

# WEEKLY AIR MONITORING REPORT

## Vo-Toys Removal Action

**Site Name:** Vo-Toys Site, Harrison, New Jersey

**CERCLA Docket No.:** 02-2019-2028

**Report No.:** 122

**Report Date:** August 11, 2023

**Reporting Period:** August 7 to August 11, 2023

## 1 Introduction

This report summarizes the Vo-Toys Removal Action (RA) air monitoring program conducted between August 7 to August 11, 2023, at the Vo-Toys site located at 400 South 5<sup>th</sup> Street, Harrison, New Jersey (the site). Air monitoring for particulates less than 10 microns in diameter (PM<sub>10</sub>) and mercury vapor was conducted in accordance with the U.S. Environmental Protection Agency (USEPA)-approved Community Air Monitoring Plan (CAMP). PM<sub>10</sub> and mercury vapor results were compared with action levels presented in the CAMP.

Air monitoring during the week of August 7, 2023, included the following monitoring tasks:

- Meteorological monitoring
- Work area perimeter air monitoring
- Site perimeter air monitoring

A summary of the monitoring activities that were conducted is presented in Section 3.

## 2 Meteorological Monitoring

Meteorological monitoring was conducted to measure wind speed, wind direction, and air temperature. Meteorological readings were recorded on a data logging device and evaluated at least three times per day to determine the upwind and downwind boundaries of the site.

Table 2-1 presents a summary of the meteorological monitoring during the week of August 7, 2023. The attached site air monitoring figures show the locations of the meteorological sensors.

**Table 2-1**  
**Meteorological Monitoring Summary**

| Date            | Weather  |
|-----------------|--|
| August 7, 2023  | Overcast/Rain, High in the low 80s °F; Winds 5-15 mph S (Online)         |
| August 8, 2023  | Mostly Cloudy, High in the low 80s °F; Winds 5-15 mph S (Online)         |
| August 9, 2023  | Sunny, High in the upper 80s °F; Winds 5-10 mph W (Online)               |
| August 10, 2023 | Overcast/Rain Showers, High in the low 80s °F; Winds 5-10 mph S (Online) |
| August 11, 2023 | Sunny, High in the mid-80s °F; Winds 5-10 mph W (Online)                 |

### 3 PM<sub>10</sub> and Mercury Vapor Monitoring

#### 3.1 Work Area Perimeter Air Monitoring

Air monitoring was performed at the perimeter of the RA work areas and the RA activities were modified as necessary so that particulates and mercury vapors above action levels were not migrating to the site perimeter and off-site/community air monitoring locations. The work area perimeter monitoring locations were in or adjacent to the building footprints and were determined based on the location and extent of RA activities and the prevailing wind direction. Readings were recorded and maintained on site by the Engineer.

A summary of work area perimeter air monitoring data is presented in the table below.

#### Summary of Anchor QEA's Work Area Perimeter Air Monitoring for PM<sub>10</sub> and Mercury Vapor

| Date                                | PM <sub>10</sub> 15-Minute Average Range<br>(ug/m <sup>3</sup> )<br><i>Action Level &lt;125 ug/m<sup>3</sup></i> | Mercury Vapor 15-Minute<br>Average Range (ug/m <sup>3</sup> )<br><i>Action Level &lt;10 ug/m<sup>3</sup></i> |
|-------------------------------------|--|--|
| <b>Building A West End Removals</b> |  |  |
| August 7, 2023                      | 18.0 – 26.0  | 0.0 – 0.0  |
| August 8, 2023                      | 0.0 – 17.0   | 0.0 – 0.0  |
| August 9, 2023                      | 8.0 – 32.0   | 0.0 – 0.0  |
| August 10, 2023                     | 20.0 – 33.0  | 0.0 – 0.0  |
| August 11, 2023                     | 13.0 – 32.0  | 0.0 – 0.0  |

Notes:

1. ug/m<sup>3</sup>: micrograms per cubic meter.
2. PM<sub>10</sub> action levels: Normal operations if 15-minute average of PM<sub>10</sub> readings is <125 ug/m<sup>3</sup>. If readings >125 ug/m<sup>3</sup> additional actions would be required per CAMP.
3. Mercury vapor action level: Normal operations if mercury vapor for a single reading is <10 ug/m<sup>3</sup>.
4. See CAMP for further details on action levels.

