

CHAPTER 7.3 POLLUTION PREVENTION (P2) and ENVIRONMENTAL MANAGEMENT SYSTEMS

Pollution Prevention

“Pollution prevention” (or P2) is recognized by the US EPA as the most cost-effective form of environmental protection because it is an environmental management strategy that emphasizes the elimination or reduction of wastes at the source of their generation. Traditional waste management techniques such as treatment, disposal, and recycling concentrate on managing wastes after they are generated. P2 focuses on the question, “why are the wastes produced in the first place?”

Wastes are essentially wasted raw materials, and P2 efforts strive to identify opportunities to conserve and use raw materials as efficiently as possible. In addition, P2 stresses the reduction of toxicity and prevention of spills and raw material/product losses whenever possible. By definition, P2 is distinguished from recycling and reuse efforts because these management techniques involve waste handling, collection, and reprocessing into a new raw material or useable product. True P2, which is often referred to as “source reduction,” eliminates or reduces the need for additional waste handling and the costs associated with that process. As such, P2 can result in significant cost savings while reducing overall environmental impacts and liabilities and facilitating compliance with environmental regulations.

Environmental Management Systems

Many facilities that understand the value of P2 have realized that the environmental impacts of their operations are not just a by-product of what they do, but an integral part of their business model that affects the very success or failure of their organization. These facilities have embraced the development of an “environmental management system” (EMS) to ensure that the environment is considered in all facets of the company’s operations. A successful EMS sets goals for implementation of P2 and other projects that will enable “continuous improvements” in the facility’s environmental performance year after year. Compliance with environmental regulations is assumed as a starting point for facilities with an EMS in place, and the EMS drives companies to focus on reducing environmental impacts rather than maintaining compliance.

What Do “P2” & “EMS” Mean for Water Quality?

P2 & EMS are good news for water quality as they offer cost-effective opportunities for reducing water contamination. P2 techniques offer excellent applications for reductions in water usage, chemical and nutrient inputs to wastewater, treatment, and stormwater minimization and management. EMSs will ensure that P2 techniques are considered and employed whenever possible as part of the facility’s normal business process. Compliance with water quality standards will be the beginning point, and they will strive to continuously do better than those standards.

DEQ’s Office of Pollution Prevention

The Virginia DEQ’s Office of Pollution Prevention (OPP) is a non-regulatory program that promotes the use of voluntary pollution prevention approaches and technologies and the use of EMSs. OPP has developed a variety of voluntary programs and partnerships to encourage facilities that are interested in doing more than the minimum as required by regulations. These programs provide public recognition and award opportunities, assistance, and even regulatory incentives for participating.

Voluntary Programs



The **Virginia Environmental Excellence Program (VEEP)** is DEQ’s program to promote the voluntary use of environmental management systems (EMS) and pollution prevention (P2). VEEP offers recognition and regulatory incentives to

encourage facilities to develop and implement an EMS. For instance, wastewater treatment plants that participate in VEEP actually receive a discount on their annual permit fees. More than 600 Virginia facilities have been designated as VEEP facilities. For more information, see <http://www.deq.virginia.gov/Programs/PollutionPrevention/VirginiaEnvironmentalExcellenceProgram.aspx>.



Virginia Green is DEQ's voluntary initiative to promote pollution prevention practices all aspects of Virginia's tourism industry. *Virginia Green* is run in partnership with the Virginia Tourism Corporation and the Virginia Hospitality & Travel Association. There are more than 1400 facilities who have met the minimum criteria for Virginia Green. For more information, go to <http://www.deq.virginia.gov/Programs/PollutionPrevention/VirginiaGreen.aspx>.



Virginia Information Source for Energy (VISE) is DEQ's project to promote energy efficiency, conservation, and renewable energy technologies. DEQ maintains a website on energy-related technologies, conservation techniques and financial incentives at

<http://www.deq.virginia.gov/Programs/PollutionPrevention/VirginiaInformationSourceForEnergy.aspx>.

For more information on DEQ's P2 and EMS programs, contact Sharon Baxter at 804-698-4344 or sharon.baxter@deq.virginia.gov.