

Aluminium Stewardship workshop - 13th October 2009

Rio Tinto Head Office, 2 Eastbourne Terrace, London W2 6LG

ILMC Presentation – Brian Wilson, Program Manager

Product Stewardship – The Lead Industry Perspective

I am Brian Wilson and I work for the International Lead Management Center (ILMC) as the Program Manager. The ILMC is a Lead Risk Management Program set up in 1996 by the Lead Industry in response to pressure from the OECD to ban certain Lead based products in member countries unless the Lead Industry demonstrated that the health and environmental risks associated with Lead production and Lead based products could be managed throughout the Life Cycle amongst OECD members and non members – in fact wherever there was a market for Lead Products.

The ILMC is attached to the Industry's Research wing, the International Lead Zinc Research Organization (ILZRO) which gives me access to a wealth of knowledge and experience in childhood Lead exposure, site remediation and process control technologies. In turn, ILZRO and the ILMC are part of the Responsible Care Project of the International Lead Association, the ILA.

So why have Product Stewardship? Good question - for the members of the ILA.

In 1996 despite the pressure from the OECD and the threats to severely restrict the sale of Lead Products in OECD member countries, only 9 companies agreed to sponsor the ILMC Lead Risk Reduction Program.

Most ILA members considered themselves to be environmentally sound and good managers of occupational health and safety. Many companies had ISO 14001 Certification for Environmentally Sound Management systems and the Occupational Health and Safety Standard or OHSAS 18001 and could not see any reason why they should support a program that was designed to seek out environmental or safety hot spots in an effort to improve the industry's performance and image. The consensus amongst many of the ILA members was to "hunker" down and reduce the public profile of the Industry and not seek out any cases of environmental damage and population exposure.

This "bunker" mentality in the Lead Industry had been a contributory factor in the OECD's initial decision to restrict Lead Products because NGOs and other intergovernmental environmental groups had been bringing Lead related global environmental and health issues to the attention of various Governments for years without any coordinated response from the Lead Industry.

What many of the major players in the Lead Industry had failed to understand is that the International Community judges the Lead Industry by the worst performers and not the best. And secondly that having a reputation that is often linked with environmental damage or population exposures restricts new market opportunities. For example, why did the automobile industry choose Nickel Metal Hydride batteries for its hybrid vehicles, when they cost up to ten times more than Lead acid batteries, do not out-perform Lead acid batteries and are more difficult to recycle?.....

Why has the US Government given the non-Lead acid battery manufacturers millions of dollars for research and the Lead acid battery industry – not one cent? Why are green energy companies looking at alternative battery technologies for the storage of solar energy for use in remote locations? Could it be that the Industry still has an image problem?

Well you only have to look at the news clips of recent months..... Lead dumps in the Dominican Republic, infant deaths in Senegal, multiple lead poisonings in China and polluted rivers in Cambodia. I could go on, butthe message is that without considering life cycle product stewardship somewhere, sometime, someone will tarnish your good reputation by either misusing your product or failing to recycle in a safe manner.

Some, if not all of you will have an ISO 14001 Certificate – and that is fine, as far as it goes – that is up to the factory or mine-site gate – because despite what it says in the ISO 14001 Audit Process – the Auditor does not follow the supply and product delivery chain unless you specifically include suppliers and customers in your ISO application.

But in a Global Industry, such as the Lead industry with so many Environmentally Sound mines, primary smelters, battery manufacturing and recycling plants; where are the pollution and population exposure problems? Well, they are at the “user” or “customer” end of the Product Life Cycle! What we have to remember in the Lead Industry, and the same applies to the Aluminium Industry, is that the vast majority of countries do not have non ferrous metal recycling capacity. Consequently, our products, which have an economic value are collected and transported from countries without smelters to countries with smelters and recycling capacity.

