

January 11, 2022

Ms. Maureen Hatfield, P.G.

Texas Commission on Environmental Quality
MC-127
VCP-CA Section, Team 1, Remediation Division
P.O. Box 13087
Austin, Texas 78711-3087

**RE: WEEKLY STATUS UPDATE – ENGLEWOOD YARD NORTH BYPASS PROJECT
UNION PACIFIC RAILROAD HOUSTON WOOD PRESERVING WORKS SITE
4910 LIBERTY ROAD FACILITY, HOUSTON, TEXAS
POST-CLOSURE CARE PERMIT NO. 50343, INDUSTRIAL SWR NO. 31547**

Dear Ms. Hatfield:

Golder Associates USA Inc. (Golder), a member of WSP, on behalf of Union Pacific Railroad (UPRR), prepared this weekly status update for the Englewood Yard North By-Pass Project (the Project) that includes areas of construction within the UPRR Houston Wood Preserving Works (HWPW) site (the Site) (Post-Closure Care Permit No. 50343) located at 4910 Liberty Road, Houston, Texas. Below is a summary of the Project activities conducted at the Site for the reporting period:

Week Period: *January 1 through January 9, 2022*

Construction activities conducted within the Project Area included the removal of six power poles on January 4, 2022.

- **Dust Control and Air Monitoring (summary taken from IHST Weekly Report of Air Monitoring (Attachment A))**
 - IHST conducted real time air and dust monitoring at the Site in accordance with the Air Monitoring Plan (July 8, 2021), and the results for this period are provided in Attachment A.
 - There were no events where PM 2.5 and PM 10 readings increased above the Take-Action Level or Stop-Work Level during the monitoring period.
- **Soil Management**
 - Construction activities conducted during this reporting period did not result in the generation of excavated soils within the Project Area.
 - One roll-off container containing approximately 15 cubic yards (CY) of soil classified as impacted with listed hazardous waste (F034/K001) was shipped to the US Ecology Texas TSDF in Robstown, TX on January 6, 2022 (Hazardous Waste Manifest Number: 022648999JJK).

- **Stormwater Management**

- There was no rainfall during this reporting period that resulted in management of stormwater within the Project area.

Planned Construction Activities for the week between **January 10 and January 16, 2022:**

Construction activities are tentatively scheduled to resume within the Site on January 15, 2022. The planned activities include construction of a shallow trench for installation of new signal lines within the Railroad Ballast Cap area.

- **Dust Control and Air Monitoring**

- Continue to conduct air monitoring per the approved Plan.

- **Soil Management**

- Continue to manage soils generated from within the HWPW Capped Areas per the approved Soil Management Plan (SMP).
 - Review and profile analytical results for wash water sample collected on December 16, 2021.

- **Stormwater Management**

- Manage stormwater in the event of rainfall in the area per the approved Storm Water Pollution Prevention Plan (SWPPP).

If you have any questions or need additional information, please feel free to contact Mr. Kevin Peterburs of UPRR at (414) 267-4164.

Sincerely,

Golder Associates USA Inc.



Jacqueline M. Engel
Project Geologist



Eric Matzner
Practice Leader/ Principal

ATTACHMENT A

Weekly Report of Air Monitoring



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and Innovation



Weekly Report of Air Monitoring

Union Pacific Railroad North Bypass Construction Project

Former Houston Wood Preserving Works Site
Houston, TX

For Period from 2022-01-03 to 2022-01-09

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Summary Results of Daily Dust Monitoring

This section provides overall summary results for perimeter dust monitoring conducted during the week specified. Dust monitoring results include the average PM 2.5 and PM 10 monitoring results over the sample period at each sample location for each day. Each day's summary provides also includes a description of the work activities performed that day, and any items, issues or occurrences of note.

The 24-hour USEPA National Ambient Air Quality Standard (NAAQS) for PM 2.5 particulate matter is 35 ug/m3, and 150 ug/m3 for PM 10 particulate matter. The Texas Department of Environmental Quality (TCEQ) has adopted these values. UPRR has established dust control levels for railroad construction activities to help ensure that particulate levels do not exceed the 24-hour NAAQS as a result of construction activities.

Overall averages provided are for the sample period specified by the start and stop times. Unless otherwise specified, the sample periods are inclusive of all potentially significant dust generating activities.

Location of air sampling stations are consistent the Dust Control and Air Monitoring Plan dated 7/8/2021 and approved by the Texas Commission on Environmental Quality (TCEQ). Minor variations in station placement may occur, based on work activities, environmental factors, observed patterns of dust dispersion and practical constraints. One sample location specified in the original plan, located on the far southwest corner of the site just southwest of Kirk Street, has not been used to date. The originally proposed location is not readily accessible for daily equipment deployment and is outside of the current excavation areas of the construction. No excavation or other dust-generating activities have taken place to date in the vicinity of this location. Construction plans include improvements to access for this location prior to the start of such activities. Air monitoring equipment will be deployed to this location once access improvements are completed and before excavation or other dust-generating activities begin in this area.

Note: Extraction of wooden power poles took place on 1/4/2022. No other excavation activities took place this week (1/3-9/2022), and air monitoring was conducted only on 1/4/2022.

PM 2.5 and PM 10 Daily Summary Results

Sample Date
Jan 4, 2022

Description of Work Performed

Work plan for the day included use of a derrick truck to pull 6 power poles located on the east end of the North Bypass service road and west of the Lockwood overpass. No air knifing or other excavation work was conducted. Planned work hours were from 07:00 - 17:30. Station deployment occurred later than usual, as all stations had been shut down and stored for the holiday season. Actual work performed included removal of the 6 power poles, between approximately 08:45 and 15:44. Stations AMS-07 and AMS-10a did not come online at initial startup. After system restarts between 11:26 and 11:34, these stations came online and began reporting data.

Overview Map of Daily Sample Locations



Station ID	Location Description	Start	Stop	Latitude	Longitude	Overall Average PM 2.5	Overall Average PM 10
AMS-02	IMY East - Sudan and Harlem	09:38	15:52	29.78426	-95.31687	11.3 ug/m3	27.1 ug/m3
AMS-03	IMY SE - Clementine	09:28	16:02	29.78208	-95.31911	12.1 ug/m3	28.4 ug/m3
AMS-04	IMY South - Schweikhardt	09:24	16:18	29.78222	-95.32282	11.4 ug/m3	26.8 ug/m3
AMS-05a	IMY SW - Lee and Waco	09:11	16:26	29.78202	-95.32591	11.5 ug/m3	31 ug/m3
AMS-06	HWPW - Erastus	09:56	17:18	29.78755	-95.31682	8.9 ug/m3	21.8 ug/m3
AMS-07	HWPW - Clementine North	11:34	17:10	29.78746	-95.31912	6.9 ug/m3	16.9 ug/m3
AMS-08	HWPW - Solo North	10:07	17:03	29.78745	-95.32116	8.3 ug/m3	20 ug/m3
AMS-09	HWPW - Kashmere and Liberty	10:14	16:56	29.78756	-95.32362	8.6 ug/m3	19.2 ug/m3
AMS-10a	HWPW - Eddie and Kashmere	11:26	16:47	29.78637	-95.32376	7.4 ug/m3	17.3 ug/m3
AMS-11	HWPW - Quitman East	10:29	16:42	29.78436	-95.32448	10.2 ug/m3	24.2 ug/m3

Note: Station AMS-01, located approximately 1.1 miles east of the Houston Wood Preserving Works Site, at the UPRR Englewood Yard Office, was not deployed on this day, due to time constraints. AMS-01 is used as a reference station only, and results from this station are not indicators of construction-related dust levels.

