Summary of Temporary Work Shutdown and Resumption
Former Exide Facility, Vernon, California

Ambient concentrations of lead and arsenic in airborne dust are measured by the Vernon Environmental Response Trust (VERT) at five perimeter air stations located throughout the former Exide facility. Sporadic elevated lead readings were observed at a single monitoring station, the Northeast Monitoring Station (NE Monitor), in mid to late April 2021 with a sustained increase noted in early to mid-May 2021. The NE Monitor is located at the corner of 26th Street and S. Indiana Street.

As the rolling 30-day average lead concentration at the NE Monitor neared the permit limit of 0.1 micrograms per cubic meter (µg/m^3), the VERT voluntarily and proactively suspended field activities to identify and mitigate the source of fugitive lead emissions. By voluntarily suspending activities and using enhanced dust suppression and modified work practices, the VERT was successfully able to maintain the average concentration of lead at the NE Monitor below the permit limit. On May 13 elevated concentrations of lead were detected at an off-site monitoring station maintained by the South Coast Air Quality Management District (SCAQMD) that identified lead levels in excess of the stringent 30-day rolling average limit in Rule 1420.1 and were reported to VERT on May 21. As the VERT had previously suspended closure activities on May 17, prior to notification of the elevated results from SCAQMD, no additional actions were necessary.

As soon as the sustained elevated readings were identified, VERT expedited laboratory analysis turnaround for the ambient air samples and the VERT's contractor AIS increased daily washing and dust suppression activities. After review of the data collected from the week of May 10 to May 14, the VERT proactively and voluntarily suspended active work actions the next working day, May 17. These closure related activities included the dismantlement of the Segment 2 Full Enclosure Unit (FEU) scaffolding system and work on Segment 3 within its FEU. The VERT decided to suspend active dismantling activities until the source of the lead dust could be identified and appropriate mitigation measures put into place. While closure work was suspended, the VERT and AIS continued daily required inspections, ambient air monitoring, and housekeeping requirements such as site spray down for dust control. More frequent communication with South Coast Air Quality Management District (SCAQMD), the United States Environmental Protection Agency (EPA), and the California Department of Toxic Substances and Control (DTSC) occurred during this time period. A summary of the NE Station lead concentration results during May 2021 is provide in Table 1.

On the date of the closure work suspension, May 17, the 30-day rolling average lead concentration at the NE Monitor was 0.086 micrograms per cubic meter (µg/m^3) or 86% of the permitted 0.1 µg/m^3 permitted limit. Elevated concentrations are not observed on weekends and appear to only occur Monday through Friday. VERT investigated the potential source of the dust problem, including off-site sources, however, a single source was not apparent. The two VERT operated monitoring stations located downwind of work zones (Mid Monitor and North Monitor) did not identify similar increases in their daily or rolling 30-day average lead concentrations nor did the two VERT operated monitoring stations located upwind of work zones (Southwest Monitor and Southeast Monitor). To help with the source investigation VERT asked AQMD to provide data from SCAQMD's off-site monitors. The data SCAQMD provided is attached as Attachment 1.

AIS resumed limited scaffold and site cleaning activities on Thursday May 20. Cleaning activities included HEPA vacuuming of the sidewalk along 26th Street and S. Indiana Street, HEPA vacuuming of the Finished Lead Warehouse roof, washing the remaining Segment 2 FEU scaffolding components, and washing the pavement throughout the north and south yards. The remaining work on Segment 2 FEU was to dismantle the previously cleaned scaffolding.

Late in the afternoon on May 21 SCAQMD notified VERT, EPA and DTSC that on May 13 the SCAQMD operated monitoring station located at the Rehrig Pacific Facility (located along the eastern side of S. Indiana Street) had a level of 0.447 µg/m^3, which elevated the rolling 30-day lead concentration at the SCAQMD monitoring location above the stringent 30-day rolling average limit in Rule 1420.1 SCAQMD air monitoring samples are collected daily from their sampling locations; however, they are analyzed on a batch basis, thus there was a delay from when the detection occurred and when it was reported. SCAQMD was expedient in their communication with all parties as soon as the detections were discovered. As the VERT had already voluntarily suspended work actions and proactively started mitigation measures there was no further efforts needed in response to this information. Since all regulatory partners had been involved in the conversations to

date about the ambient levels there were productive conversations about how to remain protective to the community while resuming the facility closure efforts.

On the morning of Tuesday May 25, the VERT received the ambient air monitoring data for Friday May 21 through Sunday May 23. On May 21, a lead concentration of 0.495 µg/m^3 was detected at the NE monitor, in excess of the permitted daily concentration for lead (0.300 µg/m^3) which requires agency notification. The rolling 30-day average at the NE monitor on May 23, 2021 was 0.095 µg/m^3, still below the permitted 0.100 µg/m^3 30-day rolling average limit. As required by the Title V permit, a notification to the SCAQMD regarding this elevated concentration was made by VERT to 1-800-CUT-SMOG (Notification #655465), followed by a notification email SCAQMD.

