Product Impacts

Why was Product Impacts a Material Topic in 2015?

Global Context: Societal concern over the impacts that materials and their production can have on people and the environment through waste, emissions and the accumulation of hazardous by-products is increasing. Producers are expected to take responsibility for their products, making it more important than ever for producers to fully understand product life cycles in order to maximize value while minimizing impacts.

Industry Context

In the mining industry, there is increasing recognition of shared responsibility across the supply chain for the sustainable production, use, reuse, recycling and disposal of minerals and metals. The products of mining can have naturally occurring deleterious impurities associated with them, as well as valuable co-products such as lead, cadmium and indium. From a stewardship perspective, industry is obliged to ensure these impurities and products are safely managed for employees, communities and the environment.

Teck Context

Teck is a producer of materials essential to the quality of life of people around the world — copper, zinc, steelmaking coal and energy. Teck is a world leader in the production of lead, a significant producer of specialty metals such as germanium, indium and cadmium, and a producer of gold doré and silver. In addition, Teck is producer of a range of industrial products and fertilizers, which are recovered from our zinc and lead smelting operations. We recognize our products have the potential to impact employees, communities and the environment. For example, our activities and products can both contribute to, and reduce, GHG emissions. For more information, see the Energy and Climate Change section on page 109.

As external expectations increase around the safety of our products, Teck is receiving more information requests from customers on our management practices and how we minimize product impacts. In order to maintain strong business relationships and customer trust, we remain committed to stringent product and materials stewardship and transparency on product impacts.

Managing the impacts of our products requires a thorough understanding of the properties of our products and our supply chain, which allows us to more effectively minimize impacts, engage with our communities of interest and gain market access.

What is in this Topic?

Managing the actual and potential impacts of our products through product stewardship and materials stewardship.

Performance Highlights

Conducted

11

customer site visits.

Learn More

Materials Stewardship Reports — ICMM

Teck's Safety Data Sheets for our Products

Pictured above: Copper cathode bundles at Quebrada Blanca Operations

How Does Teck Manage Product Impacts?

Our Targets and Commitments

We seek to maximize the value of our products by using our technology and expertise to support and advocate for the responsible use, reuse, recycling, recovery and disposal of materials.

Snapshot

Life cycle thinking through Deleterious Elements Require Thought (DERT) project

An example of how life cycle thinking is influencing our actions and decisions is the DERT project of our Exploration department. The DERT program helps flag, in the exploration phase, above-normal levels of deleterious elements that may impact the value of the products from the orebody or create environmental or processing issues. This program helps ensure that information on deleterious elements is incorporated into project assessments.

We are committed to managing the potential impacts of our products while maximizing their value through materials stewardship. We use our technology and expertise to support and advocate for the responsible use, reuse, recycling, recovery and disposal of materials.

As part of our work in materials stewardship, we engage with manufacturers, users and governments to ensure the responsible use of our products and to promote effective, efficient and economic recycling of metals.

Managing Product Impacts Through Materials Stewardship

Materials stewardship at Teck is a risk management process to minimize the impact of our products throughout their life cycle on employees, communities and the environment, and to ensure our products satisfy or exceed regulatory and societal needs. This work is conducted primarily by our Materials Stewardship Committee, who defines and oversees our efforts and is responsible for:

- Understanding the actual and potential risks and impacts of our products
- Making recommendations on approving new product applications
- Managing labelling and packaging requirements
- Monitoring product regulations and technical, transportation and legal issues
- Establishing policies and procedures related to materials stewardship

We employ life cycle thinking to understand the potential risks and impacts of our products, beginning with the extraction of raw material from the earth, through to processing, transportation and customer use.

We manage a master product list and conduct customer assessment to ensure our products are used safely, as some products may cause harm if handled unsafely by smelters and end users. As part of our commitment to upholding business ethics, regulatory requirements and external expectations, we work to ensure smelters, including ours and downstream, of our products have sufficient environmental management practices.

We draw on ecotoxicity expertise developed by the various commodity associations to bring sound science into our management approaches and decisions, and our materials stewardship program is actively engaged with collective industry efforts, including those of the ICMM, towards continuously improving materials stewardship.

Our materials stewardship efforts have expanded in recent years to meet growing regulatory pressures on mineral concentrates. These are manifested, for example, in the International Maritime Organization (IMO) bulk cargo requirements, Chinese import restrictions, and the Minamata Convention for Mercury. These requirements and restrictions now affect mining companies and smelters globally, and Teck specifically, in the same way that Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations have defined chemical management programs for refined metals, alloys and compounds, in the European Union, since 2006.

Recycling

Recycling is an important aspect of our everyday lives, as it conserves scarce natural resources, reduces the amount of waste that must be burned or buried and helps to sustain the environment for future generations. We recycle in accordance with international, national, provincial and local requirements and we look to exceed these requirements. We work to continually improve recycling at our operations by identifying and sharing best practices throughout the company. This includes conducting ongoing assessments of our recycling and reuse practices.

What was Our Performance in Managing Product Impacts?

Through our materials stewardship committee, Teck continuously evaluates actual and potential risks and impacts of our products. Further to our ongoing assessment of the impacts of our products, we conducted several site visits with potential and existing customers to evaluate their capacity to handle our products responsibly. In 2015, we conducted 11 customer site visits, which included site visits focused on lead from Red Dog Operations, copper from Carmen de Andacollo Operations and products from Trail Operations.

An important part of our work in managing product impacts through materials stewardship is recycling. In 2015, we recycled 40,800 tonnes of material, compared to 37,797 tonnes in 2014 and 73,270 in 2013.[12] We also have focused on reducing our use of consumables in part to further reduce associated waste.

At our Trail Operations, our focus remains on treating cathode ray tube glass, plus small quantities of zinc alkaline batteries and other post-consumer waste through our recycling program. Trail developed Canada's first lead acid battery recycling program and through this program recycled 18,537 tonnes of used lead in 2015, compared to 18,955 in 2014 and 16,147 in 2013.

Management of the environmental and social impacts that may occur during the production and transportation of our products is guided by our HSEC Management Standards and sustainability strategy as well as activities associated with meeting permit and regulatory requirements. For details on our performance in managing environmental and social risks, please see the Environmental and Social sections of this report. For example, for performance on tailings and mine waste management, including the amount of hazardous and non-hazardous waste produced in 2015, see Table 35 on www.teck.com.

Outlook for Product Impacts

We expect that regulatory and community pressure on mining companies to manage the impacts of their products will continue to increase. Through our materials stewardship working group and activities, and collaboration with industry associations and peers, we will continue our work to ensure our products are handled responsibly throughout their life cycle. For example, we will continue to conduct customer site visits and issue data sheets for our products in 2016.

[12] The decrease in materials recycled between 2013 and 2014 is due primarily to: (i) improved reporting from a new waste contractor for the Elk Valley coal sites in which materials are better classified as recycled/non-recycled and hazardous/non-hazardous and (ii) fewer operations undertook site cleanup activities/demolitions due to cost reduction initiatives, thereby resulting in less scrap metal recycled.