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Encouraging Environmental Excellence Bronze Level Recognition

December 20, 2013 Summary

Ohio EPA recognized three companies that successfully met the criteria for the Bronze Level of the Encouraging Environmental Excellence (E3) Program. Below is a summary of each company's efforts.

Enginetics Corporation – Huber Heights: Enginetics Corporation manufactures parts for aerospace. They manufacture highly complex sheet metal fabrications for the global aircraft engine market. Enginetics serves all three of the major original equipment manufacturers in the industry as well as the United States Air Force. The company specializes in a variety of technologies including welding, laser, forming, heat treat and braze, and machining. Enginetics is AS9100/ISO9001 certified and has a number of industry and major original equipment manufacturer approvals. Enginetics was founded in 1976, and employs approximately 120 people.

Enginetics is being recognized for their "green products" purchasing program. All of the chemicals used at Enginetics are reviewed prior to purchase, in order to understand the potential impact to the environment. They have replaced aerosols with liquids that can be applied with alternative methods (e.g., surface plate cleaner, window cleaner). Enginetics also replaced some janitorial products with recycled products (e.g., toilet paper, paper towels) and green cleaners like "simple green."

Enginetics has an air pollution permit for acetone emissions that is necessary to clean sheet metal parts for fabrication. Through their review process of chemicals, it was determined that acetone is the cleanest product available for manufacturing due to no residue remaining on the products. Enginetics also removed and prevented the use and purchase of several chemicals by using acetone (e.g., MEK, acid base aluminum cleaner). In 2011, Enginetics started a reuse program. The acetone is cleaned through a local certified recycling company, and then reused at their facility. Enginetics has also reduced the amount of waste from approximately 300 gallons annually, to zero. Enginetics also applied for ISO 14001 certification in 2011, achieving certification in February, 2012. They were recertified in 2013, and are scheduled for an audit in early 2014.

Enginetics also started a recycling program to reduce landfill waste. The program consists of recycling plastics, paper, cardboard, and wood. The facility has always recycled all metals used in manufacturing. Enginetics has reduced the impact to the environment in landfills from 29.81 tons in 2011, to 17.23 tons in 2012, and currently, 8.37 tons in 2013. They project a cost savings of over \$5,000 by 2015.

Ohio Dental Association – Columbus: The Ohio Dental Association (ODA) is a not-for-profit, professional membership association representing more than 5,500 dentists across the state. The mission of the ODA and its 22 full- and part-time employees is to improve oral health and strengthen dentistry in Ohio by providing resources to advance the dental profession, improving dental team skills, and increasing public and professional health knowledge.

The ODA is being recognized for the establishment and facilitation of the Ohio Good DEED (Dedicated to Environmental Excellence in Dentistry) Program, which is a voluntary, statewide dental amalgam and other

waste recycling program. Dentists may participate at two different tiers. At the Gold Tier, dentists agree to adhere to the American Dental Association's Best Management Practices (BMPs) for Amalgam Waste (which includes use of ISO 11143 compliant amalgam separators), while also abiding by all local, state and federal waste disposal statutes and regulations. At the Gold and Green Tier, dentists agree to adhere to everything included in the Gold Tier, while also incorporating at least ten other environmentally friendly measures into their dental practice. Gold Tier participation currently stands at: 888 dentists, 91 dental practices, 105 locations, and 781 chairs. Gold and Green Tier participation currently stands at: 71 dentists, 28 dental practices, 31 locations, and 204 chairs.

The dental profession has addressed amalgam's environmental impact through the development of the ADA's Amalgam Waste BMPs. These BMPs are a fundamental component of the Good DEED Program. Dentists are to collect, store, and recycle the amalgam waste that is generated by the placement of amalgam restorations or removal of amalgam restorations. Dentists must renew their participation status every two years, enabling him/her to reaffirm dedication to operating an environmentally responsible office and providing an opportunity for the dentist to provide an update on their efforts. Participation in the Ohio Good DEED Program is voluntary. Dentists may progress from the entry level Gold Tier to the more advanced Gold and Green Tier.

