



October 29, 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 October 21, 22, 23, 24 and 25, 2019, Mr. Sam Oseroff 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).

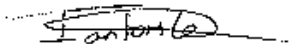
Conclusion

The readings for PM10 collected on October 25, 2019 at 7.35 am in the 1st floor elevator lobby, readings for PM10 collected at 7.54 am at the 1st floor entrance to Room 102 were found to be above the baseline level that had previously been established. At this time, the technician contacted the workers and told them to close the doors to the work areas and establish better negative pressure.

All readings collected on previous dates and readings collected after this 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

Benjamin Franklin High School (UCLS# 2010) Date of Sampling 10/21/2019 Criterion Project Number 192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments			
outdoors	8:12	0	0	0.008	0.009	0.009				
1st floor elevator lobby	7:54	0.000	0.005	0.026	0.067	0.190				
1st floor gym hallway	7:59	0.000	0.007	0.044	0.067	0.097				
1st floor entrance by Room 102	8:06	0.000	0.005	0.047	0.073	0.111				
Stairwell B-6th floor	8:20	0.001	0.007	0.067	0.093	0.126				
Stairwell B- 5th floor	8:24	0.001	0.003	0.032	0.044	0.066				
5th floor elevator lobby	8:30	0.000	0.004	0.020	0.030	0.045				
5th floor hallway at Room 507	8:35	0.000	0.004	0.019	0.026	0.036				
Room 507	8:40	0.000	0.000	0.000	0.004	0.006				
5th floor hallway at Room 517	8:46	0.000	0.000	0.045	0.076	0.129				
Room 518	8:51	0.000	0.000	0.001	0.004	0.005				
4th floor hallway at Room 406	8:59	0.001	0.010	0.028	0.036	0.049				
1st floor elevator lobby	11:45	0.000	0.006	0.040	0.063	0.096				
1st floor gym hallway	11:49	0.000	0.004	0.030	0.044	0.062				
1st floor entrance by Room 102	11:54	0.001	0.005	0.030	0.043	0.061				
Stairwell B-6th floor	12:02	0.000	0.002	0.044	0.074	0.124				
Stairwell B- 5th floor	12:06	0.000	0.002	0.043	0.070	0.116				
5th floor elevator lobby	12:12	0.001	0.012	0.121	0.201	0.358				
5th floor hallway at Room 507	12:17	0.002	0.006	0.029	0.039	0.049				
Room 507	12:21	0.000	0.001	0.002	0.003	0.006				
5th floor hallway at Room 517	12:26	0.003	0.039	0.190	0.208	0.392	finished cutting			
Room 518	12:30	0.000	0.001	0.008	0.011	0.015				
4th floor hallway at Room 406	12:36	0.007	0.013	0.037	0.048	0.055				
1st floor elevator lobby	14:04	0.000	0.010	0.070	0.114	0.170				
1st floor gym hallway	14:09	0.000	0.006	0.076	0.122	0.177				
1st floor entrance by Room 102	14:15	0.000	0.003	0.029	0.070	0.101				
Stairwell B-6th floor	14:21	0.000	0.003	0.092	0.134	0.198				
Stairwell B- 5th floor	14:25	0.000	0.002	0.069	0.104	0.177				
5th floor elevator lobby	14:29	0.002	0.015	0.119	0.181	0.234				
5th floor hallway at Room 507	14:34	0.000	0.011	0.070	0.112	0.197				
Room 507	14:40	0.000	0.001	0.004	0.010	0.018				
5th floor hallway at Room 517	14:44	0.001	0.006	0.050	0.067	0.079				
Room 518	14:48	0.000	0.001	0.002	0.004	0.005				
4th floor hallway at Room 406	14:53	0.003	0.019	0.152	0.193	0.272				

Benjamin Franklin High School (UCLS# 2010) Date of Sampling 10/22/2019 Criterion Project Number 192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments			
outdoors	10:01	0.000	0.001	0.002	0.008	0.009				
1st floor elevator lobby	9:00	0.000	0.003	0.028	0.052	0.096				
1st floor gym hallway	9:04	0.001	0.012	0.114	0.165	0.225				
1st floor entrance by Room 102	9:09	0.001	0.012	0.105	0.160	0.233				
Stairwell B-6th floor	9:16	0.001	0.008	0.050	0.065	0.083				
Stairwell B- 5th floor	9:21	0.003	0.014	0.078	0.096	0.124				
5th floor elevator lobby	9:26	0.001	0.008	0.055	0.096	0.138				
5th floor hallway at Room 507	9:30	0.001	0.007	0.039	0.054	0.065				
Room 507	9:35	0.000	0.002	0.008	0.009	0.012				
5th floor hallway at Room 517	9:41	0.001	0.005	0.021	0.025	0.032				
Room 518	9:46	0.000	0.004	0.001	0.012	0.015				
4th floor hallway at Room 406	9:52	0.001	0.006	0.042	0.059	0.079				

