EARTHJUSTICE

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March 5, 2012

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BY FIRST CLASS MAIL AND EMAIL

Re: Petition for Reconsideration of National Emissions Standards for Hazardous Air Pollutant Emissions From Secondary Lead Smelting, 77 Fed. Reg. 556 (Jan. 5, 2012), Dkt. ID No. EPA-HQ-OAR-2011-0344

Dear Administrator Jackson and Assistant Administrator McCarthy:

This is a petition for reconsideration under Clean Air Act § 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B). The parties submitting this petition are Sierra Club (85 Second Street, Second Floor, San Francisco, California 94105; Telephone: (415) 977-5500), California Communities Against Toxics (P.O. Box 845, Rosamond, CA 93560); Frisco Unleaded (P.O. Box 5661, Frisco, TX, 75035); Missouri Coalition for the Environment Foundation (6267 Delmar Blvd., Suite 2E, St. Louis, Missouri 63130; Telephone: (314) 727-0600), and Natural Resources Defense Council (40 West 20th Street, New York, NY 10011; Telephone: (415) 875-6100). By this petition, these

Petitioners respectfully request that EPA reconsider certain aspects of the final action taken at 77 Fed. Reg. 556 (Jan. 5, 2012), and entitled National Emissions Standards for Hazardous Air Pollutant Emissions From Secondary Lead Smelting; Final Rule.

EPA changed important elements of this rule from the proposal to final stage and provided new explanations for its methodology in the response to comments. Petitioners submit this petition to raise objections to certain substantive rule changes and to EPA's new explanations which were impracticable to raise before the comment period closed and which are of central relevance to the final rule. Petitioners urge EPA to take action on reconsideration that strengthens protection for the people most exposed to and most affected by the toxic air pollution from this source category.

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I. EPA MUST RECONSIDER THE RESIDUAL RISK STANDARDS FOR PROCESS VENTS AND SET STRONGER STANDARDS BY SATISFYING SECTION 112(F) RATHER THAN JUST RELYING ON THE NAAQS FOR LEAD.

A. Background

EPA made significant changes from the proposal to the final rule. 76 Fed. Reg. 29,032, 29,055-56 (May 19, 2011); 77 Fed. Reg. at 562-65; *see* Proposed to Final Rule Redline (Dkt).

In taking this action, EPA also released a detailed "response to comments" document that provided new reasoning for its reliance on the NAAQS that EPA had not included in the proposed rule. *Compare* 76 Fed. Reg. at 29,041-42, *with* 77 Fed. Reg. at 565 *and* Summary of Public Comments and Responses at 66-74 (Nov. 4, 2011) ("Summary"). Although EPA appropriately explained in the proposal why exceedances of the NAAQS provide evidence of *unacceptable* risk, EPA did not provide a reasoned explanation of why the NAAQS could be treated as equivalent to "acceptable" risk, under section 112. At proposal, EPA simply repeated the arguments for why the agency had chosen the NAAQS to reflect an "adequate margin of safety to protect public health" under section 109 during the 2008 rulemaking. 76 Fed. Reg. at 29,041-42, 29,055. At proposal, EPA gave no reasoned explanation for why it would achieve "acceptable" risk to reduce lead emissions to the level of the NAAQS (which provides an "adequate margin of safety"), rather than going farther. EPA also gave no health-based explanation for why it could decide that simply achieving that "adequate margin" standard would provide an "ample margin of safety."

At proposal, EPA did not state that the Lead NAAQS is "the measure of risk acceptability for exposure to air-borne lead in this rule." 77 Fed. Reg. at 563. It now states that it is only considering the NAAQS "in determining which lead risks from air-borne lead from secondary lead smelters are acceptable or unacceptable." Summary at 73. This is a new argument. *Compare with* 76 Fed. Reg. at 29,055, 29,058. EPA also provided further new arguments on issues discussed below. *See, e.g.*, Summary at 69, 71, 73. EPA concludes that it need do no more to control lead emissions from this source category because "we did not identify any additional controls beyond those that would need to be implemented to ensure an acceptable level of risk with an ample margin of safety," and that the agency "disagrees . . . that section 112(f)(2) standards must be more stringent than a primary NAAQS as a matter of law." *Id.*

Therefore, EPA provided new arguments for its decision to base standards on the NAAQS in its response to comments summary. Because of these changes, it was impracticable for Petitioners to raise each of the following objections during the comment period. Thus, section 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B), requires EPA to grant reconsideration on this issue.

B. Grounds for Objection

Under section 112(f), EPA must first assess the health risk created by toxic air emissions from a source category which remains once an existing MACT standard is in place and determine whether this risk is "acceptable" or not. *NRDC v. EPA*, 824 F.2d 1146, 1164 (D.C. Cir. 1987) (vinyl chloride decision). If health risk is unacceptable, EPA must set a standard to

prevent unacceptable risk. Then, EPA is required to consider whether further health risk and emission reductions are needed to provide an additional, "ample margin of safety to protect public health," in view of scientific uncertainty regarding its own risk assessment. *Id.* at 1165; 42 U.S.C. § 7412(f)(2).

EPA failed to satisfy section 112(f)(2) because it relied on the Lead NAAQS at both stages of this analysis to choose the level of the lead emissions standard. Summary at 73. As a result, EPA set process vent standards that (it predicts) will simply achieve compliance with the NAAQS. EPA did not assess whether it was necessary in terms of health to go beyond the NAAQS and set a more protective limit. Instead of making its decision regarding what lead emissions limit to set just based on the NAAQS, EPA is required to perform a full residual risk assessment and then satisfy the section 112(f)(2) test to ensure an "ample margin of safety to protect public health," 42 U.S.C. § 7412(f)(2). EPA must perform a full risk assessment in order to compare and consider the full cumulative burden of health risk created by all HAP emissions from the source category.

1. EPA's reliance on the NAAQS alone to set residual risk emission standards for lead fails to satisfy section 112(f)(2).

Regardless of whether EPA considers cost at the ample margin stage, EPA may not lawfully rely solely on the NAAQS, which provides an "adequate margin of safety" in the ambient air under section 109 to set residual risk emission standards under section 112, which are required to provide an "ample margin of safety to protect public health" from lead. First, the plain text of section 112(f)(2) requires EPA to engage in an analysis of health risk that does not merely rely on the NAAQS. Second, the record shows that it is arbitrary and capricious for EPA not to require greater protection than the NAAQS. As discussed below, the term "ample" means more than adequate, which indicates Congress required something beyond section 109. Section 112(f) standards must protect not only the most sensitive sub-population, but the most sensitive individual who is the "individual most exposed." 42 U.S.C. § 7412(f)(2). Section 112(f)(2) sets a different test and EPA may not simply assume that an emission standard set based on the NAAQS is sufficient to satisfy section 112(f).

i. EPA has failed to justify its decision to use the NAAQS alone to achieve "acceptable" risk from lead.

(a) "Adequate" is not necessarily the same as "acceptable."

EPA has failed to explain how the term "adequate" under section 109 can be equated with "acceptable," as stated in the response to comments Summary. While the question of what is "adequate" may in certain circumstances inform what is "acceptable," EPA has failed to

explain why its sole reliance on the NAAQS is sufficient to protect against "acceptable" risk from secondary lead smelters. The term "acceptable" is different from the term "adequate." Even if EPA might in some instances be able to rely solely on the NAAQS, the "adequate margin of safety" at the national level for lead does not necessarily ensure an "acceptable" risk from lead for people living near secondary lead smelters. Section 112 requires EPA to focus on the "individual most exposed" to a source category's emissions. It also requires EPA to address the combined impact of all emissions from a source category.

