

Denyo Manufacturing Corporation

Denyo Manufacturing Corporation is located in Danville, Kentucky. The company's 128 employees work in materials, paint, assembly, testing, quality, and shipping areas to assemble diesel engine-driven electric generators for world-wide distribution.

Since 2005, Denyo has worked closely with KPPC – Kentucky Pollution Prevention Center to help identify and implement P2 and E2 initiatives. Denyo has continually undertaken extensive data collection to measure all aspects of its production processes to find opportunities for improving environmental performance and has used the process data to put in place well-developed pollution prevention and energy efficiency programs

In consultation with KPPC, the company's award-winning efforts have resulted in improved recycling of scrap metal, cardboard, paper, plastics and wood, reduced water and natural gas consumption and improved wastewater treatment operations. The company's efforts have also provided efficient management of process chemicals, lowered air emissions and significant cost savings.

Real Reductions – Real Results

While working with KPPC, Denyo has seen its production rise from 1,450 units in 2009 to 5,662 units in 2012 – a **390 percent increase**. At the same time, the company has grown its staff levels from 64 in 2009 to 128 today.

While production and staff levels have increased dramatically, hazardous waste, water and energy use actually decreased or stayed the same because of implemented changes in production efficiencies and sustainability practices.

- Hazardous Waste – reduced from 1,440 gallons per year in 2010 to an estimated 10 gallons in 2013
- Inert Waste – reduced from 55 tons per year in 2011 to an estimated 27 tons in 2013 with zinc eliminated from process
- Water Usage – plant-wide: 503,619 gallons per month in 2011 to an estimated 266,276 in 2013
- Combined Recycling – up from 567,000 pounds in 2011 to an estimated 721,440 pounds in 2013
- Wood disposal: 2010-2012 – decreased 64 percent
- Air Emissions – reduced by 62.9 percent from 2011 to 2013.

Milestones in Sustainability...

Denyo's air quality permit was rescinded in 2013 by the Kentucky State Air Permit Review Branch based upon the company's reduced emissions.

Denyo is no longer required to pay into Kentucky's Hazardous Waste Management Fund because of the major reductions the company made in hazardous waste generation.

With KPPC's guidance, Denyo developed a recycling program that not only reduces the amount of waste from shipping materials sent to the landfill, but also earns the company extra revenue.

Denyo has installed new e-coating and powder painting systems – a significant investment in the facility. The new process:

- works at ambient temperatures – reducing the amount of natural gas consumed;
- is water-based – reducing the flammable chemicals in the facility; and
- will greatly reduce the amount of hazardous waste that is generated, nearly eliminate regulated air emissions, and reduce the amount of process water that is discharged to the sewer system.

“Working with KPPC helped us ‘catch the fever’ about the benefits of environmental sustainability. KPPC helped put measures in place to identify where the company is with respect to its ES efforts. Prior to working with KPPC, there was no baseline which identifies how much waste we were generating and how much cost went into managing that waste. You catch the fever when you see real, measurable improvements, but to see the improvements you first have to see where to start.”

Joey Harris

Plant Manager, Denyo Manufacturing Corporation



Cam Metcalf, Executive Director of KPPC (left) and Tom Wright take a tour of Denyo with Joey Harris, Plant Manager.

Denyo's Award Winning ES Initiatives

Denyo's management and staff share in the success of the company's environmental efforts. The company has won a number of awards and been recognized as an environmental leader in Kentucky.

Small Business Air Quality Stewardship Award

Denyo has been recognized by the Kentucky Small Business Stationary Source Compliance Advisory Council and was awarded the 2008 Small Business Air Quality Stewardship Award. Kentucky Governor Steve Beshear presented the award to Denyo "In recognition of exemplary performance in enhancing the air quality of the Commonwealth of Kentucky."

KPPC Environmental Stewardship Award

Denyo received the Kentucky Pollution Prevention Center's Environmental Stewardship Award In 2009. The award recognizes Kentucky companies that have demonstrated a commitment to the principles of sustainability: ensuring the social well-being not only of their company as a whole, but also their employees and the community around them; identifying opportunities and implementing environmental-related improvements to their facility; and enhancing economic outcomes through savings from environmental improvements.

Kentucky Manufacturer of the Year

The Kentucky Association of Manufacturers (KAM) awarded Denyo its Kentucky Mid-size Manufacturer of the Year Award in 2012 for innovative and entrepreneurial leadership with regard to products, production methods, and services, recognized leadership in making a key contribution to the quality of life in the Commonwealth and the community, and active involvement in organizations that advance industry and manufacturing.

Commitment to Sustainability

Denyo has made a long-term commitment to sustainability and has implemented changes that encourage and support behavioral changes within the organization. Like KPPC, the company recognizes that changing an organization's behavior is the key to continued success beyond the initial efforts. As an example of behavioral change, continuous input and output measurements and record-keeping have become a normal part of daily operations at the plant and key to business planning and decision-making.

Denyo recognizes that management and employee buy-in are critical to achieving positive changes in organizational behavior. With the full support of the parent company in Japan, Denyo's upper management became the driver for establishing a proactive, sustainability-focused workplace.



Denyo worked closely with the KPPC to help identify and implement P2 and E2 initiatives and encourages other Kentucky industries and organizations to contact KPPC for help with environmental sustainability efforts.



Contact KPPC Today Learn how KPPC's **Free, Confidential** and **Non-regulatory** technical assistance services can help your business, industry or organization lower operating costs, improve efficiency and practice environmental stewardship.

www.kppc.org

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