



## **Virginia Pollution Prevention Case Study Virginia Department of Environmental Quality**

### Project Information

The Virginia Department of Environmental Quality's (DEQ) mission is to protect and improve the environment for the well being of all Virginians. DEQ administers state and federal laws and regulations for air quality, water quality, water supply and waste management. In addition, other programs cover a variety of environmental activities, such as improving the ability of businesses and local governments to protect the environment, and offering technical and financial assistance for air and water quality improvements. Through its six regional offices located across the state, DEQ issues permits, conducts inspections and monitoring, and enforces regulations and permits. In 2014 DEQ underwent an effort to reinvigorate its Environmental Management System and Director David Paylor signed a new Agency Environmental Management System Policy to reflect the commitment of top management to comply with applicable environmental legal requirements and other requirements, to prevent pollution, and to continually improve DEQ's Environmental Management System.

### Environmental Challenges and Opportunities

DEQ is committed to managing and reducing environmental impacts using an Environmental Management System (EMS). DEQ's EMS is based on the ISO 14001 standard and allows DEQ to identify, evaluate, improve and review its environmental impacts and overall environmental performance and operating efficiency. DEQ decided to reinvigorate its EMS in order to lead by example for other state agencies and for facilities throughout the Commonwealth that were interested in joining the Virginia Environmental Excellence Program (VEEP) that is run by DEQ.

### Implementation of the Program

DEQ's Agency EMS Team is representative of the Agency as a whole and consists of delegates from each program area as well as each DEQ office. The Agency EMS Team is responsible for the development, implementation and management of DEQ's EMS program, including providing direction and guidance to Regional EMS Teams. Each Regional Team Leader is on the Agency EMS Team and helps set the course for the overall program. The Regional Teams implement environmental programs specific to their facility operations but also contribute to the DEQ EMS as a whole by communicating responsibilities, assigned tasks, and policies under the EMS, as well as managing the environmental aspects at their facilities.

DEQ implements strategies to prevent pollution at the source, promote environmentally friendly purchasing, and conserve natural resources. DEQ recycling practices vary from office to office, but each facility maintains recycling programs for paper, aluminum cans, plastic bottles, cardboard, and toner cartridges. Many offices have gone above and beyond these commonly recycled items and also collect batteries, plastic bags, glass bottles, and steel cans. DEQ offices are constantly looking for new ways to reduce their waste stream through recycling. Some DEQ offices have conducted waste audits to determine the effectiveness of the recycling program and have used the findings to expand the recycling programs in place and also improve communication on which items are accepted for recycling.

In accordance with the Code of Virginia 2.2-4323; APSPM section 3.19, all state agencies shall adhere to the procurement program guidelines established by the Department of General Services for recycled products. Code of Virginia 2.2-4314; APSPM Section 3.13 states that agencies should revise their procedures and specifications to encourage the use of less toxic goods and products. DEQ purchases environmentally friendly products when applicable, including recycled content paper, green cleaning supplies, and Energy Star electronics. DEQ's offices also make efforts to reuse items as much as possible before purchasing new items. The Central Office located in Richmond has established a "Reuse Room" where employees can drop off extra supplies they purchase or leftover office items that they no longer need for others to use. This helps reduce unnecessary purchases and it keeps usable items out of the waste stream.

In addition to DEQ's efforts to reduce, reuse, and recycle in the workplace, they also encourage employees to avoid unnecessary vehicle travel in their commute and during their work day. Employees schedule teleconferences, when appropriate, in order to reduce the amount of travel required to attend meetings in person. When face-to-face meetings are scheduled, DEQ employees pick central locations and arrange for carpooling to the meeting location. The DEQ EMS Team primarily meets via GoToMeeting and teleconference to ensure that team members from the regional offices do not need to drive to Richmond. DEQ also participates in various transit programs to reduce the number of single passenger vehicles on the road. Staggered work schedules and telework are encouraged and DEQ has numerous employees that take advantage of these benefits.

#### Evaluation of the Process

The reinvigoration of the DEQ's EMS has been well received by DEQ leadership and staff members alike. It is because of the strong commitment from the DEQ Leadership Team that the new EMS Manual and Policy were approved and implemented quickly. DEQ is still working on ensuring that 100% of employees receive general awareness training, but through an internal audit the EMS Team was able to see where there were areas for improvement and develop plans to move forward on those weaknesses. Continual review and improvement of the program is a cornerstone of implementing a successful EMS program at any facility.

Purchased electricity is DEQ's chosen annual reporting commitment for VEEP and they have been steadily reducing consumption of electricity at DEQ leased facilities. From 2012 to 2014 DEQ reduced electricity usage by 536 MMBtu. DEQ also follows the state's purchasing requirements, which specify that all shared copiers, scanners, and computer purchases or rentals must have the Energy Star label. Many DEQ employees also make the most of natural lighting in an effort to reduce the overhead lighting needed.

DEQ is working on collecting better recycling numbers because not all of the recycling is weighed by the vendor that picks it up. In 2014 DEQ was able to divert at least 146,983 pounds of recyclables from the waste stream. The effort to inform employees about recycling is ongoing and re-training is needed regularly to ensure that new employees are aware of the programs and current employees are sorting recyclables correctly. DEQ has been achieving this through standardized recycling signage and clear communications to staff on the various recycling programs.

### Continual Improvement of the Program

DEQ is committed to continuously improving its environmental practices and performance through implementation of an EMS. DEQ's goal is to be an environmental leader in the Commonwealth, not only for other state agencies, but for all Virginia businesses. The agency has will continue to take an active role in leading others to improve environmental operations and reduce impacts. DEQ will foster partnerships and promote an open exchange of pollution prevention information through internal and external education and communication. As part of this effort the DEQ EMS is making an effort to challenge the way things have been done and ask for changes that will reduce the Agency's environmental footprint. Part of this effort is working with building managers, since all DEQ facilities are leased, and asking for more energy and water efficient equipment to be installed, like programmable thermostats, automatic lights in restrooms, and low-flow toilets.

Many DEQ facilities have adopted sections of highway or city roads for annual cleanup as part of the effort to increase community outreach. Employees also help with local clean up events and other community events such as Earth Day events and the annual State Fair. This lets DEQ interact with the public and share information on what each citizen and visitor of Virginia can do to make the state a little greener every day.