First, by solely relying on the NAAQS, EPA has failed to explain how it this assessment evaluates the interaction of different risks from lead – i.e., inhalation (risks from breathing) and multipathway (risks from other types of exposure). EPA's own past approach under section 112 shows that it has interpreted this provision as requiring it to consider all elements of risk created by a pollutant. EPA has recognized the need to assess cancer risk, chronic non-cancer risk, acute risk, and multipathway risk for all pollutants except for lead. EPA failed to assess either inhalation and multipathway risk for lead in the way it has recognized the need to do for all other pollutants. It must do so rather than only relying on the NAAQS.

Rather than perform a full risk assessment for lead under section 112(f)(2), the result of EPA's NAAQS-based methodology was that EPA only set a standard that, it states, will avoid exceedances of the NAAQS in populated census blocks. 77 Fed. Reg. at 564. EPA reduced the prior standard by an order of magnitude – from 2.0 mg/dscm to 0.20 mg/dscm – because of its determination that facilities could exceed the NAAQS by a factor of 10. 76 Fed. Reg. at 29,055. EPA reduced emissions no more than needed to assure that a source in the Secondary Lead Smelting source category would not alone emit to the extent that the ambient air concentration of lead would exceed 0.15 $\mu g/m^3$. EPA did not assess each type of risk caused by lead emissions – including chronic inhalation and multipathway risk and other potential risks – independently from its assessment on the NAAQS, and it thus has failed to show how it considered the full impact of secondary lead smelters' emissions on public health.

As EPA has acknowledged, there is no safe level of exposure to lead emissions. Yet, in light of this, EPA has failed to assess all potential risks from lead independently or together, to determine whether the cumulative health risk burden from lead is "acceptable."

Second, it is unclear how the standard EPA set based on reliance on the NAAQS satisfies the agency's responsibility to assess the greater cumulative impacts of lead emissions from multiple facilities in the Secondary Lead Smelting source category under section 112(f)(2). If a single source is allowed to emit as much as can occur without *that single source's emissions* violating the NAAQS, then – unless it is the sole lead-emitting source in the area (which is not true in places like Los Angeles, where there are two battery recyclers, for example) – that source

indeed still has significant potential to cause a NAAQS exceedance when its emissions are combined with other sources' lead emissions. Therefore, even under EPA's analysis, it is unclear how a NAAQS-based 112(f) emission standard would ensure a NAAQS-level of protection in the real world because an individual source's emissions, combined with other sources of lead could cause the NAAQS to be exceeded. In view of the potential for cumulative impacts from multiple sources, EPA needs to explain how its use of a flow-weighted average of 0.20 mg/dscm and a higher (1.0 mg/dscm) individual process-vent limit for existing sources could satisfy section 112(f)(2).[1] Even assuming that EPA's final rule would at least avoid NAAQS exceedances, EPA's mere 10-fold reduction in the prior standard for lead does not alone achieve "acceptable" risk. While in setting the Lead NAAQS, EPA set a standard to protect the health of the average member of the exposed, sensitive sub-population, EPA must set a standard to protect the most vulnerable and "most exposed" child (within that sensitive sub-population) near a given source category under section 112(f). 42 U.S.C. § 7412(f)(2). Section 112 has a special focus on the most exposed person within a sensitive sub-population that recognizes greater potential harm may occur due to the level and duration of exposure from major sources.

Third, EPA's reliance on the NAAQS has failed to appropriately take into account the ongoing impact of historic air emissions on the most-exposed people near secondary lead smelters, and has not assessed or explained how the NAAQS could provide "acceptable" protection in view of this history. The affected communities near sources in this source category have experienced persistent, bioaccumulative toxic air emissions for years, in the form of lead, cadmium, arsenic, and other hazardous air pollutants (HAPs). For example, the Exide facility in Frisco has operated since 1971-72, and the Quemetco site has been used for battery recycling since 1959.[2] The NAAQS is set at an ambient level to protect people from future lead

[1] EPA has not clearly explained how a source that meets the 1.0 mg/dscm limit for a stack will also meet the flow-weighted average of 0.20 mg/dscm. If a 10-fold reduction is needed from the prior standard of 2.0 mg/dscm to prevent NAAQS exceedances, then it is unclear how an individual stack or process vent should be allowed to emit above 0.20 mg/dscm. EPA does not explain how setting a limit for an individual stack that was only half the prior standard could reduce the source's emissions significantly enough to avoid exceeding the NAAQS. EPA has not explained how the final rule will prevent the combined stacks and process vents from causing emissions that exceed the NAAQS. Notably, EPA's final rule does not say that using a 1.0 mg/dscm per-vent limit would prevent a facility from causing exceedances of the NAAQS. It only states that this would "ensure that stack emissions of lead from *any one stack in this source category* will not result in exceedances of the lead NAAQS." 76 Fed. Reg. at 29,055; Final Residual Risk Assessment at 35.

[2] *See* https://s3.amazonaws.com/EPAExideReport/1+Exide+Technologies+Lead+Inspector%27s+Overview+Rep

air emissions, but did not fully take into account past and ongoing exposure to past air-related emissions which had been deposited into the soil and into people's bodies, and which continue to affect people's health today, or the greater benefit available from future reductions of such deposition through reductions in air emissions. As EPA stated, "[i]n simulating reductions in exposure associated with reducing ambient air Pb levels through alternative NAAQS (and increases in exposure if the current NAAQS was reached in certain case studies), our modeling has only affected the exposure pathways we categorize as recent air (inhalation and ingestion of that portion of indoor dust associated with outdoor ambient air). We have not simulated decreases in past air-related exposure pathways (e.g., reductions in outdoor soil Pb levels following reduction in ambient air Pb levels and a subsequent decrease in exposure through incidental soil ingestion and the contribution of outdoor soil to indoor dust). This approach is likely to underestimate reductions in ambient air related exposure and risk. Consequently, incremental reductions in exposure and risk estimated for alternative NAAQS considered in the full-scale analysis, which reflect simulated reductions in the recent air category, are likely to be underpredictions of the impact of changes to the NAAQS on total Pb exposure and health risk."[3] Section 112(f) requires EPA to look at the health risk for the actual, affected communities around a source category including the most-exposed person's full health risk from all air-related exposure to that source. Even if the NAAQS might be assumed to be acceptable to protect a community that had never experienced lead emissions before, it does not ensure that risk will be acceptable for people living in an area that has already experienced significant past air emissions and who therefore start with a higher level of health risk due to lead than the average person.

Fourth, the record of the NAAQS itself raises questions about EPA's use of it as the sole factor to ensure acceptable risk for all of the most-exposed children for this source category, as opposed to just the average exposed child. EPA decided in setting the NAAQS that it was necessary to provide protection from air-related population *mean IQ loss in excess* of 2 points. 73 Fed. Reg. at 67,005.[4] EPA set the NAAQS at 0.15 μg/m^3 based on the finding that "the

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ort+12_15_2009.pdf; *see also* http://www.leadfreefrisco.com/epa-report-on-exide; http://www.dtsc.ca.gov/HazardousWaste/Projects/upload/Quemetco_FS_DPost-Closure-Permit.pdf.

[3] EPA NAAQS Staff Paper at 4-11 to 4-12; Lead NAAQS, Proposed Rule, 73 Fed. Reg. 29,184, 29,216 (May 20, 2008) ("we note that these comparisons underestimate the true impacts of the alternate NAAQS and accordingly, the benefit to public health that would result from lower NAAQS levels. This is due to our inability to simulate in this assessment reductions in several outdoor air deposition-related pathways (e.g., diet, ingestion of outdoor surface soil). The magnitude of this underestimation is unknown.").

[4] Although lead is associated with many other types of harm as well, e.g., neurological, behavioral,

estimated mean IQ loss from air-related Pb in the subpopulation of children exposed at the level of the standard would generally be somewhat to well below 2 IQ points." *Id.* at 67,006. By using a mean to set the standard, EPA only protected the average exposed person from a 2 point IQ loss. It did not ensure that the most-exposed individual will be protected at this level, because of variations in the harm that may occur even at the same level of ambient air exposure.