Summary Results of Daily Weather Conditions

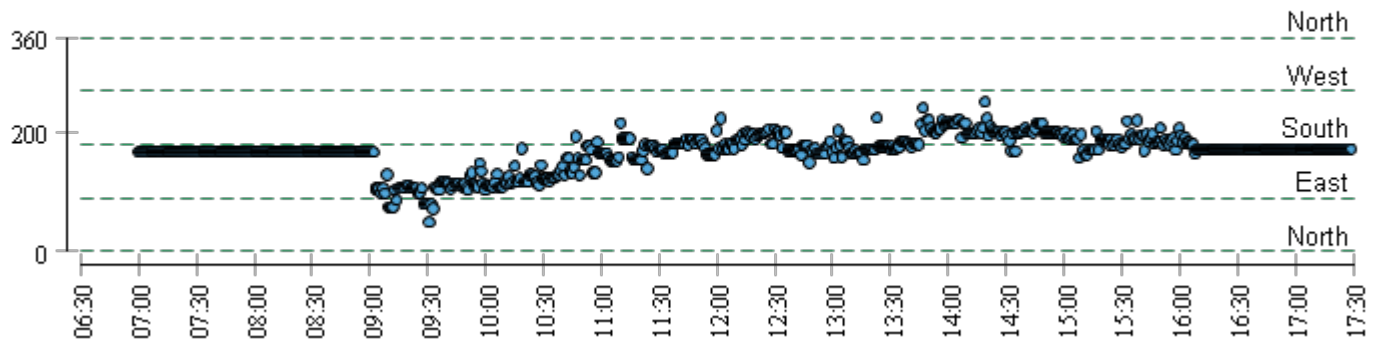
This section provides charts showing wind speed, wind direction and rainfall during each day of sampling during the specified week.

Note: *Extraction of wooden power poles took place on 1/4/2022. No other excavation activities took place this week (1/3-9/2022), and air monitoring was conducted only on 1/4/2022.*

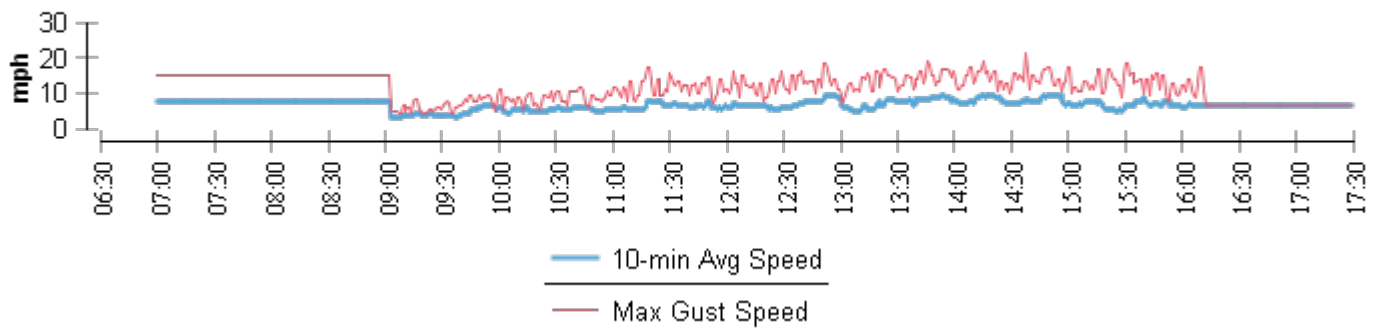
Weather Time History Data

Sample Date Jan 4, 2022

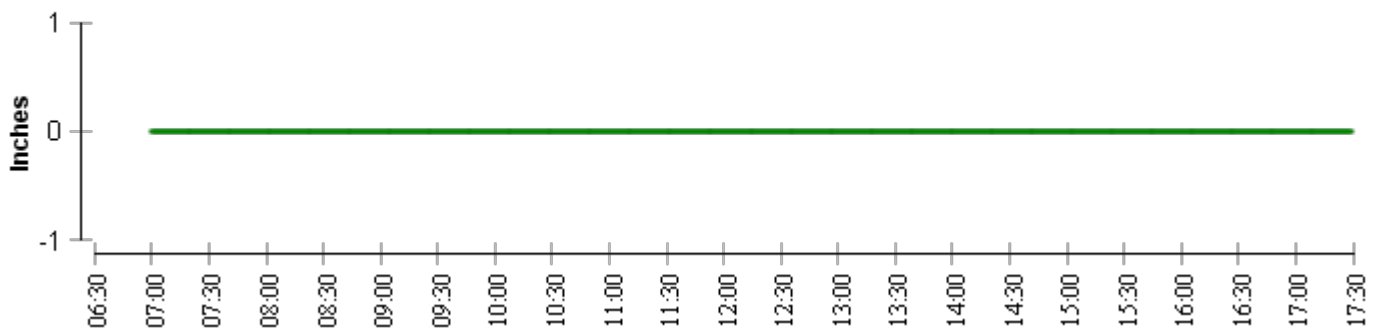
Wind Direction (10 min average)



Wind Speed



Cumulative Daily Rainfall



Daily Time History Detail for PM 2.5 and PM 10 Dust Levels

This section provides charts showing the rolling thirty-minute average concentrations of PM 2.5 and PM 10 particulates measured at each location on each sample day during the specified week.

PM 2.5 and PM 10 airborne particulate levels are measured every two minutes during the active sampling period. The charts track the average particulate concentrations over the past 30 minutes at the time of the measurement.

Union Pacific Railroad (UPRR) has established control levels for airborne particulates to help ensure that construction-related dust levels are adequately controlled. These levels are explained as follows:

- Take-Action Level - 30-minute average dust concentrations $>55 \text{ ug/m}^3$ (PM 2.5) or $>150 \text{ ug/m}^3$ (PM 10)
Additional dust control measures, as outlined in the site dust control plan, will be promptly implemented to reduce levels below the Take-Action Level.
- Stop-Work Level - 30-minute average dust concentrations $>85 \text{ ug/m}^3$ (PM 2.5) or $>300 \text{ ug/m}^3$ (PM 10)
Work will be stopped immediately, as outlined in the site dust control plan, and UPRR will evaluate dust control measures. Work will not resume until UPRR has implemented additional controls that will effectively prevent generation of dust levels above the Stop-Work Level.

Air monitoring stations may exhibit higher than actual readings during the first 5 - 10 minutes after startup, before the instrumentation has fully warmed up. This is a known and expected behavior of the instrumentation.

