



November 25, 2019

School District of Philadelphia
Office of Environmental Management & Services
440 N. Broad Street
Suite 373
Philadelphia, PA 19130

ATTENTION: Mr. Brian Joseph

REFERENCE: Dust Monitoring
Benjamin Franklin High School – ULCS #2010
550 North Broad Street, Philadelphia, PA
Criterion's Project Number: **192440**

Dear Mr. Joseph,

On November 18, 19, 20, 21 and 22, 2019, Ms. Lauren Mitchell of Criterion Laboratories, Inc. (Criterion) conducted particulate dust monitoring in and around various construction areas at Benjamin Franklin High School.

The dust monitoring was conducted using the Met One Aerocet-531S Mass Particle Counter/Dust Monitor. This monitor measures PM 1, PM 2.5, PM 7, PM 10 (respirable dust) and Total Dust. The results for this monitoring are attached to this report.

Current Federal Regulations

Occupational Safety and Health Administration (OSHA) has set a limit of 5 milligrams/cubic meter (mg/m³) for PM 10 (respirable dust) and 15 mg/m³ for Total Dust.

The American Conference of Governmental Industrial Hygienists (ACGIH) has set a threshold limit value (TLV) over an average 8 hour work day over a 40 hour work week of 10 mg/m³ for Total Dust.

The Environmental Protection Agency (EPA) sets a limit of 35 mg/m³ for PM 2.5 over a 24 hour period and 150 mg/m³ for PM 10 over a 24 hour period.

Baseline Levels

On September 21, 2019, baseline levels of various particulates were established while the school was empty of all students, staff and construction personnel. The highest baseline levels recorded outside the work area for PM 10 (respirable dust) and Total Dust plus 50% of this initial highest reading will be used to compare dust levels to the non-construction areas for the remainder of the project.

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If the PM 10 or the Total Dust level of dust is found to be higher than the following baseline levels, corrective action must be taken to prevent continued elevated dust levels.

The baseline level to be used for comparison is 0.277mg for PM 10 and 0.413 mg for Total Dust (TD).

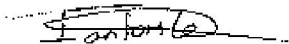
Conclusion

Various readings for PM10 and Total Dust collected throughout the building on all the days sampled were found to be above the previously established baseline. The workers have been cutting concrete in none dust controlled areas, air filtration devices have been shut down, and plastic sheeting has been cut and removed. The technician stopped work when the above items were found, turned air filtration devices back on and when appropriate had Delta reinstall plastic sheeting to the various work areas. The technicians contacted the cleaners and scheduled the various areas to be cleaned as appropriate.

All other readings collected during the week of November 18 to November 22, 2019 were found to be below the baseline level and within the OSHA ACGIH, EPA limits.

Should you have any questions or concerns, please feel free to contact me at (215) 244-1300, extension 1033.