As EPA is aware, there are children and adults who will be more vulnerable to the same level of exposure. The most-exposed person may be someone who experiences not the "mean" level of harm, but a higher than average level of harm, from the same level of exposure. For example, this may be a child who is more vulnerable for a variety of reasons, such as due to exposure at a particularly young age (e.g., 18-27 months), or due to the fact that the child also has kidney disease and/or other certain genetic differences. *See, e.g.*, EPA, Review of the National Ambient Air Quality Standards for Lead: Policy Assessment of Scientific and Technical Information, Ofc. Air Qual. Planning & Stds., EPA NAAQS Staff Paper, EPA-452/R-07-013, at 3-16 to 3-17 (Nov. 2007) ("EPA NAAQS Staff Paper"); 73 Fed. Reg. at 66,975-76.

Using a mean or average at the national exposure level is thus not an effective way of protecting the most-exposed individual person. A small change in the *mean* IQ is associated with a dramatic impact at the population level. As the EPA NAAQS Staff Paper explained, "a downward shift in the mean IQ value is not associated only with a substantial increase in the percentage of individuals achieving very low scores, but also with substantial decreases in percentages achieving very high scores," and "'for an individual functioning in the low range due to the influence of developmental risk factors other than Pb', a Pb-associated IQ decline of several points might be sufficient to drop that individual into the range associated with increased risk of educational, vocational, and social handicap." EPA NAAQS Staff Paper at 3-18 (citing EPA, Air Quality Criteria for Lead, EPA/600/R-5/144aF (Oct. 2006) (Criteria Document or CD)). Using a mean is especially not protective enough for a community like that around a secondary lead smelter in Frisco, Texas and other communities where there have been years of long-term, past, and ongoing emissions resulting in a higher body burden of lead and a more vulnerable local population. Here, all additional ongoing exposure causes both greater community-level harm and increased emission reductions would have greater benefits, because impacts on the most-exposed person have a domino effect in terms of causing greater impact to the most-exposed community near a source category.

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immune, cardiovascular, renal, and heme synthesis, IQ point loss was the metric of public health significance that EPA chose to assess harm in the Lead NAAQS.

(b) EPA did not consider whether recent post-NAAQS science requires greater protection.

EPA has not considered the implications of more recent studies on the issue of lead risks. Section 109 itself requires that EPA review the science and the NAAQS regularly. 42 U.S.C. § 7409(d). Recognizing the need to review newer science and to consider strengthening the 2008 Lead NAAQS, EPA has already begun a new scientific review of that standard. The draft Integrated Science Assessment has found new scientific information that is relevant, including information showing health impacts associated with blood lead levels of 2.0 μg/dL and below.[5] EPA completed the Criteria Document (CD) for the 2008 Lead NAAQS in 2006, and since that time government entities have released new scientific information documenting that lower levels of lead than previously understood pose a danger to public health. As EPA stated in finalizing the 2008 NAAQS, it did not rely on new information since the CD at that time, but saved it to consider during the next 5-year review. 73 Fed. Reg. at 66,968 ("EPA is basing the final decisions in this review on the studies and related information included in the Pb air quality criteria that have undergone CASAC and public review. EPA will consider the 'new' studies for purposes of decision-making in the next periodic review of the Pb NAAQS").

New information shows that greater protection is needed for the most-exposed children than the 2008 Lead NAAQS provides, including some new information that only became available *after* the comment period closed. For example, in April 2007 California released a lead benchmark that recognizes that there is no safe level of lead exposure and directs action to protect children from any blood-lead level change of 1.0 μg/dL (including from 0 to 1, from 1 to 2, and so on).[6] EPA now states that "EPA is currently evaluating whether or not it is appropriate to use the CalEPA child-specific reference doses," Summary at 72, referring presumably to Petitioners' comment on all of the OEHHA benchmarks discussed in comments, including this lead benchmark (although the lead benchmark is not a "dose" since there is no

[5] http://epa.gov/ttn/naaqs/standards/pb/s_pb_index.html; Draft EPA Integrated Sci. Assessment, EPA/600/R-10/075A (May 2011) at 2-60, tbl. 2-8 (comparing 2006 v. 2011 draft scientific assessment, summarizing new evidence from epidemiologic, animal toxicological and ecological studies on the effects associated with exposure to Pb).

[6] Cal. Ofc. Envtl. Health Hazard Assessment (OEHHA), Carlisle, J., et al., Development of Health Criteria for School Site Risk Assessment Pursuant to Health and Safety Code Section 901(g): Child-Specific Benchmark Change in Blood Lead Concentration for School Site Risk Assessment, Final Report at 1 (April 2007) (also explaining that this blood-lead level increase may occur from a daily intake of 6 μg of ingested soluble lead or 5 μg of inhaled lead), available at http://www.oehha.ca.gov/public_info/public/kids/pdf/PbHGV041307.pdf.

safe level of exposure for lead). EPA should grant reconsideration to fully consider use of the OEHHA lead benchmark. After the comment period closed, in January 2012, the CDC's Blood-Lead Level of Concern Advisory Panel similarly found that 5.0 μg/dL is the action level of concern for a child's blood lead level, cutting this in half from its prior level of 10.0 μ/dL.[7] The Panel has recommended that action to protect children occur when children have a blood-lead level of 5.0 μg/dL or above. This is still less protective than the California OEHHA benchmark (which directs action to protect children where there is a blood-lead level *increase* of 1.0 μg/dL or more, regardless the blood-lead level). However, the Panel's recognition of the harm lead causes and its recommendation to the CDC and HHS represents a bellwether shift in the federal government's treatment of lead. At the time EPA finalized the 2008 Lead NAAQS, it did not consider the science discussed by this Panel and did not have this Panel recommendation before it. EPA should consider whether this change would require a more protective approach.

In addition, the Office of Environmental Health Hazard Assessment at the California Environmental Protection Agency has released a revised draft set of Risk Assessment Guidelines for its Air Toxics Hot Spots Program.[8] In this document, OEHHA discusses new scientific information that EPA did not address in issuing the NAAQS. For example, OEHHA discusses science showing that the route of breast milk exposure is a route of multi-pathway exposure for lead compounds. OEHHA Draft Guidelines at tbl. E.3. For metals and semi-volatile chemicals, it is necessary to include an evaluation of soil ingestion, dermal absorption from soil and breast milk consumption because these exposure pathways are likely to exist at all sites. *Id.* at 1-2 to 1-5 . EPA has not assessed that route here because it merely relied on the Lead NAAQS which did not consider breast milk as an air-related exposure pathway. EPA should do so on reconsideration as part of its multipathway analysis to determine whether this would require greater protection from lead emissions. In addition, OEHHA includes exposure

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[7] CDC, Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention, Report of the Advisory Committee on Childhood Lead Poisoning Prevention of the Centers for Disease Control and Prevention (Jan. 4, 2012), http://www.cdc.gov/nceh/lead/ACCLPP/activities.htm. Similarly in 2010, New York City has recognized that action is needed at least when a child's blood-lead level reaches 5.0 μg/dL. Based on the science, in 2010, the New York City Department of Health released new lead guidelines that direct follow-up care for children with blood-lead levels of 5.0 μg/dL or more because "adverse health effects may occur at BLLs <10 μg/dL." NYC Dep't of Health & Mental Hygiene, Lead Poisoning, Vol. 29(5):41-48, at 41, 43-44 (Sept. 2010), *available at* http://www.nyc.gov/html/doh/downloads/pdf/chi/chi29-5.pdf.