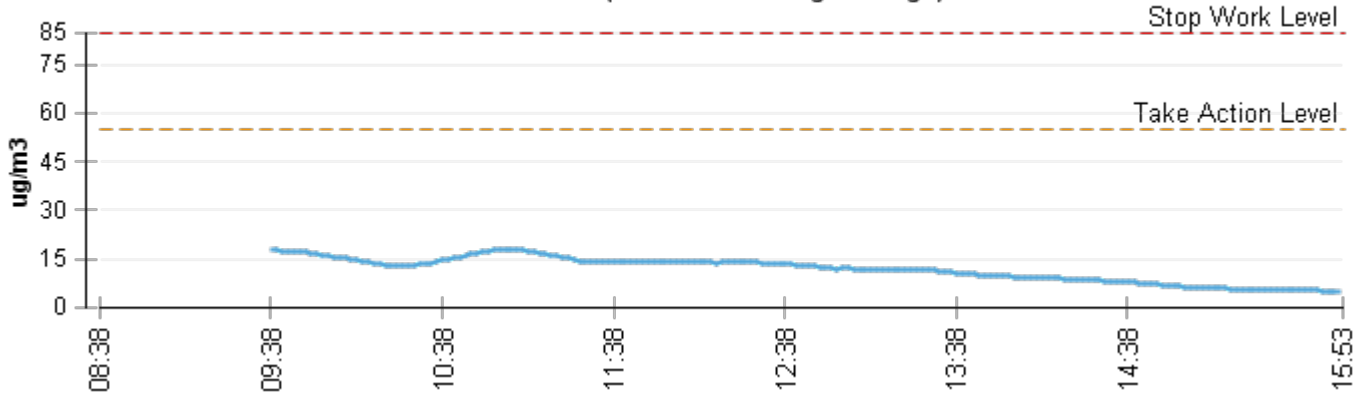
Note: Extraction of wooden power poles took place on 1/4/2022. No other excavation activities took place this week (1/3-9/2022), and air monitoring was conducted only on 1/4/2022.

PM 2.5 and PM 10 Time History Data

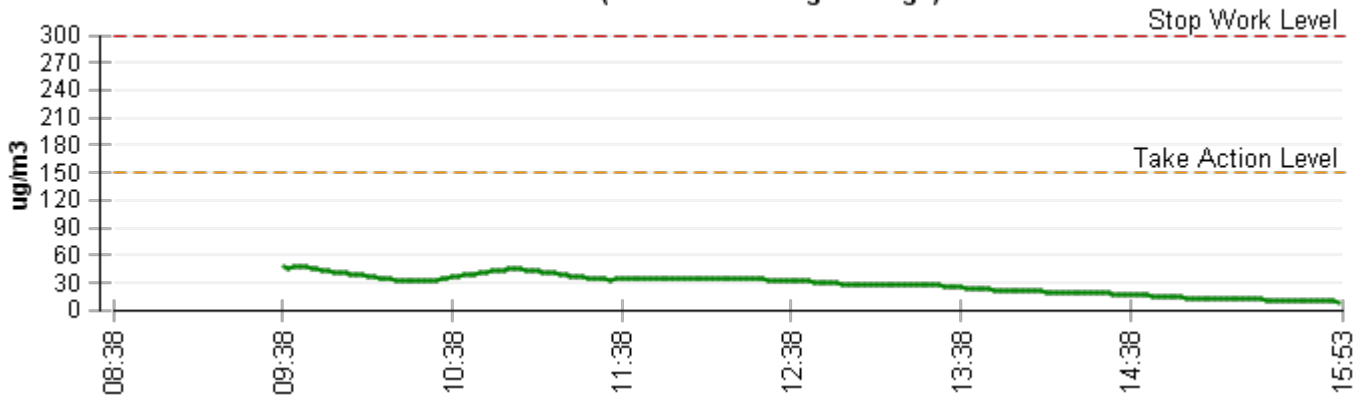
Sample Date Jan 4, 2022

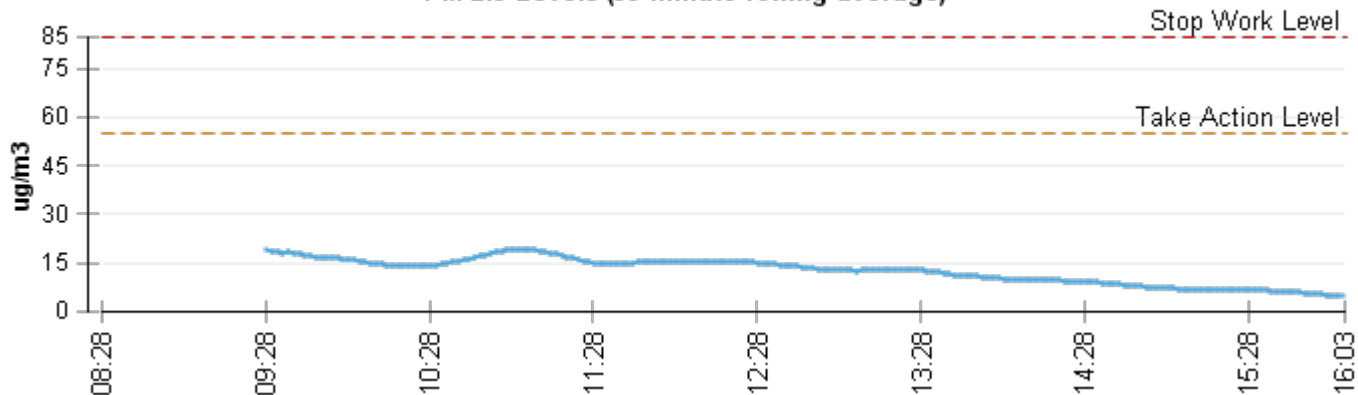
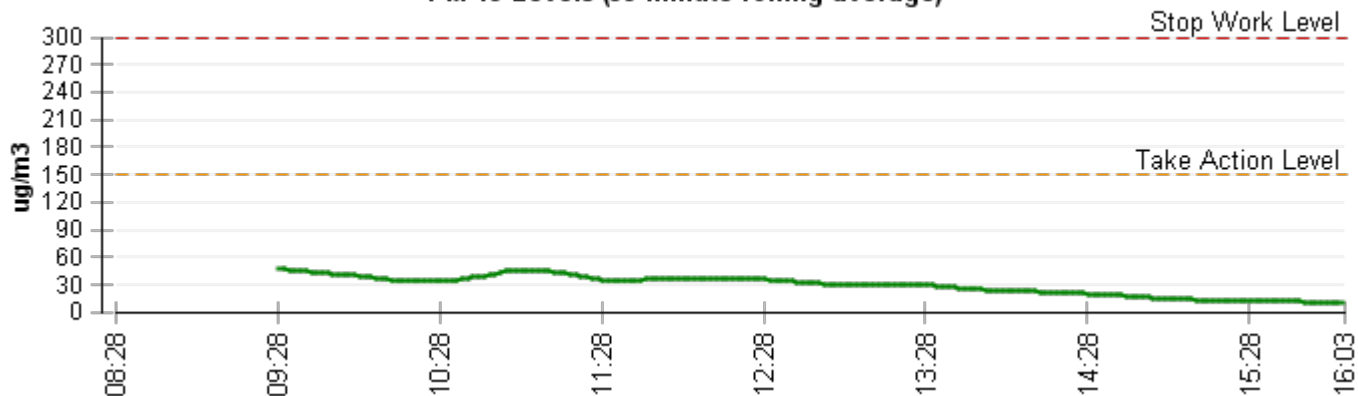
Station ID AMS-02
Location Description 29.78426, -95.31687 - IMY East - Sudan and Harlem

PM 2.5 Levels (30-minute rolling average)



PM 10 Levels (30-minute rolling average)

