

BEST News



Better Environmental Sustainability Targets (BEST)

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CEC Issues Report on Battery Exports to Mexico

The Commission on Environmental Cooperation (CEC) has published its final report from its investigation under the NAFTA framework on the export of used lead batteries to Mexico. The report titled “Hazardous Trade?: An Examination of US-generated Spent Lead-acid Battery Exports and Secondary Lead Recycling in Mexico, the United States and Canada” was a direct outcome of the report we issued along with our Mexican partners at Fronteras Comunes. Our report was also the subject of a front page story in the New York Times in 2011.

The CEC emphasized that SLAB exports from the U.S. to Mexico increased rapidly in recent years. It also points out that the U.S. has the most stringent environmental regulations governing this industry in North America and that Mexico has significant gaps that need to be addressed. As expected, these discrepancies in regulations have resulted in significant differences in the reported lead emissions among recycling facilities in these countries as graphically demonstrated in the report (see below).

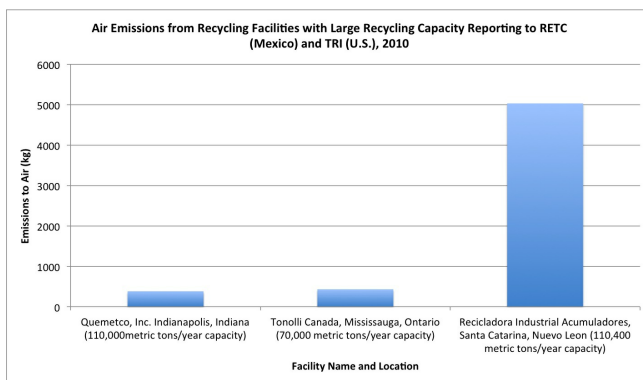


Figure 1: Comparison of lead emissions from lead battery recycling plants in the U.S., Mexico, and Canada. (source: OK International)

One of the CEC’s key findings, brought to their attention by OK International, is that the United States is not following the Organisation for Economic Co-Operation and Development (OECD) requirements for tracking hazardous waste shipments to Mexico. Currently no hazardous waste manifest are being required for these shipments.

The CEC report also recommended that the governments of the United States, Canada, and Mexico:

- Commit to equivalent environmental regulations to avoid the development of pollution havens,

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BEST
Better Environmental
Sustainability Targets

OK International would like to thank our program funders including:

**International Finance Corporation
Deshpande Foundation**

- Establish a regulatory framework in Mexico to close the gap in environmental performance; and
- Ensure that accurate performance data including air emissions and employee blood lead levels be made available to the public.

For a copy of their full report, go to: http://www.cec.org/Storage/142/16758_SLAB-publicdraft-30Nov_en.pdf

Energy Foundation
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Mailman Foundation
Sigrid Rausing Trust
United Nations Environment Program
Conservation, Food & Health Foundation

Voluntary Standards for Recycling Blocked by Johnson Controls

Following press reports of the increase in exports of used lead batteries to Mexico, the U.S. Government Services Administration (GSA) began working with the American Society for Testing and Materials (ASTM) to develop a voluntary environmental standard for recycling facilities. To formally launch the committee process under ASTM, an open meeting was held in Washington, D.C. on December 3, 2012 at GSA's headquarters. ASTM rules allow for every individual who attends an organizational meeting to vote on whether to move forward with a formal standards setting process. After a committee is formed, every organization gets one vote on all subsequent decisions. Perry Gottesfeld from OK International attended the meeting with the intent of contributing to the dialogue to develop the scope for a comprehensive environmental standard for this industry.

Instead, GSA informed participants that the registration had been closed early on the day before the meeting, because the 100 person capacity of the room had been reached as a result of a large number of last minute registrations from one company. With full knowledge of the ASTM process, Johnson Controls, Inc. sent 49 employees from their headquarters in Wisconsin to Washington to stack the vote and stop the standard setting process. This allowed a single company to effectively shut down the dialogue around the development of these voluntary standards through ASTM. However, OK International has learned the GSA is continuing its work to develop a standard for lead battery recycling outside of the ASTM framework.