Sounds simple, but not all the players in the recycling chain behave in an environmentally sound manner – Many discard the battery acid into lakes, rivers and sanitation systems – Others recycle used batteries in uncontrolled conditions in backyard and cowboy operations poisoning their workers, the local population and leaving an expensive environmental legacy of contaminated sites for future generations.

So, what have we been doing in the Lead Industry? Where we have identified poor environmental management of ULAB – we have addressed those problems with a mix of multi-stakeholder projects, programs and workshops throughout the Lead Life-Cycle and we have been involved in lead risk reduction activities across all five continents. Support for the work of the ILMC now comes from all 50+ members of the ILA.

A successful Product Stewardship Program demands a number of key elements to succeed. Firstly, it is imperative to look beyond the factory gate into the real world and ascertain what environmental and health risks are a threat to your industry. Secondly, ensure that good practice throughout the life cycle is defined and can be measured with a common and comprehensive assessment tool applicable to the whole of the industry. Thirdly, recognize that sustainability is a key factor that will be used by NGOs and other Intergovernmental bodies as another measure of environmental performance.

So, do we have the necessary elements in place? A good question, considering that many of the countries in the world with the worst Lead exposure and pollution problems have few environmental laws that adequately include the Lead industry – But 172 countries are signatories to the Basel Convention and are therefore obliged to follow the Basel Technical Guidelines for the management of hazardous wastes, including Leaded Wastes, such as used lead-acid batteries.

So we have a common standard, but as the SBC is not a Certification Body – the SBC adopted the Green Lead Assessment Scheme as the means to determine environmental performance because the Green Lead Protocols incorporate Basel Technical Guidelines and have a strong emphasis on sustainability – something lacking in the Technical Guidelines.

Now, I appreciate that there is big difference between Aluminium and Lead – and for the most part public perception of the two elements is that Aluminium is not an environmental or health threat, but Lead is..... The truth is somewhat different and that is why your industry needs to be concerned. So what are the threats?

First let us consider sustainability. In 2009 the amount of recycled Lead in Batteries will be nearly 65% and year on year the percentage of Lead usage with recycled metal is increasing. In my lifetime, I expect to see recycled Lead use reach 90% and the Lead Industry will be close to self sustaining. Not only will we reduce the blight of mining, but four times less energy is used to produce recycled lead.

In the Aluminium Industry, the use of recycled metal in drinks cans is estimated to be over 50%, and that sounds quite impressive, but the industry will be judged by overall recycling rates and usage and that is closer to 35%. Also important is the fact that production of recycled Aluminium uses only 5% of the energy required to produce primary aluminium, therefore the drive to recycle more aluminium should be a top priority, particularly as links between CO₂ and climate change are at the forefront of the debate. Pressure will come from NGOs to switch from Aluminium cans to plastic, unless you demonstrate the environmental benefits of using Aluminium instead of plastic.

For those of us who walk or cycle regularly in the countryside, we know that aluminium drinks cans litter many walkways and beauty spots. Does anyone know how many tons of aluminium cans were brought down from Mount Everest last year? What can you do to remove the blight of discarded cans from this planet?

We all know that Lead has toxic characteristics that can, and have been, fatal, but what is not widely known at the moment among the general population is that in 2007 Aluminium was included in a list of top priority toxins in the United States, having been identified as a toxin for the human nervous, immune and genetic systems. Hence the need to ensure that Al cookware does not leach Al into the food-chain. Now you may not agree with the toxin classification, but ultimately it is not your view that will prevail. Public perception is the key here and in the market place the customer will have the final say..... Unless, that is, you change the perception. Concerned? Well, you should be, because Al is also used as a preservative in vaccines. So are we injecting a toxin into people's bodies?

I ought to just mention also that as you see more Aluminium recycling plants commissioned in the developing world you need to monitor their fluoride and sulfur dioxide emissions carefully to ensure that history does not repeat itself and undo the good work achieved in the OECD to eliminate these emission problems.

So, what legacy issues are you going to face in the years to come? And what, if anything, are you doing about it?

October 2009
Brian Wilson