#### 3.2 Site Perimeter Air Monitoring Summary

Site perimeter monitoring was performed to document that particulates (PM<sub>10</sub>) or mercury vapor above action levels were not migrating beyond the site boundary. Four air monitoring stations were

located outside the building footprints around the site perimeter: one upwind and three downwind. Figures SP-1 through SP-5 show the locations of the site perimeter stations each day. Readings were recorded and maintained on site by the Engineer.

All PM<sub>10</sub> and mercury vapor site perimeter air monitoring data were below action levels defined in the CAMP. A summary of site perimeter air monitoring data is presented in Table 3.

**Table 3-1**  
**Summary of PM<sub>10</sub> and Mercury Vapor Site Perimeter Air Monitoring**

| Date      | Air Monitoring Station/Location | Upwind/Downwind | PM <sub>10</sub> 15-Minute Average Range (ug/m <sup>3</sup> )<br>Action Level < 100 ug/m <sup>3</sup> | Mercury Vapor 15-Minute Average Range (ug/m <sup>3</sup> )<br>Action Level < 10 ug/m <sup>3</sup> |
|-----------|---------------------------------|-----------------|---|---|
| 8/7/2023  | Station 1 – West                | Downwind        | No Measurements <sup>4</sup>  | 0.10 – 0.39   |
|           | Station 2 – East                | Downwind        | 22.5 – 69.4   | 0.10 – 0.17   |
|           | Station 3 – Southeast           | Upwind          | 24.6 – 68.3   | 0.10 – 0.43   |
|           | Station 4 – North               | Downwind        | 36.0 – 56.1   | 0.10 – 0.20   |
| 8/8/2023  | Station 1 – West                | Downwind        | 0.6 – 19.0  | 0.10 – 0.48   |
|           | Station 2 – East                | Downwind        | 0.0667 – 28.4   | 0.10 – 0.53   |
|           | Station 3 – Southeast           | Upwind          | 2.13 – 25.7   | 0.10 – 0.15   |
|           | Station 4 – North               | Downwind        | 6.27 – 22.9   | 0.12 – 0.28   |
| 8/9/2023  | Station 1 – West                | Upwind          | 30.0 – 47.2   | 0.10 – 0.40   |
|           | Station 2 – East                | Downwind        | 13.5 – 41.1   | 0.10 – 0.71   |
|           | Station 3 – Southeast           | Downwind        | 17.0 – 47.9   | 0.10 – 0.28   |
|           | Station 4 – North               | Downwind        | 22.0 – 58.3   | 0.12 – 0.25   |
| 8/10/2023 | Station 1 – West                | Downwind        | 20.2 – 41.2   | 0.10 – 0.25   |
|           | Station 2 – East                | Downwind        | 13.1 – 52.0   | 0.10 – 0.27   |
|           | Station 3 – Southeast           | Upwind          | 28.7 – 49.1   | 0.10 – 0.13   |
|           | Station 4 – North               | Downwind        | 5.0 – 56.3  | 0.10 – 0.50   |
| 8/11/2023 | Station 1 – West                | Upwind          | 14.6 – 35.6   | 0.10 – 0.48   |
|           | Station 2 – East                | Downwind        | 23.3 – 68.6   | 0.10 – 0.76   |
|           | Station 3 – Southeast           | Downwind        | 23.8 – 43   | 0.10 – 0.13   |
|           | Station 4 – North               | Downwind        | 9.0 – 49.7  | 0.13 – 0.26   |

Notes:

1. PM<sub>10</sub> action level: Normal operations if PM<sub>10</sub> < 100 ug/m<sup>3</sup>.
2. Mercury vapor action level: Normal operations if 15-minute average of MVA readings is < 10 ug/m<sup>3</sup>.
3. See CAMP for further details on action levels.
4. Due to rental equipment malfunction, Station 1 did not properly record dust data on 8/7/2023.

