U.S. EPA's Update
July 29, 2021

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Lead Standards

EPA's national health based standard for lead is to 0.15 $\mu g/m^3$ averaged over a rolling 3-month period.

South Coast Air Quality Management District established a lead concentration limit for permitted lead facilities of 0.10 ug/m^3 to ensure that the National standard is met for the area.

Lead Levels

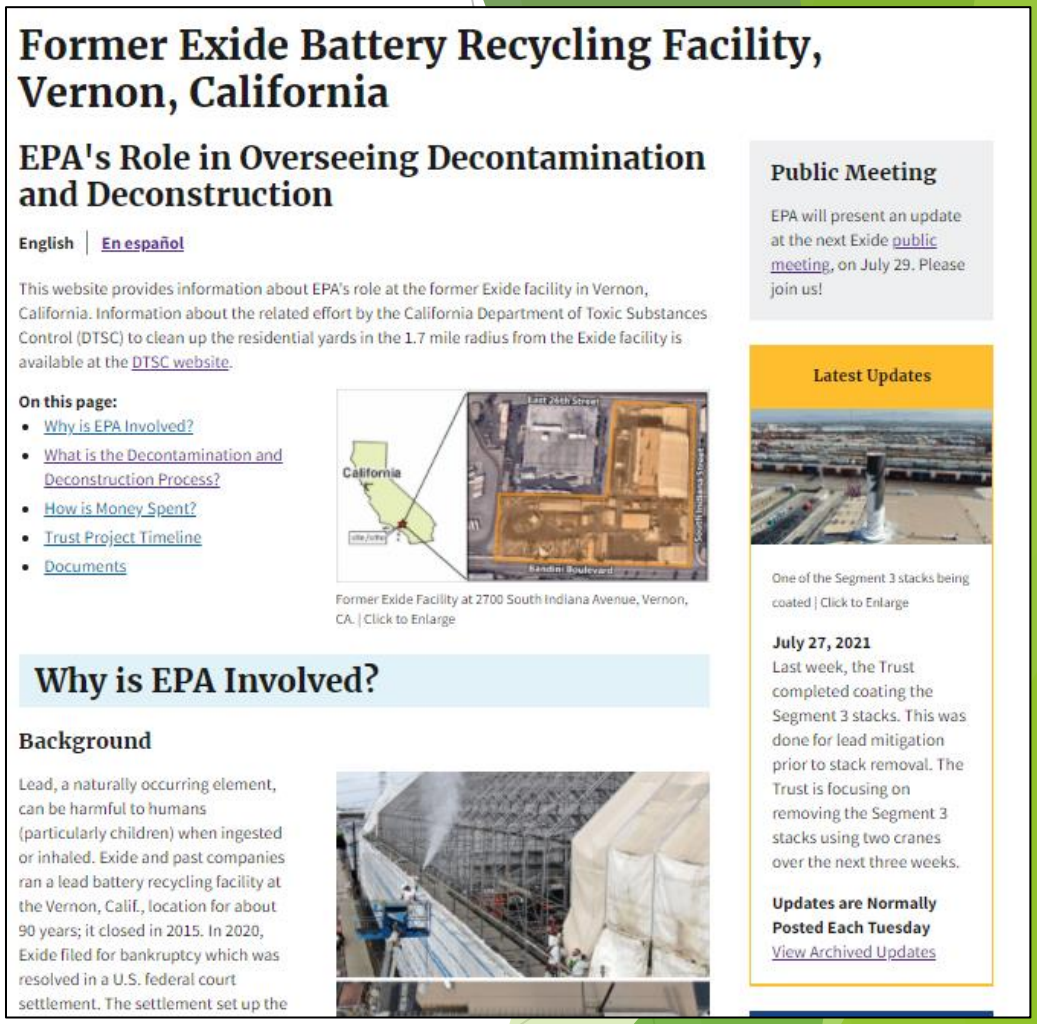
One off-site monitor detected lead levels above South Coast Air Quality Management District rule limit.

However, the EPA's national health based standard for lead in the ambient air has not been exceeded.

EPA Website

Website on EPA's role in overseeing the Trust work of decontamination and deconstruction at the former Exide facility.

