



ENCOURAGING  
Environmental  
EXCELLENCE

## Encouraging Environmental Excellence Achievement Level Recognition

*September 27, 2016*

The Ohio EPA Encouraging Environmental Excellence Program targets those who reduce waste, improve efficiency and work to continuously improve as an environmental steward. The program has a four-level approach to provide recognition to Ohio businesses and other organizations completing environmentally beneficial activities. Higher levels of recognition are for those who exceed regulatory requirements or commit to future environmental stewardship efforts. The Achievement Level recognizes any applicants completing environmentally beneficial activities. Any business, trade association, professional organization or local government in Ohio may apply. Achievement Level participants must demonstrate significant progress in one of eight environmental stewardship criteria: Impact to the environment; pollution prevention; energy efficiency; renewable energy; renewable, recovered or recycled materials; green building; recycling programs or organics diversion. Achievement Level participants must also demonstrate some level of progress in at least six additional environmental stewardship criteria and indicate they are in compliance with environmental laws and regulations.

Ohio EPA is recognizing the following organization that successfully met the criteria for the Achievement Level of the Encouraging Environmental Excellence Program. Below is a summary of their efforts.

**Kenworth Truck Company – Chillicothe:** Kenworth Truck Company is a manufacturer of heavy and medium duty trucks. The first Kenworth truck rolled off the Chillicothe assembly line in 1974. The plant's milestone 500,000th truck was produced in February. Kenworth Chillicothe achieved ISO 14001:2004 certification for environmental management systems that helped them build Class 8 trucks in an environmentally sustainable manner. They recently received the 2016 American Electric Power Ohio Energy Efficiency Award recognizing AEP Ohio's business customers and partners who have demonstrated a strong commitment to energy efficiency.

Kenworth Chillicothe's participation in an AEP Ohio Continuous Energy Improvement (CEI) program produced total energy savings of 5 million kilowatt hours (KWH) – 1.56 million KWH in the first 12 months, and 3.44 million KWH in the second 12-month period. Kenworth's experience in CEI offers a template for sustaining energy savings year-after-year. Energy savings were driven by compressed air set point reductions, machine preventive maintenance and optimization, staggering of air conditioning set points, manually turning off half of the rooftop HVAC systems during weekends, and installing occupancy sensors. The plant also integrated energy efficiency topics into new employee training.

Kenworth being a division of PACCAR is obligated to submit to several quarterly environmental reports including waste disposal, recycling and associated costs, energy usage, water usage and greenhouse gas reductions which are used as benchmarking tools for all PACCAR facilities. The reports are shared with employees to educate them about the need for continuous environmental improvement at the facility. Some unused or off-spec materials are provided to employees instead of sending these items for disposal.

A number of continuous improvement efforts are occurring at the facility including reduction and elimination of constituents in the waste water treatment sludge that allow it to be used for strip-mine restoration and/or composting applications. Another effort involves the collection and use of precipitation (e.g., snow melt, rain, storm water, etc.) for dust suppressant applications on graveled roadways and parking areas, as well as a back-up supply for the facility's fire suppression system. Kenworth is using filter flush effluent water from the facility's reverse osmosis water treatment system as an auxiliary feed stock supplies for cooling tower and paint pit water supply systems.

Kenworth Chillicothe became a Zero Waste to Landfill facility in March 2016 where all facility non-usable and spent materials are now being recycled or sent to a waste to energy facility. These materials include hazardous and Universal Wastes, plastics, metals, glass, cardboard, paper, wood, pit and sump slurry wastes and wastewater treatment plant sludge. The facility reuses plastic drums that contained raw material chemical products. Empty drums are cleaned and stationed throughout the facility for collecting waste materials such as corrosive materials that can only be collected in containers meeting DOT Corrosive Materials standards. More than 16 million pounds of material are recycled through these efforts.

Wood pallets are reused when possible. Damaged pallets and other wood dunnage is sent offsite to be ground into mulch for reuse in landscaping applications. All landscaping wastes are sent offsite for composting and mulching applications.

A spent solvent recovery system has been implemented where solvent used to purge paint lines is reclaimed and reused. A dedicated distillation and storage process has been designed in which approximately 70% of the spent/waste solvent stream is recovered as usable solvent. This system is the benchmark for all other PACCAR sites.

Triploid (i.e., sterile) white amur carp are used instead of chemical treatment to reduce aquatic vegetation growth in the facility's fire pond. This pond not only acts as a back-up fire suppression water supply for the facility, but doubles as an aquatic habitat for plants, fish, amphibians, and to local waterfowl and migratory waterfowl species.

For more information about the Encouraging Environmental Excellence Program and the four levels of recognition, visit [www.epa.ohio.gov/ohioE3.aspx](http://www.epa.ohio.gov/ohioE3.aspx) or call (800) 329-7518.