Member Spotlight Steelcase

Steelcase is the global leading producer of office furniture as well as other workplace services and products, with its world headquarters in Grand Rapids, MI. Sustainability is a major element of the Steelcase mission, making the company an ideal member for the GMIC. Last year, Steelcase joined GMIC and opened the door for several projects that are underway at the company’s Steel and Wood Plants in Grand Rapids. As a testament to the company’s commitment to sustainability, Steelcase holds several certifications in regards of environmental commitment, i.e. C2C, FSC, LEED (many levels across plants), ANSI/BIFMA Level 3, SCS Indoor Advantage Gold and ISO 14001. With these impressive accomplishments, Steelcase with the GMIC keeps its focus on eliminating waste and improving environmental quality.

![Steelcase Building](image)

The first GMIC project at Steelcase is focused on veneer defects caused by the sanding process. During the first phase of the project, the GMIC team collected data on the frequency and contributing factors for defects. The majority of Steelcase wooden office furniture is composed of particle board laminated with thin wooden veneer. These boards are fed through an automated belt sander, which leaves the wood surface smooth and ready for the staining and finishing step of the process. Wood is a difficult material to use in manufacturing processes because of its unpredictable and inconsistent material properties, but Steelcase has made strides to minimize material waste and defects. However, veneer is extremely thin and vulnerable to damage during handling or due to the automated sanding process. This project is focused on sand-throughs defects directly caused by variation in the sanding process.

Phase II of the veneer defects project is currently underway. During this phase, the team will go through a root cause analysis, looking at everything from the type of wood used to the positioning of the boards before going into the sander. The goal of phase two is to find cost savings for Steelcase by finding ways to reduce the occurrence of sand-throughs and the delays that they cause to the overall flow of production.

![SCS Certified](image)
We have winners at the GMI/GMIC

The Office of the Vice President for Research, Graduate College and other campus units at Western Michigan University sponsored the 7th Annual Research and Creative Activities Poster Day, on April 5, 2013. The event encourages graduate students to engage in professional development by preparing a poster that focused on their area of study. One of the competitions focus is to give students the opportunity to win a financial scholarship.

The Green Manufacturing Initiative was well represented with two winners and one honorable mention.

Second Place – “Greening Cement-Based Projects with Waste Powder Paint”
Students: Abdul Wahed Mohanned, Rusthi Mohamed Ibalebbe
Faculty Sponsor: Dr. Upul Attanayake/Civil and Construction Engineering

Third Place – “Landfill Audits”
Students: Nathan Christensen, Marylin Glass
Faculty Sponsor: Dr. David Meade
Michigan Recycle Coalition conference
On Thursday, May 8 the Green Manufacturing Industrial Consortium (GMIC) co-presented with Bill Gurn at the Michigan Recycling Coalition annual conference. Representatives from the GMIC included new research coordinator Colin Knue and manufacturing engineering masters student Nathan Christensen. Along side Bill Gurn, Colin and Nathan presented the methodology behind conducting a landfill assessment, analyzing results, and forming an action plan to help reduce waste throughout the facilities. Landfill audits are becoming a very popular way to identify and quantify low hanging fruit from an organizations material waste stream.
Michigan Department of Quality-Grant Approved

The MDEQ and the U.S. Environmental Protection Agency has partnered with the GMIC to enhance efficiency and protect human health and the environment through the implementation of pollution prevention and energy efficiency in the manufacturing setting. This project is also designed to leverage the services provided by the Michigan Retired Engineers Technical Assistance Program (RETAP) and support engineering students to assist in the implementation of specific projects focusing on pollution prevention and energy efficiency.

The start date was March 14, 2013 and runs through September 30, 2014. What does this mean to our members? Grant funding of $30,060 for students and staff wages related to approved projects. To date we have used $???????