South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

May 17, 2013

Mr. John Hogarth
Plant Manager
Exide Technologies
2700 S. Indiana Street
Vernon, CA 90058

Re: *Exide Technologies, Inc., Vernon, California*

Dear Mr. Hogarth:

The South Coast Air Quality Management District (SCAQMD) has received a copy of your May 2, 2013 letter to Rizgar Ghazi, Branch Chief of Permitting Office at DTSC along with the attached May 2, 2013 memorandum from Exide's consultant, Russell Kemp, Principal with Environ, to Exide titled "Assessment of Effectiveness of Blast Furnace Isolation Door, Vernon California Facility."

In the May 2nd Environ memorandum, it is stated on page 1, that, "Based upon the details and analysis provided below, we conclude that the isolation door has been effective in its intended pupose and has resulted in reducing the overall calculated facility risks to below the Action Risk Levels specified in South Coast Air Quality Management District (AQMD) Rule 1402, which implements the AB2588 air toxics program. This conclusion is based upon preliminary engineering test data collected on April 9, 10, 18 and 19, 2013 subsequent to the installation of an isolation door on the blast furnace charge chute." The memorandum also states, on page 2, that, "The recent data indicate a further reduction beyond the 2012 improvement on the order of 98%. Comparable levels of improvement are also seen in the emissions of benzene and 1,3-butadiene, both of which would be associated with furnace process gases, further demonstrating the effectiveness of the isolation door in minimizing the escape of process gases into the Hard Lead Ventilation System."

Please note that although the SCAQMD agrees that the installation of isolation door should reduce the fugitive emissions and associated health risk, the SCAQMD must clarify that the information provided so far does not constitute the full source test reports

needed to properly evaluate the test, and can't be considered as establishing the degree of arsenic emission reductions that will occur during normal full capacity operations. Therefore, as Mohsen Nazemi, Deputy Executive Officer of Engineering & Compliance, SCAQMD has informed you on May 16, 2013 and you have agreed to, upon restart of the operations additional testing must be done to reflect operating conditions representing full capacity or permitted throughput capacity. Since the majority of emissions are associated with the Hard Lead Baghouse, for the next source test we propose that SCAQMD staff will test the Hard Lead Baghouse. Also, SCAQMD staff has the following comments regarding additional data that is needed and requirements that must be met for the proposed "confirmation" tests.

While the test results referred to by Environ as "engineering test data," reflect an indication of arsenic emissions reductions as stated by Environ, we believe it is necessary to conduct additional testing. We agree that it is prudent to conduct "confirmatory official tests" on the Hard Lead Baghouse, and Neptune Scrubber stacks. We believe that the Soft Lead Baghouse stack should be tested concurrently as well. As with all source tests, it is necessary to ensure that the confirmatory tests be conducted during operating conditions that will represent emissions which will not increase under higher throughput, closer to full capacity or permitted throughput operating conditions. The confirmatory tests would also need to address the following issues that are based on observations made during the engineering tests.

1. For the engineering tests, SCAQMD has received the full source test reports that are typically required for source tests to be reviewed. However, the full laboratory data has not been received and is not expected until the week of May 21, 2013. As such, the engineering test results are not currently considered validated final data. The proposed confirmatory tests must be submitted in a full test report format including the narrative, calculations, raw data, and full lab package subject to review by SCAQMD, as is typical for these test reports.

2. During the engineering tests, the isolation door was observed to be operated in conjunction with a substantial negative pressure present inside the Blast Furnace, as indicated by dust created during charging of material into the furnace being quickly pulled down into the furnace via the open isolation door. According to the May 2, 2013 Environ memo, the previous fugitive discharge from this charge opening is believed to be the primary source of the previously elevated arsenic emissions. These fugitive emissions, when not collected by negative pressure in the Blast Furnace, are vented to the Hard Lead system resulting in high arsenic and lead emissions in the Hard Lead stack. Based on our experience with capture efficiency test requirements, and as you have also stated in your May 16, 2013

email to Mohsen Nazemi, we have concluded that maintaining this negative pressure is critical, and needs to be maintained in conjunction with the operation of the isolation door. Additionally, several air streams including the two baghouse quench air streams are also vented to the Neptune Scrubber system. These several streams have a significant effect on the remaining air flow available to maintain a negative pressure in the Blast Furnace. It was also observed that the operators in the control room needed to maintain constant attention to these flow balances to maintain a negative pressure during the engineering tests. To address this issue in the confirmatory tests, process data must be provided, that is capable of indicating the level of negative pressure in the Blast Furnace. Most preferably, this would be in the form of measurement of the blast furnace negative static pressure in units of inches water column by a permanently installed and calibrated pressure monitoring device. Without this information, arsenic emissions reductions will be difficult to maintain without monitoring this negative pressure during future operation of the Blast Furnace.

3. Exide should provide an explanation of how and where the Blast Draft in the Smelting Shift Report is measured.

4. With the efforts that have been made to increase flow rates and negative pressure on the Blast Furnace, there is a concern that these efforts could result in reduced flow to the Reverb Furnace which, in turn, could have its fugitive arsenic emissions vented to the Soft Lead Baghouse. To address this concern, the confirmatory tests must also include testing on the Soft Lead Baghouse stack.

5. On April 18, 2013 Michael Garibay and Marco Polo requested that the feed rates during the engineering tests be at least that from the previous HRA tests and recommended that they be at least 80% of permitted capacity to address a concern that lower emissions may be the result of lower feed rates. Since the feed rates to the blast furnace for the April 18 and 19, 2013 tests were lower than the previous HRA tests and lower than 80% of permitted capacity, we request Exide to test at at least to the highest feed rate possible for the confirmatory tests. Otherwise, it may be concluded that the arsenic emissions reductions measured may not apply at higher feed rates.

