

INDOOR AIR QUALITY ASSESSMENT REPORT
EARLY JANUARY 2015 WATER INTRUSION EVENT

COMMUNITY CONSOLIDATED SCHOOL DISTRICT 181
HINSDALE MIDDLE SCHOOL
100 SOUTH GARFIELD AVENUE
HINSDALE, ILLINOIS
IES NO. 915-08



INTEGRITY

ENVIRONMENTAL SERVICES, INC.

1240 IROQUOIS DRIVE
SUITE 102
NAPERVILLE, IL 60563

630-718-9133
FAX 630-718-9114

January 14, 2015

C-11369

Mr. Mike Vilendrer
Facilities Coordinator
Community Consolidated School District 181
120 Walker Avenue
Clarendon Hills, Illinois 60514

Dear Mr. Vilendrer:

Indoor Air Quality Assessment Report
Community Consolidated School District 181
Hinsdale Middle School
100 South Garfield Avenue
Hinsdale, Illinois
IES No. 915-08

Integrity Environmental Services, Inc. has completed this final Indoor Air Quality Assessment Report for the above referenced School District facility. One (1) original and two (2) copies of the Report have been provided.

This Report has been prepared based on observations made and sample data collected following the January 8, 2015 water intrusion event.

Opinions made or formed, other than those expressed herein are those of the reader and in no way shall obligate Integrity Environmental Services, Inc. The findings presented in this Report are representative of the date and times that the samples were collected. The findings presented herein should not be used or relied upon to evaluate conditions at significantly later dates.

If you have any questions, please feel free to contact our office at (630) 718-9133.

INTEGRITY ENVIRONMENTAL SERVICES, INC.


Guy S. Tawzer
Vice President, Air Quality Division

TABLE OF CONTENTS

**INDOOR AIR QUALITY ASSESSMENT REPORT
EARLY JANUARY 2015 WATER INTRUSION EVENT
COMMUNITY CONSOLIDATED SCHOOL DISTRICT 181
HINSDALE MIDDLE SCHOOL
100 SOUTH GARFIELD AVENUE
HINSDALE, ILLINOIS
IES NO. 915-08**

- 1. EXECUTIVE SUMMARY**
 - A. INTRODUCTION**
 - B. INSPECTION SUMMARY**
 - C. SAMPLING STRATEGY**
 - D. LABORATORY ANALYSIS SUMMARY**
 - E. CONCLUSIONS**
 - F. RECOMMENDATIONS**
- 2. EXHIBITS**
 - A. SAMPLE LOCATION DRAWINGS**
 - B. LABORATORY ANALYTICAL RESULTS**
 - C. AREA PHOTOGRAPHS**
- 3. MICROBIAL DEFINITIONS**

EXECUTIVE SUMMARY

**INDOOR AIR QUALITY ASSESSMENT REPORT
EARLY JANUARY 2015 WATER INTRUSION EVENT
COMMUNITY CONSOLIDATED SCHOOL DISTRICT 181
HINSDALE MIDDLE SCHOOL
100 SOUTH GARFIELD AVENUE
HINSDALE, ILLINOIS
IES NO. 915-08**

A. INTRODUCTION:

The following paragraphs provide a narrative description of an indoor air quality assessment conducted for Community Consolidated School District 181 within the above referenced facility. This study was requested following a water intrusion event that occurred on January 8, 2015. This assessment was conducted to address any potential indoor air quality concerns that may exist due to this water intrusion event at Hinsdale Middle School.

At the request of the School District, Integrity Environmental Services, Inc. (IES) was present at the Hinsdale Middle School on Friday, January 9 2015 to conduct an indoor air quality (IAQ) assessment. The IAQ assessment was conducted to collect and document concentrations of airborne mold spores, and concentrations of mold spores within carpet dust, as well as to visually inspect the affected portions of the building for flood-related conditions including evidence of any visible mold, and the presence of water-impacted building materials following a recent sprinkler pipe burst within Classroom 215, caused by extremely cold exterior temperatures. The water from the pipe burst consequently flooded the classroom and portions of adjacent Classrooms 214, 216, Room 213, the adjacent hallway and a portion of the carpeting within the MRC located across the hall from Classroom 215. The inspection was conducted due to concerns raised by School District administrators, regarding the possible presence of mold and the air quality within the school building as a result of this water intrusion event.

As part of our investigation, air samples were collected in areas of the school building impacted by the leaking and flooding and/or in close proximity to impacted areas. A visual inspection of the water-impacted areas within the school building was also conducted. During this inspection, the IES representative noted the condition within each of the water-impacted areas. IES conducted the site inspection and air sampling procedures under the existing building conditions. Sample collection of bioaerosols was conducted following the afternoon release of students and the faculty. While the building's third floor gymnasium was occupied during this investigation, for the purpose of a sporting event, the gymnasium was unaffected by this most recent pipe burst. At the time of the investigation the building's first and second floor was occupied only by maintenance and custodial staff. The weather at the time of the sampling event was overcast cold, and windy with blowing snow. All exterior doors and windows within the school building were closed and the HVAC system was in operation. Numerous fans and dehumidifiers, were positioned and in operation the areas on the building's second floor impacted by the flooding.

B. INSPECTION SUMMARY:

Prior to sampling, during discussions with Community Consolidated School District 181 Facilities Coordinator, Mr. Mike Vilendrer, and School Principal, Mr. Ruben Pena, it was reported that the subject sprinkler pipe burst above the ceiling in the southeast quadrant of Classroom 215 around 9:30 p.m. on Thursday, January 8, 2015. It was also reported that the Hinsdale Fire Department arrived on-site within fifteen (15) minutes due to the fact that the activation of the building's sprinkler system triggered the fire alarm. Upon arrival, the Fire Department's crew shut off the sprinkler system and initiated the water extraction, clean-up and drying of water-impacted surfaces. School District personnel quickly assisted with the clean-up and acquired commercial fans and dehumidifiers to further facilitate the drying and water removal process. Baseboards were removed in many locations to aid the water extraction and drying process. Water was also extracted from the impacted portion of the carpeting within the MRC. In a limited amount of locations, portions of the drywall was removed (less than foot above the floor) to eliminate water-impacted material and/or to insure air movement within the interstitial space between the walls. It was reported that all standing water was cleaned up within five (5) hours of the pipe burst.

At the time of this investigation, the fans and dehumidifiers had been in operation since being put into operation on January 8, 2015. All classes were held and all rooms were occupied. Mr. Pena stated that no health problems directly related to the water intrusion event were reported.

In the presence of the drying and dehumidification equipment, the IES representative used a moisture meter on various surfaces that were directly impacted by the water intrusion. All readings indicated that the materials were dry.