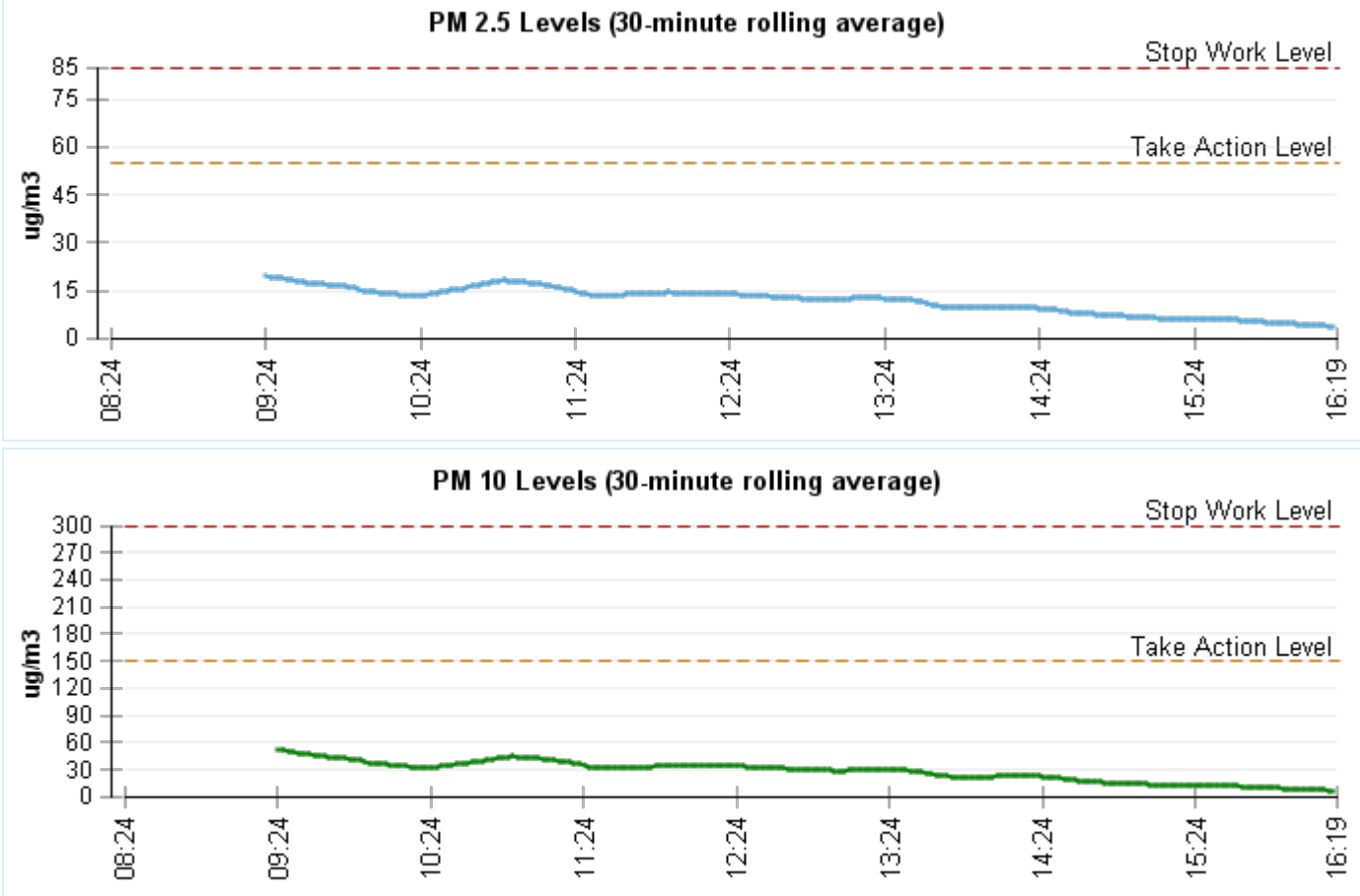


PM 2.5 and PM 10 Time History Data**Sample Date** Jan 4, 2022**Station ID**
AMS-03**Location Description**
29.78208, -95.31911 - IMY SE - Clementine**PM 2.5 Levels (30-minute rolling average)****PM 10 Levels (30-minute rolling average)**

PM 2.5 and PM 10 Time History Data

Sample Date Jan 4, 2022

Station ID AMS-04 Location Description 29.78222, -95.32282 - IMY South - Schweikhardt

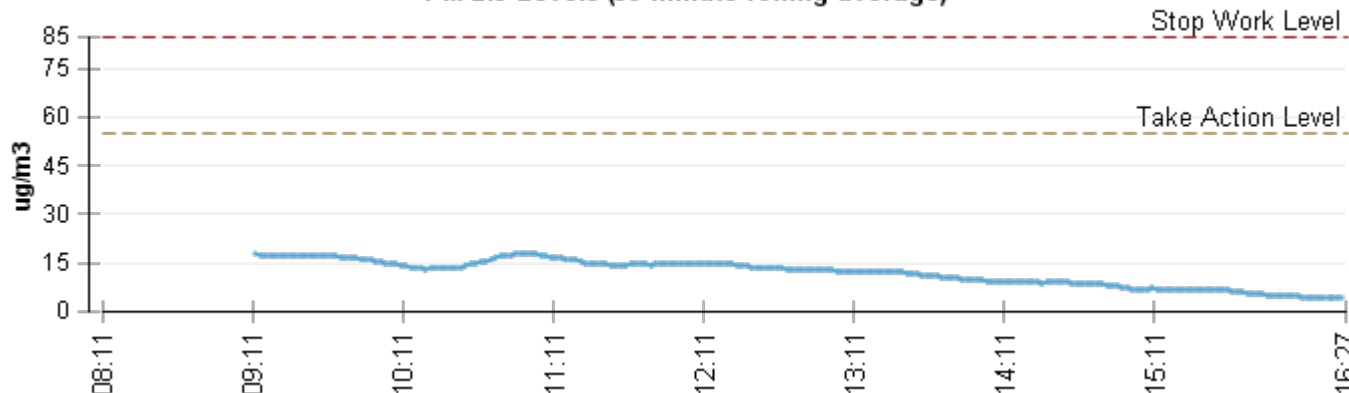


PM 2.5 and PM 10 Time History Data

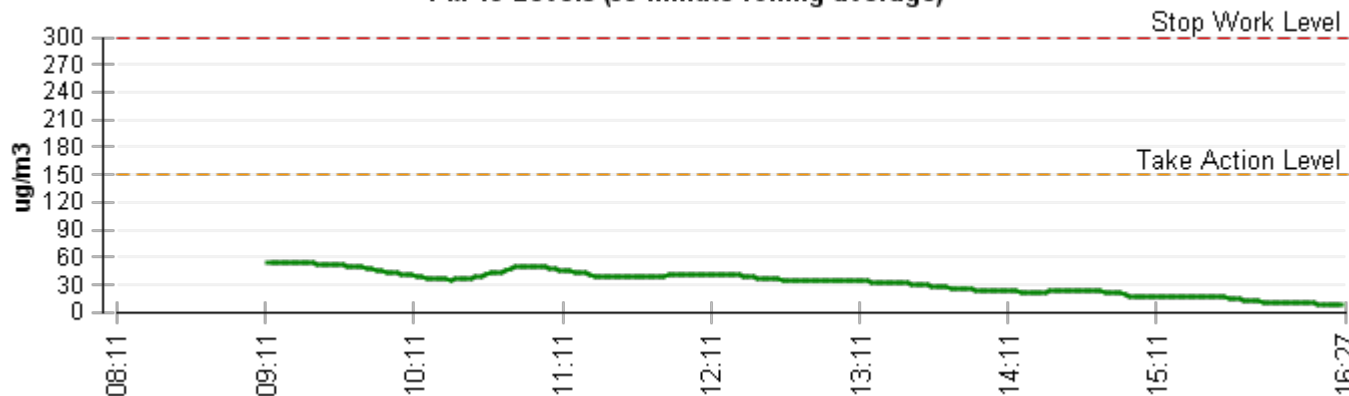
Sample Date Jan 4, 2022

Station ID AMS-05a
Location Description 29.78202, --95.32591 – IMY SW – Lee and Waco

