

Environmental Management at Howmet Aerospace

Howmet Aerospace's Environment, Health and Safety (EHS) Policy is to operate worldwide in a safe, responsible manner which respects and protects the environment and the health of our employees, our customers and the communities where we operate. We will not compromise environmental, health or safety values for profit or production. To support this our EHS Policy includes a number of key principles which applies to all of our business. We respond truthfully and responsibly to questions and concerns about our environmental actions and the impact of our operations on the environment. Importantly at Howmet Aerospace, EHS is not only a senior management responsibility, but filters down to mid-level and line management as well.

This document is a statement on environmental management at Howmet Aerospace and the actions and priorities in order for Howmet Aerospace to conform to the EHS Policy from an environmental perspective.

Globally, environmental laws and regulations including those that apply to Howmet Aerospace's operations are becoming more stringent as world governments and communities strive to enact measures intended to minimize the impact that industrial, commercial and associated activities have on the environment. Howmet Aerospace supports and encourages these objectives. All of our facilities must not only comply with all such applicable environmental laws and regulations wherever they are located, but also with our own internal standards, which in many cases are more stringent.

Our approach to environmental management is to produce our products in a way that wherever possible, we minimize any adverse impacts on the environment and take a precautionary approach to environmental challenges. In order to achieve this, we have developed and implemented a detailed program of systems, controls, practices and checks that ensures we identify and fully understand the environmental risks from our operations. Every one of our global locations must implement these minimum standards. For this to be effective, each location is expected to fully understand their operations and the context of the environment in which they operate. We engage with our stakeholders such as neighbors, community groups and non-government organizations to ensure that their expectations are understood and factored into our programs.

As Howmet Aerospace's environmental system and performance standards apply to each location, a system of internal audits ensures that each location meets these expectations. Implicit in the application and testing of these standards is an expectation of continuous improvement of both controls and performance, and for all Howmet Aerospace employees to understand, promote and assist in the implementation of these requirements. To maximize the effectiveness of the programs, we promote environmental awareness within our workforce, and also in our communities where possible.

Priority Aspects

Each Howmet Aerospace operating location is unique. Each is run by a team of people producing our products using local plant and equipment, based in a distinctive local environment. With the requirement that each location continually assesses and control possible impacts, we apply an environmental management system consistent with or certified to the current ISO 14001 standard.

We know that our operations' key environmental aspects and risks include water and wastewater, air quality, hazardous materials and chemicals, waste management (including hazardous waste), product sustainability, and energy management. We focus our efforts on reducing the impact from these key environmental aspects in the following ways:

Water and Wastewater

- We monitor and report our water consumption, both purchased and extracted
- We develop and implement targets for water consumption and direct discharge reductions
- We ensure wastewaters are fully characterized and discharged in accordance with local infrastructure and legal requirements
- We design and operate equipment to minimize water use through reuse, recycling, or avoidance, and maximize water quality control

Air Quality

- We fully characterize our point source and fugitive source emissions where applicable
- We implement controls to reduce emissions to air from both point and fugitive sources with the aim to prevent unacceptable environmental and human health impacts
- We monitor and report emissions to air, with objectives put in place to continually reduce impacts and risks of breaches of relevant criteria under all operating scenarios

Hazardous Materials and Chemicals

- We identify hazardous chemical storage requirements and store all hazardous chemicals at our locations in a manner to minimize the likelihood of incidents including releases
- We regularly inspect and maintain our hazardous chemical storage areas
- We eliminate underground storage tanks in favor of aboveground storage tanks to enable tank integrity monitoring and rapid leak detection
- We monitor leak detection systems to ensure potential releases are captured and remediated before unacceptable impacts occur to the environment

Waste Management including Hazardous Waste

- We identify and characterize all waste streams at each of our locations and measure and report on the generation of these waste streams
- We identify opportunities and put objectives in place to reduce the generation of wastes through the hierarchy of reduce, reuse, recycle
- We ensure all waste disposal methods deployed reduce the likelihood of impacts on the environment
- We work with our waste disposal vendors to ensure our waste management expectations and requirements are understood
- We recycle 100 percent of dross from our casthouses, which is our largest volume waste

Product Sustainability

- We supply products that reduce energy consumption and our customer's environmental footprint through i) lightweighting (e.g., of airplanes, helicopters, cars, trucks, buses and boats); ii) providing high thermal performance and energy efficient products for the building and construction markets; and iii) maximizing the recycling content and recyclability of our products
- We track the environmental performance and footprint of our suppliers and vendors as part of our purchasing decisions, and we measure the sustainability of our key suppliers through our Global Supplier Sustainability Program
- We use "Life Cycle Assessment (LCA)" methodology to determine our significant environmental aspects and to assess the environmental impact of our products
- We apply "Design for Environmental" principles to ensure continuous environmental improvements with a life cycle perspective regarding our portfolio

Energy Management

- We develop strategic energy-reduction goals and initiatives to minimize our energy use and, in turn, reduce our greenhouse gas (GHG) emissions
- We seek to reduce our energy consumption and improve our energy efficiency, and evaluate strategies to increase our use of solar, wind and other renewable and low-carbon sources