EXIDE TECHNOLOGIES

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April 30, 2014

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Rizgar Ghazi
California Department of Toxic Substances Control
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RE: Response to April 23, 2014 DTSC Comments on
April 11, 2014 Addendum to the Work Plan for Off-Site Soil Sampling
Exide Technologies
Vernon, California

Dear Messrs. Ruttan, Johnson and Ghazi:

On April 23, 2014, Exide Technologies received the Department of Toxic Substances Control's (DTSC's) comments to the April 11, 2014 response prepared by Advanced GeoServices Corp. DTSC's comments have been reviewed and discussed with all appropriate members of the Exide team, and it appears that several important items require a higher level of discussion to reach a resolution. Pursuant to the Stipulation and Order (Docket HWCA P3-12/13-010) and the Corrective Action Consent Order (CACO), I have prepared this letter to enumerate those items and frame Exide's concerns in the hopes that these issues can be discussed informally between the parties, using best efforts to resolve any disputes:

1. DTSC has taken the position that all lead observed in the Northern and Southern Assessment Areas above the average concentrations observed in the background area is from Exide. For the reasons stated in our attached response to comments, this position is both overly simplistic and wrong, as it fails to account for the

significant differences that have been identified between the Northern and Southern Assessment Areas and the Long Beach background area since the background area was first proposed. The information suggests that the concentrations observed in the Northern and Southern Assessment Areas are more indicative of background conditions in close proximity to the heavy, metals-related industries (historic and current), major freeway confluences, and older housing stock in the Vernon Area. From a scientific perspective, the concentrations cannot be attributed to the Exide facility alone. DTSC is obligated to objectively evaluate the information and engage our Consultants in technical discussion. If DTSC has tangible technical data that counters the information identified through the soil sampling activities and historical reviews, we request that DTSC provide such information in advance of any technical discussions.

2. DTSC refuses to allow Exide the opportunity to evaluate properties for lead based paint as part of the Off-Site Soil Sampling scope of work. This position is contrary to nearly every other major investigation of lead in residential soil, whether conducted for USEPA or state agencies, that we have conducted. It is also counter to the USEPA guidance in the *Superfund Lead-Contaminated Residential Sites Handbook (OSWER 9285.7-50, August 2003)* which recommends screening/testing of exterior surfaces to evaluate the potential for lead based paint to impact soils. Lead based paint screening is routinely conducted on sites where the soil screening level is 400 mg/kg or higher, based upon our experiences and the agency recommendations cited above. The importance of screening exterior surfaces for the presence of lead based paint is even more significant where the soil screening level is just 80 mg/kg. Analysis of paint chips from one of the two properties that recently underwent discrete soil sampling showed a lead concentration of 63,700 mg/kg. These paint chips were collected in close proximity to and on top of soil that Exide is expected to remove as part of Interim Measures. For future properties, it would be both scientifically improper and a disservice to the community to ignore contributions from sources with such high concentrations of lead directly on the property while Exide owns a facility a mile away. Reasonable alternative sources must be assessed in order to provide context for the analysis and to ensure meaningful results.

3. The Stipulation and Order states that Exide shall delineate off-site soil lead concentrations to 80 mg/kg or background, whichever is higher. As discussed in item 1 above, based upon analysis of further information that has been obtained, the Long Beach background area is not a representative background area. Instead, background concentrations in the residential areas surrounding Vernon are likely in the 150 mg/kg to 250 mg/kg range with high variability, which is expected

given the proximity of the areas to hundreds of other potential sources of lead emission over the last one hundred years. In the February 18, 2014 report on the off-site soil sampling, Exide proposed that the transect sampling being conducted by ENVIRON be used to meet the requirement of the Stipulation and Order rather than further residential soil sampling. This additional data will be submitted to DTSC within the next two weeks. Furthermore, preliminary results of the residential risk assessment (due to be submitted to DTSC in late May 2014) suggest that soil concentrations in the 360 mg/kg range will not present a materially adverse risk to residents. In light of this forthcoming information, Exide wishes to discuss concentrating resources on delineation of properties to a 200 mg/kg total soil lead concentration given that this level is indicative of background in the area and not likely to pose a risk. This suggested 200 mg/kg level will still be health-protective (less than ½ the typical 400 mg/kg level) and well below the levels associated with risk-based decision making.

4. DTSC is requiring that Exide characterize sampling utilizing discrete samples. This is contrary to established guidelines. The use of composite samples has been the nationally recognized methodology for characterizing lead concentrations in residential soil, and provides an average lead concentration for the property consistent with the allowable soil lead concentration generated by both the Integrated Exposure Uptake Biokinetic (IEUBK) model and Adult Lead Methodology (ALM). DTSC's requirement for discrete samples is inconsistent with the USEPA guidance *Superfund Lead-Contaminated Residential Sites Handbook (OSWER 9285.7-50, August 2003)*. Moreover, DTSC's directive will require analysis of over 14,000 soil samples, unnecessarily adding between $250,000 and $500,000 to the cost of the proposed investigation, and increasing the time required for laboratory analysis and data validation during the next round of sampling by 2 to 3 months (which will cause delay and will not add to the scientific analysis). Exide has already agreed to perform discrete sampling at the 39 residential properties previously sampled in the Northern and Southern Assessment Areas. Exide has also agreed to archive discrete samples utilized to create the composites in the event future analysis is warranted. Given agency guidance favoring composite sampling for this type of investigation, there is no demonstrated benefit to using discrete sampling at all properties within the expanded area. At best, the results of discrete sampling (75+ samples per property) will be overwhelming and, as already seen on 2 properties where discrete sampling was already completed, the results will be distracting to a decision making process that should only focus on the property/exposure area arithmetic mean. Discrete analysis on the additional properties proposed for sampling is technically inappropriate, counterproductive and a misdirection of

resources. Accordingly, Exide requests further discussion with DTSC concerning this requirement.

5. DTSC indicates that lead fingerprinting provides a "reasonable, robust and defensible evaluation." Exide wishes to conduct a scientifically-valid analysis. Based upon our knowledge of and experience with fingerprinting, it will be very difficult to differentiate between emissions from Exide and any of the other numerous potential lead emissions sources within the areas. Exide is willing to consider appropriate fingerprinting methods, however. If you have specific information regarding techniques that are appropriate for separating emissions from a secondary lead smelter from other potential sources in heavily industrialized areas and/or residential areas with pre-World War II housing at the relatively low concentration levels we are encountering, please provide such information so that Exide can consider its inclusion in this sampling program.

A response to comments letter and revised Addendum to the Off-Site Soil Sampling Work Plan have been prepared and are provided as attachments. As you will see, the responses and revisions are consistent with the positions presented above. Pursuant to the CACO and the Stipulation and Order, this letter and related prior letters, along with our request for a meeting, constitute Exide's best efforts at informal resolution. We request a face to face meeting with all of you and any other appropriate Technical and Managerial staff at DTSC to review this submission.

If you have any questions, please contact me at (610) 921-4052.

Sincerely,

EXIDE TECHNOLOGIES

Frederick Ganster

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