[8] Cal. EPA, OEHHA, Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis, Pub. Rev. Draft (Nov. 2011), http://oehha.ca.gov/air/hot_spots/crnr110711.html.

assessment during fetal development, which EPA did not evaluate. *See* Draft Guidelines at 1-13. EPA should assess this on reconsideration.[9]

All of this new scientific information, and other information EPA has recognized in its new EPA's scientific review of the NAAQS thus far shows additional new information that is likely to weigh in favor of a more protective standard. *See supra* note 5.

ii. EPA has failed to rationally justify its decision not to require greater protection for health than is provided by the NAAQS at the "ample margin" stage.

EPA failed to assess whether more health protection is required to provide an "ample margin of safety to protect public health," instead of focusing only on cost at the final step of its section 112(f) analysis. 76 Fed. Reg. at 29,058; 77 Fed. Reg. at 564; *see, e.g.*, ERG, Summary of the Technology Review for the Secondary Lead Smelting Source Category, Memo from M. Burr et al. to N. Topham (Dec. 16, 2011).

First, the statutory term "adequate margin of safety" is different than the term "ample margin of safety." Section 112(f)(2) requires greater protection than the "adequate margin" that the NAAQS provides pursuant to section 109. The term "ample" means "more than adequate," according to Webster's Dictionary, and the D.C. Circuit. *See* WEBSTER'S 7TH NEW COLLEGIATE DICTIONARY 31 (1971 ed.); *NRDC v. EPA*, 824 F.2d at 1153 (D.C. Cir. 1987); *Envtl. Def. Fund v. EPA*, 598 F.2d 62, 81 (D.C. Cir. 1978). Because of the statutory differences, between section 112(f) and 109, EPA may not rationally rely on the NAAQS alone, to meet its obligations under section 112(f).

The focus in section 112 is on the "individual most exposed" to a source category's emissions, 42 U.S.C. § 7412(f)(2), which is language that does not appear in section 109. Under section 112, EPA must focus on the source category's combined emissions. Congress enacted these provisions separately to address pollution in different ways. Neither can be collapsed into the other. By enacting both section 109 and section 112, Congress required EPA to take

[9] In addition, relevant to EPA's risk assessment for other pollutants, OEHHA discusses science showing that arsenic and nickel both require a multi-pathway risk assessment, in addition to cadmium and lead compounds. OEHHA Draft Guidelines, Appendix E & tbl. E-2. Yet for this rule, EPA did not perform a multi-pathway risk assessment for arsenic or nickel. RRA at 10-11 (discussing multi-pathway assessment only for cadmium). EPA should do so on reconsideration. In addition, OEHHA discusses a 10X adjustment factor for cancer risk due to prenatal to age 2 exposures. *See id.* at 1-13. EPA did not use an additional factor to address early life exposure in its risk assessment for this rule and should do so on reconsideration.

different, important actions under each provision to address different manifestations of public health concerns. Section 109 is designed to set national ambient air concentration standards for a pollutant emitted by many different types of sources. Section 112 requires EPA to set emission standards that apply directly to regulated major air toxics sources, and ensure that each source does not cause unacceptable risk. EPA has failed to explain how it can consider the NAAQS alone to be the end of the matter in assessing health risk for lead. EPA has failed to justify merely relying on the NAAQS to decide what level of risk is "acceptable," or to set a standard that is required to provide an "ample margin of safety to protect public health."

EPA's ample margin analysis is considered purely in the cost of pollution reduction, without any health metric, as its response to comments emphasizes. Summary at 73. The only additional step it took beyond listing its prior findings on health risk was a narrow, cost analysis of pollution limits. Summary at 73; Technology Review. The record shows that EPA considered no other health factors at the "ample margin" stage for lead emissions beyond what it had already considered – i.e., its stated objective of avoiding exceedances of the NAAQS. 77 Fed. Reg. at 564 ("[a]fter implementation of the controls required in this final rule, we estimate that there will be no one living at a census block centroid exposed to ambient concentrations above the NAAQS due to these facilities").[10] EPA determined that no additional reductions were needed, beyond the emission standard that it had set based on the NAAQS. The result is that EPA's final rule simply provides (at best) that individual sources will not by themselves cause a violation of the NAAQS.

EPA may not lawfully decline to consider health at all after the acceptability stage. Even assuming *arguendo* that it may consider cost, EPA also must consider the "ample margin of safety" in health terms given the statute's dictate to provide an "ample margin of safety *to protect public health*." 42 U.S.C. § 7412(f)(2). Not considering the "ample margin" in health terms writes "public health" out of the ample margin analysis, in contradiction of the statute.

As the D.C. Circuit recognized in the Vinyl Chloride decision, at the ample margin stage, EPA must at least consider whether uncertainties regarding its health risk assessment require a stronger standard. *NRDC*, 824 F.2d at 1165 ("Congress . . . recognized in section 112 that the determination of what is 'safe' will always be marked by scientific uncertainty and thus exhorted the Administrator to set emission standards that will provide an 'ample margin' of safety."). EPA has failed to consider whether uncertainties in its assessment for this rule or in

[10] EPA noted the post-control risk levels for other pollutant health risks, but also did not consider any additional health factors for other pollutants beyond those it had already assessed at the "acceptability" stage.

the analysis underlying the NAAQS itself should lead it to provide a greater margin of safety. *See, e.g.*, 76 Fed. Reg. at 29,043-46. EPA did not consider at all what reduction in lead (or other HAP) emissions would provide an "ample margin" of safety to protect the health of the most exposed people. Whatever decision EPA ultimately makes, it must at least discuss what the "ample margin" is in health terms, based in part on the need to account for uncertainty in its own attempt to prevent unacceptable risk.

EPA's cost-focused analysis is also unlawful and arbitrary because EPA's claims of infeasibility or cost-prohibitive effects are refuted by the numerous facilities that have achieved emission levels well below those proposed by EPA. These are facilities that have created a greater "margin of safety" than EPA's standards would require. As EPA recognized, Quemetco uses a WESP to achieve greater reductions and two other facilities are currently installing this. Technology Review at 5; Quemetco, Inc., City of Industry, California -- The Evolution of Polishing Wet Electrostatic Precipitator (WESP) Technology for Secondary Lead Process Emissions. Other facilities use HEPA filters or other control devices in addition to baghouses. *Id.* at 5-6. In addition, "the average stack outlet lead concentration from the baghouse and WESP combination was almost 50 times lower than the outlet concentration achieved by using baghouses alone. On average, units that employed HEPA filters downstream of a baghouse achieved approximately 20 percent lower outlet lead concentrations than baghouses alone, however we have no information for the actual reduction from the HEPA filter." *Id.* at 6. Significantly, the vast majority of stacks are already meeting the process vent standards finalized. 74 of 93 stacks meet the facility-wide final standards (0.20 mg/dscm) and 89 of 93 meet the stack-specific final process vent standards. The median lead emission from all sources in the category is 0.04 mg/dscm, which is significantly lower than the final rule's standard of 0.2 mg/dscm. 76 Fed. Reg. at 29,059. Even the average lead emission from all sources, which distorts the representation of what most facilities are achieving, is below the standard at 0.16 mg/dscm. *Id.* These data demonstrate that lower emissions are eminently achievable and feasible, to provide greater health protection.[11]

[11] As its Final Residual Risk Assessment shows, some sources have achieved reductions such that their emissions result in ambient air concentrations that are less than the NAAQS, including: Revere Smelting and Refining Corporation in Middletown, NY (highest modeled ambient air concentration is 0.10 ug/m3; which is 0.7 times the NAAQS), and Quemetco in Indianapolis, IN (highest is 0.07 ug/m3; which is 0.5 times the NAAQS). Moreover, the emissions dataset for point source metal HAP emissions shows that Quemetco (Industry, CA) has lead emissions of 16 lbs per year, compared to 9,389.4 lbs per year for the Buick (MO) facility, 4,337.3 lbs per year for the Exide Baton Rouge (LA) facility, 2,459.2 lbs per year at Frisco Exide (TX), and 2,160.1 lbs per year at Exide Reading (PA). Development of the RTR Emissions

Further, EPA does not adequately support its conclusion that the costs of a wet electrostatic precipitator render the use of that technology infeasible such that greater reductions should not be required. Summary at 30; Cost Impacts for the Secondary Lead Smelting Source Category. The fact that three of the facilities in the category are able to install the technology demonstrates the opposite of EPA's conclusion. It shows that reductions from the technology are eminently achievable, taking into account cost. Here, available technology that is already in use at some sources can achieve 50 times the reduction achievable through the use of baghouses alone, the technology on which EPA based its standards, as cited above. EPA cannot justify the cost cut-off it chose when there are numerous sources that are clearly able to or in the process of achieving greater emission reductions. Section 112(d) requires EPA to strengthen the standards for all based on the best-performers, and EPA may consider a similar principle in assessing the "ample margin" to protect public health.

