

Environmental, Health and Safety

Environmental Sustainability



Material inputs and waste generation have been reduced through:

- Extending the life cycle of metal working fluid (MWF) and reducing the amount of MWF waste through strict control and management
- Utilization of near net shape forgings and castings to reduce the amount of alloy that would ultimately need to be machined
- Utilizing Water Jet Cutter technologies to fabricate raw material in order to reduce waste and maximize the amount of material available for producing product
- Using automation to apply polishing compound to reduce compound waste
- Moving towards a paperless system for signing-off procedures, approvals for billings, invoicing and expense report filings
- Encouraging two-sided copying when printing documents

Materials are reused by:

- Sending reclaimable alloys and polymers to vendors for reclamation
- Sending foam from sewing operations to vendors to be used in carpet padding material
- Selling excess furniture / equipment to employees, donating furniture to charitable organizations or sending equipment to scrap vendors for reclamation

Recycling is promoted at all sites, but the materials recycled will vary from site to site. Following are some of the key materials recycled:

- Alloy shavings / turnings
- Polishing / dust
- Paper / cardboard
- Wood / plastic pallets
- Steel drums
- Computer equipment / E-waste
- Used oil
- Fluorescent bulbs
- Batteries
- Aluminum cans
- Waste plastic foam material
- Clean room coveralls

Packaging Reduction Initiatives

We seek to reduce the amount of packaging material where possible without compromising the integrity of our products. We have eliminated the use of heavy metals in printing ink and reduced the amount of printed cartons and materials. We use non-toxic materials in order to reduce toxic emissions during incineration and continue to reduce

the number of PVC packaging components. We are increasing the use of recyclable materials and include plastics identification symbols on our packaging.

Air Emissions Including Greenhouse Gases (GHG)

Control devices are in place for the capture of dusts and other contaminants to protect the environment and our employees. While Zimmer generates limited amounts of greenhouse gas (GHG) emissions from direct internal equipment sources, actions are taken to improve efficiency of this equipment and a fleet of electric GEM vehicles for intra-plant travel is utilized at our larger facility in Indiana instead of gas-powered vehicles. Indirect GHG emissions are being reduced by using meeting / web conferencing alternatives which eliminate employee travel; and encouraging our third-party international delivery service to use alternative-fuel vehicles in delivering our products. Energy conservation practices that further reduce GHG emissions are outlined in the **Energy Savings** section below.

Energy Savings

Forward thinking practices to reduce electricity consumption include removal of metal halide lighting fixtures and installation of T5 fluorescent lighting, use of photo cells and timers on exterior lighting and use of high efficiency motors. Automated controls have been installed on HVAC systems which incorporate night and weekend setbacks and better utilization of outside air to improve the and comfort of facilities.

Employees are encouraged to turn off equipment and lights when not in use. Light sensors are installed in conference rooms and other common work areas when feasible. Overall awareness and consideration for alternative and renewable energy sources such as wind and solar power is increasing.

Water Use

Depending on the availability of water as a utility, non-contact cooling water systems are installed to maintain temperatures in buildings or of processes. Cooling water towers and closed loop water systems are installed to reduce water use when appropriate. We also use evaporators to reduce the amount of water discharged to publicly owned treatment facilities when feasible. Finally, restroom installations and renovations include new fixtures with water efficient features such as automatic sensors to further reduce water use.

Outreach

Sites are encouraged to identify and participate in local environmental based committees and school education programs. Some sites have EHS staff that serve on local emergency planning committees (LEPC) and public waste recycling organizations. We have sponsored environmental exchange seminars and support community Environmental, Health and Safety related activities.

Product Life Cycle

Our EHS Product Life Cycle (PLC) program is used to support continuous improvement in Environmental, Health and Safety management. Effective EHS management is integral to employee well being and the environmental friendliness of Zimmer products and processes. The entire "life cycle" of our products is evaluated to further develop waste minimization, pollution prevention, source reduction and health and safety attributes. This action also provides opportunities for Zimmer to achieve a greater competitive advantage through reduced costs and more efficient processes.

PLC analyses have been completed for Zimmer Legacy products, and PLC principles are being applied to acquired products and during the development of new products to proactively address EHS issues and concerns during the design phase.