- English and Spanish
- Latest updates
- Past presentations and memos
- Related contacts



Former Exide Battery Recycling Facility, Vernon, California

EPA's Role in Overseeing Decontamination and Deconstruction

English | En español

This website provides information about EPA's role at the former Exide facility in Vernon, California. Information about the related effort by the California Department of Toxic Substances Control (DTSC) to clean up the residential yards in the 1.7 mile radius from the Exide facility is available at the DTSC website.

On this page:

- Why is EPA Involved?
- What is the Decontamination and Deconstruction Process?
- How is Money Spent?
- Trust Project Timeline
- Documents

Former Exide Facility at 2700 South Indiana Avenue, Vernon, CA. | Click to Enlarge

Why is EPA Involved?

Background

Lead, a naturally occurring element, can be harmful to humans (particularly children) when ingested or inhaled. Exide and past companies ran a lead battery recycling facility at the Vernon, Calif., location for about 90 years; it closed in 2015. In 2020, Exide filed for bankruptcy which was resolved in a U.S. federal court settlement. The settlement set up the

Public Meeting

EPA will present an update at the next Exide public meeting, on July 29. Please join us!

Latest Updates

One of the Segment 3 stacks being coated | Click to Enlarge

July 27, 2021

Last week, the Trust completed coating the Segment 3 stacks. This was done for lead mitigation prior to stack removal. The Trust is focusing on removing the Segment 3 stacks using two cranes over the next three weeks.

Updates are Normally Posted Each Tuesday

View Archived Updates

www.epa.gov/ca/former-exide-battery-recycling-facility-vernon-california

Vernon Environmental Response Trust
Work Stoppage and Resumption Summary

July 29, 2021

Prepared for

Exide Technologies Public Meeting

Prepared by

PathForward Consulting, Inc.

VERNON ENVIRONMENTAL RESPONSE TRUST

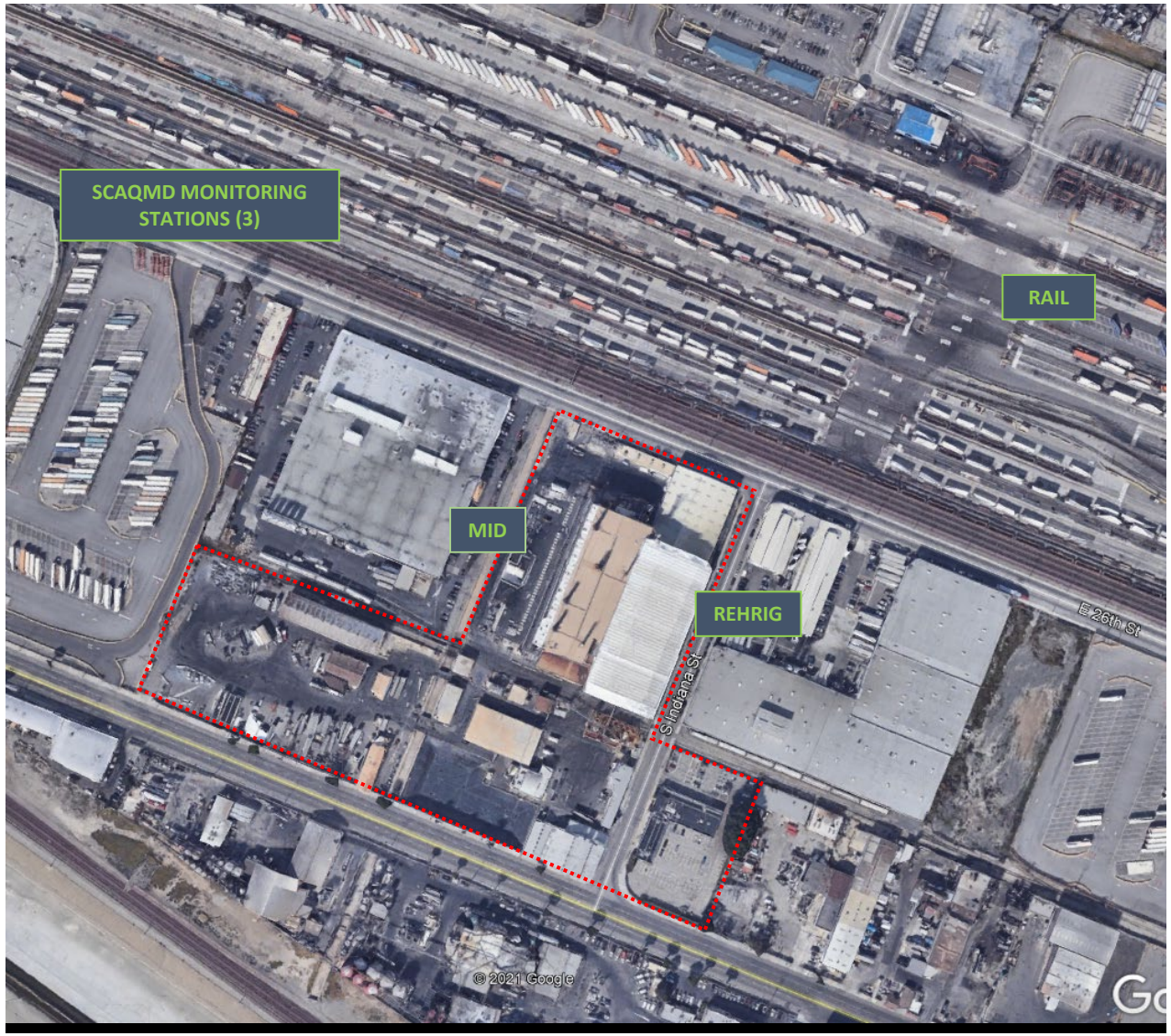
PathForward Consulting, Inc.

