



December 16, 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 December 9, 10, 11, 12 and 13, 2019, Ms. Alyssa Cartagena 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.

School District of Philadelphia
Mr. Brian Joseph
December 16, 2019
Page 2

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).

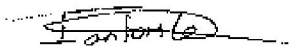
Conclusion

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 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 9 to December 13, 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

Date of Sampling

9-Dec Criterion Project Number

192440

Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
8:25	0.001	0.003	0.024	0.032	0.039	
8:15	0.006	0.027	0.208	0.263	0.289	
8:17	0.013	0.065	0.542	0.692	0.8	dusty. hepa unit off. i have workers put hepa back on
8:19	0.006	0.029	0.21	0.255	0.29	poly ripped. i have delta re-tape the poly flap
8:26	0.004	0.051	0.063	0.076	0.082	
8:28	0.003	0.031	0.052	0.087	0.095	
8:31	0.002	0.016	0.064	0.084	0.091	
8:33	0.003	0.019	0.047	0.063	0.076	
8:34	0.001	0.009	0.021	0.035	0.055	
8:37	0.002	0.008	0.024	0.041	0.049	
8:39	0.002	0.006	0.019	0.03	0.05	
8:46	0.005	0.056	0.116	0.165	0.217	
11:27	0.003	0.013	0.081	0.102	0.125	
11:29	0.004	0.024	0.097	0.135	0.194	
11:31	0.004	0.017	0.075	0.085	0.096	
11:38	0.003	0.014	0.069	0.078	0.094	
11:40	0.003	0.02	0.079	0.096	0.109	
11:42	0.003	0.019	0.086	0.104	0.136	
11:46	0.004	0.015	0.076	0.092	0.111	
11:48	0.002	0.008	0.034	0.048	0.057	
11:50	0.001	0.005	0.02	0.036	0.044	
11:52	0.002	0.009	0.023	0.039	0.045	
12:01	0.004	0.085	0.142	0.213	0.342	i have smith construction clean the hallway area
13:49	0.002	0.026	0.193	0.217	0.354	i have smith construction clean the hallway area
13:51	0.005	0.038	0.097	0.156	0.247	i have smith construction clean the hallway area
13:52	0.003	0.021	0.086	0.101	0.142	
14:01	0.002	0.009	0.02	0.035	0.039	
14:03	0.001	0.008	0.019	0.031	0.042	
14:05	0.002	0.02	0.056	0.067	0.084	
14:07	0.002	0.01	0.046	0.059	0.079	
14:08	0.001	0.006	0.024	0.039	0.05	
14:11	0.002	0.013	0.037	0.052	0.068	
14:13	0.001	0.008	0.019	0.028	0.041	
14:23	0.003	0.026	0.082	0.156	0.274	i have smith construction clean the hallway area

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

10-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	9:03	0.003	0.007	0.027	0.035	0.039	
1st floor elevator lobby	8:43	0.003	0.013	0.199	0.328	0.48	dusty equipment in area. I tell steve from smith to have cleaners go through the area
1st floor gym hallway	8:39	0.003	0.01	0.073	0.104	0.132	
1st floor entrance by Room 102	8:40	0.004	0.011	0.056	0.085	0.127	
Stairwell B-6th floor	8:46	0.002	0.009	0.071	0.093	0.136	
Stairwell B- 5th floor	8:47	0.003	0.008	0.073	0.105	0.148	
5th floor elevator lobby	8:49	0.002	0.008	0.079	0.122	0.161	
5th floor hallway at Room 507	8:51	0.002	0.005	0.046	0.072	0.112	
Room 507	8:52	0.002	0.004	0.016	0.028	0.046	
5th floor hallway at Room 517	8:54	0.001	0.004	0.022	0.037	0.047	
Room 518	8:55	0.001	0.004	0.018	0.024	0.032	
Basement Hallway at boiler room by elevator	9:04	0.008	0.028	0.193	0.248	0.288	I have steve from smith construction tell cleaners to go through the hallway