The Good DEED Program was authorized by policies adopted by the ODA's House of Delegates, the ODA's ultimate governing body. The Council on Dental Care Programs and Dental Practice continues to work with Ohio EPA to improve the program, while also making regular reports about the program the House of Delegates and Executive Committee.

In order to participate in the program, dentists who place or remove amalgam restorations must install amalgam separators that are at least 99 percent efficient. Dentists also agree to not utilize bulk elemental mercury, i.e., liquid or raw mercury, for their amalgam restorations, and instead agree to follow the ADA's recommendation to use pre-capsulated amalgam alloy. Dentists in the Gold and Green Tier agree to take additional environmentally friendly steps, such as purchasing ENERGY STAR qualified products for use in their practices.

Pull-A-Part, LLC – Cleveland: Pull-A-Part, headquartered in Atlanta, Georgia, is a family business serving the do-it-yourself, used auto parts market. Founded in 1997, Pull-A-Part operates a network of 25 used auto parts superstores in 12 states. They have four Ohio locations: Akron, Canton, and two in Cleveland. This application is for the Pull-A-Part Cleveland **West** location, with 20 full time employees.

Pull-A-Part is being recognized for their commitment to resource conservation, waste reduction, and pollution prevention. Pull-A-Part minimizes solid waste by removing and recycling all fluids and other potential contaminants. They maximize the reuse of all possible parts and materials. They also maximize the recycling of all that is left of the vehicle. Pull-A-Part's objective is to minimize the amount of auto shredder residue ultimately generated and disposed of by the automobile shredder.

At Pull-A-Part, every vehicle the company bus is "scrubbed" for the removal of potentially hazardous materials before it is placed on the display lot. Each vehicle is thoroughly drained of all fluids and refrigerants from air conditioning systems, which are either shipped for recycling or sold for reuse (e.g., engine coolant, antifreeze, Freon, etc.). Mercury switches are removed and shipped for recycling through the National Vehicle Mercury Switch Removal Program. Lead-acid batteries are removed and tested. Good batteries are resold for reuse, and unserviceable batteries are palletized, shrink wrapped and shipped offsite, where the lead and plastic are recycled and the acid can be recovered. Catalytic converters are removed and shipped offsite for recovery of their precious metals content and the stainless steel shells. Also, to control the full process and maximize recovery of copper wire, the company developed a new, multi-million dollar wire chopping facility where this harness mixture of copper, rubber, plastic, and iron is ground into small particles and separated into a copper product that is more than 99.7 percent pure.

The Pull-A-Part Cleveland West facility handles approximately 6,000 tons of used cars per year. These vehicles produce 21 percent less “fluff” (automobile shredder residue) sent to a landfill, when compared to typical vehicles delivered to a shredder. Each vehicle recycled saves approximately four tons of CO₂ (greenhouse gas) equivalent, according to U.S. EPA. Each vehicle recycled conserves nearly 11 million BTUs of energy (enough energy to light a 60-watt light bulb for nearly six years). 500 tons of automobiles are recycled monthly, on average, at the Cleveland West facility; 750,000 pounds of waste are prevented from entering Ohio landfills every year. The Cleveland West location collects approximately 50,000 gallons of oil, gasoline, brake fluid, transmission fluid, and antifreeze, as well as thousands of spent lead-acid batteries to be recycled. The Cleveland West facility has also recovered 10,086 mercury switches (22.19 pounds of mercury – equaling six percent of the total number of mercury switches pulled in the state) from end-of-life vehicles and sent them for proper recycling. This has prevented the mercury contamination of more than 1,330,164,000 gallons of water (enough water to fill a 100-acre lake, 40 feet deep).

Pull-A-Part serves as a member of the Steering Committee of the National Vehicle Mercury Switch Recovery Program. They have earned the U.S. Environmental Protection Agency National Partnership for Environmental Priorities (NPEP) Achievement Award for Recycling Mercury Switches (the only company in the country to have won this award).

For more information about the E3 program and the three levels of recognition, visit www.epa.ohio.gov/ohioE3.aspx or call (800) 329-7518.