Segments 1, 2 and 3 – May 2021

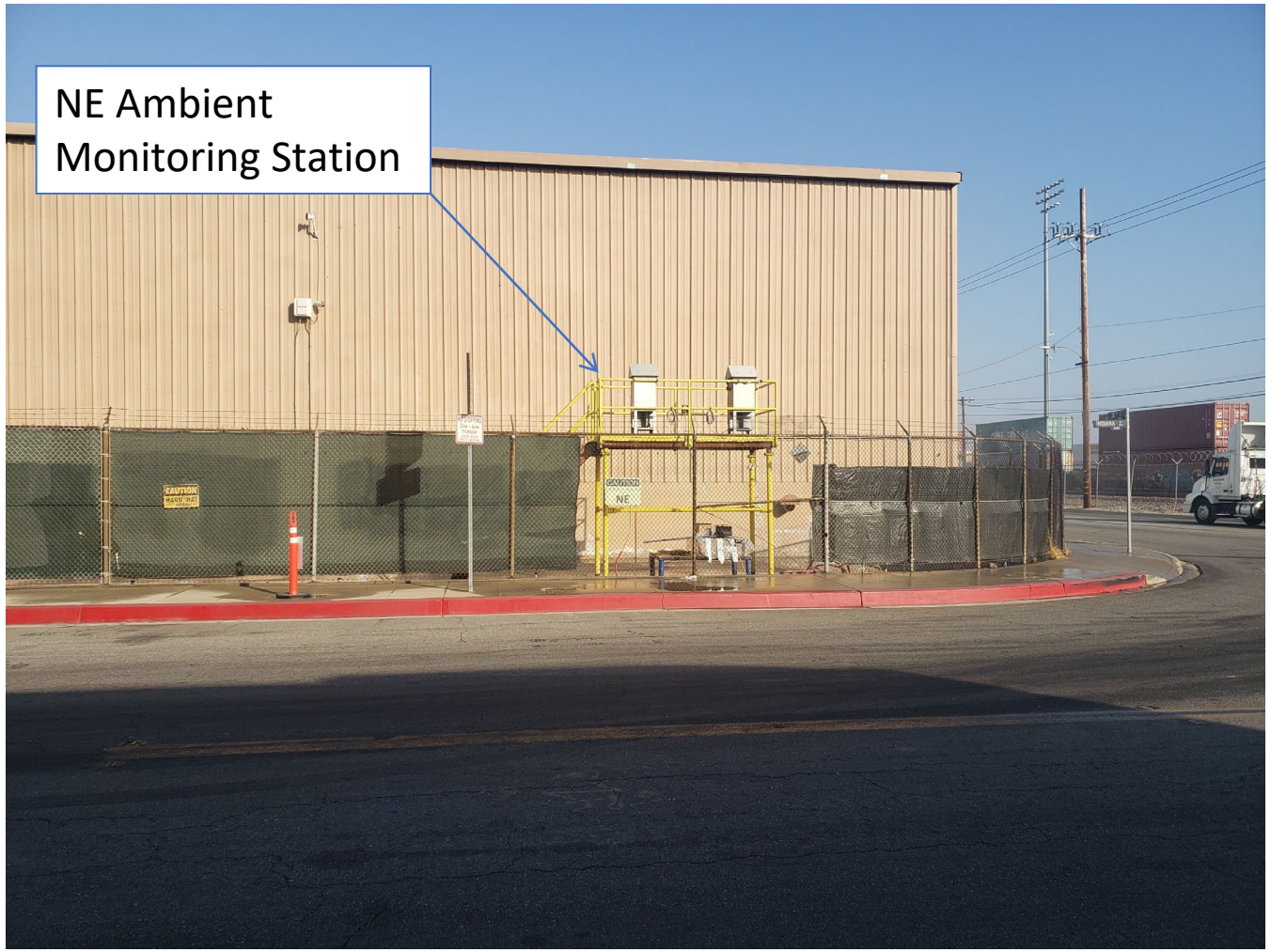
Segments 1, 2 and 3 – June 2021

VERT Ambient Air Monitoring Stations

SCAQMD Ambient Air Monitoring Stations



NE Air Monitoring Station



Key Permit and Health Standards

Permit Standards

1. Rolling 30-Day Average for Lead
    1. Daily measurements from five perimeter air monitoring stations are averaged on a rolling 30-day basis, that is, the average is for the last 30 days and is updated daily.
    2. The permit limit (SCAQMD Rule 1420.1 Threshold) is 0.1 ug/m3 for lead. If this limit is exceeded a notification must be made to SCAQMD.
2. Notification Level for Daily Results
    1. If the daily concentration for lead exceeds 0.3 ug/m3 a notification must be made to SCAQMD.

EPA Health Based National Ambient Air Quality Standard

1. For Lead
    1. EPA's health-based standard for lead in ambient air is 0.15 ug/m3, averaged over 90 days.

Chronology of Events and VERT Response Actions for Elevated Lead Concentrations at NE Station

May 10-14, 2021: Review of data indicated elevated lead concentrations at the NE monitor. Other site monitors did not have elevated concentrations.

May 17, 2021: Due to elevated lead concentrations at the NE air monitoring station, VERT voluntarily and proactively suspended field activities.

May 20, 2021: Resumed limited scaffold and site cleaning activities that included:

- HEPA vacuuming sidewalk along 26th street
- HEPA vacuuming of the Finished Lead Warehouse roof
- Washing remaining segment of 2 Full Enclosure Unit (FEU)
- Washing the pavement throughout the north and south yards