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

11-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	8:32	0.002	0.004	0.013	0.013	0.015	
1st floor elevator lobby	8:15	0.001	0.003	0.03	0.043	0.06	
1st floor gym hallway	8:11	0.001	0.004	0.049	0.075	0.106	
1st floor entrance by Room 102	8:12	0.001	0.006	0.061	0.086	0.124	
Stairwell B-6th floor	8:19	0.001	0.006	0.051	0.067	0.088	
Stairwell B- 5th floor	8:20	0.001	0.006	0.052	0.075	0.094	
5th floor elevator lobby	8:22	0.001	0.005	0.045	0.065	0.081	
5th floor hallway at Room 507	8:23	0.001	0.004	0.048	0.08	0.126	
Room 507	8:25	0.001	0.005	0.039	0.045	0.054	
5th floor hallway at Room 517	8:27	0.001	0.004	0.026	0.031	0.04	
Room 518	8:28	0.001	0.003	0.023	0.031	0.038	
Basement Hallway at boiler room by elevator	8:37	0.002	0.007	0.069	0.091	0.114	
1st floor elevator lobby	11:12	0.002	0.006	0.027	0.046	0.067	
1st floor gym hallway	11:15	0.002	0.004	0.035	0.061	0.091	
1st floor entrance by Room 102	11:16	0.002	0.005	0.03	0.05	0.07	
Stairwell B-6th floor	11:24	0.001	0.005	0.057	0.073	0.12	
Stairwell B- 5th floor	11:26	0.001	0.007	0.063	0.084	0.104	
5th floor elevator lobby	11:29	0.002	0.01	0.054	0.081	0.112	
5th floor hallway at Room 507	11:32	0.002	0.006	0.055	0.069	0.084	
Room 507	11:33	0.001	0.003	0.026	0.049	0.063	
5th floor hallway at Room 517	11:36	0.001	0.009	0.029	0.04	0.077	
Room 518	11:37	0.001	0.004	0.024	0.052	0.089	
Basement Hallway at boiler room by elevator	11:47	0.003	0.014	0.154	0.183	0.243	hallway area
1st floor elevator	13:46	0.002	0.008	0.037	0.054	0.077	
1st floor gym hallway	13:48	0.002	0.01	0.051	0.083	0.106	
1st floor entrance by Room 102	13:49	0.002	0.01	0.058	0.086	0.121	
Stairwell B-6th floor	13:57	0.001	0.005	0.032	0.055	0.079	
Stairwell B- 5th floor	14:00	0.002	0.007	0.049	0.074	0.100	
5th floor elevator lobby	14:02	0.002	0.011	0.068	0.081	0.143	
5th floor hallway at Room 507	14:04	0.001	0.006	0.055	0.08	0.112	
Room 507	14:05	0.001	0.009	0.043	0.068	0.084	
5th floor hallway at Room 517	14:09	0.002	0.008	0.032	0.06	0.079	
Room 518	14:11	0.001	0.005	0.027	0.033	0.071	
Basement Hallway at boiler room by elevator	14:22	0.004	0.026	0.14	0.186	0.238	

Benjamin Franklin High School (UCLS# 2010)

Date of Sampling

12-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	0.004	0.022	0.031	0.034	
1st floor elevator lobby	9:02	0.002	0.005	0.039	0.053	0.076	
1st floor gym hallway	8:58	0.001	0.004	0.024	0.034	0.048	
1st floor entrance by Room 102	8:59	0.002	0.01	0.107	0.144	0.175	
Stairwell B-6th floor	9:05	0.002	0.031	0.292	0.405	0.49	door wide open with poly down. I tell workers they need to either keep the door closed or place poly on the door. they closed it (no problems yesterday when door was closed and no poly)
Stairwell B- 5th floor	9:09	0.006	0.031	0.296	0.415	0.517	same issue as above
5th floor elevator lobby	9:10	0.003	0.017	0.167	0.236	0.295	HEPA filters should be changed. cleaner is currently sweeping through the hallways and waxing floors. dust amounts expected with sweeping
5th floor hallway at Room 507	9:12	0.004	0.032	0.594	1.005	1.437	see above
Room 507	9:14	0.001	0.003	0.021	0.027	0.032	
5th floor hallway at Room 517	9:16	0.002	0.006	0.038	0.051	0.058	
Room 518	9:17	0.001	0.003	0.011	0.012	0.014	
Basement Hallway at boiler room by elevator	9:20	0.005	0.024	0.218	0.3	0.36	worker dusty equipment stored in hallway. I tell smith they should move it or clean it

