baylor,

The results of the inspection and testing performed Port Towns Elementary School, which is located at 4351 58th Avenue, Bladensburg, MD 20710, 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 recommendations from ESI's 4/24/2019 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 Historically elevated levels of humidity, condensation from pipes, periodic steam leaks, and outdated HVAC systems may have contributed to water damage ceiling tiles and colonization of mold spores in various areas of the school.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 visually 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 is 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 1049	2440989	N/A	29.0%	77.1	636	001	10,175	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4'	CMU and drywall	1	1	9	10	1	1	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
<ul style="list-style-type: none"> • 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 320 Count/M³ and no elevated levels of Carbon monoxide (636 ppm) or Carbon dioxide (001) were detected. 								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 1038	2440958	N/A	35.9%	72.3	843	000	9,693	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4'	CMU and drywall	2	0	6	6	1	1	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
<ul style="list-style-type: none"> • 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 920 Count/M³ and no elevated levels of Carbon monoxide (843 ppm) or Carbon dioxide (000) were detected. 								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 1018	2440953	N/A	40.7%	72.3	907	000	8,525	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convactor	HVAC Diffusors	Sinks
2x4'	CMU and drywall	1	25	2	8	1	1	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
<ul style="list-style-type: none"> • 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 600 Count/M³ and no elevated levels of Carbon monoxide (907 ppm) or Carbon dioxide (000 ppm) were detected. 								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 1013	2441004	N/A	37.7%	73.2	799	001	9,109	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convactor	HVAC Diffusors	Sinks
2x4'	CMU and drywall	1	26	2	9	1	1	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
<ul style="list-style-type: none"> • 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 600 Count/M³ and no elevated levels of Carbon monoxide (799 ppm) or Carbon dioxide (001 ppm) were detected. 								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 2036	2440963	N/A	27.1%	72.6	679	000	7,452	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convactor	HVAC Diffusors	Sinks
2x4'	CMU and drywall	1	27	3	5	1	1	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
<ul style="list-style-type: none"> • 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 2,080 Count/M³ but the genera share a similar biodiversity as the outdoor control sample. No elevated levels of Carbon monoxide (679 ppm) or Carbon dioxide (000 ppm) were detected. 								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 2030	2441001	N/A	34.5%	72.8	628	000	7,941	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convactor	HVAC Diffusors	Sinks
2x4'	CMU and drywall	0	26	2	8	1	1	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
<ul style="list-style-type: none"> • 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 520 Count/M³ and no elevated levels of Carbon monoxide (628 ppm) or Carbon dioxide (000 ppm) were detected. 								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 2000	2441003	N/A	33.0%	73.7	620	000	9,259	
Inspected								
Ceiling Tiles	Walls	Teacher Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4'	CMU and drywall	1	0	14	8	1	1	2
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
<ul style="list-style-type: none"> 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 1,440 Count/M³ and no elevated levels of Carbon monoxide (628 ppm) or Carbon dioxide (000 ppm) were detected. 								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Room 2012	2440959	N/A	27.7%	73.6	545	000	8,525	
Inspected								
Ceiling Tiles	Walls	Teachers Desks	Student Desks	Tables	Cabinets Shelving	Convector	HVAC Diffusors	Sinks
2x4	CMU and drywall	1	0	8	8	1	1	1
NO	NO	NO	NO	NO	NO	NO	NO	NO
Observation Notes								
<ul style="list-style-type: none"> 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 2,200 Count/M³ but the genera share a similar biodiversity as the outdoor control sample. No elevated levels of Carbon monoxide Carbon monoxide (545 ppm) or Carbon dioxide (000 ppm) were detected. 								
Recommendations								
NONE								

Location	IAQ Sample #	Swab	R/H	Temp	CO2	CO	Cubic feet of air.	
Outdoors	2440994	N/A	22.5%	80.6	594	000	N/A	
Observation Notes								
<ul style="list-style-type: none"> The total spore count was 2,200 Count/M³ and the prominent genera were Ascospores (1,040 Count/M³), Basidiospores (760 Count/M³), and Cladosporium (320 Count/M³). 								