May 21, 2021: Elevated lead concentration was observed in NE station (but not reported until May 25th). SCAQMD notified VERT of high lead concentration observed in off-site monitoring station on May 13, 2021.

May 25, 2021: Received results for May 21st. Based on these lead concentrations, VERT again suspended scaffolding dismantling and cleaning activities.

June 7, 2021: VERT resumed half day operations for cleaning and scaffolding removal. Mitigation measures employed during scaffolding dismantling included:

- Additional dust suppression, and
- Accelerated laboratory analysis of daily perimeter ambient air samples (24 hour turn around)

Chronology of Events and VERT Response Actions for Elevated Lead Concentrations at NE Station

June 8, 2021: Scaffolding removal paused to review ambient air results for samples collected on June 7, 2021. Based on elevated results Segment 2 scaffolding dismantling was again voluntarily suspended. A NTC was issued by SCAQMD, which requested documentation (inspection logs, analytical data and photographs/video). The information requested by SCAQMD in the NTC was submitted on June 15, 2021.

June 10, 2021: Submitted enhanced mitigation measures for scaffold removal to agencies for review and comment. These enhanced measures included:

- Pressure washing inside pipe on vertical legs
- Installation of water misters around the perimeter of the work zone
- Use of wind screen and enhanced water suppression during scaffold disassembly
- Limitation of scaffolding removal wok hours

June 14, 16, and 18, 2021: ½ day of scaffolding washing and dismantling conducted.

