



June 8, 2012

Eduardo Viadas  
CEC Secretariat  
393 St-Jacques Street West  
Suite 200  
Montreal, QC H2Y 1N9

**Request for Comments on CEC Secretariat Independent Report on the Transboundary Movement and Recycling of Spent Lead-acid Batteries**

Dear Mr. Viadas,

I am writing to provide comments from Teck in response to the Commission for Environmental Cooperation's (CEC) request for comments on the transboundary movement and recycling of spent lead-acid batteries (SLABs). Specifically, I have attached responses to the six research questions posted on the CEC website on May 11, 2012.

Teck operates one of the world's largest integrated zinc and lead smelting and refining complexes at its Trail Operations in British Columbia, Canada. The metallurgical operations produce refined zinc and lead, a variety of precious and specialty metals, chemicals and fertilizer products. Lead smelting began at Trail Operations in 1901 and the processing of SLABs started in 1982. The quantity of SLABs processed at Trail Operations has varied over the years depending on the lead and SLAB market.

Teck is committed to protecting the health and safety of our employees and the environment in the communities where we work. Trail Operations endeavors to continuously improve environmental performance and minimize emissions below regulatory levels. Trail Operations has achieved ISO 14001:2004, an international standard for environmental management systems. Teck was appointed to the Dow Jones Sustainability World Index in 2010, indicating that our sustainability practices rank in the top 10% of companies in the resource industry worldwide.

I hope the comments contained in this submission will be of assistance in preparing the CEC report on the transboundary movement and recycling of SLAB. Please do not hesitate to contact me for clarification or for other questions.

Regards,

A handwritten signature in cursive script, reading "Salway".

Tammy Salway, P.Eng.  
Raw Materials Engineer  
Teck Metals Ltd.

1. What are the driving forces behind SLAB exports from the United States to Mexico and Canada?

The key driving force behind SLAB movement between the United States, Mexico and Canada is the competitive market for the processing of SLAB. Pricing for the tolling or the purchase of SLABs is determined on the open market. SLAB processors who can provide the lowest tolling fee and/or the highest purchase price for SLABs are successful in the bid for the available SLABs. Current pricing for the purchase of SLABs is about \$0.03 - \$0.04 higher in the US over Canada in the western Canadian market and we believe there is a net outflow of SLABs from this market.

A second important driving force is proximity of the supply of SLABs to the SLAB processors. SLAB processors include consolidation sites, battery disassembly companies, secondary lead smelters and primary lead smelters. Excessive distances from the areas where the SLABs are generated to any of the processors in the processing chain increase the overall costs to recycle SLABs to its constituent parts.

Teck Trail Operations is a primary lead smelter and competes for the supply of SLAB based on the economics of SLAB compared to the economics of lead concentrates. Teck bases its feed source decisions on economics and metallurgical compatibility of the overall feed blend with the processes at Trail Operations. In 2011, Trail Operations processed 32,400 metric tonnes of SLAB. Of this amount 26,700 tonnes was sourced from Canada, representing 83% of Teck's SLAB feed and approximately 80 - 90% of the Alberta and British Columbia market. The remaining 5,700 tonnes of SLAB was sourced from the United States, which is 17% of Teck's SLAB feed. The SLAB processed at Trail Operations made up less than 5% of the feed to the Lead Operations in 2011. Less than 1% of the feed to Trail Operations' lead smelter came from SLABs originating in the US.

2. To what extent are different environmental regulatory requirements and lower compliance costs relative to those of the United States a factor in increasing the recycling of SLABS in Mexico or Canada?

In recent years the amount of SLAB processed by Teck has decreased. In 2007 and 2008, Teck was processing about 37,000 tonnes per year of SLABs. This dropped to around 32,000 tonnes for the years 2009 through 2011. In 2012, Teck expects to process only 25,000 tonnes. This decrease in SLAB treatment has occurred while the overall feed treated through the lead smelter has been increasing. Teck has chosen to use more concentrates in the feed mix to the Lead Operations due to the superior economics of processing concentrates over SLABs.

Based on this information, Teck has not noticed an increase in recycling of SLABs in Canada. Teck is not familiar with the processing of SLAB in Mexico and cannot offer any comment in that area.

3. What are the public health and environmental consequences of any such growth in SLAB recycling in either Mexico or Canada?

