



Lead Acid Battery Reporting: Section 311/312 of Emergency Planning and Community Right-to-Know Act

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Background



- Sections 311 and 312 of the Emergency Planning and Community Right-to-Know Act (EPCRA) apply to the owner or operator of a facility that must prepare or have available a Material Safety Data Sheet (MSDS) for each “hazardous chemical” as required by the Occupational Safety and Health Act (OSHA) of 1970.
- During an audit of a DOE site’s EPCRA reporting, it was noted that lead acid batteries found on the site should have been included in the inventory required under EPCRA sections 311 and 312.
- HS-22 was contacted by the site regarding how other DOE sites were reporting lead acid batteries and what reporting exemptions might apply.



Background



- Lead acid batteries are a mixture of sulfuric acid, an extremely hazardous chemical (EHS) under EPCRA Section 304, and other non-EHS chemicals such as lead.
- OSHA has determined that lead acid batteries are “hazardous chemicals” under the OSHA definition because there are physical and chemical hazards associated with them.
- Inventory and/or storage amounts of lead acid batteries are reportable under EPCRA Sections 311 and 312 if they meet or exceed reporting thresholds: 500 pounds if reporting the sulfuric acid, an EHS, or 10,000 if reporting non-EHS hazardous chemicals such as lead, lead oxide, and others.



OSHA Reporting Exemptions



- The OSHA consumer product exemption can be applied in two cases (details in Background slides):
- A 2004 OSHA Instruction states that
 - batteries used in small UPS units for protection of individual computers could be considered consumer items; banks of batteries used to provide emergency power for an entire system would not.
 - Vehicle battery in cars, vans and trucks used in the same manner as a consumer (for driving, commuting, etc.) are the other exemption.



OSHA Reporting Exemptions (cont)



With those two exceptions, types of batteries that should be reported (but not an exhaustive list) include :

- Uninterrupted Power System (UPS) battery installations;
- stationary lead acid battery systems (SLAB);
- multiple batteries linked or “ganged” together in a series;
- batteries in emergency lighting equipment, emergency power generators, forklifts, scissor lifts, carts, and heavy equipment



Reporting Contacts



- EPA Headquarters has no written guidance on which forms of lead acid batteries would be covered under these exemption. Interpretation of these exemptions vary.
- If you have questions, you should contact your State EPCRA Program Coordinator or EPA Regional especially the consumer product exemption



If you have questions, contact me at

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Background slides



OSHA Exemptions



- April 25, 2007, memorandum from EPA's Office of Solid Waste and Emergency Response states that
 - 1998 OSHA directive determined lead acid batteries are "hazardous chemicals" under OSHA definition because there are physical and chemical hazards associated with them.
 - Five exceptions to hazardous chemical definition do not apply to lead acid batteries. [Definition in *40 CFR 355, Emergency Planning and Notification, 40 CFR 370, Hazardous Chemical Reporting, and exceptions in Tier 1 reporting instructions*]



OSHA Exemptions (cont)



- Also, according to EPA,
 - OSHA's directive "sets forth the definition of an article and clearly identifies lead acid batteries as examples of products which would NOT be considered articles and would thus not be exempted from the requirements".
 - The directive states that lead acid batteries "have the potential to leak, spill, or break during normal conditions of use, including foreseeable emergencies. In addition, lead acid batteries have the potential to emit hydrogen which may result in a fire or explosion upon ignition". [OSHA regulations at *29 CFR 1910.1200(b)(6)(v)* provides exemption from the OSHA Hazard Communications regulation for an "article", which is defined at *29 CFR 1910.1200(c)*.]



OSHA Exemptions (cont)



- OSHA consumer product exemption can be applied when
 - a product is defined as a “consumer product” by the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) as “*any article, or component part thereof, produced or distributed (i) for sale to a consumer for use in or around a permanent or temporary household or residence, a school, in recreation, or otherwise, or (ii) for the personal use, consumption, or enjoyment of a consumer in or around permanent or temporary household or residence, a school, in recreation, or otherwise. . .*” (15 U.S.C. 2052), and
 - the employer can show that it *used in the workplace* for the *purpose intended by the manufacturer or importer of the product, and its use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended .”* (29 CFR 1910.1200(b)(6)(ix)).



If You Report ...



- Under EPCRA Sections 311 and 312, a lead acid battery would be considered a mixture, containing both sulfuric acid, an EHS, and other non-EHS hazardous chemicals such as lead, lead oxide, and lead sulfate.
 - If the aggregated amount of sulfuric acid (an EHS) from all batteries and other sources on site equals or exceed 500 pounds, then sulfuric acid is reportable.
 - The reporting threshold for non-EHS chemicals requiring an MSDS is 10,000 pounds. EPCRA does not require aggregating these chemicals to determine thresholds and reporting.



Threshold Calculations



- EHS Chemical (Sulfuric Acid): Aggregate the sulfuric acid present in ALL lead acid batteries as well as in any other mixture or in pure form at the facility.
- Non-EHS hazardous chemicals (Lead, Lead Oxide, Lead Sulfate and others): Two options are available:
 - Add the total weight of the lead acid batteries.
 - Add total weight of each of the individual hazardous chemicals in the lead acid batteries as well as the amount of those chemicals present throughout the facility. (exception to aggregation rule)



Reporting



- Reporting: Once a facility determines it needs to report the batteries, it has two reporting options under EPCRA:
 - List the sulfuric acid separately on the Tier II form.
 - List the lead acid batteries on the Tier II form, indicating that sulfuric acid, an EHS, is a component of the mixture.