

# MAINE STATE LEGISLATURE

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# **Spill Prevention, Control and Countermeasure Report**

**Maine Department of Environmental Protection**  
17 State House Station  
Augusta, Maine 04333-0017

**January 15, 2008**

Contact: Butch Bowie  
Bureau of Remediation and Waste Management  
Phone (207) 287-4804

# **Report to the Legislature**

## **Maine Department of Environmental Protection SPCC Program**

January 15, 2008

### **I. Introduction**

Federal regulations under 40 CFR Part 112 require Spill Prevention Control and Countermeasure (SPCC) plans for aboveground oil storage facilities having a total aboveground storage capacity exceeding 1,320 gallons. These rules were first promulgated in the 1970's under the Clean Water Act by the U.S. Environmental Protection Agency (EPA) and were most recently revised in December of 2006. The primary focus of the federal regulations is the protection of surface waters.

The Maine legislature enacted 38 MRSA §570-K(5) in March 2002 giving the Maine Department of Environmental Protection (DEP) authority to enforce the federal SPCC requirements for retail, marketing and distribution facilities in Maine. The Maine SPCC program is more limited in scope than EPA's and only has jurisdiction over facilities such as service stations, bulk plants (i.e. facilities where oil is stored in bulk prior to distribution), marinas and airports. The State law does not apply to home heating oil tanks or other tanks used to store oil for consumption on the premises. The Maine SPCC Program is administered by the DEP's Bureau of Remediation and Waste Management (BRWM), Division of Technical Services and is staffed by one person.

The statute, as amended in 2005, requires the DEP to report to the Legislature by January 15, 2006, and on that date every 2 years thereafter, on all activities undertaken by the DEP under the provisions of section 38 MRSA §570-K(5). This report is being submitted to satisfy the 2008 reporting requirement.

### **II. Program Goals**

The goals of Maine's SPCC Program are to:

- Protect human health and the environment from the risks associated with oil spills;
- Reduce oil spill clean-up costs; and
- Protect ground water, surface water and other resources from oil spills at aboveground storage tank (AST) facilities by improving spill prevention and control.

### **II. Summary of Primary Tasks for SPCC Program, 2006 – 2007**

#### *1. New legislation regarding underground piping at AST facilities.*

In August of 2006, legislation was adopted by the Maine Legislature (Public Law 2005, chapter 491) that established new requirements for certain facilities. These requirements

apply to any tanks at a facility where the tank is installed above ground, the tank stores motor fuel (gasoline, diesel, biodiesel, aviation gasoline, jet fuel, gasohol or other fuels used in the operation of a vehicle or motor engine), and the tank is connected to underground fuel piping.

This legislation was adopted in response to the loophole that existed in the piping requirements for AST facilities. Underground piping installed prior to June 24, 1991, the effective date of 38 MRSA §570-K(3), was not required to have any leak detection until and unless it is replaced, and there was no replacement schedule mandated by statute. As a result, some older underground piping at AST facilities may have operated without leak detection until a leak was discovered, at which point it would then be replaced and brought in compliance with all the current requirements of Chapter 691, DEP Rules for Underground Oil Storage Facilities. This law brought motor fuel underground piping associated with ASTs up to the same standards applied to piping associated with underground oil storage tanks (USTs).

The new State law establishes several important deadlines for AST facilities:

By January 1, 2007, register motor fuel ASTs (for diesel ASTs see third deadline below) with underground piping (One aspect to note is that with this registration requirement is a \$35 annual fee for each motor fuel AST with underground piping.);

By July 1, 2007, and annually thereafter, submit inspection reports from a Certified Tank Installer or Certified Tank Inspector of underground piping systems associated with motor fuel ASTs (for diesel ASTs see fourth deadline below);

By January 1, 2009, register diesel ASTs with underground piping;

By July 1, 2009, and annually thereafter, submit inspection reports from a Certified Tank Installer or Certified Tank Inspector of underground piping systems associated with diesel ASTs; and

By January 1, 2011, retrofit pre-June 24, 1991 underground piping systems at all motor fuel ASTs to meet the DEP's leak detection standards consisting of secondary containment with continuous electronic monitoring.