June 15 and 17, 2021: Activities suspended to allow review of air monitoring data. Data indicated that enhanced measure were effective.

June 21, 2021: Exterior Segment 2 scaffolding dismantling completed.

Causation Review

1. Scaffolding/shrink wrap inspection
2. Pictures/videos from drone
3. Ambient lead concentrations (daily and 30-day avg.)
4. Weather station data (wind direction, avg. wind speed, and max one minute gust)

Scaffolding/Shrink Wrap Inspection

1. Observed small tear/seam separation (via drone video) on May 13, 2021.
2. Notified agencies on May 14, 2021, via email.
3. Inspection sheets from May 18 through June 3, 2021, indicated small holes or minor damage to shrink wrap.
4. Holes/damage were repaired: May 24 through June 3, 2021.
5. At no time was negative pressure lost within Segment 3.

Ambient Lead Concentrations (NE Station)

Daily

1. Concentration of **0.289** ug/m3 observed on May 13, 2021.
2. Highest concentration of **0.495** ug/m3 observed on May 21, 2021. Per permit SCAQMD was formally notified.
3. Concentrations decreased significantly after May 21, 2021.

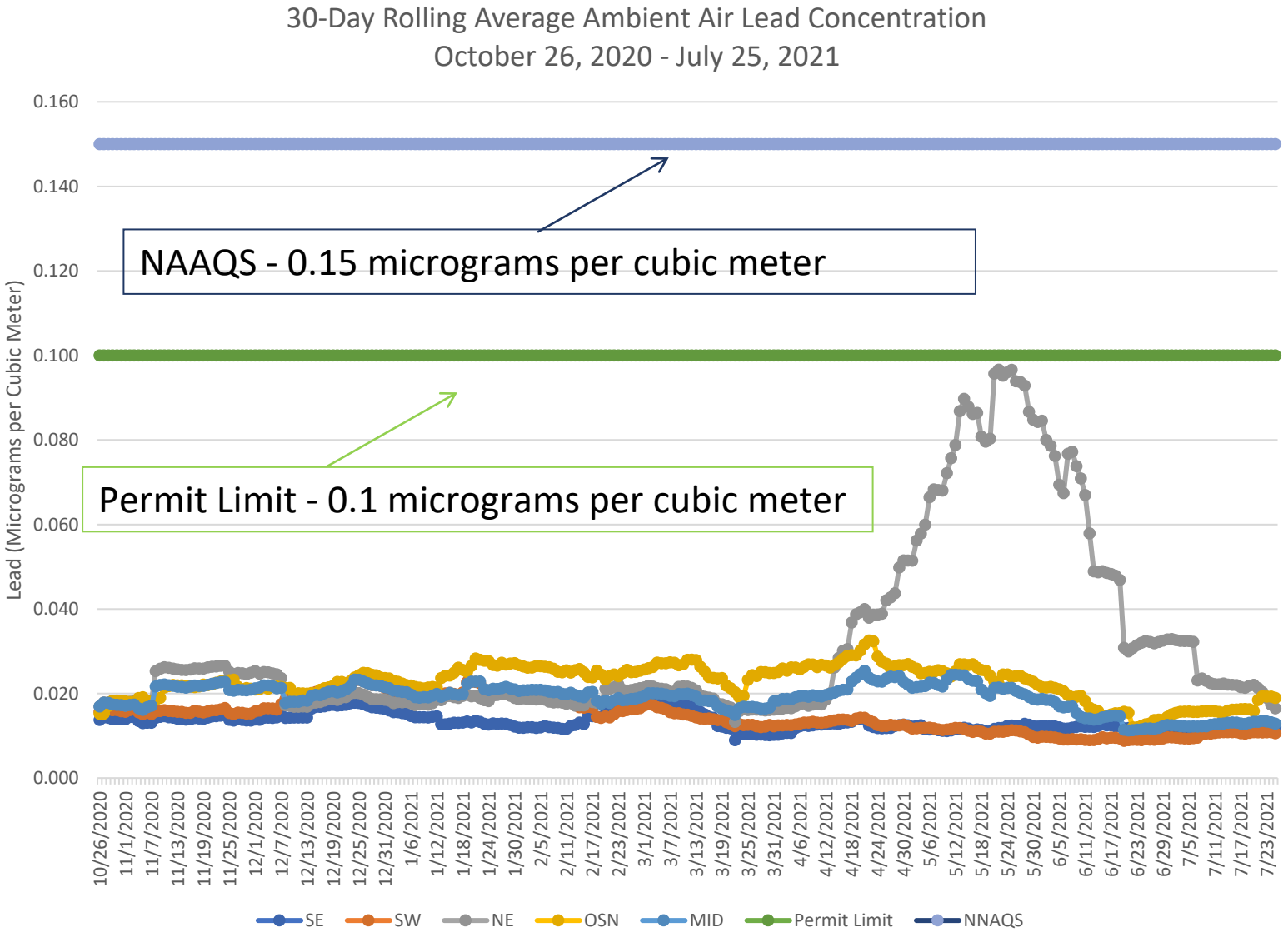
Note: Notification is required if daily lead concentration is greater than is 0.3 ug/m3.