### 3.3 Off-Site/Community Air Monitoring

Off-site/community air monitoring for mercury vapors was performed during specific phases of the RA to document that mercury vapor above action levels were not migrating beyond the site boundary. In accordance with the CAMP, each day that included a qualifying mercury vapor monitoring event, four 8-hour off-site air samples were collected for mercury vapor analysis (one upwind and three downwind). Off-site/community air monitoring for mercury vapors was not required to be performed during the week of August 7, 2023.

## 4 Monitoring Equipment

Table 4-1 presents the air monitoring devices used.

**Table 4-1**  
**Monitoring Equipment and Calibration**

| Parameter   | Monitoring Equipment   |
|---|--|
| Mercury Vapors – Real Time and Average Concentrations | <ul style="list-style-type: none"><li>Jerome Mercury Vapor Analyzer J405 – Arizona Instruments, LLC (work area monitoring, regenerated prior to daily use)</li><li>VM 3000 – Mercury Instruments (site perimeter stations, auto zeroed prior to daily use)</li></ul> |
| Airborne Particulates                                 | <ul style="list-style-type: none"><li>TSI Dusttrak Particulate Monitor (site perimeter stations, zeroed prior to daily use)</li></ul>  |
| Meteorological Monitoring                             | <ul style="list-style-type: none"><li>Vantage Pro 2 weather station</li></ul>  |

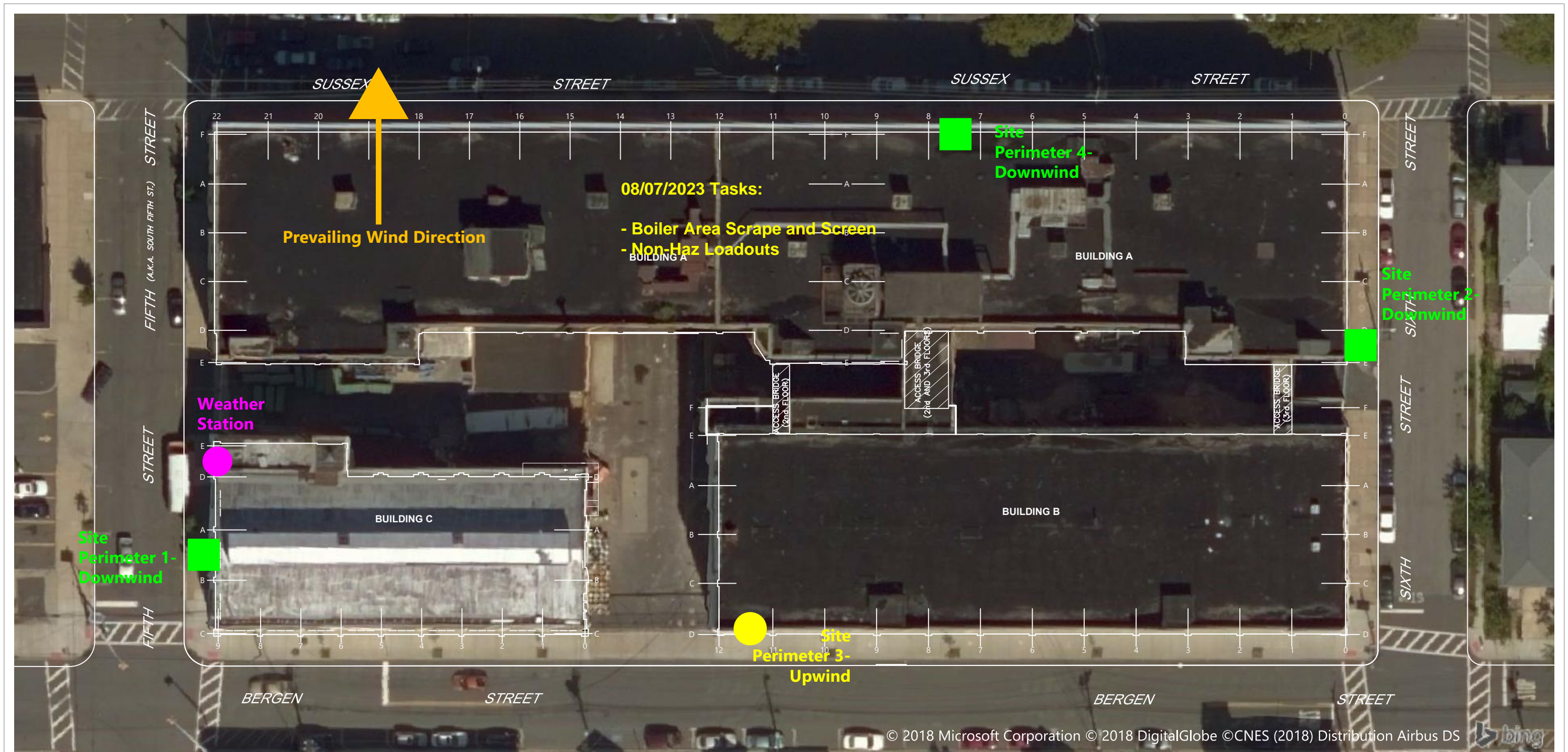
## 5 Issues or Potential Modifications to the CAMP