There is likely to be a significant health benefit from additional reductions of lead, based on the science showing that there is no safe level of lead exposure. The science shows that every additional amount of lead exposure contributes health risk, and this happens at a greater magnitude and faster speed for exposed children. (This is also true for the other HAPs emitted, particularly for cadmium and arsenic which both bioaccumulate and create risks beyond the initial inhalation risk.)

The NAAQS record shows that substantial public health benefit is available for people living near lead-emitting sources that could create an "ample margin of safety" beyond the NAAQS-based level EPA has set. For example, EPA published a Table (4) with the final Lead NAAQS Rule that illustrates that children with a higher air-to-blood ratio (1:10) would still face, on average, a loss of above 2 points (i.e., 2.6 IQ points), at the level chosen by EPA (0.15 $\mu g/m^3$). 73 Fed. Reg. at 67,006 & tbl. 4 (showing a loss of 1.2 to 1.8 IQ points at 0.10 $\mu g/m^3$). The Children's Health Advisory Protection Committee urged EPA to set a standard of 0.02 $\mu g/m^3$ or below. 73 Fed. Reg. at 66,999. CASAC and EPA staff also urged EPA to consider setting a monthly averaging time instead of a 3-month rolling average to protect against harm from shorter term exposure. 73 Fed. Reg. at 66,995.[12] For children living within 1.5 km from a lead-

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Dataset for the Secondary Lead Smelting Source Category at 6 tbl. 3-1 (Point Source Metal HAP Emissions Estimates (lbs/yr) by Facility) (Dec. 16, 2011).

[12] EPA staff provided the following three reasons in support: "1) the health evidence indicates that very short exposures can lead to increases in blood Pb lead levels, 2) the time period of response of indoor dust Pb to airborne Pb can be on the order of weeks and, 3) the health evidence indicates that adverse effects may occur with exposures during relatively short windows of susceptibility, such [as] prenatally and as

emitting facility, reducing the ambient air concentration down to 0.02 μg/m^3 (significantly below the level of the NAAQS), could save an additional 1 IQ point. EPA NAAQS Staff Paper at 4-33 & Tbl. 4-4 (showing the trend in total IQ loss reduction of 1.0 for the median, or a reduction from 5.0 at 0.2 μg/m^3, to 4.0 at 0.02 μg/m^3, and of 1.1 for the 95th percentile, from 7.6 at 0.2 μg/m^3 to 6.5 at 0.02 μg/m^3). As the Clean Air Scientific Advisory Committee (CASAC) stated, a loss of 1-2 IQ points is "significant from a public health perspective." 73 Fed. Reg. at 67,000. CASAC also urged that EPA should protect at least 99.5% of the exposed population from unacceptable IQ loss. These are examples of what EPA should consider to meet its responsibility to provide an "ample margin of safety" instead of just an "adequate margin" to protect public health. For affected communities like Frisco, TX that have experienced years of past exposure, which in turn have increased current health risk, smaller amounts of additional emissions are even more likely to cause greater harm. Without even discussing the health benefits from reductions, EPA cannot perform merely a cost-focused analysis, but must actually satisfy the requirement to consider and provide an "ample margin of safety to protect public health," 42 U.S.C. § 7412(f)(2).

The fact that there is a two-part test under section 112(f), and a one-part test under section 109, as EPA has noted, does not insulate EPA's determination from the statutory violation. Even assuming EPA can consider cost in deciding what is an "ample margin of safety," does not authorize it to avoid *any* assessment of what an "ample margin of safety to protect public health" is, beyond the protection at the level of the NAAQS.

2. EPA failed to provide an "ample margin of safety to protect public health" from the combined impact of all pollutants emitted by this source category.

Even assuming that EPA might be able to presume that achieving an ambient air concentration of the NAAQS for lead is sufficient to ensure acceptable health risk from lead alone for section 112(f) purposes, that cannot be the end of EPA's analysis of health risk related to lead under section 112 for a community exposed to a *multi-pollutant* source category under section 112. The NAAQS only addresses a single pollutant, while section 112(f) requires EPA to prevent unacceptable risk from the combination of all toxic pollutants emitted by a major source category of HAPs. Secondary lead smelters emit many HAPs other than lead, including cadmium and arsenic which cause high cancer, chronic non-cancer, acute, and multi-pathway risks. EPA's acceptability determination under section 112(f) requires the agency to protect the

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in developing infants." EPA NAAQS Staff Paper at 5-31; see also Lead NAAQS, Proposed Rule, 73 Fed. Reg. 29,184, 29,236 (May 20, 2008).

most-exposed person from the total health risk caused by the interaction of all of these pollutants, combined.

This requires a final step of the analysis that assesses the interaction of the various pollutants and combines health risk in an appropriate metric to protect the most-exposed person from their cumulative effects. Section 112 requires EPA to consider and address the total health risk for all toxic air emissions from the source category. EPA must assess each pollutant appropriately, but then must also assess the *total* cumulative health risk from these risks and these different pollutants. Relying solely on the NAAQS, which is a risk assessment for a single pollutant, meant that EPA performed only a segmented risk analysis that failed to consider the *interaction* of the different pollutants together, on the most-exposed person.[13]

After assessing risk from each pollutant alone, EPA must consider their interaction by addressing the total, cumulative health risk burden created by the source category. Using only the NAAQS – and not any indication of the combined health risk caused by lead and other pollutants – meant that EPA failed to satisfy the ultimate requirement under section 112 not just to protect people from a single pollutant (as if it were emitted in isolation), but to protect people from all emissions from the source category. *See* 42 U.S.C. § 7412(f)(2).

When added together the health risk from lead combined with the non-lead HAP health risk create a *higher level of unacceptable risk* than the unacceptable level caused by lead alone. People living in the areas affected by this source category are exposed to all of these pollutants together, not just lead alone. While EPA found risk to be unacceptable due to cancer risk and due to lead-based risk, EPA did not consider the cumulative impact of other types of health risk it found (which it determined alone were not unacceptable). Adding the acute, chronic non-cancer risk, and other pollutants' multipathway risk into its analysis, where it has already found unacceptable risk, should have led EPA to recognize that the cumulative risk burden for this source category is higher than the risk it found just for lead or just for the inhaled carcinogens alone. For example, as Cal. EPA has found, "[t]he potential neurotoxicity of arsenic in children, possibly in combination with other environmental agents, is also a concern. Studies in mice (Meija et al., 1997) indicate combined effects of lead and arsenic on the central nervous system that were not observed with either metal alone."[14] Adding other risks on top of already

[13] Petitioners recognize that EPA stated that it considered all such risks, and appreciate that EPA acknowledged that cancer risk was also unacceptable. That did not resolve EPA's responsibility to assess the combined, interactive impact of all pollutants together, however, including lead.