6. Based on observations, the melting rate of the feedstock to the furnace and/or the temperature of the furnace may not have been typical of normal operations. It was observed that the feed stock was piling up near the feed door during the tests, suggesting the melting rate was slower than when the furnace is running at full firing rate.

7. Since the Hard Lead refining kettles are also vented to the Hard Lead Baghouse, the confirmatory tests must be scheduled to coincide with periods of additions of arsenic to at least one kettle during each test run.

8. Since the Hard Lead refining kettles are also vented to the Hard Lead Baghouse, the confirmatory tests must be scheduled to coincide with periods of high temperature operation to at least one kettle during each test run. This high temperature operation is defined as 1100 – 1170 F as indicated in Exide's refining process flow chart provided to SCAQMD during the 4/18 – 4/19 tests.

9. Exide shall provide access to the SCAQMD source testing team to conduct testing during Exide's confirmatory tests in addition to observing the Exide testing and splitting samples as during the engineering tests. Alternatively, SCAQMD may test the Hard Lead stack and the Soft Lead stack, while Exide's contractor tests the Neptune scrubber stack, subject to further approval by SCAQMD.

Finally, SCAQMD would like to remind Exide that although you are not operating the furnaces at this time, a number of housekeeping and maintenance operations are required under SCAQMD Rule 1420.1, Exide Title V Permit, Rule 1420.1 Compliance Plan and federal National Emission Standards for Hazardous Air Pollutants for Secondary Lead Smelting (NESHAP Subpart X). Attached please find a list of housekeeping, maintenance activity, total enclosure and standards for fugitive dust.

Please contact Dr. Philip Fine at 909-396-2239 should you have any questions.

Sincerely,

Philip M. Fine, Ph.D.
Asst. Deputy Executive Officer,
Science & Technology Advancement

Sincerely,

Barbara Baird
Chief Deputy Counsel

cc: Rizgar A. Ghazi, P.E., DTSC
Encl.
PMF:BB:vmr

Exide Technologies, Inc.

Housekeeping / Maintenance / Air Monitoring Requirements

South Coast Air Quality Management District Rule 1420.1/ Permit / Rule 1420.1 Compliance Plan and NESHAP Subpart X Requirements

Housekeeping Requirements

1. Clean by wet wash or a vacuum equipped with a filter(s) rated . . . to achieve 99.97% capture efficiency for 0.3 micron particles . . . the following areas:
   - Monthly cleaning of roof tops less than or equal to 45 feet in height
   - Quarterly cleaning of roof tops > 45 feet in height
   - Weekly cleanings of all areas where lead-containing wastes generated from housekeeping are stored
   - Initiate immediate cleaning of any maintenance activity or event . . . that causes deposition of fugitive lead-dust
   - Inspect all total enclosures and facility structures...any lead-acid battery that is cracked or leaking shall be immediately sent to the battery breaking area . . . or stored
   - Store all materials capable of generating . . . fugitive lead-dust . . . in sealed, leak-proof containers, unless in a total enclosure
   - Surfaces that accumulate lead-containing dust subject to vehicular or foot traffic shall be washed down, vacuumed, or wet-mopped . . . or maintained with dust suppressants
   - Lead or lead-containing wastes from housekeeping activities shall be stored, disposed of, recovered, or recycled using practices that do not lead to fugitive lead-dust emissions
   - Transport all materials capable of generating any amount of fugitive lead-dust . . . within closed conveyor systems or in sealed, leak-proof containers, unless in a total enclosure
   - Maintain and use an onsite mobile vacuum sweeper or vacuum
   - Vacuum sweep all paved, concrete . . . etc. facility areas subject to vehicular or foot traffic three times per day
   - Immediately vacuum sweep any area . . . including accidents, process upsets, ...etc.
   - Vacuum sweeping activities . . . shall not be required during days of measureable precipitation

Maintenance Activity
1. Conduct . . . any maintenance activity in a negative air containment enclosure vented to permitted negative air machine . . . Any maintenance activity that cannot be conducted in a negative air containment enclosure . . . shall be conducted: • In a partial enclosure • Using wet suppression or a vacuum equipped with a filter . . . 99.7% efficiency • While collecting 24-hour samples for every day • Shall be stopped immediately when instantaneous wind speeds are > 25 mph
2. Store or clean by wet wash or a vacuum equipped with a filter . . . 99.7% efficiency all equipment and materials used for any maintenance activity
Total Enclosures
1. Total Enclosure Ventilation • Ventilate enclosures at any opening at negative pressure of at least 0.02 mm of Hg
2. Digital Differential Pressure Monitoring Systems • Operate and maintain a digital differential pressure monitoring system for each total enclosure
3. In-draft Velocity • In-draft velocity of the total enclosure shall be maintained at greater than or equal to 300 feet per minute at any opening
Subpart X NESHAP from Secondary Lead Smelting Requirements
Standards for Fugitive Dust Sources
• Plant roadways – Clean all areas subject to vehicle traffic twice per day • Battery Breaking areas – Partially enclose storage piles, use wet suppression to prevent dust formation, and clean pavement twice per day; or total enclosure of battery breaking area

- Materials storage and handling area – Partially enclose storage piles, use wet suppression on storage piles to prevent dust formation, wash vehicles at each exit, pave the area; or have total enclosure and vent to control device, and have a vehicle wash at each exit