None

## Figures

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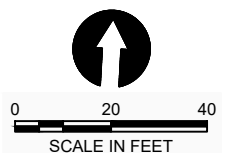




**SOURCE:** Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED\_SITEMAP\_20101" provided by General Electric Company on March 3, 2016.  
**HORIZONTAL DATUM:** New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).  
**VERTICAL DATUM:** (None).

**LEGEND**  
 A,1 — — — BUILDING COLUMN LINE

- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location



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**Figure SP-1**  
**08/07/2023**  
**Air Monitoring Station Locations**  
 Vo Toys Removal Action  
 General Electric Company

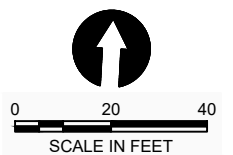




**SOURCE:** Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED\_SITEMAP\_20101" provided by General Electric Company on March 3, 2016.  
**HORIZONTAL DATUM:** New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).  
**VERTICAL DATUM:** (None).

**LEGEND**  
 A,1 — — — BUILDING COLUMN LINE

- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location



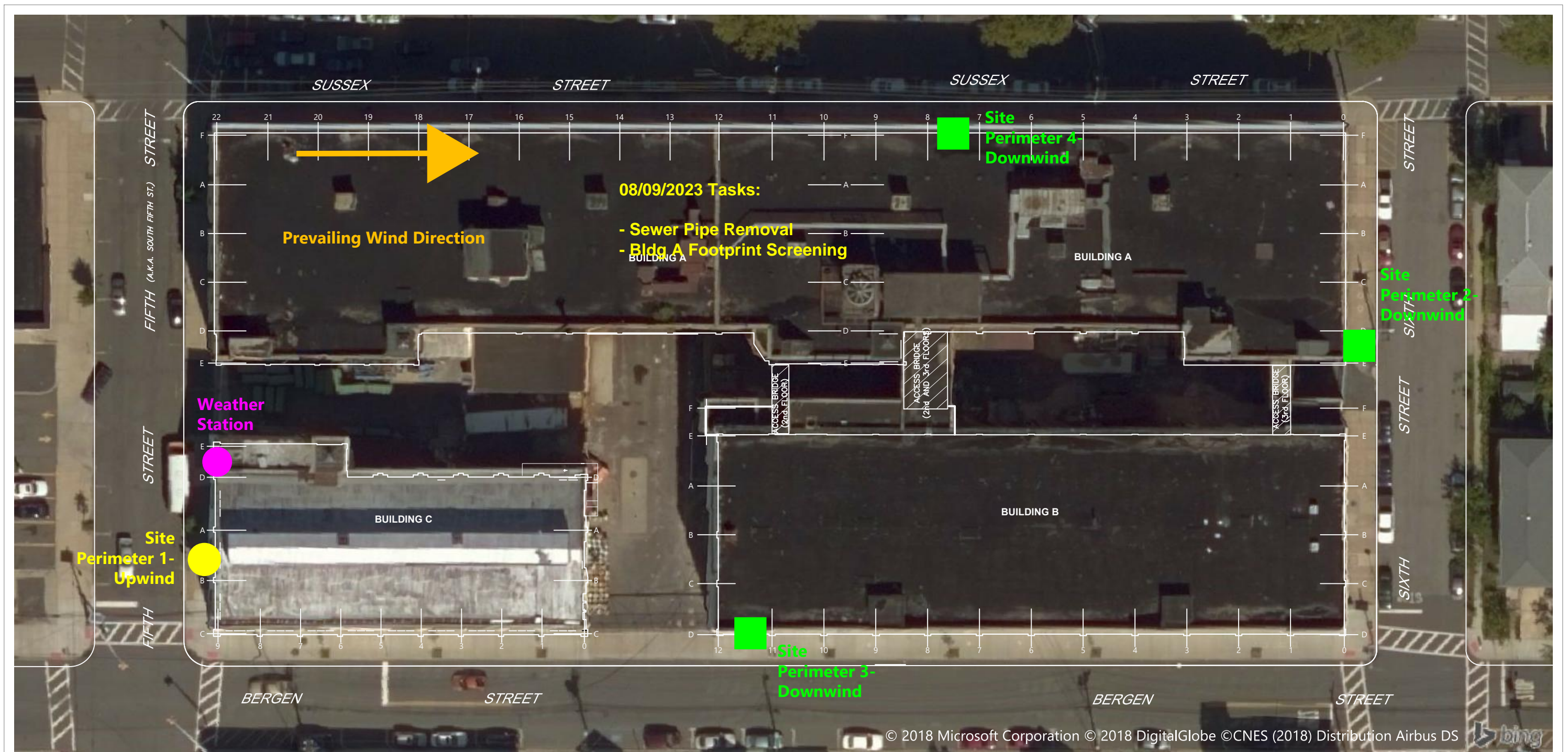
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**Figure SP-2**  
**08/08/2023**  
**Air Monitoring Station Locations**

Vo Toys Removal Action  
 General Electric Company

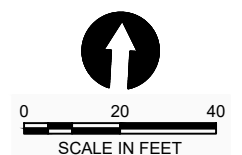




**SOURCE:** Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED\_SITEMAP\_20101" provided by General Electric Company on March 3, 2016.  
**HORIZONTAL DATUM:** New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).  
**VERTICAL DATUM:** (None).

**LEGEND**  
 A,1 — — — BUILDING COLUMN LINE

- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location



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**Figure SP-3**  
**08/09/2023**  
**Air Monitoring Station Locations**  
 Vo Toys Removal Action  
 General Electric Company

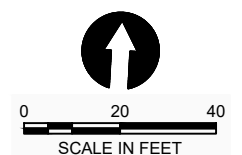




**SOURCE:** Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED\_SITEMAP\_20101" provided by General Electric Company on March 3, 2016.  
**HORIZONTAL DATUM:** New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).  
**VERTICAL DATUM:** (None).

