

WVU POLLUTION PREVENTION NEWSLETTER

May 2024

INDUSTRY FOCUS: Aerospace Product and Parts Manufacturing

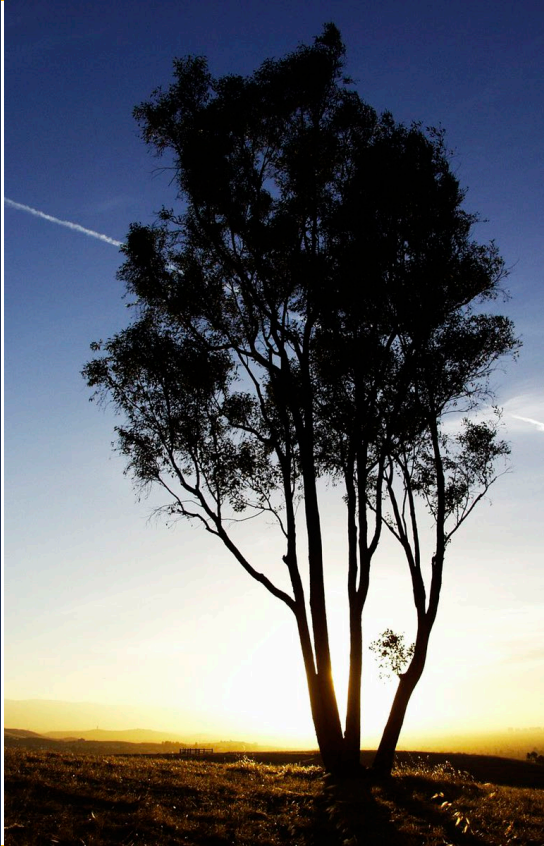
Welcome to the latest edition of the WVU Pollution Prevention Newsletter! In this issue, we are excited to introduce the dedicated members of the WVU Pollution Prevention Team, committed to environmental stewardship. Explore valuable insights as we share industry best practices for enhancing energy efficiency and sustainability in the aerospace product and parts manufacturing industry. You will also find P2 tips that can be implemented at home or in the workplace. Lastly, discover the range of services we offer to support Small and Medium-sized Enterprises and businesses throughout West Virginia. Stay informed, inspired, and engaged with our commitment to environmental excellence and community impact.

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WHAT IS POLLUTION PREVENTION



Pollution Prevention (P2) is one of the key approaches towards an initiative to improve the energy efficiency and productivity of key industries while prioritizing environmental sustainability. The initiative focuses on reducing or preventing pollution at its source.

The primary objective of our Pollution Prevention program is to provide technical assistance to Small and Medium Enterprises in **key industries** and within **disadvantaged communities** in West Virginia by assisting with identification, development, and implementation of P2 methods. The recommendations provided to the industries are designed to help the business lower operational costs by reducing expenditures, water and energy usage, waste, and disposal costs, while at the same time maintaining and often improving productivity.

Key Industries:

1. Food and Beverage Manufacturing and Processing
2. Chemical Manufacturing, Processing, and Formulation
3. Automotive Manufacturing and Maintenance
4. Aerospace Product and Parts Manufacturing and Maintenance
5. Metal Manufacturing and Fabrication

OUR SERVICES

1. **Pollution Prevention Assessments:** The project team will make a planned visit to your facility to assess and gather data on energy, water, material, and personnel use. Assessment data along with input from the facility managers will be used to develop P2 recommendations. A detailed report based on the findings will be submitted to the facility shortly after the on-site assessment.
2. **Energy Audits/Assessments:** Applying for a USDA-REAP grant and need an assessment? Want to save money? The project team will visit your facility and identify opportunities to improve energy efficiency. A detailed report will be provided to the business, including estimates of implementation costs, energy use savings, energy cost savings, and simple payback period for each identified opportunity.
3. **Training Workshops:** Training workshops will be conducted to help businesses learn P2 Best Practices, tools, techniques, and resources available, and how to modify their process or site to improve energy efficiency, productivity, and environmental sustainability.
4. **Technical Assistance:** The project team can provide on-site or off-site technical assistance on a variety of industrial concerns related to topics including pollution prevention, energy efficiency, sustainability, environmental impact, and process improvement. Contact us for assistance!
5. **USDA-REAP Application Assistance:** Applying for grant funding can be a challenge, especially for the small businesses that do not have an expert at grant-writing on the payroll. Our project team can help you navigate the application process and assist with completing the application for USDA-REAP funding.

P2 INDUSTRY FOCUS

Tips for the Aerospace Industry – Soar to Safety!