Benjamin Franklin High School (UCLS# 2010) Date of Sampling 10/23/2019 Criterion Project Number 192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments			
outdoors	9:15	0.000	0.000	0.009	0.012	0.016				
1st floor elevator lobby	8:08	0.000	0.003	0.034	0.061	0.101				
1st floor gym hallway	8:14	0.000	0.001	0.012	0.017	0.026				
1st floor entrance by Room 102	8:21	0.000	0.006	0.051	0.068	0.085				
Stairwell B-6th floor	8:29	0.000	0.002	0.017	0.031	0.047				
Stairwell B- 5th floor	8:34	0.000	0.002	0.021	0.035	0.058				
5th floor elevator lobby	8:38	0.000	0.002	0.014	0.034	0.070				
5th floor hallway at Room 507	8:45	0.000	0.004	0.042	0.089	0.191				
Room 507	8:49	0.000	0.001	0.003	0.004	0.006				
5th floor hallway at Room 517	8:54	0.000	0.001	0.011	0.015	0.020				
Room 518	8:58	0.000	0.001	0.008	0.010	0.012				
4th floor hallway at Room 406	9:04	0.000	0.001	0.004	0.009	0.016				
Basement Hallway at boiler room by elevator	9:25	0.004	0.018	0.084	0.107	0.149				
1st floor elevator lobby	11:29	0.000	0.004	0.055	0.076	0.116				
1st floor gym hallway	11:34	0.000	0.001	0.004	0.011	0.023				
1st floor entrance by Room 102	11:38	0.000	0.002	0.011	0.028	0.045				
Stairwell B-6th floor	11:44	0.000	0.001	0.031	0.049	0.069				
Stairwell B- 5th floor	11:48	0.000	0.001	0.022	0.035	0.053				
5th floor elevator lobby	11:53	0.000	0.003	0.022	0.034	0.052				
5th floor hallway at Room 507	11:57	0.000	0.006	0.036	0.066	0.121				
Room 507	12:01	0.000	0.001	0.004	0.005	0.008				
5th floor hallway at Room 517	12:06	0.000	0.002	0.005	0.009	0.017				
Room 518	12:10	0.000	0.001	0.005	0.007	0.008				
4th floor hallway at Room 406	12:16	0.000	0.003	0.007	0.019	0.040				
Basement Hallway at boiler room by elevator	12:22	0.008	0.020	0.087	0.135	0.218				
1st floor elevator lobby	13:15	0.000	0.004	0.054	0.090	0.146				
1st floor gym hallway	13:20	0.000	0.001	0.009	0.021	0.036				
1st floor entrance by Room 102	13:26	0.000	0.001	0.026	0.041	0.067				
Stairwell B-6th floor	13:32	0.000	0.001	0.037	0.072	0.146				
Stairwell B- 5th floor	13:36	0.000	0.004	0.048	0.077	0.116				
5th floor elevator lobby	13:40	0.000	0.006	0.041	0.063	0.089				
5th floor hallway at Room 507	13:45	0.000	0.005	0.048	0.073	0.108	AFDs in work area unplugged. restarted AFDs			
Room 507	13:40	0.000	0.000	0.005	0.005	0.007				
5th floor hallway at Room 517	13:46	0.000	0.001	0.014	0.024	0.033				
Room 518	13:51	0.000	0.000	0.006	0.007	0.010				
4th floor hallway at Room 406	13:59	0.000	0.005	0.051	0.079	0.117				
Basement Hallway at boiler room by elevator	14:08	0.000	0.004	0.041	0.058	0.090				

Benjamin Franklin High School (UCLS# 2010) Date of Sampling 10/24/2019 Criterion Project Number 192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments			
outdoors	9:34	0.000	0.002	0.012	0.032	0.044				
1st floor elevator lobby	8:29	0.000	0.007	0.077	0.129	0.200				
1st floor gym hallway	8:35	0.001	0.013	0.104	0.199	0.390				
1st floor entrance by Room 102	8:40	0.001	0.012	0.133	0.241	0.388	exterior doors, restarted AFD			
Stairwell B-6th floor	8:47	0.000	0.005	0.057	0.084	0.144				
Stairwell B- 5th floor	8:51	0.001	0.005	0.044	0.075	0.125				
5th floor elevator lobby	8:56	0.000	0.007	0.087	0.127	0.181				
5th floor hallway at Room 507	9:01	0.001	0.008	0.053	0.086	0.119				
Room 507	9:05	0.001	0.007	0.021	0.024	0.026				