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/M³ 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.

Lab Results



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

Project Number: 4351 58th Ave.
P.O. Number:
Project Name: Port Towns Elementary School
Collected Date: 4/24/2019
Received Date: 4/25/2019 9:30:00 AM

SanAir ID Number
19019670
FINAL REPORT
 4/29/2019 11:06:05 AM

Analyst: Shepperson, Josh

Air Cassette Analysis

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

SanAir ID Number	19019670-001			19019670-002			19019670-003			19019670-004		
Analysis Using STL	107C			107C			107C			107C		
Sample Number	2440989			2440958			2440953			2441004		
Sample Identification	Classroom 1049			Classroom 1038			Classroom 1018			Classroom 1013		
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	2			2+			2			2		
Other	Raw Count	Count/M³	%	Raw Count	Count/M³	%	Raw Count	Count/M³	%	Raw Count	Count/M³	%
Dander	39	1560	n/a	176	7040	n/a	128	5040	n/a	49	1960	n/a
Fibers	3	120	n/a	10	400	n/a	6	240	n/a	2	80	n/a
Mycelial Fragments										1	40	n/a
Pollen	2	80	n/a	6	240	n/a	2	80	n/a	1	40	n/a
Fungal Identification	Raw Count	Count/M³	%	Raw Count	Count/M³	%	Raw Count	Count/M³	%	Raw Count	Count/M³	%
Ascospores	2	80	25	1	40	4				2	80	13
Aspergillus/Penicillium	1	40	13	4	160	17	4	160	27	2	80	13
Basidiospores	4	160	50	3	120	13				3	120	20
Bispora like				5	200	22						
Cladosporium species	1	40	13	8	320	35	11	440	73	8	320	53
Curvularia species												
Epicoccum species				1	40	4						
Nigrospora species				1	40	4						
Smuts/Myxomycetes												
TOTAL	8	320		23	920		15	600		15	600	

Signature:

Date: 4/29/2019

Reviewed:

Date: 4/29/2019



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Analyst: Shepperson, Josh

Air Cassette Analysis

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

SanAir ID Number	19019670-005			19019670-006			19019670-007			19019670-008		
Analysis Using STL	107C			107C			107C			107C		
Sample Number	2440963			2441001			2441003			2440959		
Sample Identification	Classroom 2036			Classroom 2030			Classroom 2000			Classroom 2012		
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	2			2+			2			2		
Other	Raw Count	Count/M³	%	Raw Count	Count/M³	%	Raw Count	Count/M³	%	Raw Count	Count/M³	%
Dander	19	760	n/a	78	3120	n/a	35	1400	n/a	24	960	n/a
Fibers	1	40	n/a	9	360	n/a	5	200	n/a	2	80	n/a
Mycelial Fragments	1	40	n/a									
Pollen	11	440	n/a	3	120	n/a	2	80	n/a	9	360	n/a
Fungal Identification	Raw Count	Count/M³	%	Raw Count	Count/M³	%	Raw Count	Count/M³	%	Raw Count	Count/M³	%
Ascospores	6	240	12				1	40	3	12	480	22
Aspergillus/Penicillium	2	80	4	2	80	15				11	440	20
Basidiospores	29	1160	56	3	120	23	8	320	22	16	640	29
Bispora like										1	40	2
Cladosporium species	13	520	25	8	320	62	27	1080	75	14	560	25
Curvularia species										1	40	2
Epicoccum species												
Nigrospora species												
Smuts/Myxomycetes	2	80	4									
TOTAL	52	2080		13	520		36	1440		55	2200	

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Analyst: Shepperson, Josh

Air Cassette Analysis

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

SanAir ID Number	19019670-009		
Analysis Using STL	107C		
Sample Number	2440994		
Sample Identification	Outdoors		
Sample Type	Air Cassette - Micro-5		
Volume	25 Liters		
Analytical Sensitivity	40 Count/M ³		
Background Density	2		
Other	Raw Count	Count/M³	%
Dander	12	480	n/a
Fibers	2	80	n/a
Mycelial Fragments			
Pollen	40	1600	n/a
Fungal Identification	Raw Count	Count/M³	%
Ascospores	26	1040	47
Aspergillus/Penicillium			
Basidiospores	19	760	35
Bispora like			
Cladosporium species	8	320	15
Curvularia species			
Epicoccum species			
Nigrospora species			
Smuts/Myxomycetes	2	80	4
TOTAL	55	2200	

Signature:

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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.

