



# Tank Tips 7

on *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*

**Preparing your emergency plan** Under Environment Canada's new *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* you must prepare an emergency plan for each of your storage tank systems. This fact sheet will tell you what is required in an emergency plan, and give you an idea of how to prepare one. Contact numbers and information on where to get help if you need it are found at the end of the fact sheet.

The top five reasons for spills are equipment failure, human error, corrosion, material failure, and a storm or flood.

## **What has changed?**

On June 12, 2008 Environment Canada implemented new regulations governing storage tank systems under federal jurisdiction as described in the regulations, including tanks systems located on federal and Aboriginal lands. Under the *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*, owners or operators of these systems must prepare an emergency plan that meets the requirements set out in the regulations. While Environment Canada does not review or approve emergency plans, you must notify us of the locations where copies of your emergency plan are kept. Compliance with the new regulations is mandatory.

## **What is the deadline for preparing a plan?**

If your tank system was already in operation when the regulations came into force on June 12, 2008, you have until June 12, 2010 to prepare your emergency plan. For new systems, the emergency plan must be in place before the first transfer of product to your tanks (see subsection 30(3) of the regulations).

Several accidents have occurred within the last few years in which storage tanks have failed catastrophically when the flammable vapours inside an atmospheric tank exploded... as a result workers were killed or injured and contents were released into the environment.

### **Why do you need an emergency plan?**

The purpose of an emergency plan is to limit environmental damage and the risks to human health and safety in the event of an accident such as a leak, spill or fire. Developing an emergency plan helps you foresee – and take steps to prevent – the most likely accidents, and it allows you to respond quickly and effectively if an accident does occur. A swift response limits damage and reduces your clean-up costs.

### **How elaborate does the plan have to be?**

The complexity depends on your system: the properties of the products you're storing; the type and capacity of your tanks; the physical and environmental characteristics of your site; and the presence or absence of features such as secondary containment. The key is to have the simplest plan possible – one that is adapted to your system and surroundings while at the same time meeting the requirements in the regulations.

To create such a plan you must assess, for your system, the potential emergencies that could result in harm to the environment or endanger human health, then create a plan to prevent, prepare for, respond to and recover from each emergency scenario. For example, you might want to prepare a scenario for a truck backing into and rupturing a storage tank, and this plan would then cover all similar tank ruptures, regardless of the cause. Planning, however, for a direct hit by a large meteorite – given the likelihood of it happening – would be a waste of time, although creating a plan to deal with a catastrophic tank failure is essential.

### **What does the plan have to include?**

Environment Canada requires specific information in your emergency plan. A brief description of each requirement is given below, but for details, please refer to subsection 30(2) of the regulations.

*Product information:* Your emergency plan must include the properties and characteristics of each product you are storing in each of your system's tanks. This information is available on the Materials Safety Data Sheet (MSDS) you receive from your product supplier.

*Tank system capacity:* Your emergency plan must include the maximum amount of product you expect to have in each of the system's tanks at any time during any calendar year. In most cases this will be the manufacturer's suggested fill limit (i.e. a certain percentage of the tank's nominal capacity).

*Site characteristics:* To effectively plan for an emergency you must assess the characteristics of your site, paying special attention to the factors that increase the risk of harm to the environment and/or danger to human life or health.

The regulations will generate benefits such as the avoidance of loss of watersheds used for drinking water, negative impacts on human health, and emergency response cost associated with spills and leaks from storage tank systems.

Are you near a wetland or above an aquifer used for drinking water? Is your system located on a hill such that spilled product will flow down the slope? Is there a populated area or underground utilities nearby? In many cases a map of the site and the surrounding area, noting relevant geographical features, is helpful. Any additional information – for example aerial photographs, bore-hole logs, the location of any other hazards (e.g. propane tanks) – will help facilitate a fast and effective response in an emergency. Because the determination of site characteristics is so important to your plan, you may choose to hire an emergency planning professional to help you identify these features, although Environment Canada does not and will not recommend specific companies or individuals.

*Emergency response measures:* In this section you lay out your emergency scenarios. You determine:

1. the emergency scenarios that may cause danger to human life or health
2. the emergency scenarios that may harm the environment and
3. for each emergency scenario, you describe – step-by-step – the measures and actions you will take to
  - prevent
  - prepare for
  - respond to
  - recover from

each emergency. If you are unsure of how to go about this, there are emergency planning professionals who can help you develop your plan.

*Emergency response team and training:* The regulations require you to list the people designated to carry out your plan, their roles and responsibilities in an emergency, and any training they have or require to carry out their duties. This information can be presented as a table.

*Emergency response equipment:* Environment Canada requires you to list the type and location of equipment that would be used in your emergency scenarios such as shovels, spill kits and fire extinguishers. If only a small amount of equipment is needed then a simple text description of the locations may be sufficient, but if your emergency plan requires a large quantity of onsite equipment it may be easier to provide locations using a diagram or map of the site/area.

About 44% of reported spills are of less than one tonne.

*Notification of affected public:* Your emergency plan must include the measures you will take to notify members of the adversely affected public in the case of an emergency. This could involve the use of emergency announcements on local radio and television, door-to-door notification and/or the use of emergency e-mail and text messages.

### **What do you do with the finished plan?**

Copies of your plan must be easily accessible to all team members who are required to carry it out, and a copy available at the location of the storage tank system, if that is a place of work. You must also notify Environment Canada of the civic addresses of all of the places where the plan is located. The contact information is listed on our website. Keeping information in the plan up to date – such as the names and contact numbers for emergency team members – is also required (section 31).

### **Can you use a plan already prepared for another government or agency?**

If your existing plan fulfills all of Environment Canada's requirements then you may use it as your emergency plan. If it fulfills some, but not all, of these requirements, amend your existing plan so it meets all of the requirements and then it can be used (section 32).

### **Where do you get more information?**

On our website at [www.ec.gc.ca/st-rs](http://www.ec.gc.ca/st-rs). If you'd like us to mail you the information below please call: 819-934-2991 (0900 h – 1700 h EST/EDT).

The following documents are available on our website:

- *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*
- *Tank Tips* fact sheets, each one covering a specific part of the new regulations
- *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*, Canadian Council of Ministers of the Environment
- *Canadian Environmental Protection Act, 1999*
- *Compliance and Enforcement Policy for the Canadian Environmental Protection Act, 1999*
- *Guidelines for E2 Planning*, CEPA Registry

If you have specific questions on the regulations please contact your regional office.

Pacific & Yukon	<a href="mailto:storage.tanks.pyr@ec.gc.ca">storage.tanks.pyr@ec.gc.ca</a>	604-664-9100
Prairie & Northern		780-951-8600
Ontario	<a href="mailto:EnviroInfo.Ontario@ec.gc.ca">EnviroInfo.Ontario@ec.gc.ca</a>	416-739-4826
Quebec	<a href="mailto:quebec.lavoieverte@ec.gc.ca">quebec.lavoieverte@ec.gc.ca</a>	800-463-4311
Atlantic	<a href="mailto:15th.reception@ec.gc.ca">15th.reception@ec.gc.ca</a>	902-426-7231

*This material has been prepared for convenience of reference and accessibility and does not have an official character. It is of a general nature only. For all purposes of interpreting and applying the regulations, users must consult the official version of the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations.*