Guidelines for Hazardous Substance Tanks and Process Containers

Where hazardous substances are stored or used in either tanks or process containers respectively, they are subject to the Hazardous Substances and New Organisms (HSNO) Act 1996 and associated regulations.

Specific regulations governing tank and process container design, fabrication, installation and operation can be found in Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004, and HSNO Approved Code of Practice number 13-2. Both publications are available on the EPA New Zealand website www.epa.govt.nz

What is a Stationary Container System?

A stationary container system means a stationary tank or process container and its associated equipment, pipework and fittings, up to and including all transfer points. This includes such items as valves, vaporisers, oil burners, gensets, means of secondary containment and fire fighting systems.

When is a test certificate required?

With regards tanks or process containers containing or intended to contain hazardous liquids a Stationary Container System test certificate is required for any of the following:

- A below-ground tank of any capacity or class of hazardous substance
- A below-ground process container of any capacity or class of substance
- An above-ground tank greater than 2000 litres for Class 3.1A or Class 3.1B flammable liquids
- An above-ground tank greater than 5000 litres for any other class of hazardous liquid
- An above-ground process container greater than 1000 litres for any class of hazardous liquid
- A tank or tanks greater than 50 litres that includes an oil burner
- A tank or tanks greater than 500 litres that includes a stationary internal combustion engine, e.g., a genset or a fire suppression system

Who inspects and certifies a Stationary Container System?

The owner of a tank or process container, or the person-in-charge of the place where the tank or process container is located, must engage the services of a registered test certifier approved for this type of activity and tank maximum capacity. At Haztec, we can and will be pleased to assist you.
What are the possible outcomes resulting from the inspection?

1. **The tank/process container fully meets the legislative requirements** and the test certifier then issues a Stationary Container System test certificate and certifier’s report.

2. **The tank/process container does not fully meet the legislative requirements but can be made to comply.** The test certifier provides a certifier’s report detailing the non-compliances plus what needs to be done to rectify them before a test certificate can be issued.

3. **The tank/process container cannot be made to comply.** The test certifier will provide a certifier’s report confirming this, and will advise the client as to the feasibility of either submitting a compliance plan to EPA NZ (EPA from 1 July 2011) for approval, or replacing the tank with a fully compliance design. A compliance plan is a plan designed to safely manage a non-compliance. Once a compliance plan has been approved a test certificate can then be issued against the compliance plan.

**Tanks/process containers manufactured prior to April 2004**

Prior to April 2004 tanks or process containers in this category were generally designed and manufactured in accordance with a range of standards and approved under the previous Dangerous Goods Regulations or Toxic Substance Regulations. Tanks in this category may be certified if they can be found to comply with HSNO Approved Code of Practice number 13-2: ‘Code of Practice for Existing Stationary Tanks Under 60,000 litres Capacity Manufactured Prior to April 2004’.

**Tanks/process containers greater than 60,000 litres capacity or manufactured after April 2004**

Tanks/process containers in this category must be designed and manufactured in accordance with Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004. Clause 8 of this schedule sets out the approved standards that a tank must be designed to, including wind and seismic design standards.

New tanks requiring a Stationary Container System test certificate must also first have a Design Verification test certificate and EPA register (TNK) number. The design certificate is obtained from a registered test certifier who is also a stationary tank design verifier. A Design Verification test certificate may not be required for one-off tank designs under 60,000 litres capacity as long as a PS1 producer statement has been issued for the tank by a suitably qualified engineer to the satisfaction of the Stationary Container System test certifier.

Tank fabricators are also required to hold a Stationary Tank Fabricator test certificate, valid for up to 3 years.
Register of Approved Tank Designs and Fabricators

A register of approved tank designs and fabricators can be found on [www.epa.govt.nz](http://www.epa.govt.nz).

Process containers

Process containers contain a hazardous liquid during the course of manufacture of a product (possibly even the hazardous substance itself), and can include mixing vats, dip tanks, reaction vessels, distillation columns or dryers.

Requirements for process containers are not as rigorous as for tanks; essentially they must be:

a) suitable for the product they are intended to contain;

b) fit for service; and

c) have a suitable means of overflow provision, including secondary containment

Mike Nankivell
Senior Hazardous Substances Consultant and Test Certifier
HazTec Ltd
Unit 2/76 Forge Rd
PO Box 199, Silverdale 0944
Auckland North

Tel: 09 426 5902
Fax: 09 426 5903
Email: info@haztec.co.nz