PM 2.5 Levels (30-minute rolling average)



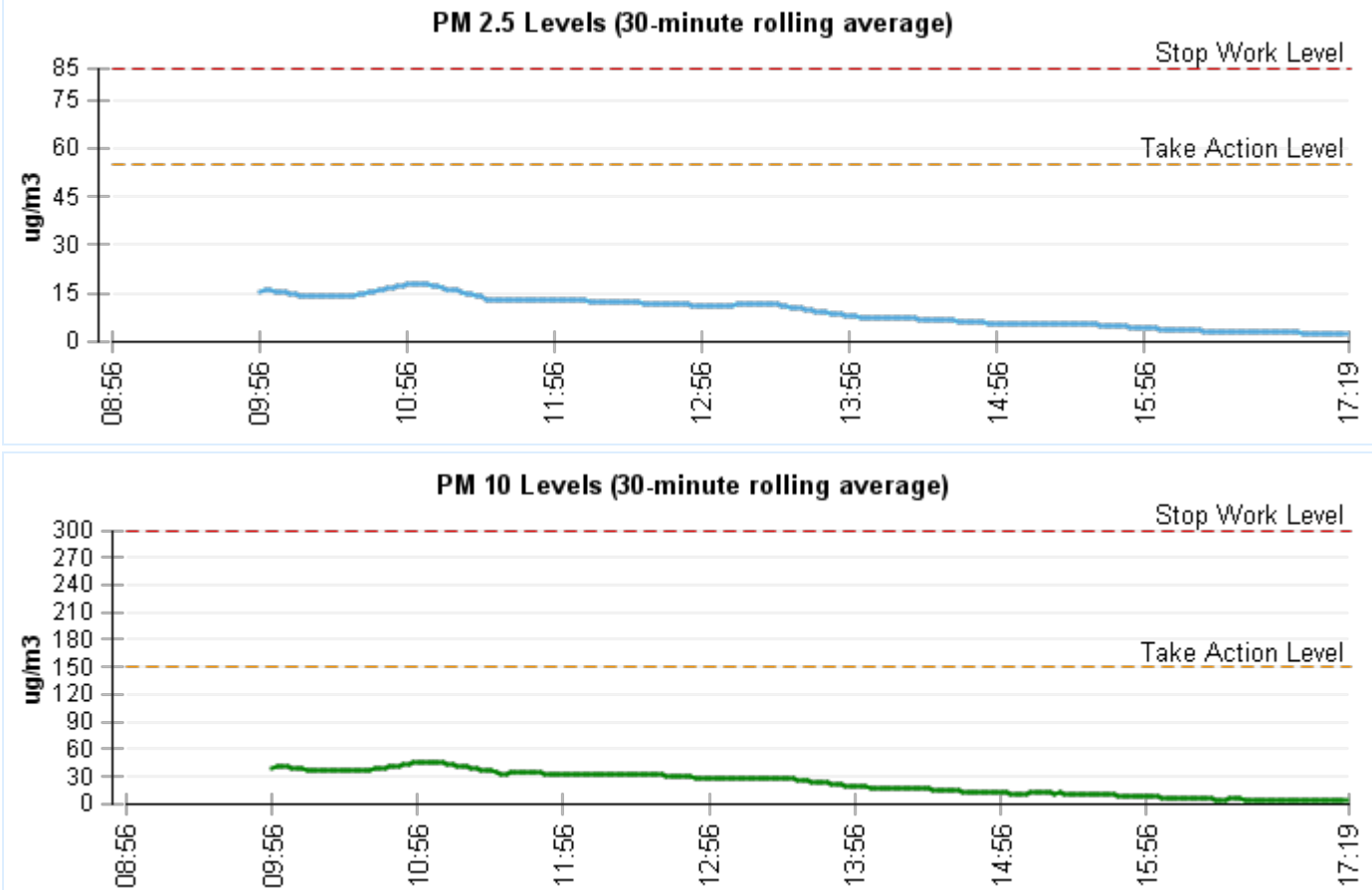
PM 10 Levels (30-minute rolling average)

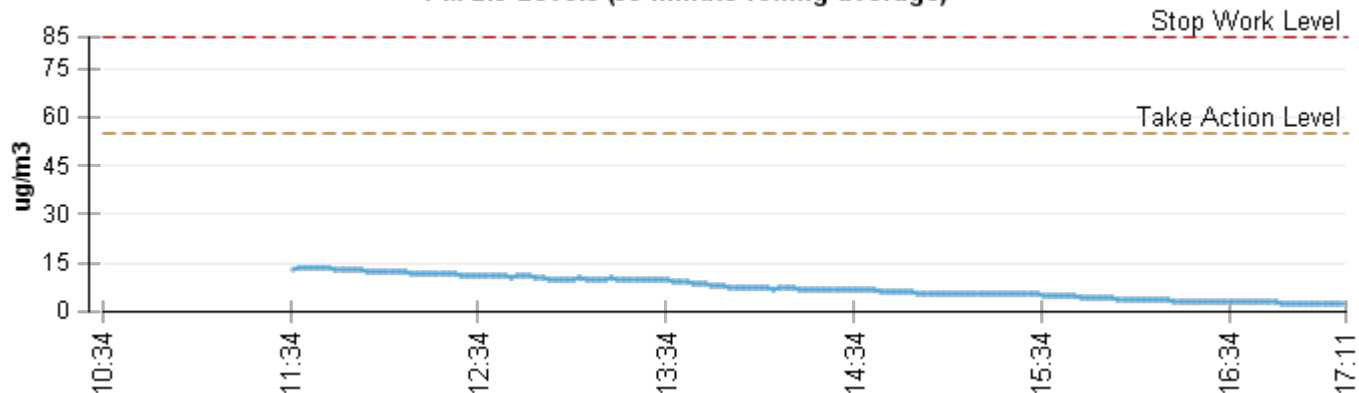
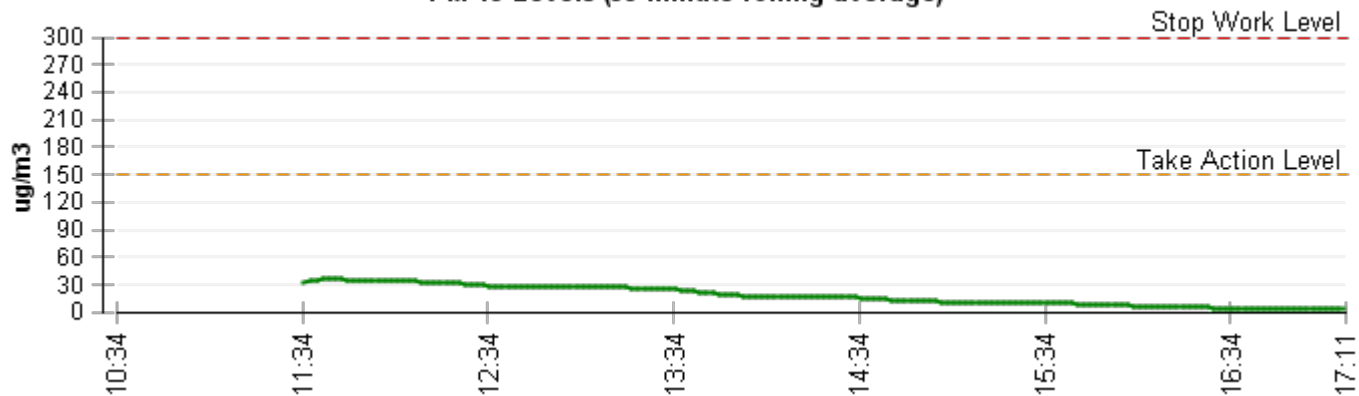