Classrooms 214, 215, 216, Room 213, the MRC and the associated hallway were directly impacted by the water originating from the burst sprinkler pipe. Several lay-in ceiling tiles in Classroom 215 sustained significant water damage and had already been disposed of. While most floor tiles were observed to be intact, a few floor tiles in the adjacent second floor hallway were observed to have been damaged during removal of some of the baseboards. These floor tiles had been installed following the 2014 water intrusion event. These floor tiles were sampled and analyzed during the 2014 school year and laboratory reports show that these floor tiles do not contain asbestos. Laboratory station cabinets in Classroom 215 were removed on Monday, January 12, 2015 by School District personnel. The wood cabinets and the drywall behind the cabinets were reported to be dry and unaffected by the water from the pipe burst.

A visual observation and air sampling was conducted on the first floor of the school building in Classrooms 124 and 126, located directly below Classrooms 215 and 216. No evidence of water intrusion was observed within these classrooms.

C. SAMPLING STRATEGY:

The sampling protocols for this project were developed in conjunction with existing guidelines and recommendations presented by the American Conference of Governmental Industrial Hygienists (ACGIH), the American Industrial Hygiene Association (AIHA), and Environmental Microbiology Laboratories, Inc., a nationally recognized, AIHA proficiency-tested laboratory specializing in microbial testing. In conjunction with our Air Quality Division, guidelines suggested by the Indoor Air Quality Association (IAQA) and Mycotech Biological, Inc. were utilized in helping determine and interpret sample data.

It should be noted that there are no current regulatory requirements governing the testing strategies and interpretation of sample data at this time. Our sampling strategy has included the incorporation of current guidelines and recommendations, as well as state-of-the-art methodologies to help define the levels of mold and related airborne bioaerosols within the subject areas of Hinsdale Middle School. IES collected representative samples within each sample location.

At each area air sample location, the IES representative collected a sample for mold spores using a particulate sampling cassette known as an "Allergenco-D" Disposable Air Sampling Cassette. The duration of each of the mold spore air samples was five (5) minutes at each sample location. At this time, due to the extremely cold exterior temperatures a separate baseline area air sample was not collected for mold spores outside the facility. Little if any exterior, airborne mold would be present in these conditions for comparison.

Following collection, each air sample cassette was properly sealed, contained, and issued a separate and unique sample number. Each sample number and corresponding sample location was recorded on the laboratory's chain of custody form, prior to submittal to the laboratory for analysis.

Microvac carpet dust samples were collected from two (2) locations on the water-impacted carpeting within the school building's second floor MRC. Each sample was collected using a high volume vacuum pump attached to a 0.8 μ MCE dust cassette by means of flexible vinyl tubing. Prior to sampling, a 100 square centimeter (cm²) template was placed on the carpet. The high-volume air sample pump was calibrated to at least 20 liters per minute (LPM) and the area of carpet within the template was vacuumed to collect carpet dust in an attempt to collect any mold spores that have possibly collected within the carpet. Following collection, each microvac dust sample cassette was properly sealed, contained, and issued a separate and unique sample number. Each sample number and corresponding sample location was recorded on the laboratory's chain of custody form, prior to submittal to the laboratory for analysis.

Following the collection event, all samples were relinquished to STAT Analysis Corporation, located in Chicago, Illinois for analysis. The IES representative collected a total of eleven (11) area air samples and three (3) microvac carpet dust samples for mold spores (including the required QA/QC blanks). All sample locations are illustrated in Section 2, Exhibit A of this report.

Each of the air and carpet dust samples collected was analyzed for the presence, type, and quantity of fungal spores.

D. LABORATORY ANALYSIS SUMMARY:

Mold spores were found on all ten (10) air samples collected inside of the school building during this investigation. Results of the air sample analysis show that four (4) types of mold spores including *Aspergillus/Penicillium*-type spores, spores from the genera *Cladosporium sp.* and *Epicoccum sp.*, and spores from the group that includes Smuts and spores from the genus *Myxomycetes sp.* were found on the collected air samples.

All concentrations of the identified mold spores were reported to be quite low. Concentrations of spores ranged from 13 to 80 spores per cubic meter of air (spores/m³). All reported airborne sample concentrations of mold spores were well below the MBI guideline of 650 spores per cubic meter of air (spores/m³) for individual spore concentrations, and the MBI guideline of 2,000 spores/m³ for total spore concentrations.

It should be noted that *Aspergillus/Penicillium*-type spores, and *Cladosporium sp.* are two (2) of the most common types of mold found in the world. While these types of mold are indicators of the presence of moisture, the fact that the water from this pipe burst event was removed and dried in much less than twenty-four (24) hours indicates that the identified spores are not the result of this water intrusion event. Mold spores including Smuts, *Myxomycetes* and *Epicoccum* are commonly found outside and are typically associated with soil, grains and plants. These types of mold spores are commonly found indoors by means of open windows and doors, shoes, clothing and items brought inside from the exterior.

Although the airborne sample concentrations of most of these mold spores are considered to be within or below normal levels for the general population, persons who are sensitive and/or allergic to molds may still experience some discomfort.

Types of mold spores identified on the collected microvac carpet dust samples include Basidiospores, spores from the genus *Epicoccum sp.* and spores from the group including Smuts and spores from the genus *Myxomycetes sp.* The concentrations of Basidiospores and the spores from the genus *Epicoccum sp.* were reported to be low. The concentrations of the group including Smuts and spores from the genus *Myxomycetes sp.* was reported to be moderate. The types of spores and their respective concentrations found on the collected samples are not unexpected as these types of spores are typically found outside in association with soils and plants and are commonly brought inside on shoes and clothing of building occupants.

Refer to Section 2, Exhibit A for drawings of all sample locations. Refer to Section 2, Exhibit B for Laboratory Analytical Results. Refer to Section 2, Exhibit C for Area Photographs, Refer to Section 3, Definitions, for additional information regarding the types of mold fungi and spores mentioned above.

E. CONCLUSIONS:

Based on our inspection, sample collection work, and laboratory analysis, Integrity Environmental Services, Inc. has made the following conclusions:

- A water intrusion event was reported and observed.
- Visible mold was not identified during this investigation.
- Water removal and clean-up was initiated in less than an hour after the pipe burst occurred.
- Drying equipment was put into operation shortly after water removal and clean-up was initiated. Drying equipment ran continuously over night and into the following evening.
- At the time of the investigation, all water-impacted surfaces were dry. All surfaces were dry well within twenty-four (24) hours.
- Few mold spores were actually detected on the collected air samples. All mold spores identified on both the air samples and carpet dust samples are considered to be quite common.
- Very few, mold spores were collected on the area air samples during this investigation. All interior area airborne mold spore sample concentrations were well below the Mycotech Biological, Inc. total spore concentration guideline of 2,000 spores/m³, as well as the individual spore concentration guideline of 650 spores/m³.

