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To: Tom Pratt  
215 South Franklin Avenue  
Berlin, NJ 08009

From: Christopher Costa

Date: 08/13/2018

RE: 18-08-10-0700-C  
Berlin Community School IAQ Investigation  
215 South Franklin Avenue  
Berlin, NJ 08009

## 1.0 Background and Observation

An inspection was conducted on August 10, 2018, at the Berlin Community School located at 215 South Franklin Avenue in Berlin. According to information given to the Department of Health, the investigation was requested to ensure that air quality was within the Public Employees Occupational Safety and Health recommended standards before teachers and students arrived for the school year. The weather on August 10, 2018 was sunny and 74.0 degrees F with a relative humidity of 66.3%.

No fungal growth was observed throughout any of the areas inspected. All levels for temperature, carbon monoxide, and carbon dioxide, by NJ PEOSH Standards, were all within the acceptable ranges for indoor air quality. The PEOSH IAQ Standard 12:100-13.3 specifies that the acceptable ranges for temperatures range from 68 degrees Fahrenheit to 79 degrees Fahrenheit, while ASHRAE Standards provide recommended ranges for temperature and humidity that are intended to satisfy the majority of building occupants. These ranges vary for cold and hot weather. OSHA's time weighted average exposure limit for carbon monoxide is 25 parts per million for an 8-hour work day. The PEOSH IAQ Standard N.J.A.C.12:100-13.3 recommends carbon dioxide levels to remain under 1,000 parts per million. ASHRAE Standard 62.1 specifies that relative humidity levels should not exceed 65%.

## 2.0 Sampling Methods and Sample Locations

At the time of inspection, it was determined that non-viable fungal spore trap samples were not necessary this time.

### 3.0 Sample Results and Conclusions

Several rooms throughout the building had slightly elevated relative humidity levels. These areas should be addressed to ensure that Indoor Air Quality meets the recommended standards set forth in the PEOSH IAQ Standard and ASHRAE standard 62.1. No water intrusion issues were found at the time of investigation. If building materials should get wet due to a leaky pipe or roof leak, these materials should be removed within 48 hours, the source should be identified and fixed, and the building materials should be replaced. Overall, the school appeared to be very clean. The indoor air quality readings can be found on the attached chart.

Employees have a role in maintaining good indoor air quality within their workplace. Employees should ensure that they do not introduce unauthorized chemicals (i.e. fragrances, air fresheners, cleaning solvents, ozone generators) into the workplace. In addition, if employees observe situations which may lead to poor indoor air quality (i.e. inoperable windows, water leaks, visible mold) they should notify administration/ maintenance of the situation so that it can be addressed promptly.

Employees are responsible for maintaining mechanical and passive ventilation systems by ensuring that louvers and diffusers remain clear to allow the free flow of air. Intentionally blocking, diverting, or otherwise manipulating components (i.e. thermostat,) of the ventilation system may result in disruption of the ventilation system in the immediate area or other occupied areas of the building.

Also, the recordkeeping provision of the Indoor Air Quality (IAQ) standard requires that the following items be maintained and available to employees within 10 days of a request, and immediately to PEOSH inspectors during an inspection: Written indoor air quality program, documentation of designated person training, written preventive maintenance program, 36 months of preventive maintenance log. The employer also should maintain several IAQ compliance documents including: As-built construction documents, HVAC system commissioning reports, HVAC systems testing, adjusting and balancing reports, operations and maintenance manuals, water treatment logs, and operator training materials.

**It should be noted that the conditions observed during this inspection are considered to be a “snapshot” of that point in time. With indoor air quality, conditions can change over time in relation to the outdoor environment and other factors. This is why it is vital to ensure that the HVAC system is functioning properly, and that all areas of moisture intrusion are addressed promptly.**

Sincerely,

Christopher Costa  
Senior Environmental Health Specialist  
Hazardous Materials Unit