PM 2.5 and PM 10 Time History Data

Sample Date Jan 4, 2022

Station ID AMS-06
Location Description 29.78755, -95.31682 - HWPW - Erastus



PM 2.5 and PM 10 Time History Data**Sample Date** Jan 4, 2022**Station ID** AMS-07
Location Description 29.78746, -95.31912 - HWPW - Clementine North**PM 2.5 Levels (30-minute rolling average)****PM 10 Levels (30-minute rolling average)**

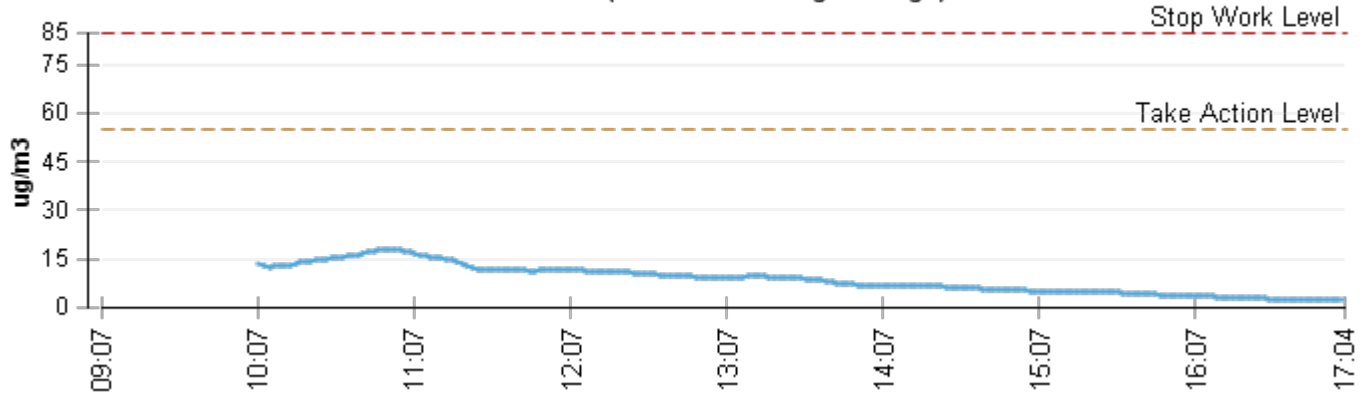
Note: Station AMS-07 did not come online at initial startup. After system restart at 11:34, station came online and began reporting data.

PM 2.5 and PM 10 Time History Data

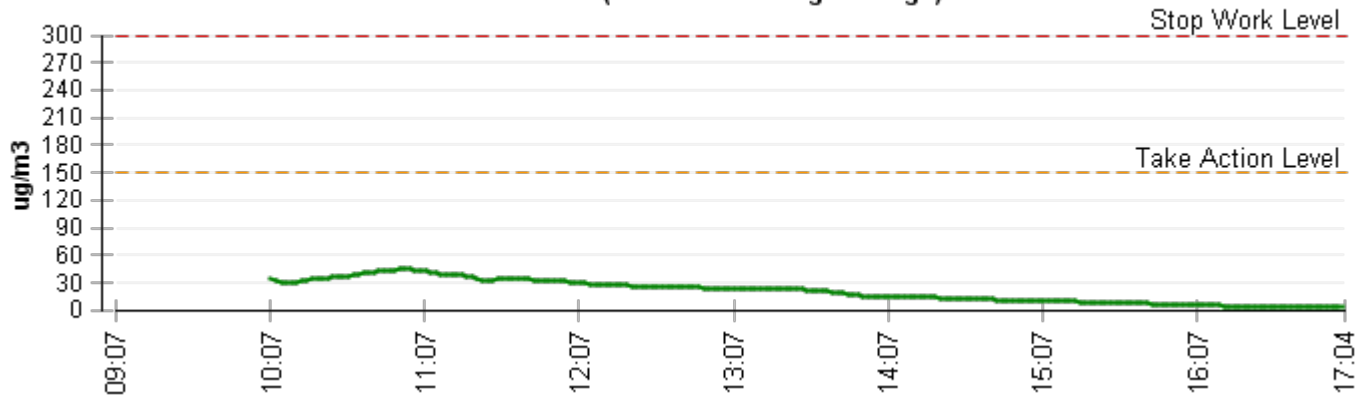
Sample Date Jan 4, 2022

Station ID AMS-08
Location Description 29.78745, -95.32116 - HWPW - Solo North

PM 2.5 Levels (30-minute rolling average)



PM 10 Levels (30-minute rolling average)

