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

March 19, 2014

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

Re: Exide Technologies' Final Risk Reduction Plan Rule 1402, dated March 2014

Dear Mr. Hogarth:

This letter is in response to Exide Technologies, Inc.'s (Exide) submittal of their Final Risk Reduction Plan, dated March 2014. The South Coast Air Quality Management District (SCAQMD) received, on March 4, 2014, Exide's Final Risk Reduction Plan and a letter providing additional information in response to SCAQMD's letter dated February 12, 2014 giving provisional and conditional approval of Exide's proposed Amended Revised Risk Reduction Plan dated January 2014 and submitted to SCAQMD on January 17, 2014.

Please be advised that **the SCAQMD has completed the review of the Final Risk Reduction Plan, and hereby grants final approval of this plan.** Please note that Exide has provided information in the Final Risk Reduction Plan dated March 2014, that is primarily complete, however, it does not include detailed engineering data and calculations. SCAQMD expects the detailed information to be submitted, by Exide along with required applications for construction of new equipment and modification of existing equipment. Exide needs to use good engineering principles and practices for the design of ventilation systems and air pollution control equipment. To meet the permitting schedule as proposed in the Final Risk Reduction Plan, SCAQMD urges Exide to submit complete applications with detailed engineering data and calculations to avoid our Engineering staff to have to request this information after submittal of the application and to be able to expedite the review process for the applications.

In order to provide Exide additional information related to engineering design of the changes listed in the Final Risk Reduction Plan, Please find in Attachment I, enclosed with this letter, a detailed explanation of the information that needs to be included in the applications along with other information.

Should you have any questions regarding this Risk Reduction Plan, please contact me at (909)396-2662.

Sincerely,

Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering and Compliance

MN:AYL:am

Attachment

cc: Barry Wallerstein, SCAQMD
Kurt Wiese, SCAQMD
Elaine Chang, SCAQMD

Attachment I

Additional Information to be included with the applications to be submitted by Exide to SCAQMD:

- Information regarding air flow rates and sizing of APCS equipment is only conceptual. Specifically, a table and corresponding illustration submitted in the attachments to the Final Risk Reduction Plan clearly identify the magnitudes and distributions of total air flow rates desired. However, pressure drop computations and sizing of blowers, motors, and scrubbers is missing from the preliminary information contained in the Final Risk Reduction Plan submittal. The information provides a detailed concept but does not provide data which will demonstrate that the proposed systems will operate as proposed.

- Information provided in the Final Risk Reduction Plan describes conceptual details of the proposed enclosures to be installed at the thimble and slag tap for the blast furnace but is not sufficiently detailed to make a determination of expected performance. Complete engineering analysis and design parameters are needed.

- Sizing and engineering details are required for the configurations of the new venturi and tray-type scrubbers.

- Exide proposes to solve the heat balance/dilution air problem regarding the blast furnace baghouse by venting cold air from the thimble and slag hoods to this device. Calculations are needed to determine what the final gas temperature range will be for the blast furnace baghouse inlet after the proposed changes. Due to the presence of condensable gaseous sulfuric acid in the gas stream serviced by this baghouse, the temperature of the gas stream has to be maintained above the dew point for the acid gases and below the maximum operating temperature of the baghouse filter media.

- The enhanced afterburner is proposed to be changed by the replacement of the burner with an oxygen enriched burner. Complete engineering and design parameters for this device are required.

- Due to the addition of additional cold air load, the modified afterburner is expected to operate at 1,500 Degrees F instead of the current 2,200 Degrees F. Complete engineering analysis, design parameters and criteria pollutant and toxics emission profiles are needed.

- Exide is proposing to run the modified venturi scrubbers at lower pressure differentials (delta P's) than currently operated. Complete engineering analysis and design parameters are needed.

- The enclosure on top of the blast furnace will still have openings at the bottom. It is not "sealed". Exide has stated that they are partially relying on the "chimney effect" for hot fugitive gas control characteristics of this device. Engineering calculations and operating parameters must be provided to support this.

- Exide is proposing a booth-like enclosure of the slag tapping port. In this design, it is not clear if the booth structure is long enough to capture the high velocity gas flaring events of the operation of this part of the blast furnace. This must be addressed in the engineering analysis and design parameters.

- Exide has indicated that the thermal load on the afterburner will essentially double due to the increased gas flow rate going into this device. This will double the thermal load on the afterburner. The water jacket heat exchanger following the afterburner delivers the heat load captured in the water jacket to an existing cooling tower which currently operates at around 100 Degrees F. By doubling the heat load, the temperature of the water in the cooling water will increase in order to allow double the evaporation rate to occur. Complete engineering analysis and design parameters are needed.

- Thought should be given in regards to providing pressure gauge/monitors, flow meters, or any device that would aid in providing assurance that the exhaust systems and ancillary equipment are operating in accordance with critical parameters to ensure compliance with this risk reduction plan.

- Finally Exide must use mitigation measures to minimize any fugitive emissions during construction and modification of equipment, as proposed in the Final Risk Reduction Plan.