

# WVU POLLUTION PREVENTION NEWSLETTER

JULY 2025

## INDUSTRY FOCUS: SAFER CHEMICALS (PART 2)

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 continue our series on Safer Chemicals, discussing the history of Safer Choice in this edition. 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.

## FEATURED IN THIS EDITION

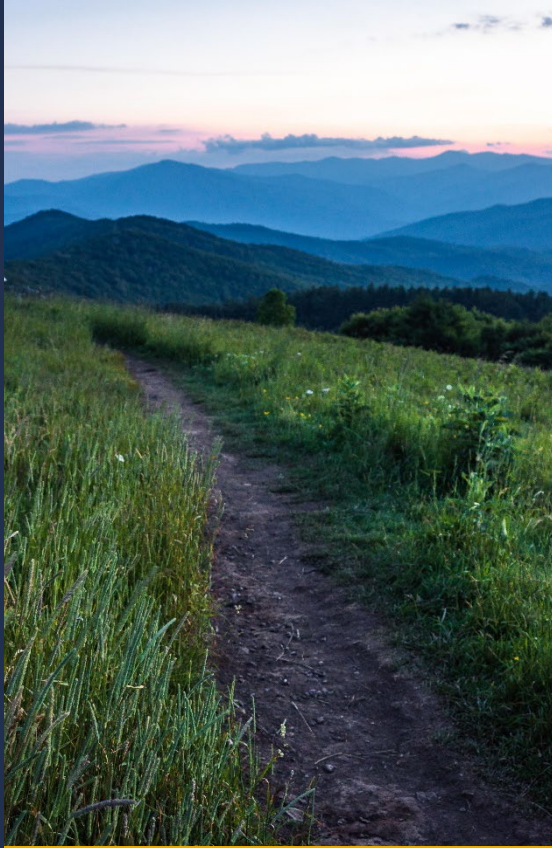
WHAT IS POLLUTION PREVENTION .....	2
OUR SERVICES .....	2
POLLUTION PREVENTION FOCUS .....	3
HIGHLIGHTING OUR IMPACT .....	4

UPCOMING EVENTS .....	4
THE P2 TEAM .....	5
CONTACT US .....	5





# 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

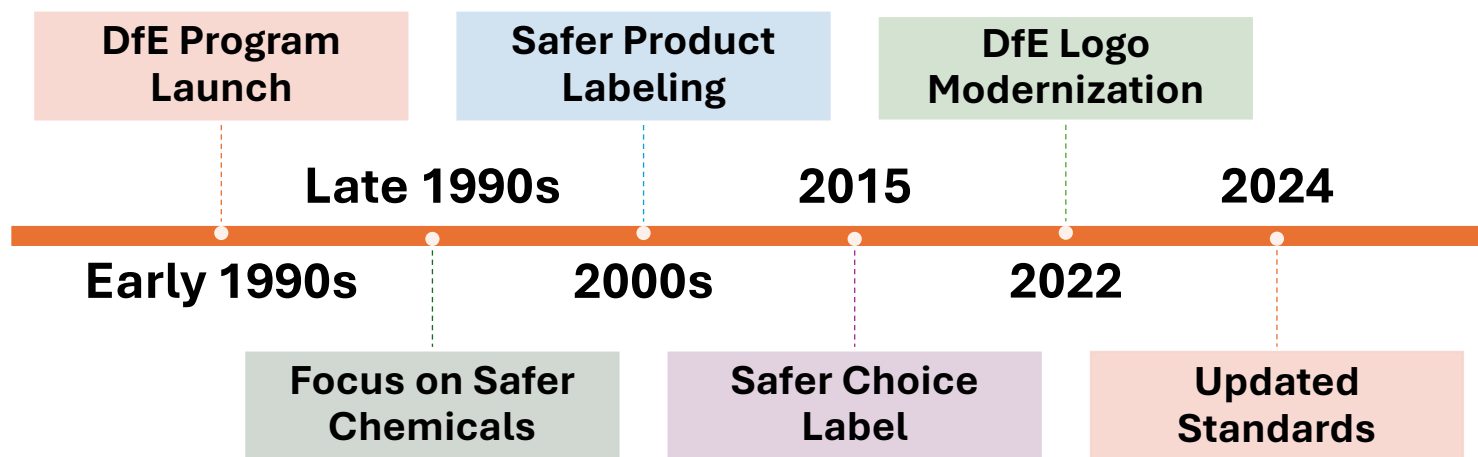
## OUR SERVICES

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.



# POLLUTION PREVENTION FOCUS

## HISTORY OF EPA'S DESIGN FOR THE ENVIRONMENT & SAFER CHOICE



**Early 1990s:** The Design for the Environment program began in the early 1990s as a collaborative effort to address the health and environmental challenges posed by industrial chemicals. The key objectives of this initiative were to:

1. Assist companies in designing safer and more sustainable products and processes, and
2. Encourage collaboration with industry sectors to tackle health and environmental challenges.