The recycling of lead acid batteries is a critical step in maintaining a sustainable, closed loop system to ensure these hazardous materials are reused and kept out of landfills. Data from the Battery Council International (BCI) suggest that recycling rates for SLABs are about 96%. Growth in SLAB recycling will maximize the recovery of lead and other components from SLABs and will divert them from landfill or elsewhere in the environment.

Trail Operations has tight environmental and hygiene controls in all parts of the process to ensure the protection of the environment and the health of both the employees and the people in the community in which we operate.

4. Are the environmental controls on secondary lead smelting and recycling appropriate/adequate in Canada, Mexico, and the United States.

Teck Trail Operations is permitted as a primary lead smelter by the Ministry of Environment in British Columbia. As a primary lead smelter, Teck takes proactive measures to minimize environmental emissions and reduce any impacts to the environment and public health. Tight controls exist throughout the operation. These include engineering controls, such as baghouses, electrostatic precipitators and an effluent treatment plant, and administrative controls, including standard operating procedures and extensive training of employees. Significant monitoring of air and water emissions, both on-site and external to the site, ensures we are meeting our commitments and provide feedback on areas for improvement.

Trail Operations is also regulated under Environment Canada's Secondary Lead Smelter Release Regulations and the parts of the operation that process SLABs meet these emission standards. SLABs only represent about 5% of the feed to the Lead Operations and 2.5% of the overall feed materials to Trail Operations.

Sustainability is deeply rooted within Teck and we strive to further embed sustainability into our culture. At Teck, sustainability is about considering people, communities and the environment, now and in the future, in every decision we make. Trail Operations endeavors to continuously improve environmental performance and minimize emissions below regulatory levels. Teck was appointed to the Dow Jones Sustainability World Index in 2010, indicating that our sustainability practices rank in the top 10% of companies in the resource industry worldwide. In 2011, Teck was invited to be a member of the United Nations Global Compact (UNGC) LEAD, a sustainability leadership platform with some 50 participant companies from around the world committed to achieving higher levels of sustainability performance, impact and collective action.

5. How effective are the export/import controls and requirements governing SLABs in North America?

The import controls and requirements governing the importation of SLABs into Canada are very strict. SLABs are classified as a hazardous recyclable material by Environment Canada and are regulated under the Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations (EIHWRMR). These regulations promote environmental responsibility and allow the governments of the countries of import, export and transit to control which hazardous recyclable materials enter or leave their respective borders. All hazardous recyclable materials imported into Canada require a permit and a movement document. The completed movement document is sent to Environment Canada within 3 working days of receipt of the shipment. A certificate of recycling must also be sent to Environment Canada within 30 days of completion of recycling.

The British Columbia Ministry of Environment regulates the generators, carriers and receivers of all hazardous wastes and hazardous recyclable materials in British Columbia. The British Columbia government requires all recyclers to be registered with the Ministry and to have the necessary authorization to be a BC Hazardous Waste Registered Site.

Teck has not exported batteries to the United States or Mexico. Teck cannot comment on the export controls governing the movement of SLABs or the import controls of those countries.

6. What steps can be taken to improve the environmental management of SLABs in Canada, Mexico, and the United States?

Environmental management of SLABs in North America can be improved by ensuring they are not exported off-shore to countries with poor environmental records or insufficient environmental management systems.

The following export data is for lead acid storage batteries used for starting piston engines and it was provided by the U.S. Department of Commerce, Bureau of Census for the period of 2009

through 2011. The majority of SLABs exported in North America are generated in Mexico. The average tonnage of SLABs exported from Mexico for these three years is 277,000 tonnes and 88% of these SLABs were exported to the United States

SLAB exports from the United States have averaged 206,000 tonnes from 2009 through 2011 and have primarily been shipped to Canada and Mexico. Canada accounts for about 60% or 125,000 tonnes. Another 21,000 tonnes or 11% is exported to Mexico. The remaining 60,000 tonnes are shipped around the world to countries such as South Korea, Belgium, Dominican Republic, China, Australia and Haiti.

Exports of SLABs from Canada are very small. The majority of SLABs exported from Canada are sent to Russia. About 700 tonnes per year or about 55% of the SLABs are exported to Russia. Another 250 tonnes or 15% is exported to the United States.