#### Chapter 7.3. POLLUTION PREVENTION (P2) and ENVIRONMENTAL MANAGEMENT SYSTEMS

**Pollution Prevention**

**“**Pollution prevention” (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 a starting point for facilities with an EMS to build on, and the EMS drives companies to focus on reducing environmental impacts rather than just 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) runs non-regulatory programs that promote the use of voluntary pollution prevention approaches and technologies and the use of EMSs. OPP has developed a variety of voluntary programs, resources 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***

### 2005VEEP_logoColorpathsThe ***Virginia Environmental Excellence Program (VEEP***) is DEQ’s program to promote the voluntary use of environmental management systems, pollution prevention and sustainability. VEEP offers recognition and regulatory incentives to encourage facilities to develop and implement an EMS. For instance, facilities that participate in VEEP’s EMS Track can receive a discount on their annual permit fees. In addition, VEEP Sustainability Partners are recognized for environmental sustainability efforts. More than 500 Virginia facilities have been designated as VEEP facilities. For more information, see: <https://www.deq.virginia.gov/get-involved/pollution-prevention/virginia-environmental-excellence-program>.

***Virginia Green*** is the 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 Green Travel Alliance, Virginia Tourism Corporation and the Virginia Restaurant, Lodging and Travel Association. Virginia Green members commit to implementing practicing to reduce waste, conserve water and use energy efficiently. DEQ provides informational resources for implementing green practices. For more information, go to: <https://www.deq.virginia.gov/get-involved/pollution-prevention/virginia-green>.

OPP has compiled case studies to encourage companies and municipalities to adopt P2 practices. The case studies show real world examples and identify technologies and techniques that were successful. These examples showcase the effectiveness of P2 projects by quantifying pollution reduction, cost savings and other benefits. The highlighted success stories have improved environmental performance by going above and beyond the industry standard.

For more information on DEQ’s P2 and EMS programs visit <https://www.deq.virginia.gov/get-involved/pollution-prevention>.