

Project Overview

Cornhusker Energy Lexington
Lexington, NE



Industrial Placement

Intern: Katie Ring

Major: Environmental Engineering

School: University of Missouri – Rolla

The Company

Cornhusker Energy Lexington is a privately-held company that currently produces more than 40,000,000 gallons of ethanol annually at its plant in Lexington, Nebraska. CEL employs 52 individuals and operates 365 days per year. In addition to ethanol, Cornhusker Energy produces both wet and dry distillers grains. Construction is currently in progress to expand the plant to produce 150 million gallons of ethanol per year.

Project Description

CEL strives to organize their environmental documents and permits, as well as to be continuously in compliance with the Nebraska Department of Environmental Quality. Projects conducted in 2007 included researching and preparing a Storm Water Pollution Prevention Plan (SWPPP), investigating the feasibility of capturing biogas from the nearby waste water treatment plant (WWTP), as well as a general pollution prevention management report.

Results

The quantified results of implementing suggested pollution prevention (P2) opportunities are summarized in the table below.

Pollution Prevention Opportunity	Cost Savings	Environmental Benefit(s)
Use of Biogas from WWTP	\$60,290/year	Saves 15,721 ft ³ /day of natural gas
35 Computers with Power Efficiency Practices in Use	\$1,440/year	33,779 lbs CO ₂ prevented/year from entering atmosphere, equivalent to taking 3 cars off the road/year
Solid Waste Recycling	\$346/year	6.78 tons of waste diverted from landfill/year
2 Energy Star Refrigerators	\$64/year	2,101 lbs CO ₂ /year prevented from atmosphere
Energy Star Water Cooler	\$16/year	361 kwh/yr saved, 555 lbs CO ₂ reduced throughout life cycle
Total	\$62,156/year	