2. *Mailings to owners/operators and interested parties regarding AST regulation.*

July of 2006 - Mailings to AST facility owners and interested parties regarding the new registration and inspection requirements for motor fuel ASTs with associated underground piping

December of 2006 – Mailing to fire chiefs regarding removal notification on underground piping associated with motor fuel ASTs

June of 2007 – Mailing to Certified Tank Installers and Inspectors regarding new inspection form and *Inspector's Handbook for ASTs* with underground piping annual inspection

September of 2007 – Mailing of reminder to motor fuel AST facility owners with underground piping regarding annual inspection requirements

3. *Conduct presentations for facility owners/tank installers/inspectors, consultants, and interested parties.*

In November of 2007, SPCC program staff presented information regarding upcoming regulatory changes pertaining to ASTs with underground piping at two seminars sponsored by the Maine Oil Dealers Association (MODA). One seminar was held in Portland and the other was held in Augusta.

In April of 2007, Marcel Moreau of Marcel Moreau Associates, a nationally recognized expert on the installation and operation of underground tanks and underground piping, was contracted to present information at the DEP's Tank Installer/Inspector training seminar regarding the technical aspects of inspecting equipment associated with underground piping at AST facilities as part of the annual inspection requirement.

4. *Create new forms and documents pertaining to AST regulation.*

The annual inspection form and inspector's handbook for underground piping associated with aboveground motor fuel tanks were developed in 2007.

Forms regarding AST facility registration, change of ownership, and removal notification were developed in 2006 and 2007.

5. *Registration of AST facilities with underground piping storing motor fuel.*

In March of 2007, due to a lower than expected response to the registration deadline of January 1, 2007, DEP staff began contacting by telephone those motor fuel AST facilities known to or suspected of having underground product piping that had not registered. From the original AST list, DEP staff contacted 88 AST facility owners to verify whether or not they had underground piping at their facilities and to remind them of the registration deadline if they had underground piping.

To date, 127 out of 132 known AST facilities with underground piping storing motor fuel (not including diesel fuel) have registered their facilities with DEP.

6. *Annual Inspection Reminder*

In September of 2007, 123 AST facilities with underground piping storing motor fuel (not including diesel fuel) had registered their facilities. However, only 39 of these facilities had submitted annual inspection reports to the DEP in accordance with the July 1, 2007 deadline. In September of 2007, DEP staff sent out a reminder to 84 of the 123 registered AST facilities that had not submitted annual inspection reports.

To date, 44 of the 84 facilities that had not submitted inspection reports have submitted annual inspection results to the DEP.

7. *Merge State Fire Marshal AST data into the DEP's tank database.*

The State Fire Marshal's Office (SFMO) collects one-time data from AST facilities when they initially permit their tanks.

An ongoing database task is to incorporate AST data from the SFMO into the DEP's existing database for underground storage tank (UST) facilities. During 2005, SFMO staff was trained in how to enter data into the DEP tanks database and have since been doing so.

New permits issued by the SFMO for ASTs are entered into the tanks database and assigned a DEP facility registration number. In 2006 and 2007, 122 AST facilities permitted by the SFMO were entered into the tanks database.

DEP SPCC program staff meets monthly with staff from the SFMO and staff overseeing the DEP tanks database to discuss issues and problems with the database. The DEP is seeking to contract with an outside consultant to rectify some on going database problems as well as make upgrades to better accommodate data specific to AST facilities.

8. *Maintain and refine the AST list.*

Maintaining and refining the AST list is an ongoing program task. Information on AST facilities is collected and recorded in the tanks database through the registration requirements for underground piping specified in task #1 as well as information obtained by the State Fire Marshal's Office and entered into the tanks database through their permitting process as specified in task # 7. Currently, only new SFMO permits from mid-2005 to present have been entered into the tanks database.