**LEGEND**  
 A,1 — — — BUILDING COLUMN LINE

- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location

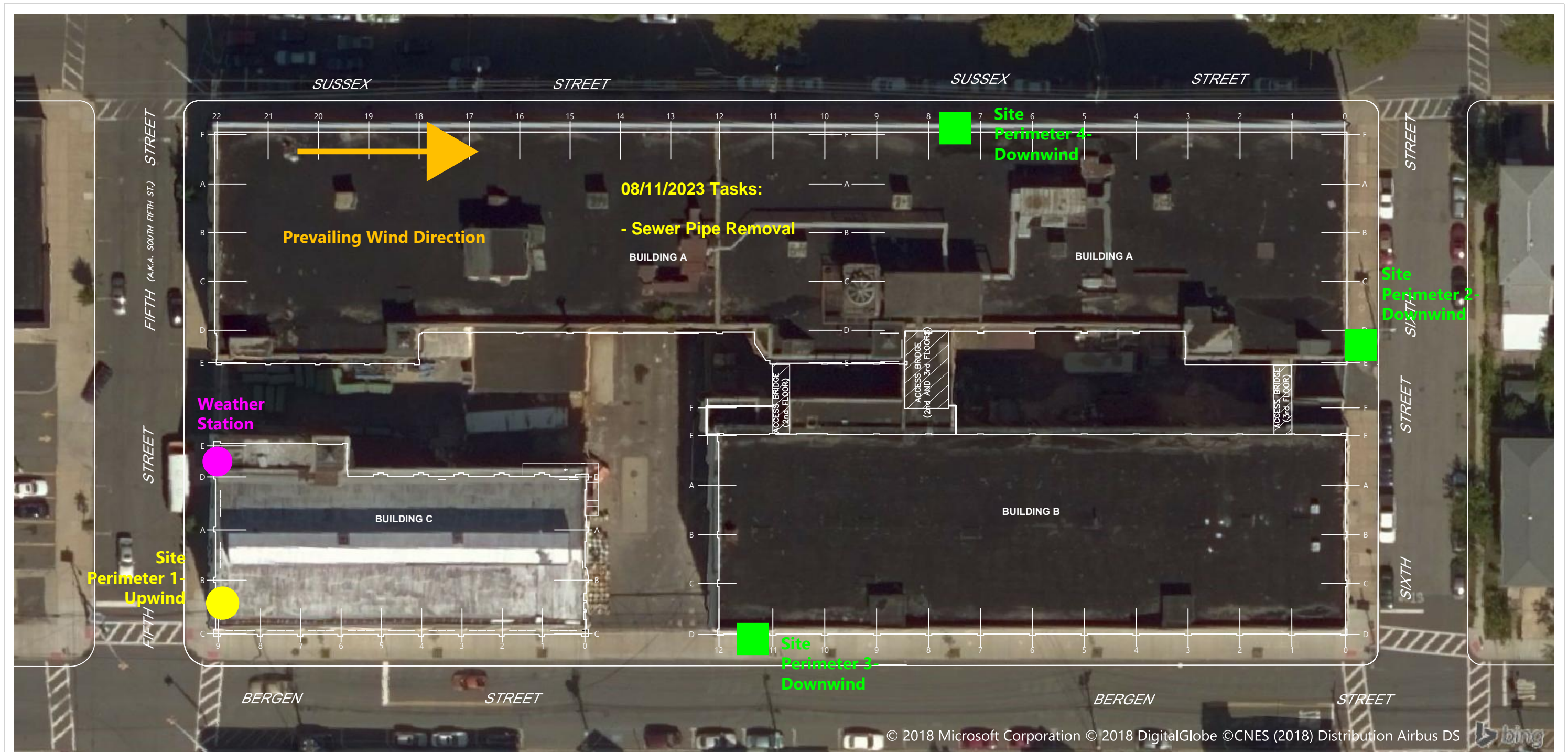


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**Figure SP-4**  
**08/10/2023**  
**Air Monitoring Station Locations**  
 Vo Toys Removal Action  
 General Electric Company

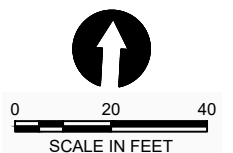




**SOURCE:** Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED\_SITEMAP\_20101" provided by General Electric Company on March 3, 2016.  
**HORIZONTAL DATUM:** New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).  
**VERTICAL DATUM:** (None).

**LEGEND**  
 A,1 — — — BUILDING COLUMN LINE

- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location



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**Figure SP-5**  
**08/11/2023**  
**Air Monitoring Station Locations**  
 Vo Toys Removal Action  
 General Electric Company