Based on the elevated May 21 reading, on May 25 the VERT decided to again suspend all activities temporarily at the site, including the previously resumed cleaning activities, except for permit required inspections, ambient air monitoring, and housekeeping requirements. VERT used this time to review all the daily activity logs against the concentrations and bring into account drone footage and wind data.

During the work suspension, the NE Monitor readings remained consistent with typical historical lower results. The VERT resumed half day operating cleaning and scaffolding removal on Monday June 7 while undertaking the additional mitigation measures; this shortened schedule was used to determine that the mitigation measures were successful. Mitigation measures employed during scaffolding dismantlement included water dust suppression and accelerated laboratory analysis of daily perimeter ambient air samples.

Scaffolding removal was paused on Tuesday June 8, to allow for receipt and review of ambient air data collected on Monday June 7. The ambient air results from June 7 indicated a significantly elevated lead concentration at the NE Monitor. Therefore, Segment 2 scaffolding dismantlement was again voluntarily suspended by VERT so that additional enhanced mitigation measures could be developed and implemented.

The additional enhanced mitigation measures for scaffold removal that were developed by the VERT and AIS included:

1. Wash inside piping on vertical legs – pressure washing or similar
    a. The horizontal members
    b. Hollow with clasp: washed with hose or wiped
    c. Hollow and clamped at each end: Same as above
2. Installation of water misters around the perimeter of the work zone
3. Use of a wind screen and enhanced water suppression during scaffold disassembly.
4. Limitation of scaffolding removal work hours and staggering of workdays to allow for review of ambient air results.

The enhanced mitigation measures were submitted for review and comment to the VERT's agency partners (SCAQMD, DTSC, and EPA). The VERT incorporated agency suggestions into the mitigation plan. Pictures of the enhanced measures are shown in Attachment 2.

On Monday June 14, one ½ day of scaffold washing was done using the enhanced mitigation measures listed above. Scaffolding work was suspended on June 15 to allow for the receipt and review of June 14 ambient air monitoring data. Based on the low concentration of lead measured at the ambient monitoring stations, the VERT and AIS proceeded with one ½ day of scaffold dismantlement on Wednesday June 16. This work was conducted over a four-hour period using the abovementioned enhanced mitigation measures. Scaffolding dismantlement work was suspended on Thursday June 17 to allow for the receipt and review of ambient air data and the washing of the remaining scaffolding bays. Only washing of the scaffolding was conducted on June 17 as this activity showed acceptable lead levels from the Monday activity Based on the low lead concentrations measured at the NE station on Wednesday June 16, scaffolding dismantlement work was allowed to continue Friday June 18. Exterior Segment No. 2 scaffolding dismantlement was completed on Monday June 21 and Segment 2 deconstruction is now fully completed.

Summary of Temporary Work Shutdown and Resumption
Former Exide Facility, Vernon, California

On Monday June 21, 2021, the 30-day rolling average lead concentration at the NE Monitor was 0.030 µg/m^3.

Based on the effectiveness of the implemented enhanced dust suppression mitigation measures, the VERT and AIS will continue to employ the enhanced mitigation measures during future scaffolding construction and deconstruction activities. In addition to the enhanced dust mitigation measures, the VERT will also use spray encapsulant, a roving ambient air monitor, and enhanced ambient air monitoring requirements with accelerated laboratory analysis during the next phase of closure work, Segment 3 stack removal.

Summary of Temporary Work Shutdown and Resumption
Former Exide Facility, Vernon, California

Table 1
Daily and Rolling 30-Day Average Lead Concentrations
NE Ambient Air Monitoring Station
Former Exide Facility, Vernon, California

Date	Daily Lead Concentration ($\mu g/m^3$) VERT Title V Permit 30-Day Rolling Average Permit Limit is 0.100 $\mu g/m^3$	Rolling 30-Day Average Lead Concentration ($\mu g/m^3$) VERT Title V Permit Daily Reporting Requirement Concentration is 0.300 $\mu g/m^3$
5/1/21	0.021	0.051
5/2/21	0.014	0.051
5/3/21	0.157	0.056
5/4/21	0.060	0.058
5/5/21	0.084	0.060
5/6/21	0.212	0.066
5/7/21	0.081	0.068
5/8/21	0.019	0.068
5/9/21	0.017	0.068
5/10/21	0.137	0.072
5/11/21	0.116	0.076
5/12/21	0.135	0.079
5/13/21	0.289	0.087
5/14/21	0.283	0.090
5/15/21	0.030	0.088
5/16/21	0.011	0.086
5/17/21	0.031	0.086
5/18/21	0.034	0.081
5/19/21	0.029	0.080
5/20/21	0.045	0.080
5/21/21	0.495	0.096
5/22/21	0.062	0.097
5/23/21	0.015	0.095
5/24/21	0.037	0.096
5/25/21	0.038	0.097
5/26/21	0.024	0.094
5/27/21	0.025	0.094
5/28/21	0.022	0.093
5/29/21	0.009	0.087
5/30/21	0.011	0.085
5/31/21	0.006	0.084
6/1/21	0.022	0.085
6/2/21	0.021	0.080
6/3/21	0.018	0.079
6/4/21	0.012	0.076
6/5/21	0.008	0.069
6/6/21	0.021	0.067
6/7/21	0.298	0.077
6/8/21	0.032	0.077
6/9/21	0.034	0.074
6/10/21	0.029	0.071
6/11/21	0.018	0.067
6/12/21	0.017	0.058