30-day Average

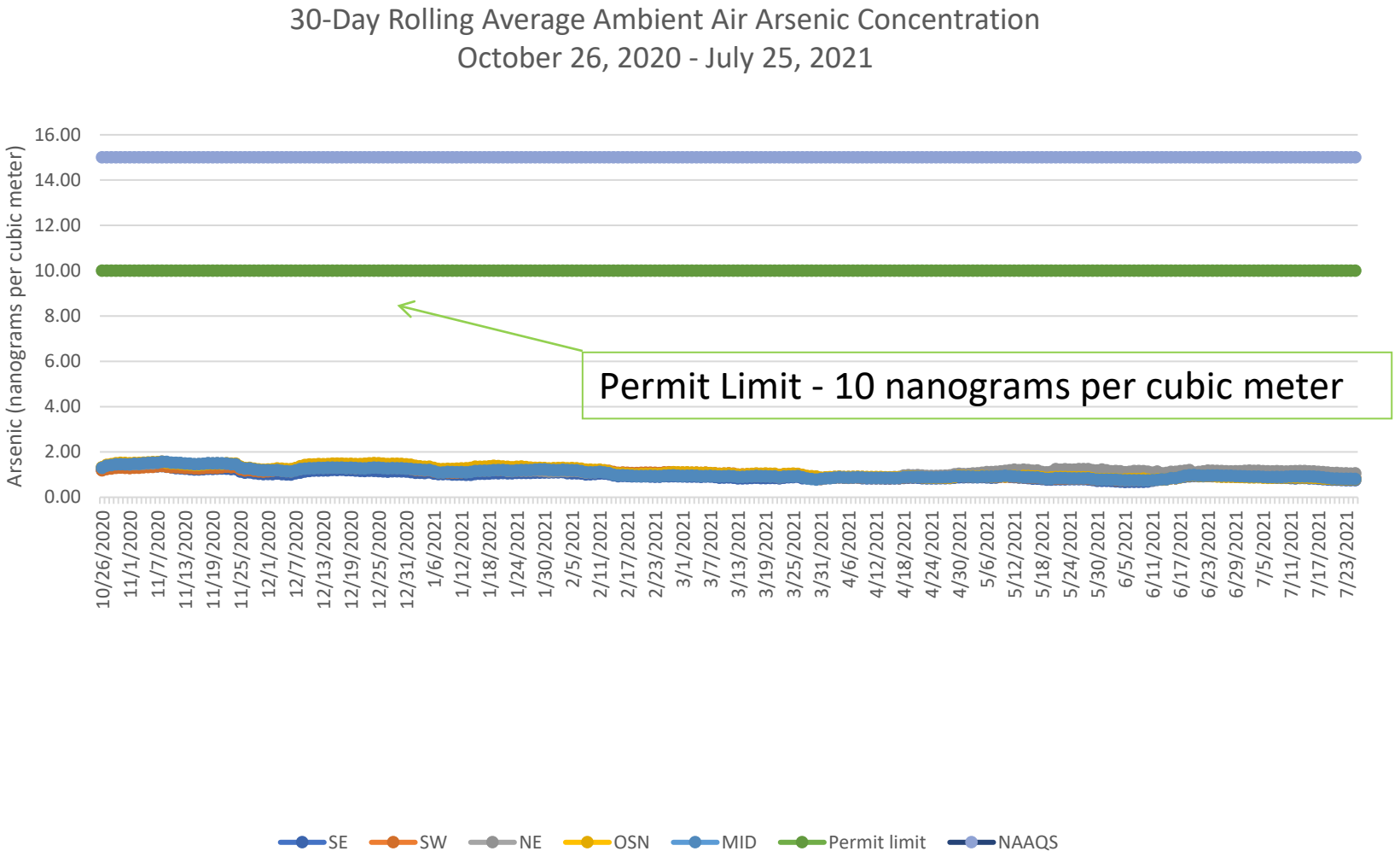
1. Average concentration of **0.087** ug/m3 observed on May 13, 2021.
2. Highest average concentration of **0.097** ug/m3 observed on May 22, 2021.
3. Concentrations decreased significantly after May 25, 2021.