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments
outdoors	8:53	0.002	0.005	0.016	0.025	0.04	
1st floor elevator lobby	8:27	0.002	0.009	0.076	0.119	0.168	
1st floor gym hallway	8:29	0.004	0.014	0.159	0.258	0.366	cutting occurring in area with no hepa and positive air flow from the door being open to the exterior of the building. i have smith correct the issue
1st floor entrance by Room 102	8:30	0.003	0.021	0.135	0.214	0.317	see above
Stairwell B-6th floor	8:36	0.002	0.009	0.051	0.09	0.127	
Stairwell B- 5th floor	8:37	0.002	0.006	0.046	0.073	0.098	
5th floor elevator lobby	8:40	0.005	0.029	0.145	0.22	0.341	dusty work equipment being stored in lobby area
5th floor hallway at Room 507	8:42	0.002	0.01	0.063	0.094	0.11	
Room 507	8:43	0.001	0.003	0.021	0.054	0.069	
5th floor hallway at Room 517	8:47	0.001	0.006	0.031	0.057	0.086	
Room 518	8:49	0.001	0.003	0.023	0.031	0.038	
Basement Hallway at boiler room by elevator	9:04	0.003	0.02	0.094	0.163	0.188	
1st floor elevator lobby	11:04	0.004	0.021	0.212	0.297	0.312	doors to exterior of building creating positive air flow. I close it myself
1st floor gym hallway	11:01	0.004	0.019	0.238	0.375	0.547	issue above hasnt been corrected
1st floor entrance by Room 102	11:02	0.004	0.017	0.132	0.176	0.213	
Stairwell B-6th floor	11:08	0.005	0.023	0.236	0.347	0.446	see below
Stairwell B- 5th floor	11:09	0.005	0.021	0.204	0.308	0.433	cleaners
5th floor elevator lobby	11:13	0.005	0.022	0.196	0.261	0.322	painters have all equipment stored in hall
5th floor hallway at Room 507	11:15	0.002	0.011	0.083	0.109	0.139	
Room 507	11:17	0.002	0.006	0.029	0.035	0.046	
5th floor hallway at Room 517	11:23	0.002	0.008	0.04	0.052	0.071	
Room 518	11:25	0.002	0.005	0.016	0.018	0.021	
Basement Hallway at boiler room by elevator	11:47	0.003	0.014	0.154	0.183	0.243	i have smith construction clean the hallway area
1st floor elevator	13:54	0.002	0.006	0.084	0.116	0.194	
1st floor gym hallway	13:56	0.002	0.01	0.097	0.124	0.203	
1st floor entrance by Room 102	13:57	0.001	0.005	0.064	0.093	0.182	
Stairwell B-6th floor	14:06	0.001	0.004	0.031	0.062	0.095	
Stairwell B- 5th floor	14:08	0.002	0.004	0.04	0.063	0.082	
5th floor elevator lobby	14:12	0.003	0.016	0.183	0.247	0.296	painting materials still present
5th floor hallway at Room 507	14:15	0.002	0.009	0.077	0.094	0.116	
Room 507	14:16	0.001	0.004	0.024	0.03	0.039	
5th floor hallway at Room 17	14:19	0.002	0.007	0.043	0.05	0.068	
Room 518	14:20	0.001	0.004	0.024	0.031	0.037	
Basement Hallway at boiler room by elevator	14:33	0.004	0.011	0.101	0.166	0.194	