F. RECOMMENDATIONS:

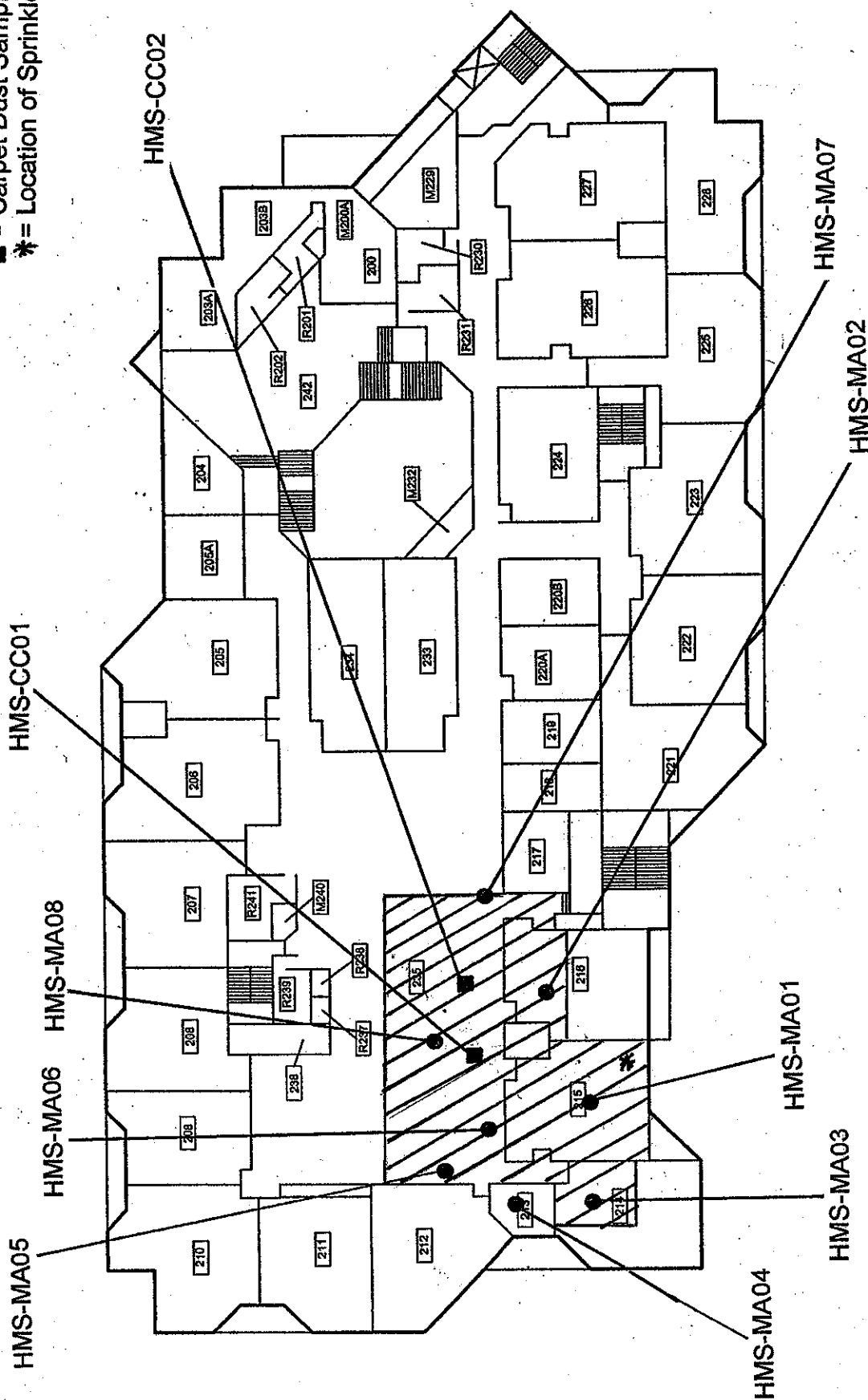
Based upon sample analysis results and visual observations made during this assessment, Integrity Environmental Services, Inc. recommends that the following actions be taken:


1. Continue to observe areas and surfaces impacted by this recent water intrusion event.
2. Any additional surfaces observed to be water damaged should be removed and dispose of.
3. All surfaces impacted by the water intrusion event(s) should be cleaned and treated with an anti-microbial disinfectant.
4. Any surfaces exhibiting visible mold should be cleaned and disinfected with an anti-microbial disinfectant. Any porous material that cannot be completely decontaminated should be properly removed and disposed of.

5. Additional follow-up inspection and sample collection should be considered if mold is observed and/or if building occupants exhibit or complain of mold-related health issues.

EXHIBIT A

- = Air Sample Location
- = Carpet Dust Sample Location
- * = Location of Sprinkler Pipe Burst



 = Area Impacted By 01-08-15 Water Intrusion Event

Blanks = HMS-MA11, HMS-CC03

INTEGRITY
 ENVIRONMENTAL SERVICES, INC.