5th floor hallway at Room 517	9:11	0.000	0.005	0.030	0.041	0.055				
Room 518	9:15	0.000	0.002	0.009	0.011	0.019				
4th floor hallway at Room 406	9:22	0.001	0.010	0.047	0.116	0.272				
Basement Hallway at boiler room by elevator	9:28	0.001	0.002	0.034	0.052	0.089				

Benjamin Franklin High School (UCLS# 2010) Date of Sampling 10/25/2019 Criterion Project Number 192440

Location	Time	PM 1 (mg)	PM 2.5 (mg)	PM 7 (mg)	PM 10 (mg)	Total Dust (mg)	Comments			
outdoors	7:42	0.004	0.011	0.062	0.083	0.104				
1st floor elevator lobby	7:35	0.004	0.036	0.242	0.293	0.336	grinding in adjacent areas. workers almost done grinding. will close doors and use fans to control smoke/particulate			
1st floor gym hallway	7:47	0.005	0.016	0.125	0.181	0.293				
1st floor entrance by Room 102	7:54	0.004	0.018	0.204	0.300	0.375				
Stairwell B-6th floor	8:00	0.003	0.010	0.080	0.124	0.169				
Stairwell B- 5th floor	8:05	0.003	0.010	0.068	0.100	0.134				
5th floor elevator lobby	8:11	0.008	0.022	0.163	0.232	0.302				
5th floor hallway at Room 507	8:15	0.020	0.042	0.180	0.225	0.255				
Room 507	8:19	0.002	0.005	0.017	0.022	0.038				
5th floor hallway at Room 517	8:24	0.003	0.008	0.049	0.067	0.081				
Room 518	8:29	0.004	0.010	0.030	0.034	0.040				
4th floor hallway at Room 406	8:35	0.019	0.039	0.159	0.194	0.223				
Basement Hallway at boiler room by elevator	8:42	0.005	0.015	0.118	0.181	0.247				
1st floor elevator lobby	11:01	0.005	0.012	0.064	0.092	0.147				
1st floor gym hallway	11:05	0.004	0.010	0.049	0.067	0.090				
1st floor entrance by Room 102	11:11	0.006	0.019	0.146	0.214	0.290				
Stairwell B-6th floor	11:17	0.003	0.011	0.144	0.211	0.372				
Stairwell B- 5th floor	11:22	0.003	0.012	0.109	0.162	0.250				
5th floor elevator lobby	11:26	0.003	0.010	0.079	0.114	0.150				
5th floor hallway at Room 507	11:31	0.007	0.020	0.131	0.191	0.250				
Room 507	11:35	0.003	0.008	0.047	0.066	0.097				
5th floor hallway at Room 517	11:40	0.002	0.006	0.028	0.036	0.040				
Room 518	11:44	0.004	0.010	0.029	0.035	0.039				
4th floor hallway at Room 406	11:50	0.005	0.013	0.074	0.094	0.111				
Basement Hallway at boiler room by elevator	11:56	0.019	0.040	0.160	0.226	0.285				
1st floor elevator lobby	13:58	0.001	0.007	0.093	0.142	0.190				
1st floor gym hallway	14:02	0.003	0.015	0.129	0.229	0.433				
1st floor entrance by Room 102	14:07	0.005	0.020	0.161	0.213	0.282				
Stairwell B-6th floor	14:14	0.002	0.007	0.084	0.122	0.181				
Stairwell B- 5th floor	14:18	0.002	0.008	0.096	0.148	0.197				
5th floor elevator lobby	14:24	0.004	0.014	0.134	0.197	0.288				
5th floor hallway at Room 507	14:29	0.004	0.015	0.113	0.164	0.213				
Room 507	14:33	0.002	0.004	0.035	0.057	0.089				
5th floor hallway at Room 517	14:38	0.002	0.006	0.040	0.057	0.073				
Room 518	14:43	0.002	0.005	0.020	0.028	0.037				
4th floor hallway at Room 406	14:50	0.005	0.020	0.141	0.187	0.291				
Basement Hallway at boiler room by elevator	14:56	0.006	0.013	0.049	0.068	0.086				