



## **PORTAGE FACILITY - ANNUAL GREEN TIER REPORT FOR 2015**

### **Introduction**

The Unimin Corporation – Portage Facility is a non-metallic mining operation producing high-quality silica sand to the glass, foundry and hydraulic fracturing industries, to name a few. Mining operations at the site first began in the early twentieth century under different ownership. Unimin purchased the facility in 1983 from Martin Marietta and has been in continuous operation since that time. Unimin is proud to be a leader in the industry and has always placed value in being a responsible company, an excellent environmental steward and pillar of the communities in which we operate.

Prior to making application to the Wisconsin Green Tier Program in July of 2012, Unimin has been an active member of the Wildlife Habitat Council (WHC), a nonprofit organization that encourages its members to exceed what is expected or required, and to establish programs to take advantage of available resources, as well as partner with local conservation groups and state and local agencies.

### **Green Tier Certification**

The Portage facility achieved Green Tier status in January of 2013 and continued efforts to generate an Environmental Management System (EMS) to help identify significant environmental impacts of our activities, products and services and focus on continuous improvement using a plan-do-check-act approach to problem solving as well as selecting and achieving goals to support sustainable and environmentally conscious operations.

An EMS was developed and successfully implemented, as evidenced by the June 2013 Letter of Conformance provided by a qualified external third-party auditor, Perfect Environmental Performance, LLC. (PEP), documenting that the EMS conforms to the “functional equivalency” requirements of ss. 299.83.

The 2014 EMS audit was conducted by PEP which produced no non-conformances. Management has been working on the EMS and with plant personnel to complete a few Opportunities for Improvement (OFI) recommended by PEP in the audit report.

## **Environmental Compliance**

The Portage Plant operated the year of 2015 with no regulatory violations.

## **Tracking 2015 Objectives**

### **Energy Consumption / Reduction:**

Continue with Energy Consumption reduction efforts:

- The Unimin-Portage Facility will continue the program of lighting upgrades by replacing at least 6 High-wattage lighting fixtures (350 W or greater) with high-efficiency lighting fixtures (<200 W w/equal lumens)
  - The plant replaced 12 high-wattage lighting fixtures with high-efficiency LED fixtures. Comparing recent electrical consumption with last year, energy reduction is estimated to be 1,100 KWH per day lower this year, for a cost savings of \$1,700 per year.
- The Unimin-Portage Facility will further reduce electrical consumption by installing motion-sensing light switches in the employee lunchroom and locker room.
  - The Unimin-Portage facility installed motion-sensing light switches in the employee lunchroom and locker room. Based on occupancy of these rooms, the electrical consumption for the lights was reduced by 75%.
- The Unimin-Portage Facility will reduce water consumption / pumping requirements by installing low-flow toilets and urinal flush valves in the employee locker room.
  - Low-flow toilets were installed in the employee locker room toilet. It is estimated that the low-flow fixtures has reduced water consumption in the locker room by 40%.
- The Unimin-Portage facility will reduce heating and cooling requirements by installing insulating window shades in front office.
  - The Unimin-Portage facility installed insulating window shades in front office. In 2015, Heating fuel consumption was reduced by 25% compared to the year prior.

### **Direct Environmental Affects:**

To reduce / prevent dust emissions and employee exposure to dust:

- The Unimin-Portage Facility will improve its monitoring of screenhouse dust collection equipment by adding a warning system that will alert operators of out-of-range operating conditions on the dust collection equipment.
  - The facility added warning features in its screenhouse operating system to include visual warning indicators that will alert operators of out-of-range operating conditions on the dust collection equipment.
- The Unimin-Portage Facility will continue to replace and/or reseal of asphalt on the facility roads & parking lots; another 12,000 square feet will be replaced in 2015.
  - The facility replaced 12,000 square feet of asphalt pavement during the year. Using basic climate assumptions and based on the length of pavement, number of trucks and weight of trucks; the paved road reduces total particulate dust generated by 155 lbs per year. Calculations modeled using EPA's Emissions Factors & Equations (AP-42, Compilation of Air Pollutant Emission Factors, Chapter 13.2).

### **Other Accomplishments**

- The Unimin-Portage Facility will implement a battery recycling program, which will reduce the likelihood of spent batteries being discarded into landfills.
  - Working with vendor Fastenal, the facility implemented a battery recycling program. In the 9 months of the program, 100 batteries, which may have otherwise could have potentially been disposed of improperly, were recycled.

**Additional (Not on the 2015 Objectives):** The Unimin-Portage Facility was awarded Habitat of the Year from the Columbia- Marquette Chapter of Pheasants Forever.

The Unimin-Portage Facility achieved a three-year re-certification from the Wildlife Habitat Council. The Wildlife Habitat Council is an organization that develops specific criteria for the development / improvement of land to be designated for wildlife habitat. In order to qualify for their certification, members must demonstrate that projects are being initiated and maintained, which improve the quality of habitat on their land, for various types of wildlife.

## **Planning for the Future, Starting with 2016**

- Continue with program to replace antiquated, inefficient light fixtures; the Unimin-Portage Facility will replace an additional 10 High-wattage lighting fixtures (350 W or greater) with high-efficiency lighting fixtures (<200 W w/equal lumens)
- The Unimin-Portage Facility will replace at least two standard electrical starters with soft starts (75 HP motors or greater) to reduce peak electric load.
- The Unimin-Portage Facility will develop a more detailed recycling program to identify more specific materials recycling. The goal will be to develop more effective recycling streams and better differentiate between refuse and recyclables, and increase the proportions of recycled materials to waste.
- In 2016, the Unimin-Portage Facility will reduce its generation of non-recyclable waste by 5% from 2015.
- The Unimin-Portage Facility will continue with its asphalt resurfacing program; with the goal to either replace or reseal another 12,000 sq. ft. of roadway.
- The Unimin-Portage Facility will evaluate its stationary air compressors throughout the facility (5) and evaluate the air reservoir condensate discharges to determine if any appreciable oil is being discharged with the water, and not being properly contained. If oil is being released, a plan will be developed to properly capture and dispose of the oil.

Giles Perkins – Plant Manager

May 16, 2016