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<http://www.okinternational.org>

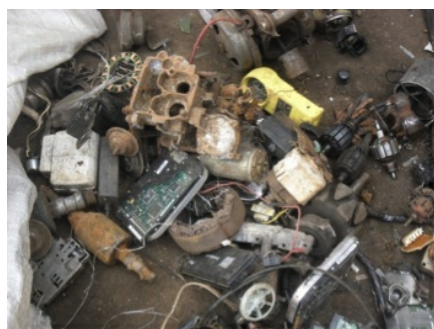
For recent news and updates, follow OK International on Twitter

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An excellent article describing the link between lead exposure and crime was published in the most recent issue of Mother Jones Magazine available here:

<http://www.motherjones.com/environment/2013/01/lead-crime-link-gasoline>

Do Cooking Pots in Africa Contain Lead?



Scrap metal used for making metal cookware in workshops in Cameroon. (Source: Yves Nzitat, CREPD Cameroon)

Our partners in Cameroon at the Research and Education Center for Development (CREPD) observed that commonly used cookware is locally made by melting down scrap metal in small workshops. To follow up on this concern, OK International approached experts in the U.S. with experience in testing metals for lead and other heavy metals to collaborate on an investigation. We were very fortunate that Dr. Jeff Weidenhamer, Professor of Chemistry at Ashland University in Ohio agreed to

volunteer his laboratory to perform this testing. Dr. Weidenhamer has had extensive experience in testing hazardous metals in children's jewelry and other toys.

In September, OK International arranged to have a few whole pots and cut samples from a larger number of additional pots shipped from Cameroon to Dr. Weidenhamer and his colleague Dr. Rebecca Corbin to be analyzed by their students. The pots, collected from artisanal cookware workshops, were found to be mostly aluminum but did contain lead in relatively low concentrations at less than 900 parts per million (ppm) with some pot lids exceeding 1,300 ppm. The pots also contained cadmium at levels up to 28 ppm. The whole pots were tested for leachable metals following the U.S. Food and Drug Administration (FDA) protocol and all were below the standard. The FDA allows up to 0.5 ppm leachable lead in ceramicware based on an obsolete "provisional total tolerable intake dose" that is inconsistent with current knowledge of the impact of low level lead exposure.

We are not aware of any other investigation of lead levels in cookware. However, the study does point out the need to be vigilant to ensure that heavy metals are not entering the diet through this route. Although, U.S. regulatory standards were not exceeded, we are concerned about the use of scrap metal in the production of cookware. Since our goal is to reduce exposures to lead as much as possible, no amount of lead should be used in cooking pots.

U.S. Lead Battery Recycler is Source of Exposure

A recent report in the Centers for Disease Control's (CDC) Morbidity and Mortality Weekly Report (MMWR) demonstrates the hazards of lead battery recycling even in the U.S. Investigators studied blood lead levels and lead dust levels in the homes and vehicles of 48 employees at a battery recycling plant in Puerto Rico. Worker's blood lead levels (BLLs) ranged from 3.2 – 72.0 µg/dL and 69% of them had BLLs greater than 25 µg/dL. Dust sampling indicated that workers spread contamination to their homes and cars with 85% of dust concentrations exceeding the EPA clearance level. The testing of the employee's children under age 6 revealed that 16% of them had BLLs greater than or equal to 10µg/dL. The report is available at:

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6147a4.htm?s_cid=mm6147a4_w

Ongoing Lead Poisoning Epidemic in Nigeria

Despite an announcement earlier this year, the Nigerian Government has not released any of the special environmental funds set aside for cleaning up the largest of the lead contaminated villages in Zamfara State. Already over 400 children have died of lead poisoning and thousands more have been poisoned from the lead contamination that has resulted from gold mining in the area. It is crucial for the Village of Bagega to be cleaned up to allow the children living there to receive urgent medical care from Doctors Without Borders who are operating an emergency clinic in the State. Unfortunately, if the cleanup does not begin in the next few weeks it will be too late until next year's dry season.

