



# Environmental Stewardship Program

Elanco Clinton Laboratories

Success Story

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## Site Energy Efficiency Improvements

### Background

Elanco Clinton Laboratories (Clinton Laboratories), is located in Clinton, IN (Vermillion County). Clinton Laboratories employs 350 Hoosiers and has been an Environmental Stewardship Program (ESP) member since October 2007. Clinton Laboratories' Environmental Management System (EMS) has been certified by the Responsible Care Management System. They have had an EMS implemented for over 15 years. Clinton Laboratories opened in 1970 with 70 buildings sitting on 670 acres of land, of which 260 acres is used for farmland. Clinton Laboratories manufactures animal health care products that enable longer, healthier, higher-quality lives. Furthermore, manufacturing processes yield four compounds Hemicell, Monensin, Narasin, and Tylosin; which are included in Clinton Laboratories product line of various antibacterials, anticoccidials, and other animal healthcare products that prevent diseases and enhance productivity. Their operations include growing the enzymatic culture, transferring it to a bump tank, and ultimately ending up in a fermentation tank, which can take up to three weeks to process. Additional operations include placing the fermented product in a holding tank and recovering, finishing, and packaging the final, dry product. The products that Clinton Laboratories provides empower those who raise and care for animals to address the challenges of a diverse and changing world.

“Eli Lilly & Company and Elanco Animal Health are committed to providing a safe and healthy working environment for its employees, contractors, and visitors. Clinton Laboratories conducts all operations and activities in a manner that protects human health, the environment and quality of life. The site considers ESP membership an important statement of our environmental values to our peer companies in the state of Indiana,” Said John Batronis, Environmental Consultant at Clinton Laboratories.

Through participation in ESP, Clinton Laboratories has benefitted from flexible permit language from the Indiana Department of Environmental Management (IDEM) in exchange for continuous environmental improvement. Clinton Laboratories also benefits from coordinated scheduling of inspections and informative networking opportunities with other program members to discuss pollution prevention successes and future initiatives.

### Project Implementation

Clinton Laboratories made revisions to their Product Recovery Department's standard operating procedures (SOPs) in order to guide process operators on when it is appropriate to shut off the steam supply to the evaporators. Previously, steam on the evaporator jets would run 24 hours a day year round. These SOP revisions gave guidance to shut off the steam supply when it was

expected that the process would be off-line for greater than eight continuous hours. The project was completed early in 2016 and took approximately three months to revise the SOP, train operators, and implement the procedures. The project was part of a comprehensive strategy to reduce energy consumption (and Carbon Dioxide (CO<sub>2</sub>) emissions) at Clinton Laboratories and Eli Lilly and Company by 20 percent by 2020.

Clinton Laboratories also tackled three capital improvement and process change projects for energy efficiency that included installing Variable Frequency Drives on Well Pump Motors, optimizing operations of Chilled Water Systems in Free Cooling, and replacing Process Air Compressors and Aftercoolers. In summary, the capital improvements and process changes resulted in energy saving insights and opportunities.

## **Results**

Making revisions to the Product Recovery Department's SOPs reduced direct energy consumption by 58,000 MMBTU/Year. The improvements lead to 40.8 MM pounds steam saved, resulting in the reduction of 4.9 million gallons of water used and treated through the wastewater system. Consequently, the environmental initiative enabled the reduction of total emissions of Carbon Dioxide equivalent (CO<sub>2</sub>e)/Year by 6,000 U.S Tons.

## **Cost Savings**

The implementation of improved standard operating procedures resulted in a reported cost savings of \$155,698.00.

## **Summary**

Clinton Laboratories believes in environmental stewardship because it's, "not just about saving energy and the environment – this is good business!" In addition to reducing energy and water consumption through capital improvements and process changes, Clinton Laboratories is aggressively pursuing a reduction of phosphorus in their wastewater that is discharged under their NPDES permit.

## **Facility Contacts**

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