

Annual Green Tier Report

2016

Prepared for: Wisconsin Department of Natural Resources
Green Tier Program

Prepared by: 
Oak Creek, Wisconsin

1. Introduction – Who We Are

We are a Wisconsin-based contractor who has offered earthwork services on public and private projects since 1956. Our primary activities currently include:

- Earthmoving: Large Site Grading and Excavation
- Highway and Airport Construction
- Deep Urban Excavations
- Concrete and Aggregate Processing and Recycling
- Environmental Site Remediation

We believe that these activities are a necessary component of a healthy economy. We also recognize that these activities can have a direct impact on the sustainable health of our environment. Further, we recognize that a healthy environment, a healthy community and a healthy economy are inextricably co-dependent. Our ethics and our sense of responsibility to our employees and our community therefore compel us to assign time and resources required to steadily reduce the environmental impact of our activities.

To that end, we are proud to have been members of the Wisconsin Department of Natural Resources Green Tier Program since 2012.

2. Progress on Environmental Objectives

Edgerton works every day to meet the spirit and the letter of the environmental regulations that are designed to guide our industry. For example:

- We utilize best management practices to minimize the discharge of sediment-laden stormwater to surface water from our work sites.
- We supply our field personnel with spill kits and training on how to control and prevent the release of chemicals in the case of an equipment breakdown.
- We protect sensitive ecosystems from our activities when they are located within or adjacent to projects.

While we are proud of the reputation we have built for consistently meeting regulatory requirements, the reality is that these practices are legally required from everyone in our industry. In the spirit of the Green Tier Program, we strive to move beyond the basic regulatory requirements. As part of our participation in the Green Tier Program, we have created and are implementing an Environmental Management System (EMS).

In our EMS documentation, we prioritize the reduction of emissions from the internal combustion engines on the largest component of our heavy equipment fleet: non-road, track-type excavators and tractors. Our plan for reducing emissions includes three components.

- Idle Policy

Our Idle Policy directs field management and equipment operators to shut down any equipment that is idling for more than 5 minutes. Implementation of this policy requires that we overcome

a well-entrenched understanding that frequently starting and stopping these engines is hard on them.

When the weather is cold, our policy encourages the use of electric engine core heaters to reduce the required idle warm-up time required after a cold start in the morning. The use of core heaters requires field management to anticipate cold weather and provide an electric power source to run the heaters.

- Employee Training

We are implementing the Idle Policy with regular reminders to employees during the morning safety meetings.

- Equipment Upgrades

Thanks to improving emissions technology on heavy equipment, we can reduce engine emissions through upgrades to our heavy equipment fleet.

In 2016, we purchased several pieces of new equipment:

- 2016 Cat 349FL XE Excavator (Tier 4)
- 2016 Cat 349FL XE Excavator (Tier 4)
- 2016 Cat 140M2 Grader (Tier 4)
- 2016 Cat D6K2 Tractor (Tier 4)

These units replaced the following pieces of older equipment:

- 2001 Volvo EC460 LC Excavator (Tier 1)
- 2004 Volvo EC460 LC Excavator (Tier 2)
- 2002 Cat 140H Grader (Tier 1)
- 2006 Cat D6N Tractor (Tier 2)

The value of these transactions was on the order of \$1 million. The resulting impact on our emissions may be estimated using the Diesel Emissions Quantifier Tool offered by the United States Environmental Protection Agency on their website at this link:

<https://cfpub.epa.gov/quantifier/>

As inputs, this tool accepts the age of the machines, type of machine, annual hours of operation, horsepower and annual fuel consumption. Based on that data, the tool then estimates the quantity of four emitted compounds: Nitrogen Oxides (NO_x), Hydrocarbons (HC), Particulate Matter (PM), Carbon Monoxide (CO).

After making the capital investment shown above, the total annual quantity of emissions dropped from 3.5 TN/YR to 1.1 TN/YR. This is a 67% reduction in emissions for those five machines.

At the end of 2016, 77% of our non-road, track-type excavators and tractors were equipped with Tier 4 engines – which are the engines with the lowest level of emissions available on the market.

Using the same EPA Diesel Emissions Quantifier Tool, we can measure the overall impact of our plan to reduce emissions by estimating emissions for the entire production fleet of non-road tracked excavators and tractors. We then divide the quantity of emissions into the dollars of revenue generated by those machines to calculate the Green Tier Economic Indicator. Chart 1 shows how this index has changed in recent years.