[14] Cal. EPA, Prioritization of Toxic Air Contaminants - Children's Environmental Health Protection Act, Arsenic and Arsenic Compounds at Arsenic-2 (Part II) (Oct. 2001).

unacceptable risk only increases the risk people face, particularly because they may have synergistic impacts. The addition of the other pollutants' risk to the unacceptable risk of lead requires additional protection for the local community beyond just relying on the NAAQS.

By avoiding the section 112 requirement to prevent unacceptable risk and ensure an "ample margin of safety" from a source category's total emissions (i.e., the combination of *all* emitted HAPs), and instead separating the risk analysis into lead and non-lead categories of risk EPA never considered whether the combined risk was unacceptable, or how much of a reduction of the *total health risk* was needed to achieve a holistic level of acceptable risk from *the combined exposure of all pollutants*. Instead, EPA separated lead in its analysis and ignored this pollutant's interaction with other HAPs in affecting the health of the community. By solely relying on the NAAQS for lead and failing to consider its interaction with other pollutants to increase inhalation and multipathway risk, EPA violated section 112(f)(2).

II. EPA MUST RECONSIDER THE EXEMPTIONS FROM THE ENCLOSURE STANDARDS.

A. Background

EPA originally proposed to require total enclosure as one alternative, and to require only ambient-air monitoring as the other alternative. 76 Fed. Reg. 29060-1. Each alternative was designed to prevent fugitive process and fugitive dust emissions from causing an exceedance of the NAAQS. *Id.* In the final rule, EPA appropriately determined to require enclosure of certain process and fugitive emission sources in all instances. 77 Fed. Reg. at 563-64; 40 C.F.R. § 63.544(a). However, without any advance notice, EPA also finalized exemptions to the enclosure requirement. 40 C.F.R. § 63.544(b). In addition to exempting wastewater from the enclosure requirement, *id.*, EPA also removed the requirement it had proposed for vehicle wash water collection to be covered. EPA also weakened the enclosure standard requirements for inspection and repair. *Id.* § 63.544(d). EPA seems to have added these exemptions solely to respond to industry comment, and has provided no reasoned explanation for them. 77 Fed. Reg. at 572; Summary. EPA finalized the enclosure standards with the new exemptions independently under both section 112(f)(2) and 112(d)(6). *Id.* at 564.

Because EPA did not provide notice of these exemptions from the standards, it was impracticable for Petitioners to object during the comment period. Thus, section 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B), requires EPA to grant reconsideration on this issue.

B. Grounds for Objection

It is unlawful under both section 112(f)(2) and section 112(d)(6), and arbitrary and capricious based on the record for EPA to set exemptions to the enclosure requirements.

1. The enclosure exemptions are unlawful under section 112(f)(2).

EPA has failed to justify not requiring enclosure of the exempt sources listed at 40 C.F.R. § 63.544(b). EPA found health risk was "unacceptable" in significant part due to fugitive dust emissions. 76 Fed. Reg. at 29,056; 77 Fed. Reg. at 563-64, 572. Where risk is unacceptable, section 112(f)(2) requires EPA to set a standard that will ensure acceptable risk. *NRDC v. EPA*, 489 F.3d at 1265.

EPA decided, in the final rule, that enclosure – with emissions vented to a process vent that must meet the vent standards – was required to protect affected communities from the unacceptable health risk caused by these emissions. 77 Fed. Reg. at 564, 566. Because EPA has determined that enclosure is necessary to avoid unacceptable risk, it may not lawfully allow any exemptions. EPA has failed to provide any reasoned explanation for creating the enclosure exemptions , particularly because they may produce additional fugitive HAP emissions that affect public health. Failing to control fugitive lead emissions that may occur from these sources violates the directive of *Nat'l Lime Association* that EPA must set a standard to control lead emitted from all emitting units within the source. 233 F.3d 625, 633-34 (D.C. Cir. 2000).

Specifically:

- Stormwater and wastewater areas can dry up and produce fugitive dust emissions.
- Storage areas for "intact batteries," may still produce fugitive emissions in at least two ways. One, they may be stacked in open piles without any protection, such that originally "intact" batteries are broken at the bottom of the pile, and produce lead emissions. Two, even if "intact" themselves, they may have been transported with broken batteries or other lead-bearing material, such that storing them outside may still cause fugitive emissions.
- Lead bearing material stored in closed containers or enclosed mechanical conveyors may still cause fugitive emissions when workers open the containers or conveyors.
- Lead ingot products and "clean" battery casing material may also come in contact with lead bearing material that could produce fugitives.

- EPA reduced the frequency of the requirement to inspect and require repairs of gaps or breaks in the enclosure system. 40 C.F.R. § 63.544(d) (requires repair of gaps or breaks in the total enclosure to be "within one week" instead of 72 hours, as was originally proposed).

The enclosure system is an essential part of EPA's residual risk standards to prevent and reduce fugitive process and fugitive dust emissions.

Yet, EPA has failed to explain why these exemptions are appropriate, and failed to assess the fugitive emissions that may escape during the above activities or to set any requirements that would limit these fugitive emissions. Because fugitive dust emissions contribute so significantly to the unacceptable health risk, EPA must enclose all potential fugitive sources, or provide a reasoned explanation and additional work practice standards for why limited exemptions will not cause unacceptable health risk. This is especially true because EPA has weakened the work practice standards that apply for inspection, accidental release reporting, and corrective action, as discussed in the next section.

One of the justifications for providing the enclosure exemptions seems to be industry's request to exclude from the definition of "material storage and handling area" any "closed containers or enclosed mechanical conveyors." 77 Fed. Reg. at 572. EPA has failed to explain how this request justifies the exemption. Moreover, EPA went even farther than the commenter's suggestion, by exempting a longer list of areas from the enclosure standards, without any reasoned explanation. EPA has failed to consider the current state of enclosure of these sources at existing facilities. EPA simply stated that these materials "are either in a stabilized form that will not create fugitive dust or in a container that prevents fugitive dust formation." 77 Fed. Reg. at 572. Yet, as described above, materials in both of these sets of circumstances can produce fugitives. Therefore, EPA must reconsider the exemptions or set work practice standards to ensure that the exemptions do not cause unacceptable health risk.

2. The enclosure exemptions are unlawful under section 112(d)(6).

As EPA stated, the proposed total enclosure requirement "was based on information collected from the industry that indicated that several operating facilities currently enclose most or all of their process fugitive emission sources, and that the ambient air concentrations near these facilities are significantly lower than those facilities that do not have enclosures." 77 Fed. Reg. at 564. Total enclosure is a "development" under section 112(d)(6) that has led secondary lead smelters to reduce their fugitive dust emissions. In addition, because, as EPA has recognized, the best-performing sources use total enclosure, greater emission reductions have been "achieved" and are "achievable" using this control method. 42 U.S.C. §§ 7412(d)(2)-(3). Therefore, EPA has failed to justify the enclosure exemptions under section 112(d)(2)-(3). *Id.* In

addition, failing to control fugitive lead emissions that may occur from these sources under section 112(d)(6) also violates § 112(d)'s directive that EPA must set a standard to control lead from all emitted sources. *See National Lime Ass'n*, 233 F.3d at 633-634.

3. The enclosure exemptions are unlawful because they cause the process vent standards not to be "continuous," as required.

EPA has required that all other process fugitive sources and fugitive dust sources must be enclosed and vented to vents that must comply with the lead emission limit. 40 C.F.R. §§ 63.544(a), 63.543(a). The exemptions from the enclosure requirement violate the principle of *Sierra Club v. EPA*, 551 F.3d 1019, 1021 (D.C. Cir. 2008). That case prohibits EPA from setting any routine exemption from the process vent standards, whether it is designed to allow sources to startup or shutdown their processes, or to transport or store, and remove, lead bearing material.