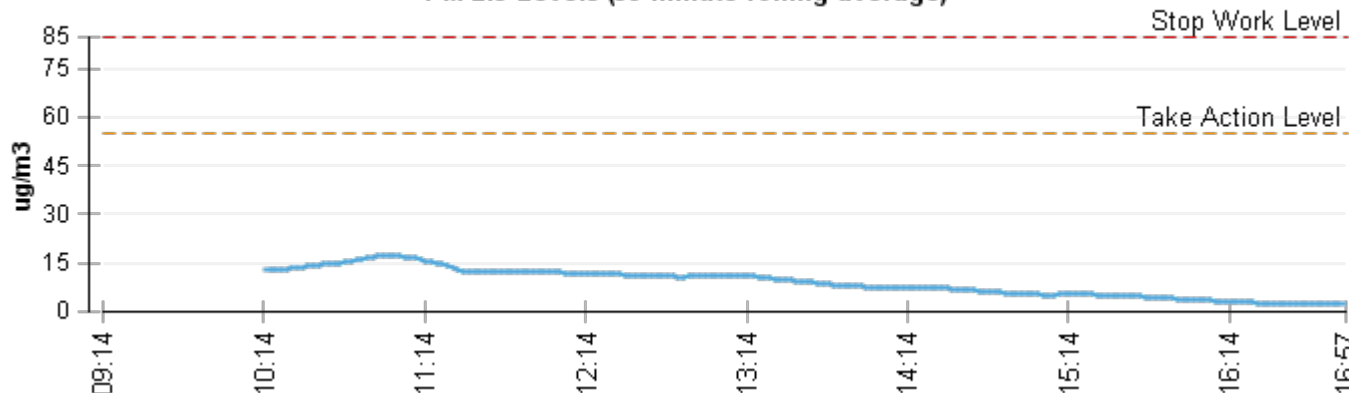


PM 2.5 and PM 10 Time History Data

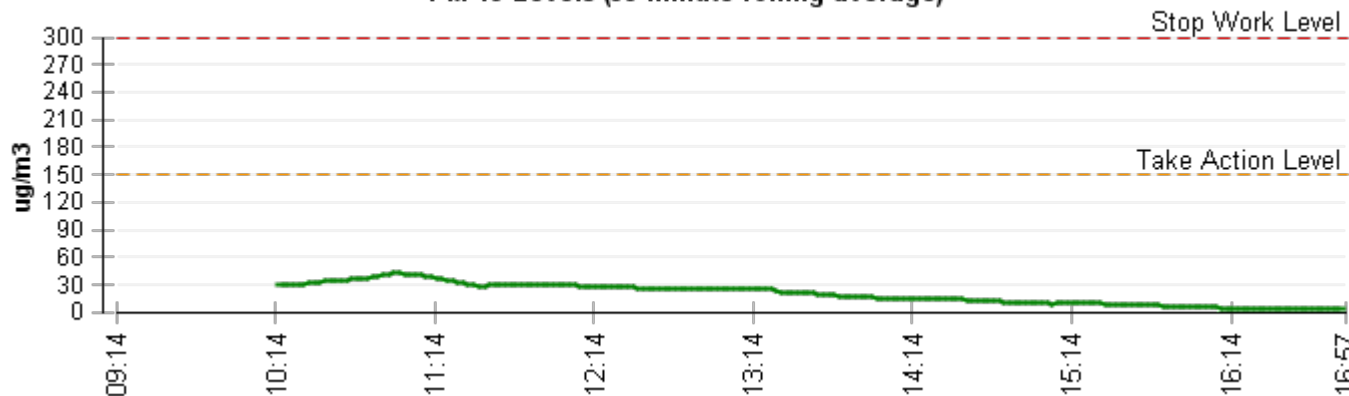
Sample Date Jan 4, 2022

Station ID AMS-09
Location Description 29.78756, -95.32362 - HWPW - Kashmere and Liberty

PM 2.5 Levels (30-minute rolling average)



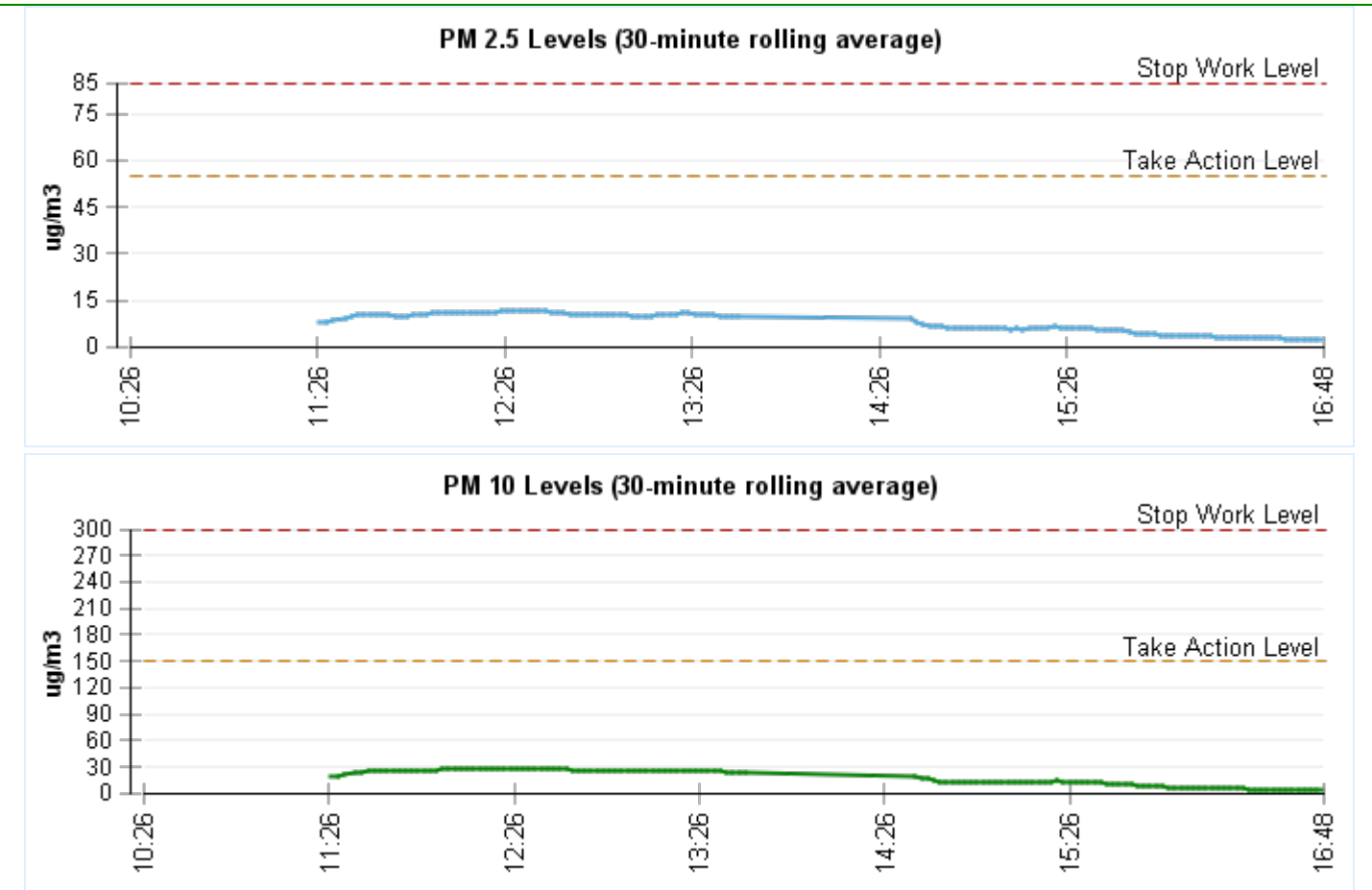
PM 10 Levels (30-minute rolling average)



PM 2.5 and PM 10 Time History Data

Sample Date Jan 4, 2022

Station ID AMS-10a
Location Description 29.78637, -95.32376 - HWPW - Eddie and Kashmere

