Weekly Air Monitoring Summary

Client: **PPG Industries**

Location: **Site 63 and 65: Baldwin Burma Sites - Jersey City, NJ**

This weekly air monitoring report includes both tabular information and written discussions summarizing the ambient air quality data collected in accordance with the Air Monitoring Plan for the above-referenced project and reporting period. The following information is provided in the data summary:

- **Table 1:** Site-Specific Alarm Levels;
- **Table 2:** Real-Time PM_{10} Data Summary;
- **Table 3:** Weekly Hand-Held Data Summary;
- **Table 4:** Elevated Readings Summary for PM_{10};
- **Table 5:** Program-to-Date Average Concentrations for Hexavalent Chromium, Total Dust, and Real-Time PM_{10};
- **Figure 1:** Meteorological Data; and
- **Figure 2:** Station Location Map.

This report covers real-time air monitoring from April 12 through 18, 2015 at the Burma Road Site (Site). Real-time air monitoring is divided into three types of monitoring including; perimeter air monitoring (at the site boundaries), meteorological monitoring, and hand-held monitoring. The air monitoring report details results associated with the site, consisting of 5 fixed stations and periodic hand-held monitoring. See Figure 2 for station locations.

Perimeter air monitoring includes the following:

- Real-time 15-minute average PM_{10} readings at each location during the work day;
- Periodic hand-held readings when remedial activities are in known areas of Volatile Organic Compounds (VOCs) or in radiologically-impacted areas;
- Time integrated 8-to-10-hour Total Dust and Hexavalent Chromium laboratory sampling;
- Time integrated 24-hour Total Dust and Hexavalent Chromium laboratory sampling; and
- Meteorological measurements of 15-minute average wind speed, relative humidity, and temperature are recorded onsite at Air Monitoring Station 3.

Summary of Real-Time Air Monitoring Results for PM_{10} TVOC, and Radiological Concentrations

During the report period there were elevated 15-minute Time Weighted Average (TWA) PM_{10} readings, but no Total Volatile Organic Compounds (TVOCs) readings above the Site action levels shown in Table 1. The maximum 15 minute TWA PM_{10} readings are shown in Table 2. The maximum hand-held PM_{10}, TVOC, and radiological concentrations are shown in Table 3. TVOC and Radiological data is presented for those days when work in the area of the site containing petroleum impacted soils and naturally occurring radioactive material is performed. Elevated readings above the Site alarm levels are presented in Table 4, if applicable.

Summary of the Program-to-Date Integrated Sampling and Real-Time Air Monitoring Results

Integrated sampling results for hexavalent chromium (Cr^{+6}) and total dust are updated when available. Program-to-date average concentrations for integrated Cr^{+6}, total dust, and real-time PM_{10} readings are shown in Table 5.

Summary of Meteorological Monitoring

The time series plots of wind speed, temp, and relative humidity for the report period are shown in Figure 1.

Table 1: Site-Specific Action Levels

Alarm Levels	Alert Level (15 minute TWA)	Action Level (15 minute TWA)
PM_{10}	255 µg/m^3	339 µg/m^3
TVOC	1 ppm	1.4 ppm
Radiological		4.00 E-12 µCi/ml (Derived Air Concentration)

Table 2: Weekly Real-Time PM_{10} Data Summary

Maximum 15-Minute PM_{10} TWA (Action Level: 339 µg/m^3)					
Date	**AMS 1**	**AMS 2**	**AMS 3**	**AMS 4**	**AMS 5**
4.13.15	29.5	24.2	18.8	26.4	20.4
4.14.15	25.9	31.7	13.1	19.1	16.9
4.15.15	813.1	669.2	360.9	326.9	378.9
4.16.15	16.2	15.1	11.2	19.4	18.0
4.17.15	24.5	39.3	22.5	27.9	25.0
Max	813.1	669.2	360.9	326.9	378.9
Average	15.9	16.4	11.9	15.4	12.9

Table 3: Weekly Hand-Held Data Summary for PM_{10}, TVOC, & Radiological Concentration

Maximum Instantaneous PM_{10}, TVOC, & Radiological Concentration			
Date	**PM_{10} (µg/m^3)**	**TVOC (ppm)**	**Radiological (µCi/ml)**
4.13.15	26.0	0.0	NA
4.14.15	23.0	0.0	NA
4.15.15	15.0	0.0	2.35E-14
4.16.15	14.0	0.0	2.50E-14
4.17.15	31.0	0.0	2.31E-14

Note: No intrusive activities conducted on 4/13/15 and 4/14/15. No radiological monitoring conducted.