1240 IROQUOIS DRIVE SUITE 102
 NAPERVILLE, ILLINOIS 60563
 (630) 719-9133
 (630) 719-9114 (FAX)

PROJECT: HINSDALE MIDDLE SCHOOL
 100 SOUTH GARFIELD AVENUE
 HINSDALE, ILLINOIS

OWNER: COMMUNITY CONSOLIDATED SCHOOL DIST. 181
 8010 SOUTH ELM STREET
 BURR RIDGE, ILLINOIS

DRAWN BY: GT
 DATE: 01/14/15

IES NO.: 915-08



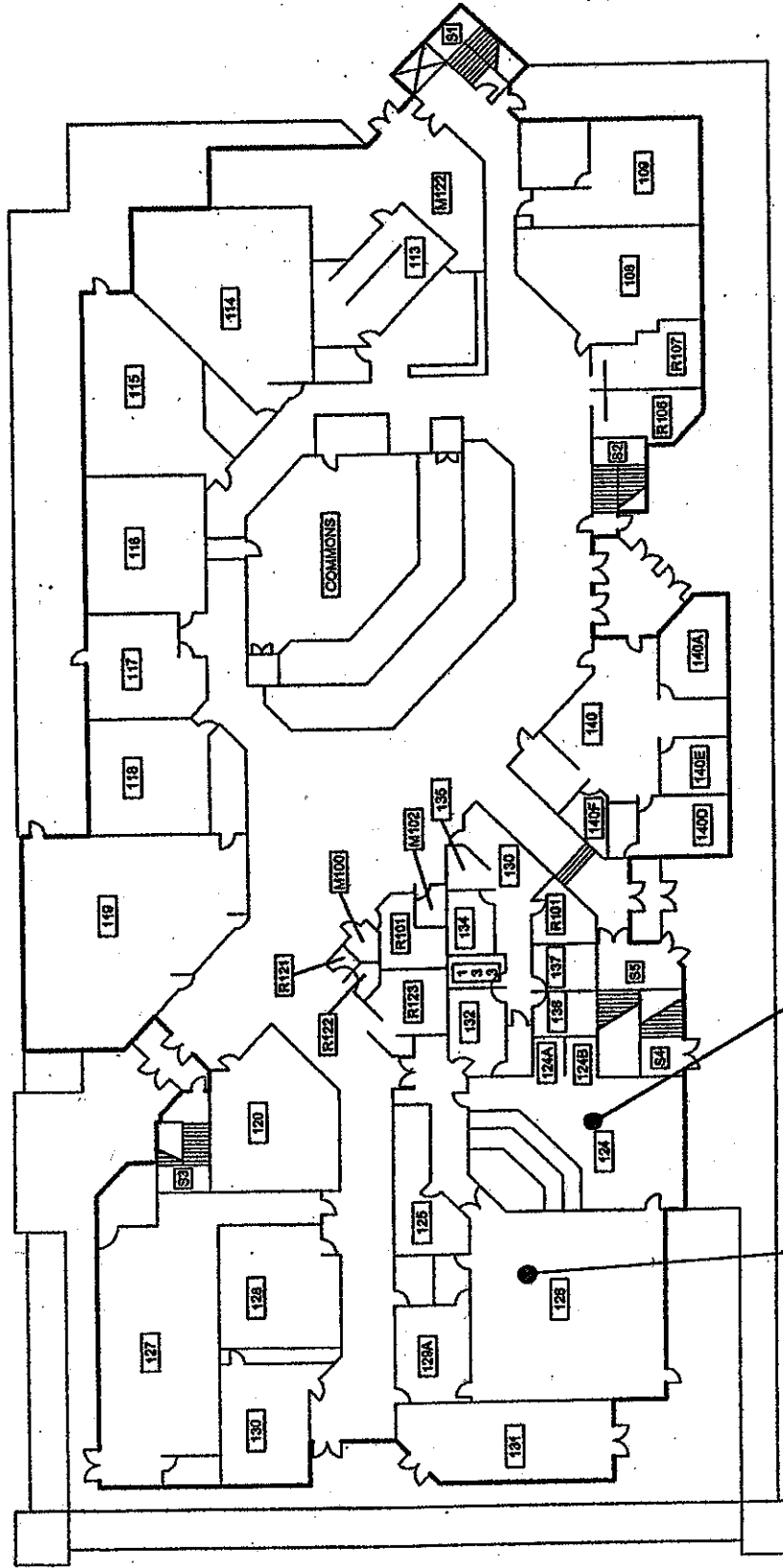
IAQ ASSESSMENT
 SAMPLE LOCATION
 DIAGRAM

SECOND FLOOR

NO SCALE

Blanks = HMS-MA11, HMS-CC03

● = Air Sample Location ■ = Carpet Dust Sample Location



HMS-MA10

HMS-MA09

INTEGRITY
ENVIRONMENTAL SERVICES, INC.

1240 IROQUOIS DRIVE SUITE 102
NAPERVILLE, ILLINOIS 60563
(630) 716-9133
(630) 716-9114 (FAX)

PROJECT: HINSDALE MIDDLE SCHOOL
100 SOUTH GARFIELD AVENUE
HINSDALE, ILLINOIS

OWNER: COMMUNITY CONSOLIDATED SCHOOL DIST. 181
6010 SOUTHELM STREET
BURR RIDGE, ILLINOIS

DRAWN BY: GT
DATE: 01/14/15

IES NO.: 915-08



NO SCALE

IAQ ASSESSMENT
SAMPLE LOCATION
DIAGRAM

FIRST FLOOR

EXHIBIT B

STAT Analysis Corporation

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

January 12, 2015

Integrity Environmental Services, Inc.
1240 Iroquois Drive
Naperville, IL 60563

Telephone: (630) 718-9133
Fax: (630) 718-9114

Analytical Report for STAT Work Order: 15010133 Revision 0

RE: 915-08, HMS Room 215 Event , Second Fl Science

Dear Guy Tawzer:

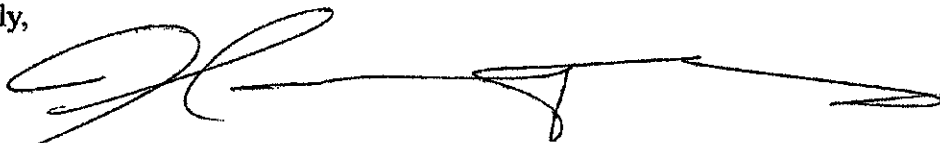
STAT Analysis received 11 samples for the referenced project on 1/12/2015 1:45:00 PM. The analytical results are presented in the following report.

Enclosed are the analytical results for the above referenced project. The samples were analyzed as per the enclosed chain of custody.

All analyses were performed in accordance with established microbiology methodology. All Quality Control criteria as specified in the methods have been met. QA/QC documentation and raw data will remain on file for future reference. Sample acceptance criteria has been met unless noted in the Case Narrative or Sample Receipt Checklist. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions about the enclosed materials, please contact me at (312) 733-0551.

Sincerely,



Albio Marquez
Senior Microscopist

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

Analytical Report for Microbiological Analysis - Fungal Spores in Air

Client:	Integrity Environmental	Date/Time Received:	1/12/15 1:45 PM
Project ID:	915-08, HMS Room 215 Event Second Fl Science	Date Analyzed:	1/12/2015
STAT Project No.:	15010133	Analyzed By:	AM
		QC By:	VS

Client Sample No.:	HMA-MA01				HMA-MA02				HMA-MA03				HMA-MA04			
Sample Description:	215				216				214				213			
Date Sampled:	1/9/2015				1/9/2015				1/9/2015				1/9/2015			
STAT Sample No.:	15010133-001				15010133-002				15010133-003				15010133-004			
Volume (m ³):	0.075				0.075				0.075				0.075			
	Total Count	Count/ m ³	DL	%	Total Count	Count/ m ³	DL	%	Total Count	Count/ m ³	DL	%	Total Count	Count/ m ³	DL	%
Total Fungal Spores:	8	107	13	100	11	147	13	100	1	13	13	100	5	67	13	100
<i>Alternaria</i>																
Ascospores																
<i>Aspergillus/Penicillium</i>					2	27		18.2								
Basidiospores																
<i>Botrytis</i>																
<i>Cercospora</i>																
<i>Chaetomium</i>																
<i>Cladosporium</i>	2	27		25.0					1	13		100.0				
<i>Curvularia</i>																
<i>Drechslera/Bipolaris</i>																
<i>Epicoccum</i>																
<i>Fusarium</i>																
<i>Nigrospora</i>																
<i>Oidium/Erysiphe</i>																
<i>Periconia</i>																
<i>Phoma</i>																
<i>Pithomyces</i>																
<i>Pleospora</i>																
<i>Polythrincium</i>																
<i>Rhizopus/Mucor</i>																
Rusts																
Smuts/Myxomycetes	6	80		75.0	9	120		81.8					5	67		100.0
<i>Stachybotrys</i>																
<i>Stemphylium</i>																
<i>Torula</i>																
<i>Ulocladium</i>																
Unidentified Fungi																
Other																
Mycelial Fragments																
Debris Level	Moderate				Moderate				Low				Moderate			
Organic Material	Present				Present				Present				Present			

