



January 2, 2020

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 December 16, 17, 18, 19 and 20, 2019, Ms. Alyssa Cartagena and 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/m<sup>3</sup>) for PM 10 (respirable dust) and 15 mg/m<sup>3</sup> 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/m<sup>3</sup> for Total Dust.

The Environmental Protection Agency (EPA) sets a limit of 35 mg/m<sup>3</sup> for PM 2.5 over a 24 hour period and 150 mg/m<sup>3</sup> 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).

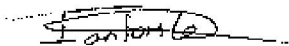
### **Conclusion**

Various readings for PM10 and Total Dust collected throughout the building on some of the days sampled were found to be above the previously established baseline. The technician stopped work when the above items were found, turned air filtration devices back on and when appropriate had Delta or Smith Construction 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 December 16 to December 20, 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	9:16	0.002	0.004	0.015	0.02	0.03	
1st floor elevator lobby	8:58	0.004	0.017	0.151	0.205	0.238	
1st floor gym hallway	8:54	0.004	0.016	0.155	0.226	0.28	someone cutting in HALLWAY with no engineering controls in place
1st floor entrance by Room 102	8:56	0.004	0.019	0.222	0.338	0.455	same issue as above
Stairwell B-6th floor	9:02	0.006	0.032	0.286	0.398	0.498	
Stairwell B- 5th floor	9:03	0.006	0.031	0.295	0.415	0.532	
5th floor elevator lobby	9:05	0.004	0.019	0.155	0.212	0.262	
5th floor hallway at Room 507	9:06	0.003	0.014	0.14	0.187	0.235	
Room 507	9:08	0.002	0.011	0.089	0.116	0.153	
5th floor hallway at Room 517	9:10	0.002	0.006	0.035	0.042	0.046	
Room 518	9:12	0.001	0.003	0.015	0.016	0.017	
Basement Hallway at boiler room by elevator	9:17	0.025	0.152	1.721	2.497	3.132	
1st floor elevator lobby	11:51	0.005	0.03	0.486	0.79	1.169	
1st floor gym hallway	11:46	0.003	0.014	0.145	0.24	0.353	
1st floor entrance by Room 102	11:48	0.005	0.032	0.675	1.069	1.592	
Stairwell B-6th floor	11:54	0.009	0.046	0.353	0.442	0.508	
Stairwell B- 5th floor	11:56	0.008	0.043	0.345	0.458	0.567	
5th floor elevator lobby	11:58	0.004	0.021	0.171	0.218	0.255	
5th floor hallway at Room 507	11:59	0.004	0.016	0.111	0.144	0.187	
Room 507	12:01	0.002	0.006	0.028	0.032	0.05	
5th floor hallway at Room 517	12:03	0.002	0.005	0.027	0.033	0.04	
Room 518	12:04	0.001	0.003	0.009	0.009	0.012	
Basement Hallway at boiler room by elevator	12:16	0.013	0.067	0.533	0.703	0.83	
1st floor elevator	14:14	0.002	0.007	0.055	0.074	0.089	
1st floor gym hallway	14:11	0.003	0.011	0.121	0.184	0.247	
1st floor entrance by Room 102	14:12	0.002	0.004	0.029	0.04	0.048	
Stairwell B-6th floor	14:16	0.006	0.028	0.269	0.354	0.436	
Stairwell B- 5th floor	14:17	0.005	0.023	0.236	0.338	0.427	
5th floor elevator lobby	14:18	0.003	0.015	0.134	0.175	0.21	
5th floor hallway at Room 507	14:20	0.002	0.007	0.045	0.061	0.077	
Room 507	14:21	0.001	0.002	0.004	0.005	0.005	
5th floor hallway at Room 517	14:24	0.001	0.003	0.012	0.014	0.015	
Room 518	14:25	0.001	0.002	0.007	0.007	0.008	
Basement Hallway at boiler room by elevator	14:32	0.004	0.015	0.085	0.097	0.101	