Table 4: Weekly Elevated Readings Summary

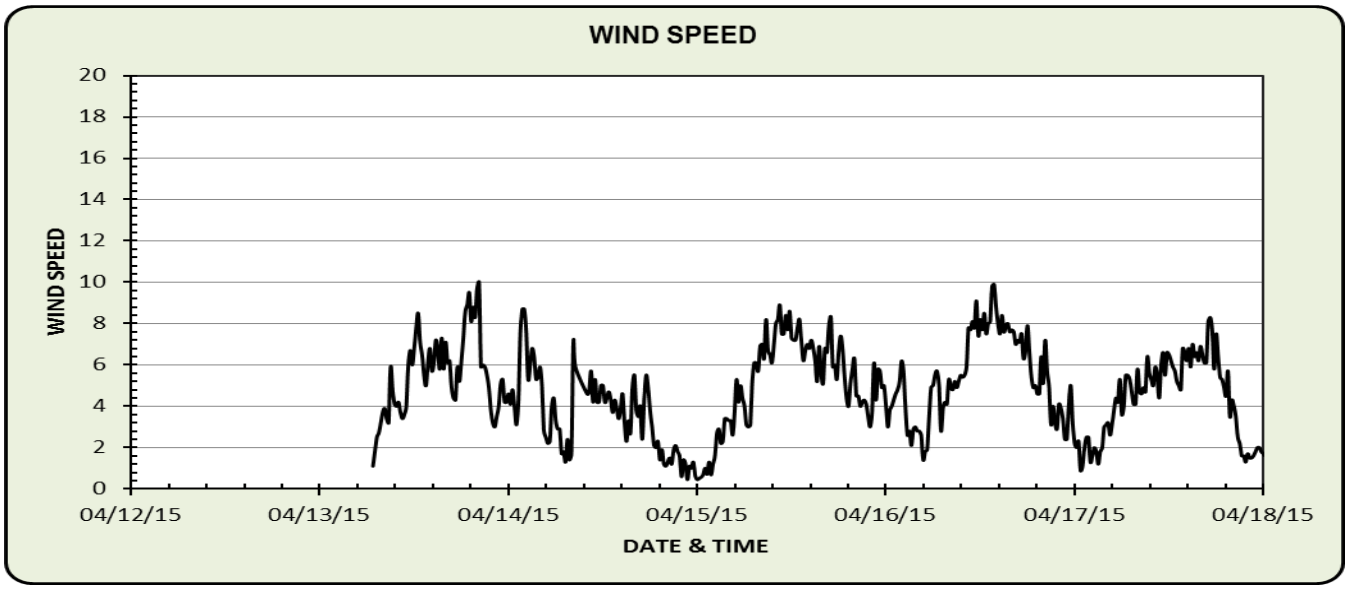
Parameter	Date	Time	Location	Wind Conditions	Elevated Concentration	Explanation
PM_{10}	4/15/15	12:00	AMS1	W Wind	813.1 µg/m^3	Heavy black diesel exhaust from passing truck enveloped the site. Readings returned to normal once the truck exhaust dissipated.
PM_{10}	4/15/15	12:00	AMS2	W Wind	669.2 µg/m^3	Heavy black diesel exhaust from passing truck enveloped the site. Readings returned to normal once the truck exhaust dissipated.
PM_{10}	4/15/15	12:05	AMS3	W Wind	360.9 µg/m^3	Heavy black diesel exhaust from passing truck enveloped the site. Readings returned to normal once the truck exhaust dissipated.
PM_{10}	4/15/15	12:05	AMS4	W Wind	326.9 µg/m^3	Heavy black diesel exhaust from passing truck enveloped the site. Readings returned to normal once the truck exhaust dissipated.
PM_{10}	4/15/15	12:05	AMS5	W Wind	378.9 µg/m^3	Heavy black diesel exhaust from passing truck enveloped the site. Readings returned to normal once the truck exhaust dissipated.

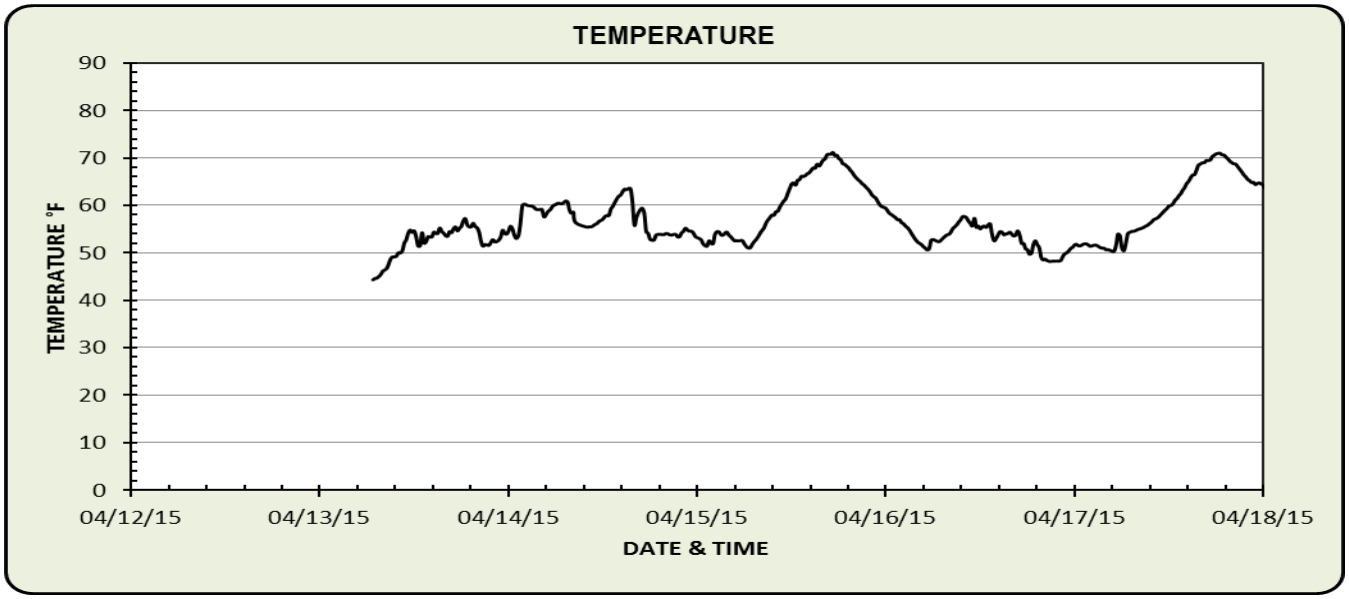
Table 5: Program-to-Date Average Data Summary