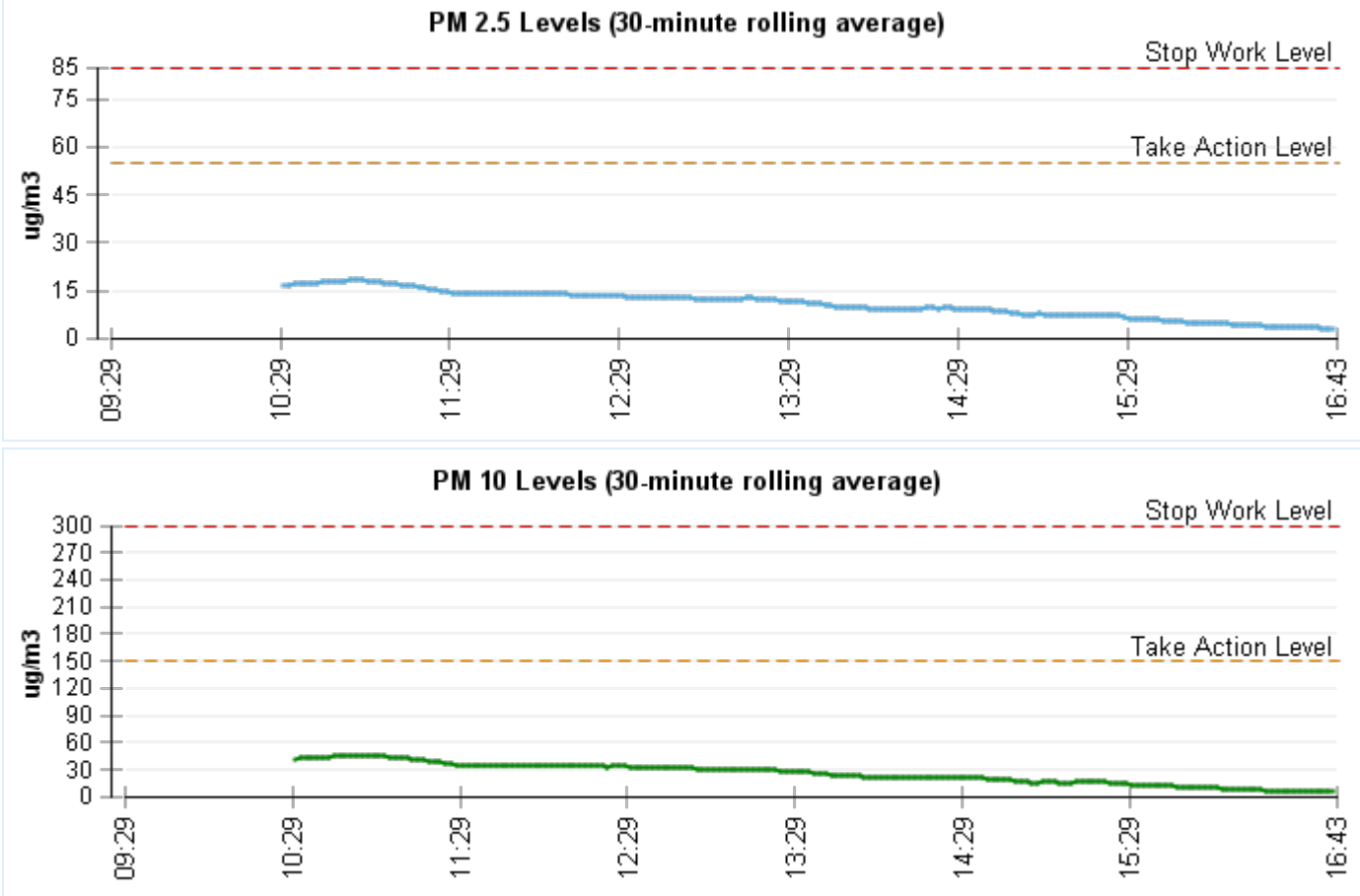


Note: Station AMS-10a did not come online at initial startup. After system restart at 11:26, station came online and began reporting data.

PM 2.5 and PM 10 Time History Data

Sample Date Jan 4, 2022

Station ID AMS-11 Location Description 29.78436, -95.32448 - HWPW - Quitman East



Results of Integrated Air Samples for Metals

This section provides results of integrated air samples collected for lead and arsenic.

Integrated air samples are air samples collected by drawing a known volume of air through filters, sorbents or other media and then submitted to a qualified independent laboratory analysis. Integrated samples for selected metals (lead and arsenic) are collected and reported for this project. Integrated air sample results lag behind real-time results, due to the time required for sample collection, shipping, analysis and data validation. Results provided in this report are the results received and validated since the last weekly report.

Data items included on this report are explained as follows:

- **Sample Number:** The unique identifier for the sample.
- **Date:** The date on which the sample was collected.
- **Start:** The time at which sample collection began.
- **End:** The time at which sample collection ended.
- **Station ID:** The name of the air monitoring station where the sample was collected.
- **Location:** The geographic coordinates and general area description, indicating the location where the sample was collected.
- **Agent:** The name of the chemical substance(s) for which the sample was analyzed.
- **Airborne Concentration:** The unique identifier for the sample.
- **Short-Term AMCV:** The Short-Term Air Monitoring Comparison Value (AMCV) for the agent. N/A means no short-term AMCV has been established for the specified agent.
- **Long-Term AMCV:** The Long-Term Air Monitoring Comparison Value (AMCV) for the agent. N/A means no long-term AMCV has been established for the specified agent.

About the Air Monitoring Comparison Values (AMCV)

Air Monitoring Comparison Values (AMCV) are chemical-specific air concentrations determined by the Texas Department of Environmental Quality (TCEQ) and intended to protect human health and welfare. Exposure to an air concentration at or below the AMCVs is not likely to cause adverse health effects in the general public, including sensitive subgroups such as children, the elderly, pregnant women, and people with preexisting health conditions. They are *not* intended for use as an indicator or threshold of harm or disease. AMCV have not been established for all chemicals. TCEQ currently has AMCV's appropriate for air monitoring for approximately 120 chemicals. Both short-term and long-term AMCVs may be established. These are explained as follows:

- **Short-Term AMCV:** The short-term AMCV, based on acute exposure health and welfare data, is compared to monitored concentrations that can be *30 minutes to 1-hour*, which represent a point in time for a specific location.
- **Long-Term AMCV:** The long-term AMCV, based on chronic health and welfare data, is used to evaluate *annual* averaged monitored concentrations or annual concentrations averaged over multiple years (if available), which represent multiple points in time for specific locations.

Air samples for lead and arsenic are collected, based on the results of prior soil sampling at the Houston Wood Preserving Works site. However, soils from the former Houston Wood Preserving Works site are not the only sources of these agents. These agents may be produced by a variety of sources. Lead may be produced from ore and metals processing, piston-engined aircraft operating on leaded aviation fuel, waste incinerators, lead-acid battery manufacturers and recyclers and smelting operations. Arsenic may be produced from pesticides, ore and metals processing, semiconductor and LED manufacturing, and lead-acid battery manufacturers and recyclers. Both metals also occur naturally.

Note:

No integrated air samples were collected this week, and all other integrated sampling results to date for work on the former Houston Wood Preserving Works site have been included in previous weekly reports.

Results of Integrated Air Samples for Polynuclear Aromatic Hydrocarbons (PAH)

This section provides results of integrated air samples collected for polynuclear aromatic hydrocarbons.

Integrated air samples are air samples collected by drawing a known volume of air through filters, sorbents or other media and then submitted to a qualified independent laboratory analysis. Integrated samples for selected metals and polynuclear aromatic hydrocarbons are collected and reported for this project. Integrated air sample results lag behind real-time results, due to the time required for sample collection, shipping, analysis and data validation. Results provided in this report are the results received and validated since the last weekly report.

Data items included on this report are explained as follows:

- **Sample Number:** The unique identifier for the sample.
- **Date:** The date on which the sample was collected.
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About the Air Monitoring Comparison Values (AMCV)

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- **Short-Term AMCV:** The short-term AMCV, based on acute exposure health and welfare data, is compared to monitored concentrations that can be *30 minutes to 1-hour*, which represent a point in time for a specific location.
- **Long-Term AMCV:** The long-term AMCV, based on chronic health and welfare data, is used to evaluate *annual* averaged monitored concentrations or annual concentrations averaged over multiple years (if available), which represent multiple points in time for specific locations.

Air samples for polynuclear aromatic hydrocarbons (PAHs) are collected, based on the results of prior soil sampling at the Houston Wood Preserving Works site. However, soils from the former Houston Wood Preserving Works site are not the only sources of these agents. PAHs may be produced by a variety of sources, including power generation, vehicle and aircraft exhaust, burning of wood or garbage, cement manufacturing, rubber tire manufacturing and burning, various chemical manufacturing, wildfires and application of pesticides.

Note: *No integrated air samples were collected this week, and all other integrated sampling results to date for work on the former Houston Wood Preserving Works site have been included in previous weekly reports.*