**Late 1990s:** In the late 1990s, as a response to increasing public concern, the Design for the Environment focus was expanded and adjusted to include:

1. Assessing safety of alternatives to priority chemicals that pose unreasonable risk to the environment or human health, and
2. Recognizing companies producing safer chemical products.

At this time, there was also a greater emphasis placed on chemical safety of household and commercial products along with increased collaboration with stakeholders for safer alternatives.

**Mid-2000s:** In the Mid-2000s, the safer product labeling initiative began, including a certification program for safer products. This encouraged companies to develop safer products using safer chemical ingredients and allowed them to place the Design for the Environment label on their product, differentiating it from the un-certified alternatives. This labeling also allowed consumers to easily identify products that were safer for their families and the environment.

**2015:** In 2015, Safer Choice evolved out of the Design for the Environment program and the Safer Choice label was developed, offering a more modern look to the program. Similar to the Design for the Environment label, the Safer Choice label represents products that meet high standards for safety and environmental impact, however, Safer Choice includes a wider range of product types.

**2022:** In 2022, a new, updated, modernized Design for the Environment logo was developed. At this time, the focus of Design for the Environment was to identify antimicrobial products that meet safety and health standards, including Design for the Environment program standards and compliance with the Federal Insecticide, Fungicide, Rodenticide Act.

**2024:** The EPA Safer Choice Standards were last updated on August 8th



## 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 CO<sub>2</sub> 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! →**

**31** Energy Efficiency/P2 Assessments

**67** Recommendations

**With Annual Savings of...**

**\$556,774** in Energy Costs

**3,908 MWh** of Electricity

**13,448 MMBtu** of Natural Gas

**3,366 Metric Ton** CO<sub>2</sub> Equivalent

## UPCOMING EVENTS



### **Webinar: Pollution Prevention through Energy Efficiency – Boiler Systems**

*August 8, 2025 @ 12:00 – 1:00pm ET*

*Location: Virtual via Zoom*

**Topic:** Join us on Zoom for the first webinar in our “Pollution Prevention through Energy Efficiency” series, which will explore energy efficiency across different industrial systems. This first webinar will be focused on boiler systems. Learn the basics of boiler systems and how they can be optimized to reduce energy use, reduce energy costs, and minimize environmental impact.

Register using the QR Code or [Click Here!](#)



### **WVU Pollution Prevention Virtual Conference**

*August 19, 2025 @ 10:00am – 4:00pm ET*

**Location:** Virtual via Zoom

**Topics:** Enjoy presentations on various Pollution Prevention related topics including:

- Beat Practice Approaches to Pollution Prevention
- Novel Approaches to Energy Efficiency & Sustainability
- Energy Efficiency of Industrial Systems
- Case Studies
- And More...

Registration using the QR Code or [Click Here!](#)

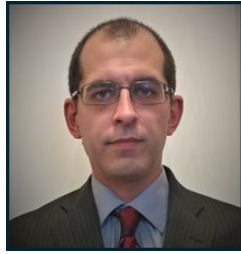


# THE P2 TEAM

## Faculty & Staff



Dr. Ashish Nimbarte  
PhD, PE, CEM  
Principal Investigator



Dr. Christopher Moore  
PhD, CEM  
Project Manager, Co-PI

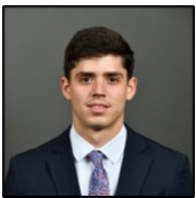


Dr. Imtiaz Ahmed  
PhD



Dr. Avishek Choudhury  
PhD

## Students



Juan Marino



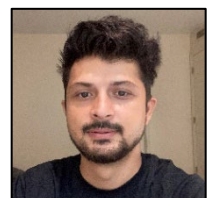
Sagar Timilsina



Akshay Patel



Tilak Bhusal



Aastik Sharma



Shihab Ullah



Aman Dhakal



Ummul Farah



Sagar Panthi



Sterly Pauliscat

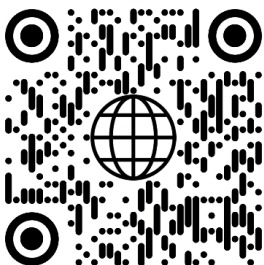
## CONTACT US

### ASHISH NIMBARTE, PHD, PE, CEM

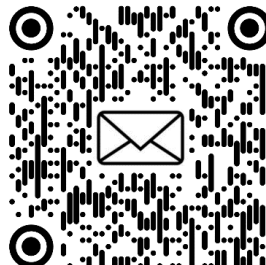
Principal Investigator, Department Chair  
Industrial and Management Systems Engineering, WVU  
Email Address: [ashish.nimbarte@mail.wvu.edu](mailto:ashish.nimbarte@mail.wvu.edu)

### CHRISTOPHER MOORE, PHD, CEM

Co-PI, Project Manager, Research Associate  
Industrial and Management Systems Engineering, WVU  
Email Address: [chris.moore@mail.wvu.edu](mailto:chris.moore@mail.wvu.edu)



P2 Website



Inquire about Services



Questions or Comments?