Note: 30-day average permit limit for lead is 0.1 ug/m3. NAAQS for lead is 0.15 ug/m3.

VERT Compliance – Daily Ambient Air Monitoring -Lead



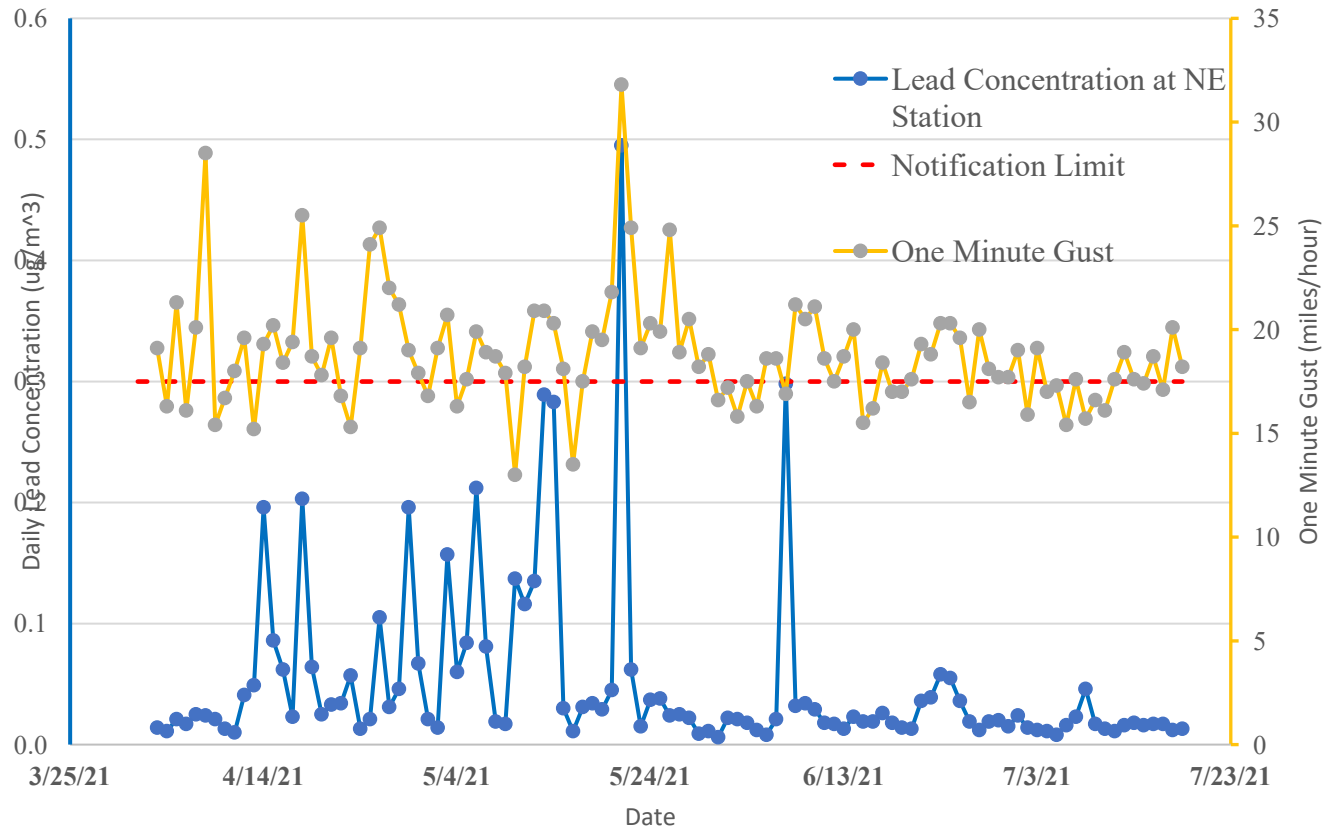
VERT Compliance – Daily Ambient Air Monitoring - Arsenic