DL - Detection Limit = Spores/m³

SOP 6110

Analytical Report for Microbiological Analysis - Fungal Spores in Air

Client: Integrity Environmental Date/Time Received: 1/12/15 1:45 PM
 Project ID: 915-08, HMS Room 215 Event Second Fl Science Date Analyzed: 1/12/2015
 STAT Project No.: 15010133 Analyzed By: AM
 QC By: VS

Client Sample No.:	HMS-MA05				HMS-MA06				HMS-MA07				HMS-MA08			
Sample Description:	West Hall				South Hall (West)				South Hall (East)				MRC			
Date Sampled:	1/9/2015				1/9/2015				1/9/2015				1/9/2015			
STAT Sample No.:	15010133-005				15010133-006				15010133-007				15010133-008			
Volume (m ³):	0.075				0.075				0.075				0.075			
	Total Count	Count/m ³	DL	%	Total Count	Count/m ³	DL	%	Total Count	Count/m ³	DL	%	Total Count	Count/m ³	DL	%
Total Fungal Spores:	8	107	13	100	1	13	13	100	3	40	13	100	7	93	13	100
<i>Alternaria</i>																
Ascomycetes																
<i>Aspergillus/Penicillium</i>	6	80		75.0												
Basidiomycetes																
<i>Botrytis</i>																
<i>Cercospora</i>																
<i>Chaetomium</i>																
<i>Cladosporium</i>																
<i>Curvularia</i>																
<i>Drechslera/Bipolaris</i>																
<i>Epicoccum</i>					1	13		100.0								
<i>Fusarium</i>																
<i>Nigrospora</i>																
<i>Oidium/Erysiphe</i>																
<i>Periconia</i>																
<i>Phoma</i>																
<i>Pithomyces</i>																
<i>Pleospora</i>																
<i>Polythrincium</i>																
<i>Rhizopus/Mucor</i>																
Rusts																
Smuts/Myxomycetes	2	27		25.0					3	40		100.0	7	93		100.0
<i>Stachybotrys</i>																
<i>Stemphylium</i>																
<i>Torula</i>																
<i>Ulocladium</i>																
Unidentified Fungi																
Other																
Mycelial Fragments																
Debris Level	Moderate				Moderate				Moderate				Moderate			
Organic Material	Present				Present				Present				Present			

Date/Time Received: 1/12/15 1:45 PM
Date Analyzed: 1/12/2015
Analyzed By: AM
QC By: VS

DL - Detection Limit = Spores/m³

MICROBIOLOGY CHAIN OF CUSTODY RECORD

Page: 1 of 5

Client: Integrify Environmental Serv., Inc.
Street Address: 1240 Iroquois Ave., Ste. 102
City, State, Zip: Naperville, IL 60563
Phone: (630) 718-9133/Cell (708) 528-1491
Fax: (630) 718-9114
e-mail/Alt. Fax: ies2001@sbcglobal.net
Project Number: 915-08
Project Name: HMS ROOM 215 EVENT
Project Location: SECOND FLOOR SCIENCE
Project Manager: Guy Tawzer
P.O. Number: 915-08

Work Order No.: 13090133
Samples Acceptable: Yes: ☒ No: ☐
Analyzed By: [Signature]
Date/Time: 9-16-11
Data File:
QC By:
Reported By (Initial/Date/Time):
Verbal:
Fax/e-mail:

Turn Around Time: <1 ☒ 1 ☐ 2 ☐ 3 ☐ Viable: 8-10 ☐
Other TAT: 6 hr, Date Due:
Relinquished by: [Signature] Date/Time: 9/15/11 12:00
Received by: [Signature] Date/Time: 9/15/11 13:47
Relinquished by: Date/Time:
Received for lab by: Date/Time:
Relinquished by: Date/Time:
Received by: Date/Time:

Client Sample Number/Description:	Date Taken	Time Taken	Volume (Liters)	Area Wiped (Units) ²	Laboratory Sample No.	Air Cassette	Direct Exam-Tape	Direct Exam-Swab	Direct Exam-Bulk	Viable	Air Impact	Swab	Bulk	Offg						
HMS-MA01-215	1-9-15	16:43	75		001															
2-216		16:57			002															
3-214		17:05			003															
4-213		17:13			004															
5 - WEST WALL		17:21			005															
6 - SOUTH WALL (WEST)		17:28			006															
7 - SOUTH WALL (EAST)		17:36			007															
8 - MRC		17:52			008															
9 124		18:14			009															
10 126		18:22			010															
11 BUNK		-			011															

Comments:

STAT Analysis Corporation

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

January 12, 2015

Integrity Environmental Services, Inc.
1240 Iroquois Drive
Naperville, IL 60563

Telephone: (630) 718-9133
Fax: (630) 718-9114

Analytical Report for STAT Work Order: 15010129 Revision 0

RE: 915-08, HMS Rm 215 Event ,Second Fl

Dear Guy Tawzer:

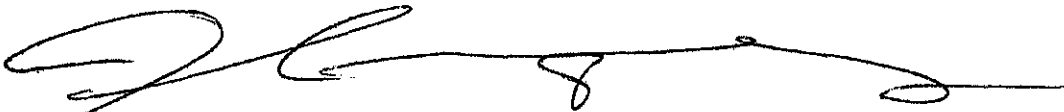
STAT Analysis received 3 samples for the referenced project on 1/12/2015 1:45:00 PM. The analytical results are presented in the following report.

Enclosed are the analytical results for the above referenced project. The samples were analyzed as per the enclosed chain of custody.

All analyses were performed in accordance with established microbiology methodology. All Quality Control criteria as specified in the methods have been met. QA/QC documentation and raw data will remain on file for future reference. Sample acceptance criteria has been met unless noted in the Case Narrative or Sample Receipt Checklist. If required, an estimate of uncertainty for the analyses can be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions about the enclosed materials, please contact me at (312) 733-0551.

