

Michigan Business Pollution Prevention Partnership Success Story
Global Engine Manufacturing Alliance
Dundee, Michigan

At the Global Engine Manufacturing Alliance (GEMA), we are committed to building the “**Greatest Engines Made Anywhere.**” Building engines in the most environmentally sustainable manner is one of the foundations of this pledge. This commitment can be seen by the success of our many pollution prevention activities since our launch in 2005. While the areas we choose to focus on may change from year to year, one thing remains constant, the team’s commitment to reduce, reuse, recycle, and conserve. For 2008, we have set targets to reduce our incinerated waste, curb our energy usage, minimize the amount of industrial wastewater we produce, and expand our recycling program.

In our first year of production, we became one of the first automobile manufacturing facilities in Michigan to send absolutely NO waste to the landfill and have been able to sustain this policy since. While we are proud of this feat, we continue to strive for zero waste, meaning that all our waste is either recycled or reused. One of the major barriers to achieving zero waste has been our generation of mixed plastic waste.



For that reason we have taken the challenge to eliminate or recycle all of our plastic materials. This year, we have been able to identify sources that will accept our mixed plastic thus removing it from incineration stream. Several of the mixed plastic items that we are now recycling include: plastic packaging banding, blue plastic stretch wrap, and plastic food packaging from our cafeteria. Another obstacle to achieving zero waste is reducing the amount of industrial waste water generated. One strategy that we will employ to reduce the amount of industrial waste generated will be the recycling of all floor scrubber water. Using ultra-filtration technology, we will be able to recycle our floor scrubber water up to four times thus reducing water usage and the amount industrial waste water by nearly 40%.



Global Engine Manufacturing Alliance has also enjoyed great success in reducing our energy usage. Over the past three years, we have been able to reduce energy usage from just over \$14.00 per engine produced to under \$9.50 per engine, representing an overall reduction of 33%. This year we have undertaken some of our most aggressive energy reduction initiatives yet. We have reduced our parking lot lighting by 50%, installed task lighting in office areas, disabled all vending machine lighting, installed insulation blankets on all water heaters, turned off TV’s in all employee break areas, and reduced the amount of time larger air compressors run by preventing air leaks. In addition to these projects, we are very excited about two upcoming projects that could significantly reduce energy usage. We have identified 200 lights on the plant floor that are not necessary. Over the next few months, we will disable those lights, resulting in an energy savings of over \$233 per light per year. In Phase II of this project, we hope to replace all plant floor lighting with energy efficient 250w high bay lighting

At GEMA, we are proud of our environmental accomplishments however; our team recognizes there is still much work to be done before we become a zero waste facility. We will need to identify, tackle, and eliminate new waste streams, reduce material usage, develop a green purchasing program, and choose more sustainable products. While this task may be challenging, the team will continue to make the environment a top priority and take on this challenge.