Weather Station Data

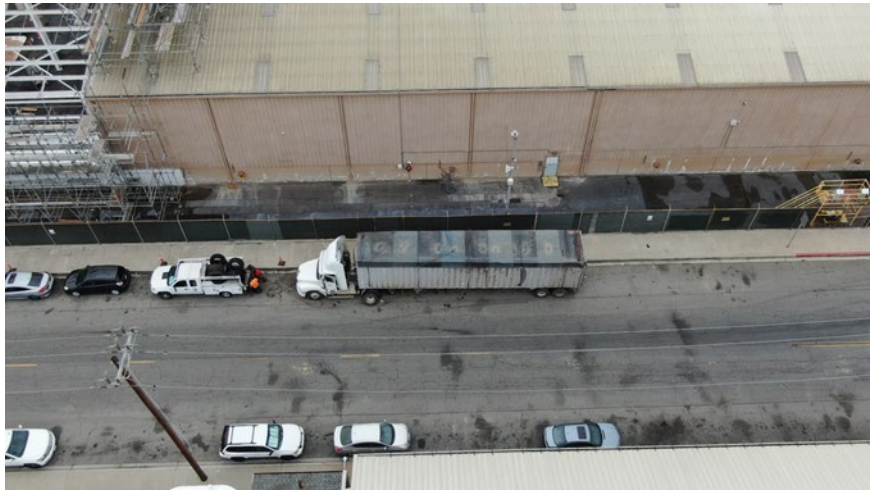
1. Average wind direction from May 13 through June 3, 2021, was East-Southeast.
2. Maximum average wind speed of **8.8 mph** and max one minute gust wind of **31.8 mph** were observed on May 21, 2021.
3. Highest daily concentration of lead (**0.495** ug/m3) was also observed on May 21, 2021.

Daily Lead Conc. and Max One-Minute Wind Gust



Drone Data

1. Trucks were noted to be parking and being repaired on the corner of 26th St. and Indiana St., where the NE monitor is located.
2. On at least one day in May repair work on trucks resulted in dust being blown into the air.
3. The City of Vernon worked with the VERT to red-curb the corner of 26th St. and Indiana St.



Conclusions

1. The 30-day rolling average permit standard of 0.1 ug/m3 for lead at the NE station was never exceeded. None of the other four on-site stations indicated elevated concentrations for lead.

2. SCAQMD's off-site Rehrig monitor did exceed the 0.1 ug/m3 permit standard for a few days in May.

3. EPA's health-based National Ambient Air Quality Standard of 0.15 ug/m3 was not exceeded in the on-site and SCAQMD monitoring stations.

4. Work stoppages were implemented by the VERT proactively and voluntarily.

5. VERT proactively implemented mitigation measures to reduce emissions:
    1. Enhanced dust mitigation
    2. 24-hour analyses
    3. Prohibited truck parking/repair near NE monitor

6. The steps implemented resulted in reduced lead concentrations.

7. A single source of the dust was not identified, but the data point to the scaffold dismantlement activity as being a probable cause, with high wind events also having an adverse effect.

8. Mitigation measures will stay in place during future outside scaffolding activities.

Enhanced Dust Suppression

Segment 3 Baghouse Building Upcoming Work

- Completion of asbestos abatement
- Baghouse Stack (6) Removal
- Baghouse (4) Deconstruction
- Building Decontamination and Deconstruction
- Floor encapsulation