Sincerely,



Albio Marquez
Senior Microscopist

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

STAT Analysis Corporation:

2242 West Harrison St., Suite 200, Chicago, Illinois 60612-3766

Tel: 312.733.0551; Fax: 312.733.2386; e-mail address: STATinfo@STATAnalysis.com

Analytical Report for Microbiological Analysis - Direct Examination

Client:	Integrity Environmental	Date/Time Received:	1/12/15 1:45 PM
Project ID:	915-08, HMS Rm 215 Event, Second Fl	Date Analyzed:	1/12/2015
STAT Project No.:	15010129	Analyzed By:	AM

Client Sample No.:	HMS-CC01-MRC	
Date Sampled:	1/9/2015	
Matrix:	Bulk	
STAT Sample No.:	15010129-001	
		Relative Abundance:
Identification:	<i>Epicoccum</i> <i>Smuts/Myxomycetes</i>	Low concentration Moderate concentraion

Client Sample No.:	HMS-CC02-MRC	
Date Sampled:	1/9/2015	
Matrix:	Bulk	
STAT Sample No.:	15010129-002	
		Relative Abundance:
Identification:	<i>Epicoccum</i> <i>Smuts/Myxomycetes</i> <i>Basidiospore</i>	Low concentration Moderate concentraion Low concentration

Client Sample No.:	HMS-CC03	
Date Sampled:	1/9/2015	
Matrix:	Bulk	
STAT Sample No.:	15010129-003	
		Relative Abundance:
Identification:	<i>No fungal spores observed</i>	

High concentration: greater than 75% spore cover/field of view

Moderate concentration: 25% to 75% spore cover/field of view

Low concentration: less than 25% spore cover/field of view

SOP 6210

MICROBIOLOGY CHAIN OF CUSTODY RECORD

[illegible]

Comments: * OTHER- MICROBIAL CARPET DUST (P.N. RECT - EXAM)

EXHIBIT C

Hinsdale Middle
School
100 South Garfield
Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

View of sprinkler pipe
above Classroom 215
that froze and burst on
the evening of
01/08/15, causing a
water intrusion event.

Photo Number: 1



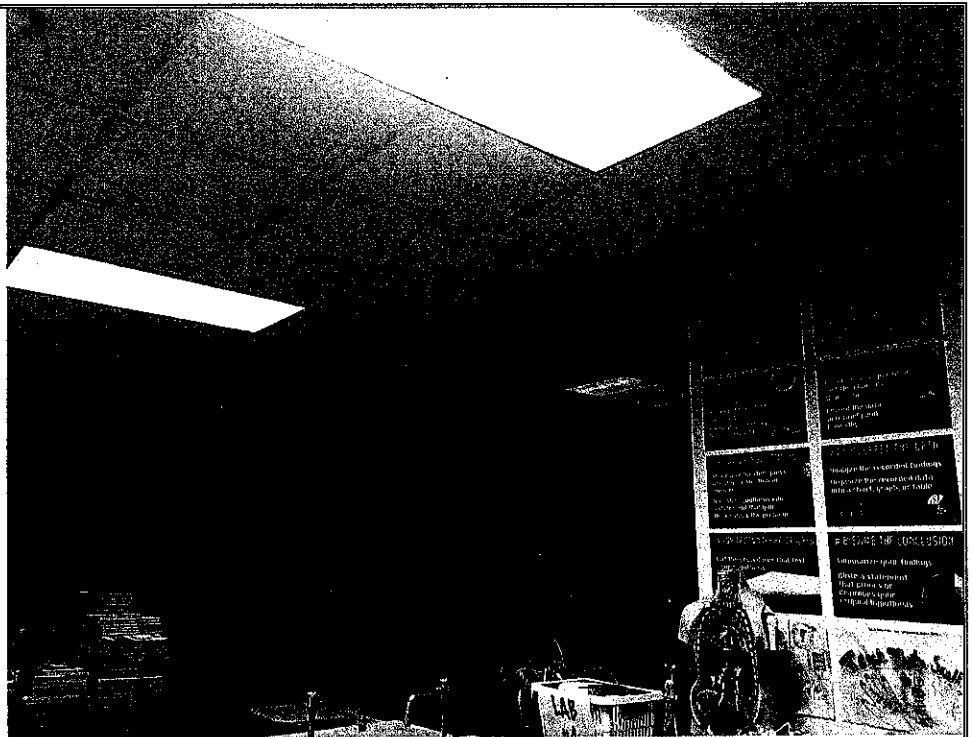
Hinsdale Middle
School
100 South Garfield
Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

Additional view of
sprinkler pipe area
above ceiling in
Classroom 215 that
froze and burst on the
evening of 01/08/15
causing a water
intrusion event. Also
viewed are missing
water impacted ceiling
tiles

Photo Number: 2



Hinsdale Middle School
100 South Garfield Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

View of fan used within
Classroom 215 to
circulate air in order to
dry surfaces and
evaporate any remaining
water.

Photo Number: 3



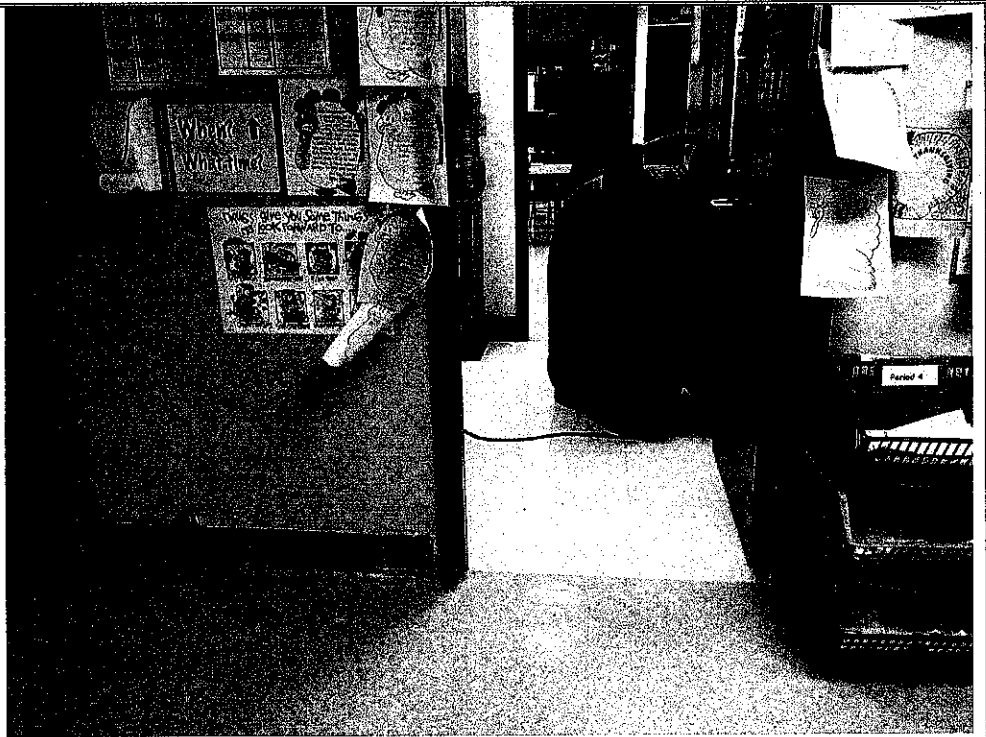
Hinsdale Middle School
100 South Garfield Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

View of dehumidifier placed in prep room between Classrooms 215 and 216 following clean-up and water extraction within Classroom 215. Also viewed is a portion of drywall removed following water damage.