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 exercised 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 disperse ascospores, which is why during these weather conditions there is a great increase in counts.
Health Effects: This group contains possible allergens.

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.



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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.

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 bronchospasms, 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.

Curvularia species - Curvularia is found on plant material and is considered a saprobe. It has also been isolated from dust samples and from wallpaper.
Health Effects: It has been reported to cause type I hypersensitivity and to be a cause of allergic fungal sinusitis. It may cause corneal infections, mycetoma and infections in immune compromised hosts.
References: De Hoog, G.S., J. Guarro, J. Gene, and M.J. Figueras. Atlas of Clinical Fungi, 2nd Edition. The Netherlands: CBS, 2000.

Epicoccum species - It is found in plants, soil, grains, textiles, and paper products. Frequently isolated from air and occasionally occurs in house dust. Is a saprophyte and considered a weakly parasitic secondary invader of plants, moldy paper and textiles. Epicoccum is usually isolated with either Cladosporium species or Aureobasidium species.
Health Effects: A common allergen. It also has the potential to produce type I fungal hypersensitivity reactions.
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.

Nigrospora species - Has been isolated from air and soil samples. Usually found in plant material as a saprobe.
Health Effects: It has been associated with type I allergic responses. No reported cases of infection.
References: St-Germain, Guy and Richard Summerbell. Identifying Filamentous Fungi: A Clinical Laboratory Handbook. California: Star Publishing Company., 1996.

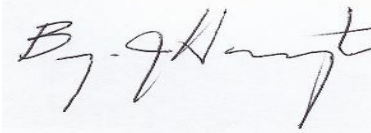
Smuts/Myxomycetes - Smuts and Myxomycetes are parasitic plant pathogens. They are typically grouped together due to their association with plants, the outdoors and because they share similar microscopic morphology.
Health Effects: Can produce type I fungal hypersensitivity reactions.
References: Martin,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

Conclusions/Recommendations

No visible water damage or mold growth was detected on the building materials in the above test locations. The furniture and contents were also clean of any visible mold growth. The air quality in the above test locations should not pose environmental or exposure risks.

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*
- Institute of Inspection, Cleaning and Restoration Certification Standard IICRC S520 *29 CFR 1926, Occupational Safety and Health Standards for the Construction Industry, U.S. Department of Labor*
- *40 CFR 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), U.S. Environmental Protection Agency*
- *ACR 2006, Assessment, Cleaning and Restoration of HVAC Systems, National Air Duct Cleaners Association, 2006**
- *ASHRAE Standards 62.1 or 62.2*
- *ASTM D-1653, Standard Test Methods for Water Vapor Transmission of Organic Coating Films*
- *Bioaerosols: Assessment and Control, American Conference of Governmental Industrial Hygienists, 1999*
- *Field Guide for Determination of Biological Contaminants in Environmental Samples, American Industrial Hygiene Association, 2005*
- *A Guide for Mold Remediation in Schools and Commercial Buildings, US Environmental Protection Agency, 2001 Protecting the Built Environment: Cleaning for Health, Michael A. Berry Ph.D., 1993*
- *IICRC S100 Standard and Reference Guide for Professional Carpet Cleaning, Fourth Edition, Institute of Inspection, Cleaning and Restoration Certification, (S100)**
- *IICRC S300 Standard and Reference Guide for Professional Upholstery Cleaning, First Edition, Institute of Inspection, Cleaning and Restoration Certification, (S300)**
- *ANSI/IICRC S500 Standard and Reference Guide for Professional Water Damage Restoration, Third Edition, Institute of Inspection, Cleaning and Restoration Certification, (S500)**