Success Story

ABB Power Technologies USA

Bland, VA Facility

Product: Manufacturer of Electrical Transformers
Location: Bland, VA
Employees: 350
Founded: 1973

E3: ECONOMY · ENERGY · ENVIRONMENT
SUPPORTING MANUFACTURING LEADERSHIP THROUGH SUSTAINABILITY

ABB Implements E3 (Economy, Energy, Environment) Improvements in Their Bland, Virginia Facility

The Company:

ABB Bland is a manufacturing facility of ABB Power Technologies USA, a global leader in power and automation technologies that enable utility and industrial customers to improve performance while lowering environmental impacts.

The ABB Group of companies operates in around 100 countries and employs about 133,000 people worldwide. The company's U.S. operations employ about 10,000 in manufacturing and other facilities in 40 states. ABB operates two manufacturing facilities in Virginia – one in Bland County and one in Halifax County – employing more than 600 Virginians (over 300 per Virginia facility). This Bland facility was established in 1973.

The Situation:

Due to their reputation of continuous improvement and their relationship with the **Manufacturing Technology Center (MTC)**, ABB was approached regarding federally funded technical assessments offered by the MTC. The goal was to identify improvement opportunities in Lean manufacturing, energy conservation and reduced environmental impacts.

ABB seeks to minimize the environmental impact of their technologies and products to ensure that their manufacturing processes are environmentally friendly and energy-efficient.

The **Manufacturing Technology Center (MTC)** is a Manufacturing Extension Partnership (MEP) service delivery partner of GENEDGE ALLIANCE. GENEDGE is the designated MEP affiliate for the state of Virginia.

The Response:

- A two-day technical assessment was conducted with MTC engineers, specialist, and plant staff.
- Process flows were reviewed to identify the seven deadly wastes. Energy consumption was analyzed through meetings with account managers of utility providers, and monitoring equipment was utilized to better understand energy consumption.
- Pollution prevention opportunities were considered throughout the facility.
- The assessment was followed by a two-day Lean and Green Event. Employees were trained in Value Stream Mapping and additional opportunities were identified with a current and future state map.

The Results:

Upon completion of the two-day technical assessment, the data gathered was studied to determine opportunities for improvement. Recommendations were documented that included current state conditions, recommendations for improvements in plant operation, dollars that could be saved and pay back justification.

Recommendations included:
- Waste stream cost reduction of $24,000
- Energy cost reduction of $32,000

During the technical assessment, MTC determined which core process would be a good candidate for a Lean and Green Value Stream Map.

Upon completion of a future state map on ABB's large transformer line, recommendations resulted in the following savings recommendations:
- Process opportunities of $45,000
- Waste stream cost reduction of $32,000

ABB has searched for improvement opportunities throughout their history. Their partnership with the MTC allowed for additional savings of $133,000 to be identified.

Management's Comments:

"We completed the energy savings task as recommended by your team. This project will definitely save ABB money. Many thanks for all of your team's help. MTC's direction and leadership and ABB's commitment to the E3 process has definitely proven to be a formula for success."
- Danny Hoosier, ABB, Bland

MTC MANUFACTURING TECHNOLOGY CENTER
www.mtcofswva.org

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