BERLIN COMMUNITY SCHOOL INSPECTION 08/10/2018 @ 07:00 Hrs

Location	Carbon Dioxide (ppm)	Relative Humidity (%)	Temperature (°F)	Carbon Monoxide (ppm)
Outside	599	66.3	74	1.2
Lower B Room 1	554	63.3	73.8	1.0
Lower B Room 2	523	55.0	72.1	0.8
Lower B Room 3	553	55.9	71.9	0.8
Lower B Room 4	568	56.1	71	0.9
Lower B Hallway	570	59.7	71.1	0.8
Lower B Room 5	580	58.6	71	0.8
Lower B Room 6	589	68.1	70.1	0.8
Lower B Room 7	644	71.5	69.9	0.9
Lower B Room 8	595	59.5	70.8	0.8
Lower B Room 9	575	58.9	73	1.2
Lower B Room 10	569	67.2	72.5	0.8
Lower B Room 11	572	59.9	71.5	0.9
Lower B Room 13	581	60.7	71.4	0.8
Lower B Room 12	589	57.9	71	0.8
Lower B Room 15	582	61.1	70.7	0.8
Lower B Room 14	570	66.0	71.9	0.7
Upper B Room 16	566	65.4	72.3	0.8
Upper B Room 17	559	56.7	70.8	0.7
Upper B Room 18	564	57.1	70.3	0.8
Upper B Room 19	555	70.0	70.1	0.9
Upper B Room 20	547	65.6	70.1	0.8
Upper B Room 21	566	61.3	70.1	1.1
Upper B Room 22	550	73.0	69.9	0.9
Upper B Room 22 A	574	59.8	69.5	1.2
Upper B Hallway	726	66.7	69.7	0.9
C Room 23	566	61.8	70.7	1.2
C Room 24	566	66.9	71.3	1.2
C Room 25	587	64.5	71.7	1.0
C Room 26	570	62.6	71.6	1.2

C Room27	653	66.9	71.7	1.1
C Room 28	562	59.4	71.4	1.0
C Room 29	561	64.6	70.6	1.0
C Room 30	560	63.8	70.4	1.2
C Room 31	614	76.3	70.7	0.8
C Room 32	618	67.8	70.9	0.8
C Room 33	572	69.4	71.2	0.8
C Room 34	560	59.3	71.2	0.8
C Room 35	564	72.5	71.2	0.8
C Room 36	561	71.3	71.6	0.8
C Room 37	567	72.4	71.7	0.8
C Room 36 A	593	59.7	72.3	0.8
C Hallway	570	69.4	72.5	0.8
D Room 38	584	69.6	72.1	0.9
Gym A	514	70.6	71.6	0.9
Girls Locker Room	526	71	71.4	0.0
Gym A Office	536	71.7	71.5	0.8
Boys Locker Room	527	71.3	71.6	0.7
D Room 42	554	69.3	71.8	0.6
D Room 43	541	66.2	71.8	0.8
D Room 45	544	64.9	71.8	0.7
D Room 44	510	70.2	71.1	0.8
D Room 46	547	68.4	72.1	0.8
D Room 47	557	73.5	72.8	0.8
D Hallway	532	70.9	73.2	0.8
Gym B	516	70.6	73.2	0.9
Gym B Office A	516	72.8	73	1.0
Gym B Office B	529	73.9	71.1	0.8
Dist. Office Martello	515	74.2	72.3	0.8
Dist. Office Main	532	70.4	72.5	0.8
E Room 84	468	75	73.1	0.8
E Room 82	488	73.5	73.1	0.9
E Room 80	498	72.5	75	0.8
E Room 81	486	73.7	71.9	0.8
E Room 79	499	72.6	72.5	0.9
E Room 77	512	68	71.8	0.9
CST Parking Lot Side	516	67.5	72.1	1.0
CST Schhol Side	536	73	72.7	0.8
Middle School Off.	534	71.4	73.9	0.8
E Room 72	617	68.7	73.1	0.8
E Room 71	465	75.3	72.2	0.8

E Wing Hallway	470	71.5	72.1	0.8
E Room 70	465	68.9	72.2	0.8
E Room 68	455	68.6	71.9	0.8
E Room 69	470	67.7	72	0.7
E Room 67	480	67.4	72.4	0.8
E Room 63	453	69.3	72.2	0.8
E Room 66	468	67.7	72.4	0.9
E Room 64	452	73.9	72.3	0.9
E Room 61	455	76.7	72	1.3
A Room 62	459	59	72	1.4
A Room 60	454	67.2	71.9	1.0
A Room 58	462	72.3	73.6	0.8
A Room 56	464	67.8	74	1.1
Kitchen	487	66.8	74	1.0
Cafeteria	488	64.9	72.9	1.0
A Room 54	474	69.7	73.1	1.2
A Room 52-A	485	68.2	73.5	1.0
Library	466	60	73	1.1
A Room 50	479	60.8	73	1.0
A Room 51	507	51.5	71.4	1.1
Elementary Office	565	54.4	72.4	0.9