Information on other known AST facilities that are not subject to the underground piping registration requirement and were in existence prior to 2005 when the SFMO began recording information on these facilities in the tanks database are maintained in a separate database. Information on these AST facilities was derived from the original

AST list compiled in 2003 as well as referrals and/or complaints and verified and updated through SPCC site visits.

9. *Provide educational materials for the regulated AST facilities.*

An SPCC guidance document and model SPCC plans were developed by early 2003 with the assistance of Jacques-Whitford, a consulting firm. The guidance document summarizes the SPCC regulations and other requirements pertaining to AST facilities. These documents have been maintained and updated by DEP staff following the amendments to the federal SPCC rule. In addition, DEP staff developed an SPCC web page devoted to oil AST facilities and posted the web page in June of 2003. The web site is periodically updated to include new requirements and updated lists and forms pertaining to AST facilities. The web page is located at:  
<http://www.maine.gov/dep/rwm/abovegroundtanks/index.htm>

10. *Conduct technical assistance site visits to individual facilities.*

DEP staff visited individual facilities in 2006 and 2007 to provide site-specific recommendations for spill prevention and control, and to facilitate SPCC planning as well as underground piping registration and inspection requirements where needed. 11 site visits were conducted in 2006 and 41 in 2007. Fewer than half of the facilities visited in 2006-07 had an SPCC plan. The most commonly observed problem was lack of, or inadequate, overflow protection measures for tanks. The second most commonly observed problem was inadequate secondary containment for tanks.

Approximately half (48%) of the facilities had underground piping. Of these facilities, 32% did not meet the State's current standards for noncorrosive piping and must immediately remove the nonconforming piping. Another 32% did not meet the current standard for piping leak detection under DEP Rules Chapter 691 and are required to upgrade their piping systems by January 1, 2011. The remaining 36% of the facilities met the requirements for noncorrosive piping and leak detection. Summary data from the 2006 and 2007 SPCC field season are presented under Section IV below.

11. *Requests for Information*

SPCC program staff responds to telephone and e-mail requests from other agency staff, facility owners/managers, consultants and the general public seeking information pertaining to AST facilities and spill prevention/control, and other topics such as home heating oil tanks and hazardous waste on a daily basis.

#### **IV. 2006 - 2007 SPCC Technical Assistance Site Visits**

##### ***Summary Statistics for Technical Assistance Program, 2006 and 2007:***

Total number of technical assistance site visits conducted during 2006 and 2007: 52

- Retail Service Stations - 22
- Bulk Plants - 11
- Bulk Plant & Retail Service Station Combined - 3
- Marinas - 10
- Airports - 1
- Motor Fleet - 2
- Heating - 1
- Farm - 1
- Waste Oil - 1

*Note: Not all of these facilities are subject to Maine's State SPCC regulations as some facilities were below the 1,320 gallon oil storage threshold or were used for on-site consumption.*

##### ***AST Facilities Inspected in 2006 and 2007:***

Number of facilities having SPCC plans (percentage of all facilities visited in 2006 and 2007):

- Number of inspected facilities determined not to be regulated under the SPCC rule: 3 (6%)  
Of the remaining 49 facilities:
- Number of facilities required to have an SPCC plan that had a certified plan: 19 (39%)
- Number of facilities required to have an SPCC plan that did not have a plan: 30 (61%)

Type of tank secondary containment used by facilities - number of facilities (percentage of all facilities visited in 2006 and 2007):

- Containment dikes: 27 (52%)
- Double-walled tanks: 14 (27%)
- Combination of dikes and double-walled tanks: 3 (6%)
- No secondary containment for tanks: 8 (15%)

Most commonly seen problems - number of facilities visited in 2006 and 2007:

- No or inadequate overfill protection: 22 (42% of all facilities visited)
- Inadequate secondary containment for tanks: 7 (13% of all facilities visited)
- Dike valve left open: 6 (20% of facilities with dikes)
- No or inadequate containment for loading rack at bulk plants: 9 (64% of bulk plants visited)

AST Facilities with underground piping - number of facilities visited in 2006 and 2007:

- Total number of facilities with underground piping: 25
- Facilities having underground unprotected steel piping: 8
- Facilities with non-corrosive piping systems but no leak detection: 8
- Facilities with double-walled piping systems and continuous leak detection systems but the leak detection system was not functioning/not maintained/the alarm was ignored: 1



- Facilities with double-walled piping systems and continuous leak detection systems that appeared to be functioning and being maintained properly: 8

Proximity to Sensitive Resources:

- Number of facilities located over a Significant Sand and Gravel Aquifer: 2 (4%)
- Number of facilities within 1000 feet of a public water supply: 6 (11%)
- Number of facilities within 300 feet of surface water: 22 (40%)
- Number of facilities within a Source Water Protection Area for a public drinking water supply: 1 (2%)

***Remedial Actions at AST Facilities Visited in 2006 and 2007***

Eight of the facilities visited in 2006 and 2007 were asked to take remedial action to bring the facility into compliance with applicable provisions of the DEP's statutes and rules regarding underground piping. These facilities were found to be in noncompliance for unprotected underground steel product piping. To date, five of those facilities have removed their noncompliant underground piping, one facility has proposed a time frame to bring the facility into compliance, one facility has been taken out of service, and one facility has been referred to enforcement staff.

***Requests for SPCC Technical Assistance Visits in 2006 and 2007***

Of the 52 SPCC site visits conducted in 2006 and 2007, seven inspections were at the request of the individual facility owners and nine were at the request of a town official.

Although the Maine SPCC program has jurisdiction over and focuses on retail and marketing and distribution facilities, SPCC staff has received requests from both retail and non-retail facilities for assistance with their SPCC issues. In 2006 and 2007, DEP responded to requests for technical assistance visits from seven owners of facilities where the tank use included: bulk, retail, motor fleet, on site heating fuel, farm, and waste oil.

In addition, SPCC staff responded to the request from the town manager and the harbor master of a coastal town to inspect eight marinas and one bulk facility in their town for compliance with the SPCC rule. Of these nine facilities, five did not have SPCC plans in place for their facilities. Of the five facilities that did not have SPCC plans in place at the time of the site visit, one facility has since implemented an SPCC plan, three facilities have contracted with professional engineers and have draft plans, and one facility remains out of compliance and has been referred to enforcement staff regarding nonconforming underground piping issues.

**IV. Communication & Coordination with the U.S. EPA**

SPCC program staff contacts staff at the U.S. EPA New England Regional Office in Boston for guidance as required on interpreting the requirements of the federal SPCC regulation. Contacts with the EPA staff were primarily by e-mail and telephone calls. Some of the topics discussed included tank inspection standards, secondary containment requirements, overfill protection requirements, federal spill reporting requirements, and status of proposed federal rule changes and other federal documents.

EPA staff has referred AST facility owners in Maine to DEP staff for technical assistance regarding SPCC implementation, tank testing and state of Maine requirements.

EPA staff conducted 24 SPCC inspections in Maine in 2006 and 13 SPCC inspections in 2007. DEP SPCC staff accompanied EPA on four of these inspections in 2007. Of the 37 Federal SPCC inspections in 2006 and 2007, EPA has taken enforcement action against six AST facility owners; consisting of one major oil distributor with multiple sites in Maine and New Hampshire and five owners with single location sites in Maine. The most common deficiencies cited by EPA were lack of SPCC plans and insufficient secondary containment for tanks, loading racks, and transfer areas. EPA enforcement action has resulted in monetary penalties as well as mandatory facility upgrade schedules for each facility.

EPA staff consistently informs Maine SPCC staff regarding upcoming EPA inspections and copies Maine staff on all follow-up correspondence.