Summary of Temporary Work Shutdown and Resumption
Former Exide Facility, Vernon, California

Date	Daily Lead Concentration ($\mu g/m^3$) VERT Title V Permit 30-Day Rolling Average Permit Limit is 0.100 $\mu g/m^3$	Rolling 30-Day Average Lead Concentration ($\mu g/m^3$) VERT Title V Permit Daily Reporting Requirement Concentration is 0.300 $\mu g/m^3$
6/13/21	0.013	0.049
6/14/21	0.023	0.049
6/15/21	0.019	0.049
6/16/21	0.019	0.049
6/17/21	0.026	0.048
6/18/21	0.018	0.048
6/19/21	0.014	0.047
6/20/21	0.013	0.031
6/21/21	0.036	0.030

Summary of Temporary Work Shutdown and Resumption
Former Exide Facility, Vernon, California

ATTACHMENT 1
SCAQMD Monitor Results

Sampling	AT & SF	AT & SF		Rehrig Pacific	Rehrig Pacific	Rehrig Pacific	Rehrig Pacific		Exide Mid	Exide Mid
Date	Lead (ug/m^3)	Arsenic (ng/m^3)		Lead (ug/m^3)	Arsenic (ng/m^3)	Lead (ug/m^3)	Arsenic (ng/m^3)		Lead (ug/m^3)	Arsenic (ng/m^3)
1-Apr-21	0.012	1.29		0.025	1.23					
2-Apr-21				0.017	0.80					
3-Apr-21				0.020	0.94					
4-Apr-21	0.008	1.08		0.013	0.89	0.013	0.95		0.011	0.93
5-Apr-21				0.023	0.76					
6-Apr-21				0.019	0.94					
7-Apr-21	0.010	0.95		0.034	1.09					
8-Apr-21				0.030	0.86					
9-Apr-21				0.020	0.68					
10-Apr-21	0.007	0.82		0.016	0.79				0.008	0.64
11-Apr-21				0.039	0.82					
12-Apr-21				0.081	1.00					
13-Apr-21	0.010	0.70		0.058	0.84					
14-Apr-21				**0.127**	1.30					
15-Apr-21				**0.175**	1.61					
16-Apr-21	0.015	0.97		**0.158**	1.75	0.157	2.02		0.018	0.84
17-Apr-21				0.057	1.10					
18-Apr-21				**0.170**	1.89					
19-Apr-21	0.016	1.21		0.096	1.91					
20-Apr-21				0.027	0.83					
21-Apr-21				0.032	0.59					
22-Apr-21	0.012	0.71		0.076	0.85				Invalid	Invalid
23-Apr-21				0.065	0.91					
24-Apr-21				0.029	0.62					
25-Apr-21	0.008	0.58		0.047	0.71					
26-Apr-21				**0.180**	1.50					
27-Apr-21				0.064	0.81					
28-Apr-21	0.013	1.01		0.061	1.14	0.075	1.27		0.023	0.97
29-Apr-21				**0.220**	2.63					
30-Apr-21				0.076	1.49					
1-May-21	0.007	0.64		0.022	0.71					
2-May-21				0.012	0.42					
3-May-21				**0.157**	1.74					
4-May-21	0.009	0.95		0.051	1.02				0.020	0.94
5-May-21				0.083	1.42					
6-May-21				**0.222**	2.05					
7-May-21	0.010	0.74		0.093	1.19					
8-May-21				0.020	0.68					
9-May-21				0.019	0.61					
10-May-21	0.013	0.95		**0.213**	2.07	0.217	1.99		0.065	0.93
11-May-21				**0.134**	1.53					
12-May-21				**0.153**	1.66					
13-May-21	0.015	0.74		**0.447**	3.41					
14-May-21				**0.296**	2.38					
15-May-21				0.024	0.52					
16-May-21	0.005	0.51		0.005	0.19				0.004	0.19
17-May-21				0.014	0.39					
18-May-21				0.020	0.59					
19-May-21	0.008	0.84		0.025	0.74					
20-May-21				0.031	0.70					
21-May-21				**0.312**	2.47					
22-May-21	0.013	0.64		0.056	0.69	0.050	0.70		0.015	0.42
23-May-21				0.014	0.47					
24-May-21				0.027	0.85					

NAAQS Pb = 0.150 ug/m3

Note: On the above data table provided to VERT by SCAQMD, the SCAQMD highlighted daily concentrations that numerically were higher than the National Ambient Air Quality Standard for Lead, which is based on a 3-month average concentration; the 3-month average concentrations are not shown on this table.

Summary of Temporary Work Shutdown and Resumption
Former Exide Facility, Vernon, California

ATTACHMENT 2
Enhanced Dust Suppression Measures

Remaining FEU 2 Scaffolding Dismantlement with Enhanced Dust Suppression (6/18/21)

Perimeter Fence Misting System (6/17/21)