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

17-Dec Criterion Project Number

192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	9:22	0.001	0.003	0.011	0.016	0.02	
1st floor elevator lobby	9:21	0.002	0.01	0.084	0.114	0.144	
1st floor gym hallway	9:17	0.003	0.329	0.604	0.99	1.048	worker cutting right by poly flap, someone taped the poly to the wall. this creates no barrier. I remove the tape and tell them they cant do that
1st floor entrance by Room 102	9:18	0.001	0.005	0.059	0.094	0.137	
Stairwell B-6th floor	9:24	0.002	0.016	0.087	0.119	0.157	
Stairwell B- 5th floor	9:25	0.002	0.012	0.074	0.126	0.18	
5th floor elevator lobby	9:27	0.002	0.011	0.071	0.098	0.136	
5th floor hallway at Room 507	9:30	0.001	0.005	0.062	0.08	0.102	
Room 507	9:31	0.001	0.002	0.016	0.016	0.018	
5th floor hallway at Room 517	9:33	0.001	0.004	0.021	0.028	0.037	
Room 518	9:34	0.001	0.003	0.009	0.011	0.014	
Basement Hallway at boiler room by elevator	9:42	0.011	0.058	0.426	0.536	0.601	dusty work equipment

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

18-Dec Criterion Project Number

192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	9:12	0.001	0.002	0.01	0.01	0.023	
1st floor elevator lobby	8:53	0.003	0.012	0.119	0.164	0.204	
1st floor gym hallway	8:50	0.002	0.009	0.101	0.154	0.211	
1st floor entrance by Room 102	8:51	0.002	0.007	0.057	0.079	0.107	
Stairwell B-6th floor	8:55	0.003	0.012	0.098	0.131	0.144	
Stairwell B- 5th floor	8:56	0.002	0.011	0.097	0.143	0.175	
5th floor elevator lobby	8:58	0.002	0.012	0.146	0.222	0.327	
5th floor hallway at Room 507	8:59	0.001	0.006	0.053	0.073	0.095	
Room 507	9:01	0.001	0.001	0.004	0.005	0.007	
5th floor hallway at Room 517	9:04	0.001	0.002	0.017	0.024	0.036	
Room 518	9:05	0.001	0.002	0.005	0.005	0.007	
Basement Hallway at boiler room by elevator	9:09	0.004	0.016	0.122	0.164	0.195	
1st floor elevator lobby	11:40	0.002	0.01	0.091	0.118	0.214	
1st floor gym hallway	11:41	0.002	0.009	0.084	0.109	0.182	
1st floor entrance by Room 102	11:43	0.003	0.012	0.082	0.1	0.134	
Stairwell B-6th floor	11:49	0.002	0.009	0.041	0.086	0.12	
Stairwell B- 5th floor	11:51	0.002	0.011	0.05	0.094	0.119	
5th floor elevator lobby	11:52	0.004	0.014	0.102	0.136	0.156	
5th floor hallway at Room 507	11:55	0.002	0.007	0.053	0.074	0.122	
Room 507	11:56	0.001	0.005	0.016	0.018	0.018	
5th floor hallway at Room 517	12:00	0.001	0.005	0.021	0.042	0.04	
Room 518	12:01	0.001	0.004	0.013	0.015	0.016	
Basement Hallway at boiler room by elevator	12:12	0.005	0.021	0.143	0.217	0.32	
1st floor elevator	14:02	0.002	0.012	0.032	0.054	0.081	
1st floor gym hallway	14:04	0.002	0.008	0.025	0.049	0.072	
1st floor entrance by Room 102	14:05	0.002	0.009	0.03	0.061	0.084	
Stairwell B-6th floor	14:12	0.003	0.011	0.042	0.072	0.094	
Stairwell B- 5th floor	14:13	0.002	0.009	0.036	0.064	0.086	
5th floor elevator lobby	14:16	0.002	0.014	0.063	0.089	0.131	
5th floor hallway at Room 507	14:19	0.001	0.008	0.027	0.035	0.051	
Room 507	14:20	0.001	0.004	0.01	0.018	0.019	
5th floor hallway at Room 517	14:23	0.001	0.002	0.016	0.016	0.017	
Room 518	14:24	0.001	0.003	0.01	0.014	0.014	
Basement Hallway at boiler room by elevator	14:34	0.003	0.012	0.063	0.092	0.148	

