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City of Fredericksburg
Environmental Management System
E^2 Annual Report
For City Shop

March 23, 2004

I. Overview

The City of Fredericksburg, City Shop, received E^2 status on February 21, 2003. Over the past year the city has been working to accomplish six objectives that are described in more detail in the next section. Two events in the city over the past year have significantly affected the availability of staff time to focus on the Environment Management System (EMS) at the City Shop. One event was Hurricane Isabel which struck the city on September 18, 2003, causing widespread damage and requiring an enormous clean up effort. The other event was the breaching of the Embrey Dam on February 23, 2004. The dam is situated on the Rappahannock River in the City of Fredericksburg and a vast amount of staff time was required to plan for and carry out the breach event. It is worth noting that while these two events took away valuable staff time that could have been used to focus on achieving EMS goals at the City Shop, that EMS concepts were nonetheless applied to the activities related to these two events. Some of the environmental stewardship activities related to these two events are discussed in more detail in a later section of this report. The City of Fredericksburg, City Shop, did not have any issues or violations identified by DEQ in 2003.

II. Progress on Objectives

a. Waste Gasoline Filters: To reduce the quantity of used fuel filters by maximizing the time between gasoline fuel filter changes on vehicles and equipment.

A log has been instituted to help track fuel filter change intervals on various city vehicles and equipment to ensure that fuel filters are not changed more frequently than recommended by the manufacturer. A new standard operating procedure is now in place to dispose of all gasoline fuel filters into a special drum that, when full, will be disposed of by a certified hazardous waste collector.

b. Used Oils – Public Recycle Center: To reduce the potential for spills of used motor oil and the contamination of used motor oils at the used motor oil convenience center located at the City public recycling center on Belman Road.

The Public Recycling Center is located adjacent to the City Shop complex and is surrounded by a chain link fence. The recycling center is open to City residents at specified hours and is monitored by attendants when it is in use.

The City plans to improve the current used oil storage system being used by the public to dispose of used motor oil and is pursuing the acquisition of a new, double-walled, used oil containment tank to replace the existing tank. Plans are also being made to place the new tank on a new concrete, impervious surface. Until the new tank is obtained, labeling on the existing tank has been improved to identify its contents as "Used Motor Oil". Also, sand has been placed around the existing tank to help contain any spillage and prevent slick surfaces that may occur while the public transfers used oil from their containers. Additionally, the Public Works Department is currently reviewing the service provided by the current used motor oil collection vendor. Improvement is being sought to provide more frequent pickup of used oil in order to avoid full tank situations. A written agreement is still being pursued to outline the duties and responsibilities of the used motor oil hauler to ensure proper procedures, including testing of the used oil, are followed.

c. Used Oils – Public Works Compound: To reduce the potential for spills of used motor oil and the contamination of used motor oils at the City Shop used motor oil disposal tank.

The City Shop used oil tank is located within the shop compound. Standard operating procedures and specific work instructions apply to the usage of the tank.

The City plans to improve the current system being used by the City Shop to dispose of used motor oil generated at the maintenance facility and the City is currently pursuing the acquisition of a new, double-walled, used oil containment tank to replace the existing tank. Plans are also being made to place the new tank on a new concrete, impervious surface. Until the new tank is obtained, the labeling on the existing tank has been improved to identify its contents as "Used Motor Oil". Additionally, the Public Works Department is currently reviewing the service provided by the current used motor oil collection vendor. Improvement is being sought to provide more frequent pickup of used oil in order to avoid full tank situations. A written agreement is still being pursued to outline the duties and responsibilities of the used motor oil hauler to ensure proper procedures, including testing of the used oil, are followed.

d. Waste Fuels: To reduce the number and frequency of spills from fuel filter changes during normal vehicle maintenance and service.

In order to track the frequency of fuel spills, a spill log system was put into place for shop employees to use. This log will help identify activities prone to fuel spillage so that procedural changes can be made to prevent future spills. It was also discovered

through the EMS program that the previous method of disposal of gasoline fuel filters with normal trash was unacceptable.

A new standard operating procedure is now in place to dispose of all gasoline fuel filters into a special drum that, when full, will be disposed of by a
certified hazardous waste collector. Procedures have also been put into place to capture fuel from filter changing processes and reuse the fuel for small engine use.

e. Spill Prevention, Containment and Countermeasure (SPCC) Plan: To ensure that a certified SPCC plan is located at City Shop.