Photo Number: 4



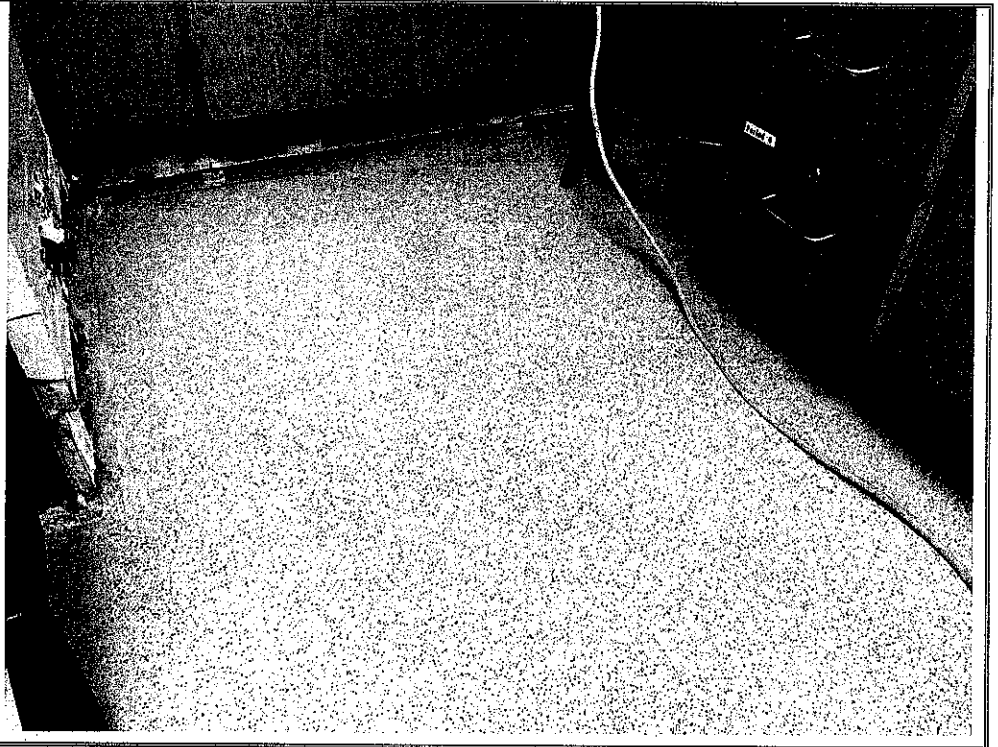
Hinsdale Middle School
100 South Garfield Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

View of baseboards
removed from
Classroom 215 to aid in
water removal and air
circulation/drying within
classroom.

Photo Number: 5



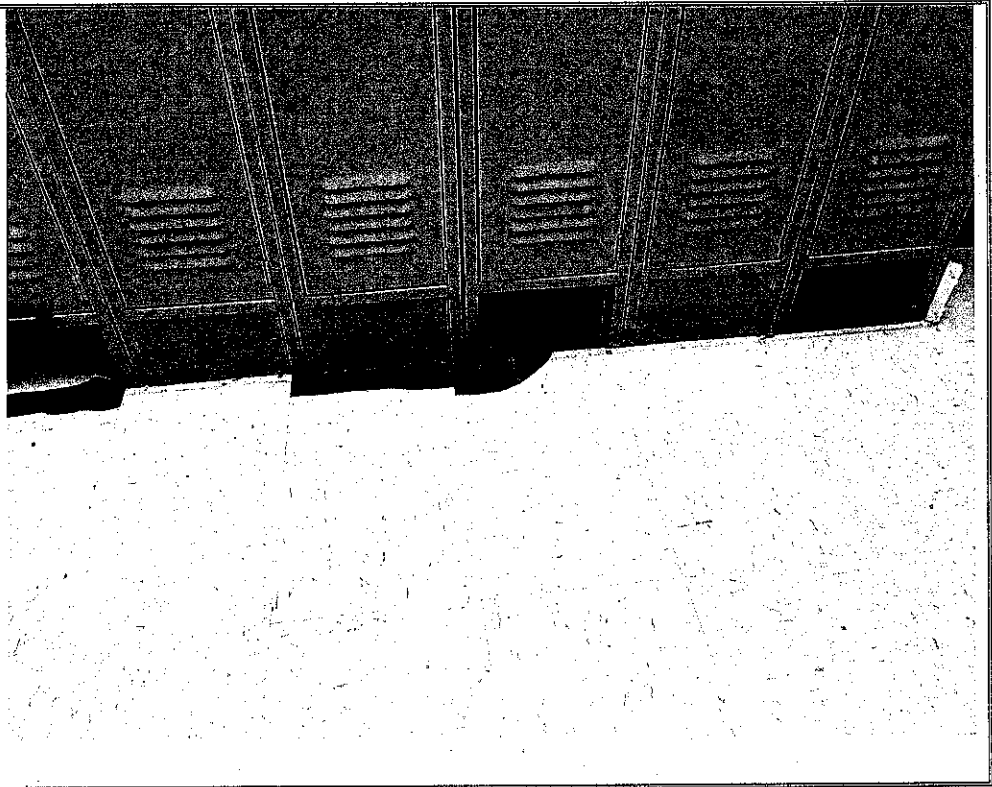
Hinsdale Middle School
100 South Garfield Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

View of baseboards removed from base of lockers in hallway adjacent to Classroom 215 to aid with water extraction and drying. Also viewed are Non-ACM floor tiles damaged during baseboard removal.

Photo Number: 6



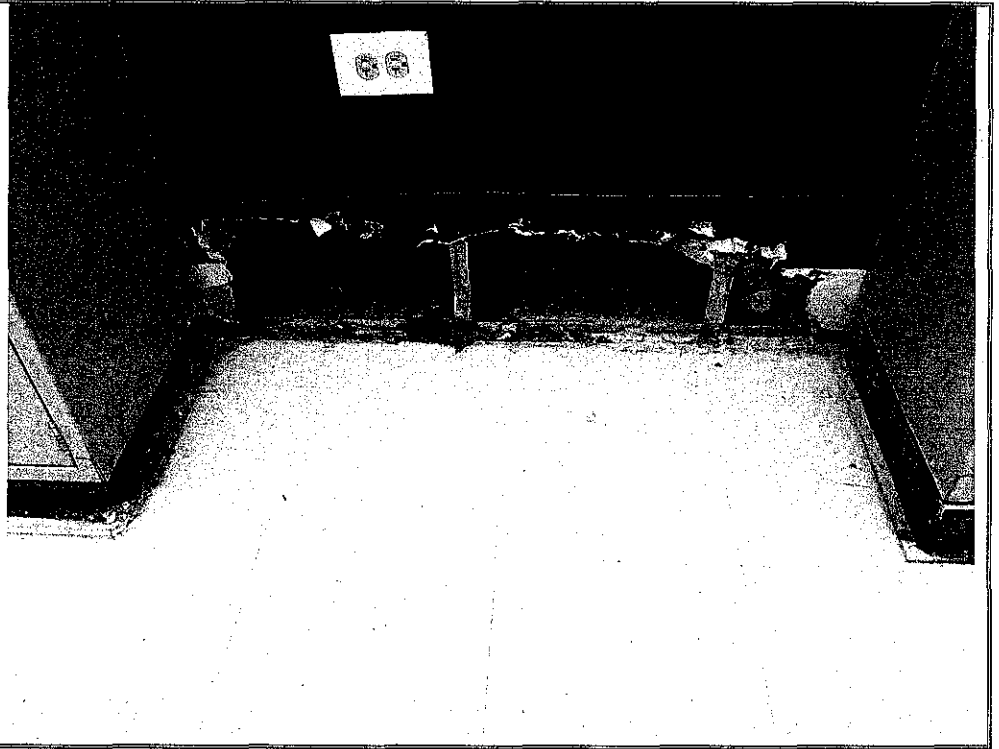
Hinsdale Middle School
100 South Garfield Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

