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Old Batteries Crossing Borders Leave a Toxic Lead Trail

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The following “[Your Dot](#)” post, on the toxic trail of [lead](#) left by recycled car batteries, comes from Richard Fuller, the president of the [Blacksmith Institute](#). This nonprofit group focuses on ways to clean up glaring pollution problems in poor places. I first wrote about Fuller and Blacksmith in a 2002 article, “[Looking For Messes That Are Easy to Fix.](#)” They’re still at it. Here’s Fuller’s piece:

Several weeks ago, one of the largest car battery recyclers in the world had its [operations suspended](#) at its plant in Vernon, Calif. The plant, which recycled about 40,000 lead acid batteries a day, had been discharging toxic lead into the environment over many years.

While missteps by large recyclers in rich countries make the news, they are not the main problem with this toxic heavy metal when the view is global. As car use grows in India, China and other developing countries, so does the recycling of used batteries.

The issue? Over 50 percent of the world’s lead-acid batteries are recycled informally by small family-run backyard operations that are totally unregulated. This happens in every city in the developing world, often in dense urban areas. Batteries are broken down by hand and smelted in kitchens with children playing nearby. Informal [battery recycling](#) is the cause of one of the world’s worst pollution problems.

If lead contamination can happen in the United States, where battery recycling is supposed to take place in sealed plants with scrubbers and lead detection monitors, imagine the amount of lead that leaks into the environment from these small operators. According to a 2011 Blacksmith Institute’s [2011 report](#), most lead contamination from battery recycling operations is the result of locally owned small- and medium-scale operation.

In 2008, the community of Thiorye Sur Mer in Dakar, Senegal, paid a heavy price. [Some 40,000 people in the community were exposed to toxic lead dust](#) from informal battery recycling, resulting in the death of 18 children under the age of five. Some of the surviving children tested by Blacksmith were found to have over 150 µg/dl of lead in their blood, over 30 times the American safety threshold.

While efforts are being made to regulate the collection, transportation, storage and recycling of used lead acid batteries in Senegal, none of this will help without education and awareness. The battery recyclers of Thiorye Sur Mer will only change the way they work if they understand how dangerous their actions are, and if they are shown an alternative and safer way to make a living.

With tightening regulations in the United States and other developed nations, more and more batteries are being exported, legally and illegally, to countries where they can be recycled more cheaply and with fewer regulations. [A report released in February](#) faults the United States for not following procedures related to the shipment of hazardous waste, and estimates that about 20 percent of lead-acid batteries from this country are shipped to Mexico. Batteries from Europe have been tracked to Africa. And many others end up in China and beyond.

While the movement of batteries across borders should be tightened, and regulations in countries should be enforced so that large recyclers in the United States and other countries have to comply with laws, more attention has been paid to the thousands of small operators who fly under the radar. Otherwise, the problem will remain because breaking up batteries by hand to retrieve lead, while dangerous, is profitable work, and there will always be takers especially in poorer countries.

Because battery recycling is such big business, perhaps a symbiotic relationship can be explored where we bring together large battery recyclers and battery manufacturers with small operators. At Blacksmith, we are already working with industry groups like the International Lead Management Center to offer advice and assistance to developing countries. Rather than seeing large battery recyclers and manufacturers as part of the problem, they can be part of the solution. Indeed, they have the resources and incentive to be part of the solution. Only when the thousands of small backyard operators are brought together to work with the industry can we start to ensure that proper recycling of batteries will take place without poisoning entire communities.

Here's a related article by my colleague Donald McNeil: "[Mapping Hot Spots of Lead Contamination Could Safeguard Children in Mining Towns.](#)"