EPA must require compliance with the enclosure and process vent standards and not allow time periods of exemption. Delaying repair of gaps or breaks in the total enclosure for a week is equivalent to creating a week exemption for a malfunction of the enclosure system and process vent standards (to which the enclosed system requires venting of emissions). This is an unlawful exemption under *Sierra Club v. EPA*. The enclosure system and process vent standards must apply "at all times." EPA may not allow repairs to be delayed for 1 week. Allowing breaks or gaps in the enclosure is highly likely to cause unacceptable health risk to occur. There can be no lawful or rational justification for delaying repair for an entire week.

For these reasons, EPA should reconsider the exemptions to the enclosure and process vent standards, and should require total enclosure of all exempted sources.

III. EPA MUST RECONSIDER THE MONITORING EXEMPTIONS.

A. Background

EPA also finalized three monitoring exemptions that it had not proposed. The final rule requires a bag leak detection system for all baghouses except those equipped with high efficiency particulate air (HEPA) filters as a secondary filter, and except those followed by a wet electrostatic precipitator (WESP). 40 C.F.R. § 63.548(g), (h). The final rule also requires that all new and reconstructed sources "must install, calibrate, maintain and operate a CEMS [continuous emissions monitoring system] for measuring lead emissions" within 180 days of promulgation by EPA of performance specifications for lead CEMS. 40 C.F.R. § 63.548(l)(1). However, EPA created an exemption from the new-sources CEMS requirement for "[v]ents

from control devices that serve only to control emissions from buildings containing lead bearing materials." *Id.* § 63.548(l)(3).

Because EPA did not provide notice of these monitoring exemptions, it was impracticable for Petitioners to object during the comment period. Thus, section 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B), requires EPA to grant reconsideration on this issue.

B. Grounds for Objection

The Act requires EPA to set standards that will ensure compliance, and basic monitoring is essential to satisfy this requirement. Section 112 includes strict compliance provisions for residual risk standards and all other section 112(d) standards. 42 U.S.C. § 7412(f)(4) (prohibiting non-compliance with a residual risk standard starting 90 days after promulgation); *id.* § 7412(i)(3) (requiring EPA to "provide for compliance as expeditiously as practicable, but in no event later than 3 years after the effective date of such standard" with narrow exceptions).

EPA also must ensure that strict monitoring and enforcement provisions are part of its standards to enforce the permit condition requirements of the Act. The Clean Air Act requires permits to contain "conditions as are necessary to assure compliance with applicable requirements of [the Act]." 42 U.S.C. § 7661c(a). 40 C.F.R. Part 70 adds detail to this requirement. 40 C.F.R. § 70.6(a)(3) requires "monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance." Section 70.6(c)(1) requires all Part 70 permits to contain "testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit." 40 C.F.R. § 70.6(a)(3).

Monitoring requirements are one of the primary factors in determining whether EPA's final rule will succeed in reducing lead and other HAP emissions as EPA has predicted. Monitoring requirements are essential so that EPA, states, and citizens can assess whether a facility is in full compliance with the standards within a short period of time of any violation. EPA has recognized the need for strong monitoring requirements to assure compliance, by updating the monitoring requirements substantially from the prior rule. 76 Fed. Reg. at 29,063 (listing updates to monitoring, recordkeeping, and reporting requirements). The past exemption during periods of startup, shutdown, and malfunction which EPA has appropriately removed from the rule, also shows the need for strong enforcement of EPA's standards now that they will finally apply at all times. The removal of a major exemption sources have likely used in the past creates an additional need for strong monitoring requirements to ensure compliance occurs. EPA must implement strong enforcement provisions to prevent emission

spikes, malfunctions and other violations in a way that will be enforceable by citizens in the Title V permits for secondary lead smelters.

By creating exemptions from the emission monitoring requirements, EPA has not set standards that assure compliance by the deadline set under section 112(f)(4) and section 112(i)(3). It also has failed to set standards that will "assure compliance with applicable requirements of [the Act]." 42 U.S.C. § 7661c(a). Importantly, it was also arbitrary and capricious for EPA to finalize these monitoring exemptions because it has failed to provide a reasoned explanation for them.

EPA appeared to set the exemption from the CEMS for lead-bearing building process vents based on an industry comment. But, it provided no reasoned explanation for why CEMS is not needed other than industry's request not to have to install them. Summary at 105-06.

The exemption from the bag leak detection system ("BLDS") for baghouses equipped with HEPA filters also seems to come from an industry comment. To explain this exemption EPA states that "[m]easurement of pressure drop across a HEPA filter provides the needed information to determine that the filter is performing effectively so a bag leak detection system would be redundant." Summary at 125; 77 Fed. Reg. at 574. However, the bag leak detection system otherwise required does more than just detect a problem. For example, the BLDS also "must be equipped with an alarm system that will alarm when an increase in relative particulate loadings is detected over a preset level." 40 C.F.R. § 63.548(e)(3). EPA's HEPA filter exemption does not require an alarm system. Moreover, each source with a BLDS is required to establish a "corrective action plan" that requires correction action "must be initiated within 30 minutes of the alarm." *Id.* § 63.548(f)(1). Although EPA's HEPA filter exemption requires corrective action, it does not set a deadline to take it. EPA should reconsider the exemption and, if it determines that it is sufficient to assure compliance with the standards, then EPA must require an alarm system, corrective action within 30 minutes, and all other protections needed to prevent a malfunction of the baghouses and HEPA filter from causing emission spikes and unacceptable health risk.

It is unclear why EPA finalized the exemption from the BLDS for baghouses followed by a WESP. Petitioners could find no discussion of this change or any reasoned explanation for it. Moreover, this new exemption (not proposed) does not even contain the minimal protections listed in the HEPA filter rule. Even a WESP can malfunction or become overwhelmed if emissions increase unexpectedly into a baghouse. As EPA has recognized, malfunctions are likely to occur (which is why it has finalized an affirmative defense to civil penalties in such instances, which Petitioners believe is unlawful). In view of this, EPA's WESP exemption from the BLDS violates the requirements for EPA to assure compliance by particular deadlines, under

section 112(f)(2) and 112(i). And, the exemption violates the requirement that EPA set standards for air permits that will allow affected local residents to "assure compliance."

EPA must reconsider each of these exemptions and require that the monitoring standards apply at all times.

IV. EPA MUST RECONSIDER THE CHANGES MADE TO THE PROPOSED WORK PRACTICE STANDARDS AND SET STRONGER STANDARDS.

A. Background

EPA also finalized significant changes to the work practice standards that it had not originally proposed. 40 C.F.R. §§ 63.544-45, 63.548; 77 Fed. Reg. at 565. Because EPA did not propose the below exemptions and other significant changes to the work practice standards, Petitioners had no opportunity to comment on these changes. Therefore, section 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B), requires EPA to grant reconsideration on this issue.

B. Grounds for Objection

EPA finalized the following list of changes to the work practice standards that weaken them and make them less likely to prevent unacceptable health risk due to fugitive dust emissions. For each of the reasons stated below, EPA has failed to justify the exemption or change and should reconsider it.

1. Accidental release standards.

EPA redefined "accidental release" so that cleaning of affected areas is only required for "any accidental release of lead dust that exceeds 10 pounds." 40 C.F.R. § 63.545((c)(3). EPA had proposed that all accidental releases must be cleaned.

Requiring the reporting and cleaning of all accidental releases of lead is vital to ensure compliance with the requirement and to prevent harm as a result. Setting an exemption from the requirement to clean up after an accidental release for 10 lbs of lead or less is equivalent to a malfunction exemption under section 112. It is unlawful for the same reasons the D.C. Circuit found malfunction exemptions from the standards are unlawful under section 112 and 302(k). *Sierra Club v. EPA*, 551 F.3d at 1021. Just as emission standards must apply "at all times," work practice standards designed to address exceedances of emission standards – such as the accidental release clean-up requirement – also must apply at all times.