Program-to-Date Averages					
	AMS 1	**AMS 2**	**AMS 3**	**AMS 4**	**AMS 5**
Cr^{+6} Concentration (ng/m^3)	7.4	7.2	2.0	7.3	6.7
Total Dust Concentration (µg/m^3)	48.7	37.8	22.5	44.2	50.2
Real-Time PM_{10} (µg/m^3)	23.3	22.0	22.6	26.1	28.7

ng/m^3 Nanograms per cubic meter ppm Parts per million µCi/mL Microcuries per milliliter
µg/m^3 Micrograms per cubic meter NA Not Applicable

Figure 1: Meteorological Monitoring Results Summary





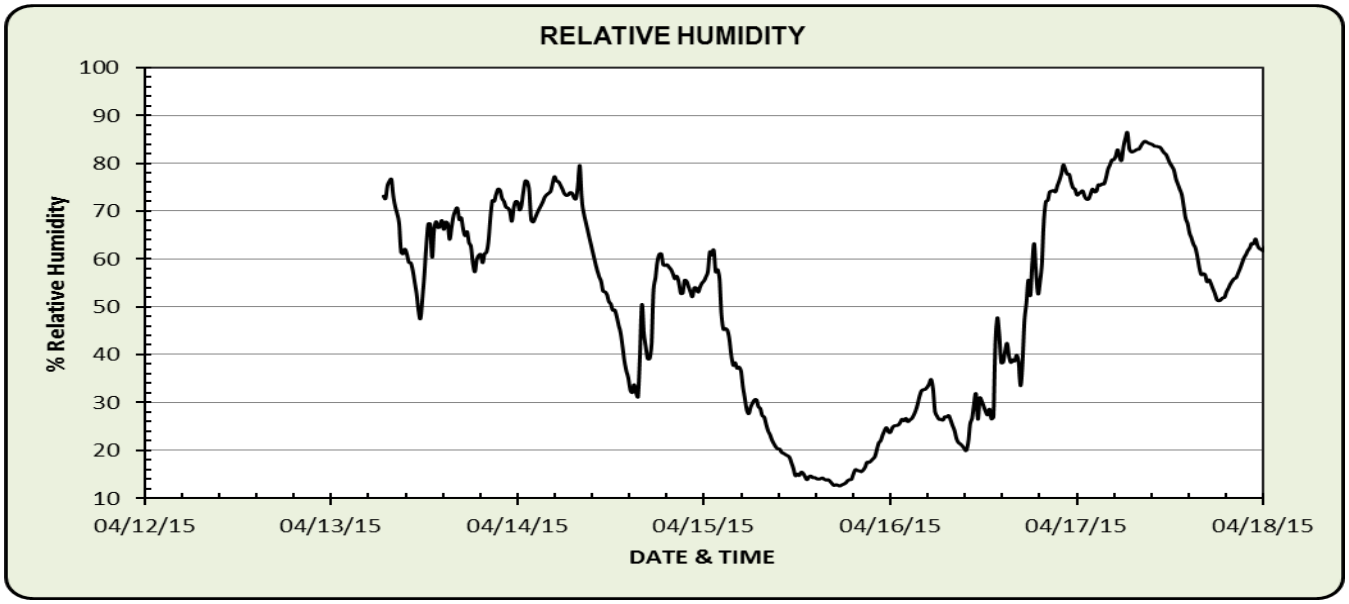


Figure 2: Air Monitoring Station Location Map

Legend:

- Fenceline AMS operates 8 to 10-hours per day
- Example Hand-Held Monitoring Locations
- Meteorological Station

Definitions:

AMS – Air Monitoring Station

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