National Research Council Says OSHA Lead Standard Not Protective

In response to a request from the Department of Defense (DOD) which is concerned about lead exposures in firing ranges, the National Research Council launched an investigation of the OSHA lead standard. The report cites the body of literature published since the 1978 when the regulation was finalized. It concludes that there is “overwhelming evidence” that the standard is not protective of workers in firing ranges since it was set to maintain blood lead levels below 40 µg/m³, which is no longer considered acceptable.

The situation is particularly worrisome in firing ranges where exposures often exceed the current OSHA permissible exposure limit of 50 µg/m³. The report recommends that DOD set exposure guidelines that are more stringent than the current OSHA standard, but does not specify appropriate limits. A news release and link to the full report are available at:

http://www.nap.edu/catalog.php?record_id=18249

EPA Superfund Cleanup Level to Change

Following the U.S. Centers for Disease Controls (CDC) new policy on the reference level for childhood blood lead levels, the EPA has announced that it will revise its recommendations for lead in soil cleanup in the agency’s Risk Assessment Guidance for Superfund (RAGS) to account for the change. Under the current guidelines, there are 711 sites on the National Priority List that have lead contamination and 150 of these are in residential locations. Any new recommendations put forth by the EPA would likely cause an increase in that number. EPA has also said it is reviewing its current standard 40 µg/ft² for lead in residential dust in response to a petition.

New Developments in Lead Battery Technology

In past editions, (see BEST News vol. 11) we wrote of companies working on advanced lead batteries in various phases of development including those from Atraverda, Firefly Energy, Axion Power International, Applied Intellectual Capital (AIC) and Zentric. One new start up in this space that has come to our attention is Energy Power Systems, based in Troy, N.Y. The company has built prototypes of its new lead-acid batteries with the goal of making more this technology more powerful and less expensive.

Continued Growth in Lead Battery Market Expected

A new market research report published this month by Pike Research predicts that the global market for lead-acid batteries will continue to grow rapidly. Transportation will still lead the market for lead-acid battery revenues, but significant increases will also be seen in the battery-based electricity grid storage. Pike predicts that by 2020, 25% of grid storage will be linked to lead-acid batteries with a total value of \$6.8

billion. The report notes the expected contribution from advanced lead-acid batteries (including lead-carbon) in expanding the use of this technology.

Another market research organization, Global Industry Analysts, Inc., projects that the global market for automobile lead-acid batteries will reach \$43.9 billion by 2018. Asia – particularly China and India – will experience the largest growth, which is expected to be at 6.4% over the next five years. These projections are based on the expected increase in demand for lead batteries in both two-wheelers and cars.

Exide Releases Frisco, Texas Demolition Plan

The Exide lead battery recycling plant in Frisco, Texas closed in November due to strong community opposition and is currently being decontaminated. After the U.S. Environmental Protection Agency tightened the air standard for lead in 2008, the area around the plant became one of 21 in the nation that did not meet the new standard. The company avoided expensive retrofitting that would have been necessary by closing the plant.

The company has posted a Demolition Plan and a Dust Control Plan on their web site and held a public information meeting on December 12, 2012. Demolition will include decontamination of several buildings at the site. Associated equipment such as baghouses, storage tanks, piping, and conduit will also be decontaminated and demolished. To download the plans, go to:

www.exide.com/en/sustainability/recycling-centers-sustainability/frisco/plant-status.aspx

Remembering Dr. John Rosen

Dr. John Rosen died in December at the age of 77. In 1991, he headed up the advisory committee at the Centers for Disease Control that lowered the agency's guidance for childhood lead poisoning to 10 ug/dl. Subsequently he pushed for a lower blood lead standard which was adopted earlier this year.

His contribution in discovering the severity of childhood lead poisoning in New York and his tireless advocacy for improved regulation for the prevention of lead poisoning will be remembered those working for improved environmental health across the globe.

Occupational Knowledge International

www.okinternational.org

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Occupational Knowledge International
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Suite 300
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