

## Disaster in Hungary reminds us of recycling dangers

The Lowell Sun

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You may have watched the tragic environmental news in Hungary this past week about the toxic red mud that killed seven people and is flooding parts of the country, devastating local waterways and threatening the Danube River. How does that relate to you?

That wave of red sludge is the environmental cost of man's quest for bauxite. Bauxite is usually strip-mined (surface-mining) because it is almost always found near the surface. Bauxite ore is heated in a pressure vessel along with a sodium-hydroxide solution at a temperature of 150 to 200 Celsius. At these temperatures, the aluminum is dissolved and the toxic red sludge becomes a byproduct. For each equivalent of alumina produced, an average plant produces 1-2 times as much red mud. The red mud cannot be disposed of easily. In most countries where red mud is produced, it is pumped into red-mud ponds. These "ponds" are simply wastelands full of red mud. Due to the process used, the mud is highly basic with a pH from 10 to 13. Lake water is normally at a pH of 7. Red mud presents a problem as it takes up land area and can neither be built on nor farmed, even when dry.

About 95 percent of the world's bauxite production is processed first into alumina, then into aluminum by electrolysis. Yes, that's aluminum... The same aluminum can that some of you might have considered throwing away as opposed to recycling.

Too much of the "recycling movement" has been focused on issues of landfill space and waste-to-energy

facilities. That is only a secondary issue. Recycling is about supplying manufacturers with the feed stocks that they need to make new products. By doing so, we can reduce the energy-intensive and too-often environmentally destructive extraction of natural resources -- such as mining for bauxite ore.

Aluminum is one of the most easily recycled commodities. As we all know, making new aluminum cans out of recycled cans takes 95 percent less energy than using virgin bauxite. An aluminum can has 68 percent total recycled content, the highest of any beverage package material.

By recycling or returning our cans for redemption, hopefully we can work toward reducing these sorts of tragic accidents in the future. That is why folks are out there pushing for increased recycling and expanded bottle bills. Forty-one billion cans are wasted annually! In a recent editorial, Roger Guzowski (the recycling manager at Five Colleges Inc.) asked the question "It's only one can though, right?"

In his more than two decades of managing recycling programs he's heard that "just one can" sentiment a lot. The result of all those 'just one cans' is that 1/3 of the aluminum cans in the U.S. end up in a landfill instead of back in the hands of manufacturers. His hope is that the people who think that it's only one can will think about the collective impact of all those "just one cans." He hopes they think about Etel Stampf, who was in her backyard in Kolontar when the first waves of the red flood hit, and who told The Associated Press "We worked so hard for years to have something for ourselves and now it's all gone..."



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