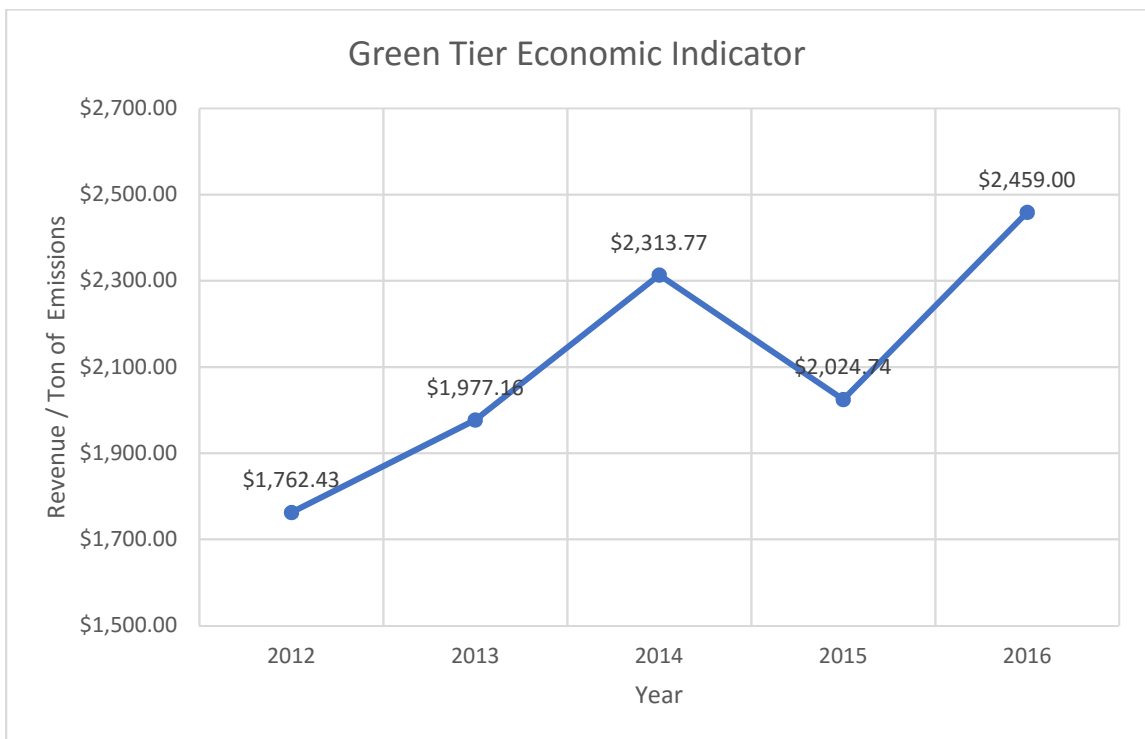


Chart 1: Revenue per Ton of Emissions

If our plan to reduce emissions is successful, we would expect the dollars of revenue per ton of emissions to increase over time. The chart shows a 40% increase in revenue per ton of emissions over the last four years.

3. Audit Results of Environmental Management System

In 2016, we subjected our Environmental Management System (EMS) to an independent, external audit performed by The Elm Consulting Group International, LLC. The audit concluded when the Elm Consulting Group certified our EMS in March, 2017. The certification was confirmation that we made

important improvements to our EMS.

In 2016, Edgerton also completed a review of our Environmental Management System which included an independent external audit. Consistent with the external audit, our internal audit identified components of our EMS that could be improved. These improvements have been added to the list of initiatives for 2017.

4. 2017 Objectives

In the interest of complying with the audit recommendations, we are planning the following objectives for 2017:

- Continuation of the plan to reduce emissions.
- Monitor and report machine idle time as measured by our fleet telematics system.
- Annual employee training on rotating set environmental topics including: idle policy, erosion control, and dust control. This will include instruction on best practices and policies in a conference room setting.
- Establish a prairie on the Edgerton Office site in Oak Creek to reduce mowing and application of lawn fertilizer and chemicals.
- Create Stormwater Pollution Prevention Plan for the Edgerton Shop in Oak Creek.
- Improve administrative controls of the EMS.