Sincerely,



Ian Forster
Project Manger

Attachment

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	9:20	0.001	0.005	0.018	0.022	0.028	
1st floor elevator lobby	8:35	0.003	0.084	0.214	0.274	0.412	Delta is currently fixing poly, have cleaner mop the area
1st floor gym hallway	8:37	0.004	0.029	0.123	0.271	0.379	I have the cleaner mop the hallway
1st floor entrance by Room 102	8:40	0.003	0.019	0.07	0.211	0.317	Delta is currently fixing poly, will have cleaner mop
Stairwell B-6th floor	8:44	0.003	0.014	0.176	0.272	0.39	
Stairwell B- 5th floor	8:48	0.002	0.011	0.118	0.173	0.232	
5th floor elevator lobby	8:51	0.003	0.014	0.139	0.196	0.245	
5th floor hallway at Room 507	8:54	0.002	0.011	0.083	0.104	0.12	
Room 507	8:57	0.001	0.005	0.024	0.029	0.034	
5th floor hallway at Room 517	9:05	0.003	0.01	0.092	0.148	0.283	
Room 518	9:08	0.003	0.014	0.132	0.176	0.201	
Basement Hallway at boiler room by elevator	9:15	0.002	0.01	0.086	0.116	0.142	
1st floor elevator lobby	11:20	0.001	0.006	0.078	0.117	0.139	
1st floor gym hallway	11:22	0.003	0.024	0.123	0.264	0.379	Cleaner is mopping and cleaning hallway now
1st floor entrance by Room 102	11:24	0.002	0.007	0.07	0.095	0.111	
Stairwell B-6th floor	11:30	0.000	0.004	0.027	0.038	0.049	
Stairwell B- 5th floor	11:34	0.001	0.004	0.027	0.038	0.049	
5th floor elevator lobby	11:38	0.002	0.008	0.074	0.101	0.124	
5th floor hallway at Room 507	11:42	0.004	0.012	0.09	0.133	0.179	
Room 507	11:45	0.001	0.004	0.012	0.014	0.02	
5th floor hallway at Room 517	11:49	0.002	0.01	0.07	0.086	0.113	
Room 518	11:52	0.003	0.013	0.08	0.096	0.102	
Basement Hallway at boiler room by elevator	12:00	0.001	0.007	0.092	0.145	0.218	
1st floor elevator	14:30	0.003	0.017	0.174	0.24	0.31	
1st floor gym hallway	14:33	0.003	0.021	0.09	0.267	0.33	
1st floor entrance by Room 102	14:37	0.002	0.013	0.135	0.183	0.219	
Stairwell B-6th floor	14:42	0.002	0.01	0.114	0.173	0.233	
Stairwell B- 5th floor	14:50	0.002	0.008	0.084	0.122	0.168	
5th floor elevator lobby	14:52	0.002	0.013	0.138	0.2	0.271	
5th floor hallway at Room 507	14:55	0.003	0.013	0.098	0.122	0.138	
Room 507	15:00	0.003	0.006	0.018	0.021	0.023	
5th floor hallway at Room 517	15:03	0.002	0.009	0.063	0.081	0.109	
Room 518	15:06	0.002	0.008	0.042	0.048	0.058	
Basement Hallway at boiler room by elevator	15:15	0.002	0.008	0.053	0.067	0.079	

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

19-Nov

Criterion Project Number

192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	9:20	0.006	0.01	0.045	0.063	0.088	
1st floor elevator lobby	8:22	0.004	0.025	0.113	0.217	0.413	Workers in the cafeteria are grinding concrete without water, I state water has to be used to limit dust and poly needs to be put up. I have the cleaner mop the hallway
1st floor gym hallway	8:27	0.004	0.019	0.074	0.219	0.328	
1st floor entrance by Room 102	8:33	0.004	0.012	0.112	0.172	0.252	
1st floor cafeteria	8:37	0.007	0.057	0.27	0.327	0.435	I have talked to the workers about minimizing dust and they are taking corrective action to minimize the dust. I have the cleaner mop the area.
Stairwell B-6th floor	8:44	0.003	0.012	0.121	0.188	0.26	
Stairwell B- 5th floor	8:47	0.003	0.01	0.096	0.139	0.199	
5th floor elevator lobby	8:51	0.004	0.02	0.078	0.223	0.311	
5th floor hallway at Room 507	8:54	0.003	0.01	0.078	0.108	0.132	
Room 507	8:57	0.002	0.005	0.017	0.021	0.026	
5th floor hallway at Room 517	9:05	0.015	0.026	0.125	0.182	0.252	
Room 518	9:08	0.003	0.011	0.089	0.121	0.146	
Basement Hallway at boiler room by elevator	9:15	0.003	0.012	0.127	0.195	0.277	

