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Guidance Document developed for the new Environment Canada petroleum storage tank regulations

By Craig T. Fisher



The regulations apply to any petroleum product storage tank system located in Canada.

In many cases, when new regulations are developed and come into force, industries must dedicate a tremendous amount of resources to interpret and implement the regulatory change. It can be a costly endeavour, particularly when corporations are working independently of each other.

Environment Canada introduced new regulations for petroleum products and allied petroleum products in June 2008. *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* (regulations) have been introduced to reduce the risk of spills and leaks to soil and groundwater for federally-regulated storage tank systems.

The regulations apply to “any storage tank system located in Canada in which petroleum products or allied petroleum products are stored and,

(a) that is operated by a federal department, board or agency, or belongs to Her Majesty in right of Canada;

(b) that is operated by, or belongs to, a federal work or undertaking that is

- (i) a port authority set out in the schedule to the *Canada Marine Act*,
- (ii) an airport within the meaning of the *Aeronautics Act*, or
- (iii) a railway;

(c) that is located on federal land or aboriginal land; or

(d) that is operated by a Crown corporation, as defined in subsection 83(1) of the *Financial Administration Act*, or that belongs to such a corporation.”

There are essentially six general requirements within the regulations.

1. Tank systems must be registered with Environment Canada by June 12, 2010. If your tank system is not registered by then, product suppliers will no longer be permitted to supply product to your tank system. Information such as tank type, pipe diameters, and descriptions of transfer area are included in the tank system registration requirements.

In the event your tank system has not been registered by June 12, 2010, a progress report is required. Once your tank system is registered, Environment Canada will provide a tank identification number, which will be required for suppliers to fill tank systems after the June 12, 2010 deadline.

2. Existing tanks, pipes, and sumps must meet specific design and monitoring requirements. One requirement, in particular, is that any tank found to be leaking must be taken out of service. There are also inspection and monitoring require-

ments, such as installing cathodic protection and vapour monitoring wells.

3. New tank systems must be designed to particular standards which are presented within the regulations. The new design standards are based on best engineering practices and are based upon the Canadian Council of Ministers of the Environment (CCME) *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*.

4. An Environmental Emergency Plan must be developed for the individual tank system. It must take into consideration the potential risks of the tank system, the measures implemented to mitigate any spills or leaks, and the response activities required in the event of a spill or leak.

5. New release reporting requirements to Environment Canada have been introduced.

6. Records of the tank system design, installation, inspections and testing must now be stored with the tank system.

Railway Storage Tank Guidance Document

When the new Environment Canada *Storage Tank Systems for Petroleum*

Products and Allied Petroleum Products Regulations came into force on June 12, 2008, Stragis Environmental Services Inc., in association with Greenland Consulting Engineers, the Railway Association of Canada (RAC) Environment Committee and Environment Canada, began discussions that would lead to the development of a Guidance Document (Document) for railway tank systems. It needed to include interpretation of the regulations, and implementation strategies.

Based on the discussions, a Steering Committee was struck that included the major railways across Canada, RAC, Environment Canada and Stragis. The Steering Committee guided the direction of the document and Environment Canada worked directly with the Committee to interpret the regulations.

It was the Committee's aim to assist the railways that must comply with the regulation. Through the Committee's efforts, the costs of implementation will be reduced by the industry, as railways will work on a collective basis to imple-

ment the regulations, thus eliminating the duplication that would occur if each of the affected railways proceeded to implement the regulations individually. It was also felt that by developing the Document with Environment Canada, railways would be ahead of the game, when it came to interpreting the regulations specifically for their sector.

In the rail sector, tank systems are spread out nationally and can be located in cities, or in remote locations. Tank systems owned, or operated, by other affected sectors are typically located in a limited number of locations.

The final Document was completed in March 2009. It provides guidance for the railways to prepare their organizations for compliance with the new regulations. Specific documentation was prepared so the railways could complete the registration of their tank systems in the most time-efficient manner, using existing databases, as well as site inspections. Any unclear requirements for design, monitoring, and inspections were interpreted by Environment Canada and

included in the Document.

Canadian railways are regulated by Transport Canada. However, some provinces regulate fuel delivery and dispensing to storage tank systems, which may be federally or provincially regulated. So, Stragis worked with the provinces to clarify storage tank system requirements for federally-regulated entities across Canada.

Environmental Emergency Plan templates were developed so railways could easily add information required by Environment Canada that might not have been included in existing Emergency Plans. Essentially, the Document provides railways with the materials necessary for managing existing storage tanks, and for the design of new storage tank systems to meet the new regulations.

A 'pilot project' was completed, as part of the Document's development. It included site visits and examinations of tank systems in several locations around Ontario.

Existing tank system information
continued overleaf...

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was reviewed, and the Document prepared so each of the Class 1 railways, i.e., passenger railways, as well as any federally-regulated shortlines could use it without revisions. Any concerns about implementing the regulations from the railways were addressed by Environment Canada and Stragis.

The final Document clearly identifies the requirements of the regulations

for existing tank systems, as well as the design and monitoring requirements for new tank systems. Step-by-step implementation techniques and inspection sheets, decision trees, and photographic tank system information were included in the Document. Railways can use the inspection sheets for registration, as well as to ensure each of their tank systems is in compliance with the regulations.

A training program was also developed by Stragis, and presented to the railways in March 2009. It provided guidance to railway employees responsible for implementing the regulations. The training program included a storage tank training course, which provided the knowledge required to review the tank systems for registration and compliance inspections.

Tank registrations and compliance inspections were also completed, using existing tank databases and site visits.

Conclusion

The development of the Document has proven that industry sectors working together with the regulator prior to and during the implementation of new regulations can be successful in reducing implementation costs as well as potential risks of misinterpretation.

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