



Liberty OHM

September 4th, 2013

Mr. Marty Foutch
Facilities Director
Bixby Public Schools
109 N. Armstrong
Bixby, OK 74008

RE: Focused Inspection and 25% IAQ of:
• **Bixby Northeast Intermediate and Elementary**

CC: Jarred Doubrava
Operations Support Manager/District Safety Coordinator

Dear Mr. Foutch:

On August 19th, 2013, Liberty OHM visited Bixby Northeast Intermediate and Elementary to conduct quality assurance testing and a focused inspection of room W 110. A total of 25% of the rooms were selected and tested at random for indoor air quality (spore count).

The following observations were noted:

Classroom W 110:

- Requests for inspections/sampling were relayed to Liberty OHM through Marty Foutch pertaining to Classroom W 110 at Northeast Intermediate and Elementary due to possible dusty and dirty conditions related to construction activity. On the day of the inspection no visible mold or water intrusion/damage was found.
- An air sample taken in room W 110 revealed normal environmental background levels. Tape samples were taken of the return air vents in Classrooms W110, W 109 and E 103 to determine surface mold levels of the newly constructed building at the air handling systems. A TSI Indoor Air Quality Meter was used to measure the carbon dioxide, temperature and humidity levels and is included in Appendix A.
- Temperature, humidity and CO₂ levels were within ASHRAE limits. No particular differences were found from the west end of the building in terms of air quality or any evidence of construction dust/debris related to the ventilation system from construction activity.

25% Monitoring:

- The ratio of total indoor/outdoor airborne mold concentrations was not elevated on the day of testing. No visible mold or water intrusion/damage was found on the day of testing.

Tables 1 and 2 show the results of the air samples taken from the selected classrooms and the surface mold levels of air handling systems from the August 19th monitoring.

Recommendations

- No recommendations are provided at this time.

Disclaimer

Liberty OHM makes no assertion as to the health risks associated with the levels reported in this report. We make no correlation that the levels reported are safe for occupancy or do not pose a risk from exposure. We advise you, our client to consult with an Occupational Health or other qualified physician for additional information and guidance.

If you have questions or need additional information, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack Kerr", is written over a light blue horizontal line.

Jack Kerr
EH&S Consultant
Liberty OHM

Table 1 Bixby Northeast Elementary and Intermediate IAQ Spore Trap Analysis Sampling Date: 8/19/2013					
Location	Total spores/m3	Species	Raw count	Calc. count	% of total
1: 1-1 Room W110	40	Cladosporium	2	20	50
		Curvularia	1	10	25
		Bipolaris/Drechslera group	1	10	25
2: 1-2 Room W109	250	Bipolaris/Drechslera group	7	70	28
		Cladosporium	6	60	24
		Basidiospores	4	40	16
		Alternaria	4	40	16
		Ascospores	2	20	8
		Pithomyces	1	10	4
		Curvularia	1	10	4
3: 1-3 Room W105	190	Basidiospores	7	70	37
		Alternaria	4	40	21
		Bipolaris/Drechslera group	3	30	16
		Smuts, Periconia, Myxomycetes	2	20	11
		Epicoccum	1	10	5
		Cladosporium	1	10	5
		Ascospores	1	10	5
4: 1-4 Room W104	240	Penicillium/Aspergillus types	18	180	75
		Cladosporium	5	50	21
		Bipolaris/Drechslera group	1	10	4
5: 1-5 Room W102	100	Smuts, Periconia, Myxomycetes	4	40	40
		Pithomyces	2	20	20
		Rusts	1	10	10
		Epicoccum	1	10	10
		Bipolaris/Drechslera group	1	10	10
		Alternaria	1	10	10
6: 1-6 Admin Office Eisenman	20	Epicoccum	1	10	50
		Alternaria	1	10	50

Table 1 Bixby Northeast Elementary and Intermediate IAQ Spore Trap Analysis Sampling Date: 8/19/2013					
Location	Total spores/m3	Species	Raw count	Calc. count	% of total
7: 1-7 Outside Reference 10:30	21,000	Basidiospores	70	14,000	66
		Ascospores	31	6,200	29
		Cercospora	41	410	2
		Cladosporium	21	210	1
		Alternaria	13	130	1
		Smuts, Periconia, Myxomycetes	7	70	< 1
		Epicoccum	2	20	< 1
		Curvularia	2	20	< 1
		Bipolaris/Drechslera group	2	20	< 1
8: 2-1 W212	60	Basidiospores	5	50	83
		Cladosporium	1	10	17
9: 2-2 W207	30	Cladosporium	2	20	67
		Basidiospores	1	10	33
10: 2-3 W201	110	Cladosporium	6	60	55
		Alternaria	2	20	18
		Smuts, Periconia, Myxomycetes	1	10	9
		Curvularia	1	10	9
		Basidiospores	1	10	9
11: 2-4 E204	60	Cladosporium	2	20	33
		Basidiospores	2	20	33
		Ascospores	2	20	33
12: 2-5 E202	110	Basidiospores	7	70	64
		Cladosporium	4	40	36
13: 2-6 Outside Reference	30,000	Basidiospores	87	17,000	57
		Cladosporium	34	6,800	22
		Ascospores	28	5,600	18
		Cercospora	61	610	2
		Smuts, Periconia, Myxomycetes	6	60	< 1

Table 2 Bixby Northeast Elementary and Intermediate IAQ Quantitative Spore Count (Tape Samples) Sample Date: 8/19/2013						
Location:	14: 1-8 W110 Return Air Vent		15: 1-9 W109 Return Air Vent		16: 1-10 E103 Return Air Vent	
Comments (see below)	None		None		None	
Sample type	Tape sample		Tape sample		Tape sample	
Lab ID-Version:	4973828-1		4973829-1		4973830-1	
Analysis Date:	08/23/2013		08/23/2013		08/23/2013	
	raw ct.	spores/unit	raw ct.	spores/unit	raw ct.	spores/unit
Alternaria					1	1
Ascospores					1	1
Basidiospores			2	2		
Chaetomium						
Cladosporium	7	7	7	7	2	2
Curvularia	1	1				
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora	3	3				
Other colorless						
Penicillium/Aspergillus types	7	7			1	1
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	4	4			2	2
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)	3+		2+		3+	
Sample size	1		1		1	
Unit	1 cm2		1 cm2		1 cm2	
§ TOTAL SPORES/UNIT		22		9		7