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	9:10	0.000	0.002	0.011	0.015	0.021	
1st floor elevator lobby	8:15	0.005	0.035	0.137	0.396	0.558	Workers have ripped poly, I have Delta fix it immediately and the cleaner mop the area
1st floor gym hallway	8:18	0.006	0.046	0.191	0.588	0.897	Workers have shut off negative air machine, I set it back up and speak to Steve about it running 24/7
1st floor entrance by Room 102	8:22	0.003	0.024	0.09	0.264	0.386	Same as above
1st floor by cafeteria	8:25	0.002	0.01	0.096	0.133	0.183	
Stairwell B-6th floor	8:32	0.003	0.019	0.245	0.383	0.594	Poly is falling, I have Delta reattach it immediately, I have the cleaner mop the area
Stairwell B- 5th floor	8:37	0.003	0.017	0.07	0.223	0.353	
5th floor elevator lobby	8:41	0.003	0.017	0.192	0.274	0.365	
5th floor hallway at Room 507	8:43	0.002	0.008	0.064	0.08	0.113	
Room 507	8:46	0	0.002	0.01	0.018	0.031	
5th floor hallway at Room 517	8:50	0.001	0.004	0.025	0.032	0.04	
Room 518	8:52	0.001	0.004	0.017	0.023	0.201	
Basement Hallway at boiler room by elevator	9:00	0.002	0.01	0.123	0.183	0.243	
1st floor elevator lobby	11:33	0.004	0.026	0.118	0.269	0.398	
1st floor gym hallway	11:36	0.002	0.014	0.207	0.25	0.382	
1st floor entrance by Room 102	11:39	0.002	0.009	0.132	0.218	0.336	
1st floor by cafeteria	11:42	0.003	0.016	0.213	0.31	0.384	Workers have vacuumed floor where they were previously sanding/grinding the concrete, I will have cleaner mop the area
Stairwell B-6th floor	11:50	0.001	0.006	0.078	0.117	0.152	
Stairwell B- 5th floor	11:55	0.001	0.007	0.076	0.113	0.151	
5th floor elevator lobby	12:00	0.002	0.011	0.113	0.157	0.192	
5th floor hallway at Room 507	12:03	0.004	0.012	0.106	0.270	0.300	
Room 507	12:06	0.000	0.004	0.001	0.017	0.023	
5th floor hallway at Room 517	12:09	0.000	0.002	0.01	0.012	0.015	
Room 518	12:13	0.000	0.002	0.011	0.015	0.018	
Basement Hallway at boiler room by elevator	12:20	0.002	0.011	0.142	0.201	0.261	
1st floor elevator	14:35	0.002	0.011	0.151	0.217	0.288	
1st floor gym hallway	14:38	0.003	0.019	0.081	0.251	0.376	
1st floor entrance by Room 102	14:40	0.003	0.018	0.079	0.251	0.375	
1st floor by cafeteria	14:42	0.000	0.003	0.015	0.023	0.028	
Stairwell B-6th floor	14:49	0.002	0.017	0.075	0.232	0.349	
Stairwell B- 5th floor	14:52	0.002	0.014	0.063	0.209	0.323	
5th floor elevator lobby	14:56	0.003	0.018	0.076	0.225	0.328	
5th floor hallway at Room 507	14:59	0.002	0.009	0.098	0.134	0.169	
Room 507	15:02	0.000	0.001	0.006	0.009	0.013	
5th floor hallway at Room 517	15:05	0.000	0.002	0.019	0.026	0.041	
Room 518	15:07	0.000	0.002	0.01	0.013	0.015	
Basement Hallway at boiler room by elevator	15:15	0.001	0.007	0.059	0.074	0.086	