The City has hired a consultant to prepare the required SPCC plan for the City Shop facility. A draft plan has been prepared and final changes are currently being addressed in order to have an approved plan on site.

f. Road Salt: To reduce 95% of the runoff from the road salt storage area.

The road salt storage area at the City Shop is not large enough to completely cover the entire amount of stored salt. A tarp system has been put into place to cover exposed salt until a more permanent solution (dome or barn enclosure) can be obtained.

III. Other Successes

a. Containment Systems: The EMS team had identified the need for secondary containment for various drums and other containers at the City Shop. With additional assistance from Bregg International, a local environmental management supply company, the City purchased several secondary containment systems, a large spill containment kit, and portable spill kits for all maintenance vehicles. Training for shop employees is to be provided for the use of the new containment systems and Bregg International has offered to provide the training at no charge to the City.

New fire rated storage cabinets were also purchased so that chemicals and flamables could be separated and stored in a more appropriate and organized manner.

b. Household Hazardous Waste Collection Days: The city held two household hazardous waste collection days in 2003. The events were held at the City recycling center on Belman Road. All materials were collected and shipped by a certified hazardous waste hauler.

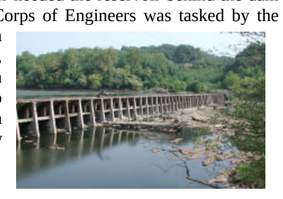
c. Environmental / Safety Officer: The City created a new full time Environmental/Safety Officer position in 2003. The position has been recently filled and the staff member reports directly to the Assistant City Manager. The staff member will have broad authority throughout the city with regard to environmental and safety regulations and will undoubtedly be a great benefit to the EMS program.

IV. EMS Concepts Applied To Major City Events

a. Hurricane Isabel: Hurricane Isabel caused a severe environmental impact by damaging hundreds of trees throughout the city and an enormous cleanup effort was required to remove all of the tree debris. While the amount of tree debris generated by the cleanup effort was massive (9,160 cubic yards), all of the material was recycled. The city coordinated with the Stafford County regional landfill to have all of the debris hauled to a central location at the landfill where it could be ground up into mulch. The mulch was then made available to the public for free. Some of the mulch was also stockpiled by the landfill to mix with other organic materials as a top layer over landfill cells. In an effort to reduce the number of vehicle trips to the landfill and thus reducing VOC emissions, fuel consumption, and other environmental impacts, all tree debris was hauled to the landfill in large, fully packed, 40 yard dumpster containers.

b. Embrey Dam Breach:

The Embrey Dam was built in 1910 by the Fredericksburg Power Company and is situated on the Rappahannock River in the City of Fredericksburg. The dam had fallen into severe disrepair and had also become obsolete; its last function ended in 2000 when the City of Fredericksburg no longer needed the reservoir behind the dam as a raw drinking water supply. The Army Corps of Engineers was tasked by the Federal Government to remove the dam and on February 23, 2004, the dam was breached, allowing the Rappahannock River to once again run free. The entire dam structure is slated to be completely removed by 2006 and will be a major improvement to the environment by



allowing migrating fish to swim upstream to spawn. One major concern of the removal project has been how to dispose of the substantial amount of concrete and rebar material. After conferring with the Army Corps of Engineers it has been decided that the rebar will be separated from the concrete and sent to a metal recycler. The concrete is planned to be ground and used for resurfacing of the existing canal road bed and other nearby roadbeds. Every effort will be made to reduce or eliminate the need to landfill any of the debris from the Embrey Dam removal project.

V. Goals for 2004

- **a.** Provide necessary training to employees for various EMS related procedures that have been identified, including use of spill kits.
- **b.** Complete acquisition and installation of new used-oil tanks for the public recycling center and maintenance shop.
- **c.** Complete written agreement with used oil collection vendor.
- **d.** Place concrete pad under fuel storage tank and used oil tanks.
- **e.** Finalize SPCC plan and make copy available at City Shop.
- **f.** Continue to complete tasks related to other aspects identified at the shop.
- **g.** Continue to hold Household Hazardous Waste Collection events at public recycling center.
- **h.** Apply for E^3 status.