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

19-Dec Criterion Project Number

192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	8:50	0.001	0.003	0.013	0.014	0.017	
1st floor elevator lobby	8:32	0.003	0.017	0.224	0.345	0.462	grinding occurring in elevator with no dust control present
1st floor gym hallway	8:27	0.002	0.011	0.127	0.177	0.261	
1st floor entrance by 102	8:29	0.001	0.007	0.064	0.097	0.13	
Stairwell B-6th floor	8:35	0.002	0.009	0.104	0.147	0.186	
Stairwell B- 5th floor	8:36	0.002	0.008	0.084	0.124	0.151	
5th floor elevator lobby	8:38	0.014	0.073	0.747	1.069	1.361	dirty equipment in lobby area. doors are shut so HEPA unit that is in the hallway is not working
5th floor hallway at 507	8:40	0.003	0.012	0.108	0.151	0.187	
Room 507	8:41	0.001	0.002	0.01	0.011	0.018	
5th floor hallway at 517	8:43	0.001	0.003	0.028	0.035	0.054	
Room 518	8:45	0.001	0.002	0.008	0.009	0.009	
Basement Hallway at boiler room by elevator	8:48	0.002	0.008	0.083	0.119	0.169	

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

20-Dec

Criterion Project Number

192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	8:35	0.002	0.003	0.012	0.017	0.023	
1st floor elevator lobby	7:32	0.003	0.011	0.102	0.147	0.201	
1st floor gym hallway	7:37	0.005	0.029	0.129	0.418	0.637	Working are currently cleaning hallway
1st floor entrance by Room 102	7:42	0.004	0.014	0.128	0.186	0.246	
Stairwell B-6th floor	7:55	0.002	0.005	0.034	0.05	0.066	
Stairwell B- 5th floor	8:00	0.002	0.008	0.1	0.172	0.296	
5th floor elevator lobby	8:04	0.005	0.02	0.202	0.307	0.45	No workers in hallway, dusty equipment in area
5th floor hallway at Room 507	8:08	0.003	0.017	0.111	0.148	0.19	
Room 507	8:12	0.003	0.01	0.043	0.055	0.063	
5th floor hallway at Room 517	8:18	0.002	0.024	0.65	0.207	0.41	No workers in hallway, worker just cleaned and mopped hallway
Room 518	8:23	0.003	0.0019	0.093	0.275	0.402	No workers in classroom, will ask cleaner to mop
Basement Hallway at boiler room by elevator	8:29	0.01	0.027	0.169	0.244	0.35	
1st floor elevator lobby	11:10	0.004	0.015	0.09	0.121	0.155	
1st floor gym hallway	11:14	0.004	0.02	0.132	0.17	0.226	
1st floor entrance by Room 102	11:17	0.012	0.089	0.186	0.31	0.423	Workers are sweeping /mopping hallway now
Stairwell B-6th floor	11:25	0.004	0.015	0.129	0.175	0.226	
Stairwell B- 5th floor	11:28	0.004	0.016	0.189	0.288	0.419	
5th floor elevator lobby	11:32	0.004	0.016	0.161	0.241	0.33	
5th floor hallway at Room 507	11:36	0.002	0.006	0.054	0.074	0.101	
Room 507	11:40	0.003	0.004	0.01	0.013	0.02	
5th floor hallway at Room 517	11:44	0.001	0.003	0.016	0.023	0.029	
Room 518	11:48	0	0.002	0.005	0.006	0.007	
Basement Hallway at boiler room by elevator	11:55	0.003	0.009	0.074	0.11	0.145	