Benjamin Franklin High School (UCLS# 2010)	Date of Sampling	21-Nov	Criterion Project Number			192440		
Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments	
outdoors	9:32	0.006	0.009	0.017	0.024	0.034		
1st floor elevator lobby	8:45	0.006	0.015	0.106	0.161	0.204		
1st floor gym hallway	8:47	0.006	0.029	0.112	0.34	0.516	I have the cleaner mop the hallway immediately	
1st floor entrance by Room 102	8:50	0.006	0.028	0.202	0.261	0.334		
1st floor by cafeteria	8:53	0.004	0.011	0.077	0.103	0.125		
Stairwell B-6th floor	9:00	0.006	0.012	0.08	0.127	0.175		
Stairwell B- 5th floor	9:05	0.006	0.015	0.11	0.174	0.262		
5th floor elevator lobby	9:08	0.004	0.019	0.169	0.247	0.331		
5th floor hallway at Room 507	9:11	0.005	0.016	0.083	0.099	0.117		
Room 507	9:14	0.002	0.003	0.012	0.014	0.018		
5th floor hallway at Room 517	9:16	0.004	0.012	0.09	0.122	0.155		
Room 518	9:19	0.003	0.009	0.039	0.05	0.059		
Basement Hallway at boiler room by elevator	9:27	0.005	0.013	0.091	0.126	0.171		

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

22-Nov

Criterion Project Number

192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	9:10	0.003	0.006	0.026	0.036	0.041	
1st floor elevator lobby	8:22	0.003	0.007	0.058	0.092	0.142	
1st floor gym hallway	8:25	0.004	0.009	0.057	0.079	0.109	
1st floor entrance by Room 102	8:27	0.003	0.008	0.032	0.039	0.047	
Stairwell B-6th floor	8:32	0.004	0.01	0.067	0.101	0.138	
Stairwell B- 5th floor	8:38	0.004	0.01	0.084	0.124	0.179	
5th floor elevator lobby	8:41	0.003	0.007	0.052	0.07	0.088	
5th floor hallway at Room 507	8:43	0.004	0.014	0.137	0.194	0.241	
Room 507	8:47	0.002	0.003	0.005	0.012	0.019	
5th floor hallway at Room 517	8:50	0.003	0.01	0.112	0.179	0.295	
Room 518	8:52	0.002	0.005	0.026	0.033	0.041	
Basement Hallway at boiler room by elevator	9:00	0.006	0.024	0.184	0.255	0.297	
1st floor elevator lobby	11:31	0.003	0.006	0.041	0.065	0.092	
1st floor gym hallway	11:35	0.003	0.007	0.052	0.088	0.134	
1st floor entrance by Room 102	11:38	0.003	0.009	0.046	0.059	0.071	
Stairwell B-6th floor	11:46	0.004	0.013	0.099	0.141	0.172	
Stairwell B- 5th floor	11:49	0.004	0.013	0.096	0.134	0.165	
5th floor elevator lobby	11:53	0.003	0.01	0.08	0.119	0.156	
5th floor hallway at Room 507	11:56	0.003	0.007	0.043	0.061	0.077	
Room 507	11:59	0.002	0.003	0.006	0.007	0.008	
5th floor hallway at Room 517	12:03	0.002	0.005	0.028	0.041	0.08	
Room 518	12:06	0.002	0.004	0.014	0.019	0.027	
Basement Hallway at boiler room by elevator	12:15	0.008	0.031	0.098	0.242	0.338	Workers have tapped poly to door, I remove tape
1st floor elevator	14:20	0.002	0.005	0.046	0.07	0.103	
1st floor gym hallway	14:24	0.004	0.01	0.097	0.151	0.218	
1st floor entrance by Room 102	14:28	0.005	0.014	0.069	0.08	0.085	
Stairwell B-6th floor	14:37	0.002	0.008	0.101	0.162	0.237	
Stairwell B- 5th floor	14:40	0.002	0.005	0.04	0.052	0.066	
5th floor elevator lobby	14:43	0.002	0.004	0.025	0.034	0.038	
5th floor hallway at Room 507	14:47	0.002	0.006	0.031	0.038	0.046	
Room 507	14:50	0	0.001	0.003	0.003	0.004	
5th floor hallway at Room 517	14:54	0.001	0.003	0.008	0.014	0.019	
Room 518	15:00	0.001	0.011	0.031	0.05	0.082	
Basement Hallway at boiler room by elevator	15:10	0.002	0.006	0.03	0.039	0.043	