

Operational Duties: Petroleum Storage Facilities

The Hazardous Substances and Waste Dangerous Goods Regulations affect compliance requirements for various petroleum storage facilities.

Exemption: All above-ground farm and residential storage tanks which are not used for any commercial purposes are exempt from the regulations.

What are the Operational Duties?

In General:

The manager of a facility is required to:

- maintain information regarding hazardous substances (i.e.: Material Safety Data Sheet)
- maintain a list of hazardous substances or waste dangerous goods stored and inventory records for two years from the date of creation
- maintain inspection and maintenance records for leak detection and containment facilities for two years from their date of creation
- maintain a copy of the emergency response contingency plan for the storage facility, and supply it to the local fire department and emergency measures organization at least annually, or whenever it is revised
- provide the local fire department, at least semi-annually, with a revised, current listing and inventory of all hazardous substances and waste dangerous goods stored
- report accountable discrepancies in inventory or leakage according to The Environmental Spill Control Regulations.

For Above-Ground Storage Tanks:

The operator is required to:

- conduct product inventory measurements and reconciliation calculations each week
- measure and record the water level at least once a month
- maintain and retain inventory reconciliation showing weekly and cumulative gains or losses for a period of two years from creation.

For Underground Storage Tanks:

The operator is required to:

- conduct product inventory measurements and reconciliation calculations for each day the tank is in operation, if not performing leak detection by SIR.
- measure and record the level of any water at the bottom of tanks at least once a week
- maintain and retain inventory reconciliation showing daily and cumulative gains or losses for a period of two years from their creation
- for steel tanks or lines, perform and retain cathodic protection voltage measurements on tank and pipes until the storage facility is decommissioned.



What is Inventory Reconciliation?

Inventory reconciliation is the comparison of the amount of deliveries and sales to the dipstick measure of how much substance is actually in the tank. This type of inventory shows any gains or losses in the amount of product that should be in the tank and is usually done by the facility's operator.

What is Statistical Inventory Reconciliation (SIR)?

SIR is a statistics-based system that indicates if a leak may be occurring from a tank by comparing deliveries and metered sales with tank gauging (dipstick measurements). The SIR method must be able to detect a leak of .38 l/hr with a probability of detection of 95 per cent and with a probability of false alarm of 5 per cent. SIR is to be done by a third party company and the owner is responsible for the costs. The owner must report any leak immediately in accordance with The Environmental Spill Control Regulations by contacting the department at 1-800-667-7525. If the SIR method indicates an inconclusive result, this must be reported to Saskatchewan Environment within 72 hours.

Contact the department for a list of companies that perform SIR services.

Who Must Perform Leak Detection?

For sites with metered product dispensers: If the facility is a "Class C" (low risk) site OR if the facility is a "Class B" (moderate risk) site and does not meet the requirements for a "Class B" facility then Statistical Inventory Reconciliation must be in place prior to December 31, 1995. For sites without metered product dispensers: If the facility is a "Class C" site OR if the facility is a "Class B" site and does not meet the requirements for a "Class B" facility then release detection monitoring wells must be checked on an annual basis for evidence of a leak by an independent third party. The results of this check must be reported to the department. Farm underground tanks must have monitor wells in place by December 31, 1997. All other non-metered underground tanks (e.g. heating oil and standby tanks) must provide leak detection by means of monitor wells by December 31, 1995.

Before You Begin Construction

Before you begin any construction or upgrading, you must complete an Application for Approval to Construct or Upgrade a Storage Facility from Saskatchewan Environment. The application must include the following:

- a description of the proposed storage facility including location, site plan, storage system design, operation and maintenance procedures
- a inventory of each hazardous substance or waste dangerous good
- a description of the release detection system and containment systems, and regular maintenance procedures (if applicable)
- a copy of the preliminary facility emergency response contingency plan