View of base and water-impacted drywall removed to help facilitate further drying within wall in hallway following 01/08/15 water intrusion event within Classroom 215.

Photo Number: 7



Hinsdale Middle School
100 South Garfield Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

View of fan unit and
dehumidifier being used
within the MRC to dry
water impacted
carpeting following
water intrusion event
within adjacent
Classroom 215.

Photo Number: 8



Hinsdale Middle School
100 South Garfield Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

View of missing ceiling tiles within Classroom 124. Ceiling tiles were removed to inspect for water/water damage resulting from water intrusion event on 01/08/15 within Classroom 215 above. No water/water damage was observed.

Photo Number: 9



Hinsdale Middle School
100 South Garfield Ave.
Hinsdale, Illinois
IES Project No: 915-08

Date: 01/09/15

Description:

Representative view of
air sample for mold
spores being collected
within Classroom 124.
Air samples were
collected from
Classroom 215 and
adjacent areas following
the clean-up of the
01/08/15 water intrusion
event.

Photo Number: 10



DEFINITIONS

MOLD FUNGI AND SPORES –

An estimated 100,000 species of fungi are known to exist. Fungi may be single celled or multi-cellular. Various organisms such as yeasts, mushrooms, morels, truffles, and molds are actually fungi. Fungal growth is affected by moisture, temperature, and light. All humans are exposed to fungi through inhalation and ingestion, apparently, with no ill health effects. Many fungi are used as foods and sources of drugs that help fight disease. Most fungi are saprophytic, feeding on dead and decaying organic matter. Some species of fungi, however, are known to cause infectious diseases in humans. In most cases, the fungi are unable to cause disease in persons with a healthy immune system.

Three (3) types of fungal infections exist. They are defined as:

1. **Systemic Infection:** Caused by the inhalation of certain fungal spores. Most of these infections produce little or no symptoms.
2. **Opportunistic Infection:** Limited to those with impaired immunological defenses. In this situation, infection is secondary to a primary disease. Species of *Aspergillus*, *Cladosporium*, *Mucor*, *Rhizopus* and *Cryptococcus* are common opportunistic fungi.
3. **Dermatophytes:** A group of fungi that infect the hair, skin and nails. Direct contact with an infected individual or the sharing of items such as grooming utensils or clothes is usually how the infection is transmitted. Transmission to humans from an environmental source is rare.

Fungi produce toxic metabolites called mycotoxins. Mycotoxins are present in both spores and viable fungi. Usually, inhalation exposure of mycotoxins occurs following the disturbance of a contaminated source.

Fungi also produce volatile organic compounds (VOCs) while growing. Some of these compounds have noticeable odors that many people find offensive. It is thought that exposure to these VOCs may be generally responsible for some building-related symptoms (BRs).

The following is a description of each genus of fungi found within the Community Consolidated School District 181's Hinsdale Middle School:

Aspergillus sp.: Spores were found on air samples collected in Classroom 216 and in the hallway located on the west side of the MRC. This fungus is associated with grains, nuts, cotton, organic debris and water damaged building materials. This is the most common group of fungi in our environment. Sixteen (16) of the over 160 species of *Aspergillus* are known to act as agents of etiological disease in humans. These diseases are fairly uncommon and do not normally occur in people with healthy immune systems. The spores produced by *Aspergillus sp.* appear very similar to the spores produced by *Penicillium sp.*

- Basidiospores:** Spores were found on one (1) of two (2) microvac carpet dust samples collected in the second floor MRC. These spores were not positively identified and are possibly from some species of yeasts (*Rhodotorula* and *Sporobolomyces*) that are found in some indoor environments or possibly from a variety of fungus known as *Cryptococcus sp.*
- Cladosporium sp.*:** Spores were found on air samples collected in Classroom 214 and 215. This fungus is commonly found both indoors and outdoors and is often located in spaces where condensation is collected and/or where there is poor ventilation. It is commonly found on the surface of fiberglass duct lining inside supply ducts. It is a common cause of allergies and hay fever and has also been associated with various skin and eye infections acquired by immune compromised individuals.
- Epicoccum sp.*:** A single spore was found on the air samples collected in the hallway outside Classroom 215 and on one (1) of two (2) microvac carpet dust samples collected within the MRC. This fungus is commonly found in plants, soils, grains, textiles and paper products. It is usually found in association with *Cladosporium* and *Aureobasidium*. Considered to be a saprophyte, *Epicoccum*, is routinely found on air samples and occasionally found in dust samples. This fungus is reported to be an allergen.
- Myxomycetes:** Spores were found on eight (8) of the ten (10) air samples collected within the school building and on both of the microvac carpet dust samples collected within the MRC. Myxomycetes are usually found outdoors on decaying plant material. They are easily dispersed by wind in their dry phase and occasionally are found in indoor environments. Under 600x microscopy, Myxomycetes are indistinguishable from smuts.
- Penicillium sp.*:** Spores were found on air samples collected in Classroom 216 and in the hallway located on the west side of the MRC. This fungus is commonly found in soil, food, cellulose, paint, grains, compost piles, carpet, wall paper, and in interior fiberglass duct insulation. It is reported to cause allergic reactions on skin and in susceptible individuals, may cause among other infections, hypersensitivity pneumonitis or allergic alveolitis. Some species can produce various mycotoxins that are harmful to humans. The spores produced by *Penicillium sp.* appear very similar to the spores produced by *Aspergillus sp.*
- Smuts:** Spores were found on eight (8) of the ten (10) air samples collected within the school building and on both of the microvac carpet dust samples collected within the MRC. This allergen is a parasitic plant pathogen that needs a living host. Smuts are often found on corn, grass, weeds, flowering plants, and even other fungi. Smuts are distributed by wind. Under 600x microscopy, smuts are indistinguishable from myxomycetes.