

## **Achieving Pollution Prevention Success: Indiana Economy, Energy, and the Environment (E3) Initiative**

Grantee: Indiana Department of Environmental Management

Title: Indiana Economy, Energy, and the Environment (E3) Initiative

EPA Funding: \$96,670

Total Funding: \$111,159

Project Period: October 1, 2013 - September 30, 2016

EPA Pollution Prevention<sup>1</sup> Grant Number: SRA grant X9 00E01323-0

Grantee Contact: Jennifer Collins, (317) 234-9730, [jcollins1@idem.in.gov](mailto:jcollins1@idem.in.gov)

EPA Contact: Donna Twickler, Source Reduction Section, [twickler.donna@epa.gov](mailto:twickler.donna@epa.gov), (312) 886-6184

### **Project Description**

A 2014 Pollution Prevention (P2) Source Reduction Assistance Grant to the Indiana Department of Environmental Management (IDEM) supported Energy, Economy, and Environment (E3) assessments at four Indiana facilities to identify opportunities: for Lean improvements; energy, water and hazardous material conservation; waste reduction; and greenhouse gas (GHG) emission reductions. IDEM managed the grant and assisted Purdue University Manufacturing Extension Partnership (Purdue MEP) by promoting the E3 Initiative to members in the Indiana Partners for Pollution Prevention and the Indiana Environmental Stewardship Program.

### *Project Approach*

Purdue MEP performed assessments at four facilities that identified opportunities for Lean improvements, resource conservation and GHG emission reductions. The project team visited the four facilities, 23 times. During these visits the team identified 140 Lean, energy efficiency, P2 and cost saving opportunities. The team also provided the facilities with support to implement the opportunities identified during the E3 assessments. A total of 53 projects were implemented by the facilities and the project team assisted in the measurement of the environmental, and cost benefits associated with the implementation of the E3 opportunities.

### *Educational Activities*

Eleven workshops were conducted, resulting in a total of 50 individuals trained. A presentation entitled “E3 Program in Indiana” was given at the Pollution Prevention Conference and Tradeshow held in Indianapolis in September 2015. The presentation focused on the implementation activities at the Dubois Wood and Federal Mogul facilities that achieved the environmental, social and cost benefits.

### **Lessons Learned and Results**

The grantee experienced difficulty obtaining commitment from a number of companies it attempted to recruit due to the lack of staff time and the availability of funding to support assessment recommendations. Several additional obstacles experienced during the project are summarized below:

- A facility experienced several unexpected, unrelated production issues with malfunctioning equipment;
- After completion of the assessment, one of the facilities announced the planned closure of their plant;
- Two assessment contacts at the third facility left the company, causing a significant delay in assessment recommendation implementation;
- One of the facility’s budget cycle had already been approved and this resulted in a significant implementation delay due to the need to wait for the subsequent budget cycle to fund the implementation activities.

Despite these obstacles, significant environmental, social and cost benefits were achieved by the facilities that participated in the project supported by this grant. The environmental benefits include 100,517 gallons of water conserved; 3,259,760 lbs of solid waste and 71,000 lbs of hazardous waste reduced; and 2910 metric tons of carbon dioxide emissions avoided. The cost savings associated with the environmental benefits implemented by the facilities totaled \$2,057,929. Additional benefits include the retention of 3 jobs and the creation of 4 new jobs.

---

<sup>i</sup> Pollution Prevention involves the reduction or elimination of pollution at the source by modifying production processes, using less toxic substances, implementing resource conservation techniques, conserving water and energy, and reducing greenhouse gases. Energy and water conservation, hazardous materials and greenhouse gas reductions, and cost savings are all benefits of a P2 approach. EPA provides grant assistance to states and tribes to help businesses identify and implement P2 practices.