- **Replace Metals with Composites:** When appropriate, composite materials can be used in place of metals, such as copper. Composite materials can reduce the use and release of metals, while decreasing product weight and maintaining strength.
- **Use Safer Degreasing Products:** Most common degreasing products, such as Trichloroethylene, use organic solvents that are harmful to the environment and can be hazardous to the employees. In a lot of cases, aqueous cleaners or high-pressure steam can do the job without the harmful chemicals.
- **Substitute Metal Plating Aids:** Hexavalent Chromium can be replaced with Trivalent Chromium in the metal plating process. Trivalent chromium has lower toxicity, reducing hazardous waste and other compliance costs.

P2 @ WORK

Improve Sustainability at Work:

- **Clean Green:** Look for cleaning products bearing a Safer Choice or Design for the Environment certification. These products are safer for the user and the environment.
- **Follow the 5 Rs:** Refuse, Reduce, Reuse, Repair, and Recycle. Taking these steps reduces waste and can help you save money!
- **Conduct Regular Training:** If you use any harmful chemicals, conducting regular training to refresh people on proper disposal and clean-up protocol will help protect your employees and help you maintain compliance.

P2 @ HOME

Make a Positive Impact at Home:

- **Reduce Single-Use Plastics:** Use reusable containers, bottles, and bags to cut down on plastic waste. For example, switching from single-use to reusable water bottles can dramatically lower the amount of plastic pollution.
- **Conserve Water:** Install water-saving devices such as low-flow faucets and showerheads, fix leaks promptly, and practice water-efficient habits like shorter showers and turning off taps when not in use. Conserving water helps reduce strain on freshwater sources and energy used for water treatment.
- **Composting:** Start a compost pile to recycle food scraps and yard waste into nutrient-rich soil for gardening. Composting diverts organic waste from landfills, reducing methane emissions and enriching soil health.

- **Energy Efficiency:** To save energy, replace inefficient appliances with more energy-efficient models, install programmable thermostats, convert to LED lighting, and unplug electronics when not in use. This lowers utility costs while also reducing greenhouse gas emissions.
- **Green Transportation:** Whenever feasible, avoid driving alone by choosing to walk, ride your bike, carpool, or take public transit. This lowers carbon emissions, eases traffic, and encourages healthier living.

HIGHLIGHTING OUR IMPACT

The WVU Pollution Prevention (P2) team takes great pride in the impact we have within the borders of West Virginia since January of 2023. From energy savings to CO₂ reduction, the recommendations we develop for these businesses not only help these businesses improve their sustainability, but also their bottom line!

Look at the impact of the opportunities we have found! →

10 Energy Efficiency/P2 Assessments

24 Recommended Improvements

\$277,592 Saved Annually from Improvements

2,400 MWh Electricity Saved Annually...

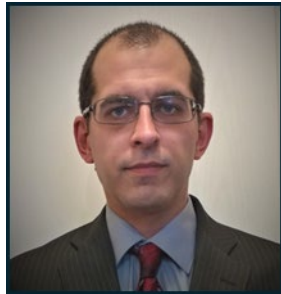
Enough electricity to power 2,400 homes!

THE P2 TEAM

Faculty & Staff



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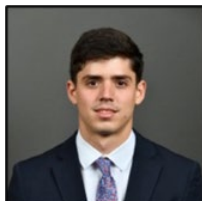


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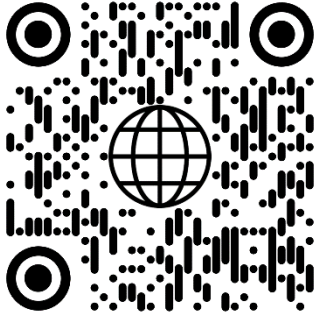
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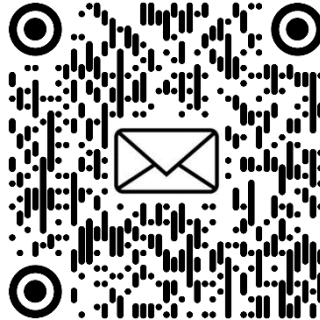
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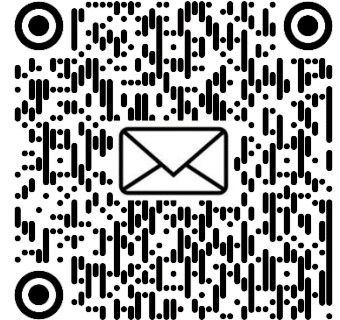
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P2 Website



Inquire about Services



Questions or Comments?