Further, EPA cannot rationally justify any amount-based exemption to the clean-up requirement, much less a 10-pound exemption. There is no safe level of exposure to lead

emissions. Even purportedly small amounts of lead emissions add up to amounts that can cause irreparable harm to people, especially children, who breathe or otherwise take in those emissions. An accidental release of lead of 10 lbs or less is still a significant release of lead emissions. If this occurred every day for a month, it would add up to 300 lbs of lead, and could quickly add up to a situation that would cause unacceptable levels of lead in the ambient air near the facility. For sources like secondary lead smelters that have operated for decades in their current location – such as the Frisco facility that has operated since the early 1970s and the Quemetco plant in Industry, CA whose site has been used for recycling batteries and lead since 1959[15] – the lead emissions going into the air and soil add on top of many years' worth of prior emissions. In these circumstances, EPA can have no lawful or rational basis for treating any amount of lead emissions as an amount not requiring immediate clean-up.

EPA has provided no analysis of what the impact of its 10-lb exemption would be based on industry practice or based on any prediction of how often accidental releases occur. Absent this, EPA cannot merely assume that a 10-lb exemption complies with section 112.

EPA has merely cited and relied upon the CERCLA 10-lb reporting threshold for lead. 40 C.F.R. § 302.4. CERCLA is designed to assure timely response and clean-up of hazardous waste releases to satisfy its objectives. Here, under the Clean Air Act, EPA has recognized that releases of lead emissions into the air cause unacceptable public health risk. EPA has not determined that a release of 10 lbs or below alone, or combined with other emissions, would not cause unacceptable health impacts or risk. EPA may not merely rely on the CERCLA threshold to decide how much lead requires clean-up under section 112. EPA must consider how much lead is likely to cause unacceptable health risk, and what clean-up is required to prevent unacceptable health risk. Because it has failed to provide any rational or lawful justification under section 112 for a 10-lb exemption from the accidental release cleaning requirement, EPA must reconsider this exemption.

2. Requirement to inspect and move broken batteries.

EPA reduced the frequency of the requirement to inspect un-enclosed battery storage areas, changing it to be weekly instead of daily. 40 C.F.R. § 63.545(c)(4). EPA also created delay before a source is required to take corrective action. Facilities can wait 72 hours to move broken batteries after discovering they are broken, instead of doing so immediately, as proposed. *Id.* Facilities can wait 72 hours to clean residue from batteries, instead of doing so within 1 hour. *Id.*

[15] http://www.dtsc.ca.gov/HazardousWaste/Projects/upload/Quemetco_FS_DPost-Closure-Permit.pdf.

This delay is unlawful and unjustified for similar reasons why the delay in inspection and repair of gaps in the enclosure system is unjustified. Broken batteries and intact batteries that have been transported with broken batteries can leak lead and cause fugitive emissions. Such emissions should not be allowed to occur for 10 days without corrective action. Moreover, failing to require daily inspection and immediate corrective action is likely to be equivalent, for some sources to just allowing an exemption from the work practice standards for battery storage areas. One week provides sufficient time for a source to place broken batteries in an unenclosed battery storage area and then move them before an inspection occurs, because the rules would allow this.

3. Paved-road exemption.

EPA added an exemption from paving requirement for roads used "no more than one round trip per day." 40 C.F.R. § 63.545(c)(2). EPA has similarly given no reasoned explanation for creating this exemption. One round trip per day is a significant amount of trips. It adds up to 2 trips (for one round trip) per day, or a total of 730 one-way trips per year. This is a significant amount of vehicle traffic that can create fugitive dust emissions.

4. Transport enclosure.

EPA exempted lead ingot product and intact batteries from the requirement that material transport must be enclosed. 40 C.F.R. § 63.545(c)(7). For reasons already discussed above – that these materials may contain residue or may themselves be broken while stored – EPA should not remove this requirement without ensuring additional protection from fugitive dust emissions.

All of the above exemptions and weakened requirements (along with the removal of the roof-washing requirement and the removal of the requirement to perform maintenance and inspection of fabric filters inside enclosures) add up to undermine the effectiveness of EPA's standards and make it difficult for local community members to assure compliance. Petitioners therefore urge EPA to grant reconsideration to correct each of the problems described above.

V. EPA MUST RECONSIDER THE AUTOMOTIVE BATTERIES-ONLY STANDARD.

EPA had proposed to require a process "to separate plastic battery casing materials" from all batteries "prior to introducing feed into a furnace." EPA only finalized this requirement for automotive batteries, creating an exemption for other types of batteries. 40 C.F.R. § 63.543(m). Because of the change from proposal to final, it was not practicable for Petitioners to raise this objection during the comment period. EPA should therefore grant reconsideration on this issue.

EPA has failed to provide a reasoned explanation for limiting this requirement to automotive batteries. EPA should also set specific requirements to implement this process for all batteries, rather than simply saying "must operate a process." The provision is too vague. EPA has not rationally justified the exemption for other types of batteries or its failure to specify a process that must be followed to ensure compliance for the rule it has finalized for automotive batteries. EPA should grant reconsideration to address these problems to ensure that the final standard will serve the purpose of preventing avoidable emissions of dioxins and furans that result from burning plastics whether they are taken from automotive batteries or other batteries.

CONCLUSION

For the above reasons, petitioners respectfully request that EPA grant reconsideration on the Final Rule for Secondary Lead Smelting to fulfill the agency's legal responsibilities under the Clean Air Act and provide necessary protection to people affected by this source category.

In support of this petition, petitioners attach a list of documents as an Appendix. Please contact us if you would like additional information regarding this matter.

Thank you for your time and consideration of this matter.

Sincerely,

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CONTENTS OF APPENDIX

1. Cal. EPA, OEHHA, Carlisle, J., et al., Development of Health Criteria for School Site Risk Assessment Pursuant to Health and Safety Code Section 901(g): Child-Specific Benchmark Change in Blood Lead Concentration for School Site Risk Assessment, Final Report (April 2007), available at http://www.oehha.ca.gov/public_info/public/kids/pdf/PbHGV041307.pdf

2. Cal. EPA, OEHHA, Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis, Pub. Rev. Draft (Nov. 2011), http://oehha.ca.gov/air/hot_spots/crnr110711.html

3. CDC, Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention, Report of the Advisory Committee on Childhood Lead Poisoning Prevention of the Centers for Disease Control and Prevention (Jan. 4, 2012), http://www.cdc.gov/nceh/lead/ACCLPP/activities.htm

4. EPA, Air Quality Criteria for Lead, EPA/600/R-5/144aF (Oct. 2006) (Criteria Document)

5. EPA, Draft Integrated Sci. Assessment on the Lead NAAQS, EPA/600/R-10/075A (May 2011)

6. EPA, National Ambient Air Quality Standards (NAAQS) for Lead, Final Rule, 73 Fed. Reg. 66,964 (Nov. 12, 2008)

7. EPA, National Ambient Air Quality Standards (NAAQS) for Lead, Proposed Rule, 73 Fed. Reg. 29,184 (May 20, 2008)

8. EPA, Review of the National Ambient Air Quality Standards for Lead: Policy Assessment of Scientific and Technical Information, Ofc. Air Qual. Planning & Stds., Staff Paper, EPA-452/R-07-013 (Nov. 2007) ("EPA NAAQS Staff Paper")

9. Quemetco, Inc., City of Industry, California -- The Evolution of Polishing Wet Electrostatic Precipitator (WESP) Technology for Secondary Lead Process Emissions.

10. Additional facility-specific documents cited above.