

# Guide to Certification for Retail Hardware Stores

A Guide for the Person in Charge DECEMBER 2011





Department of Labour

New Zealand Government

#### Guide to Certification for Retail Hardware Stores A Guide for the Person in Charge

# Table of contents

| Table   | of contents                                   |  |  |  |  |
|---|---|--|--|--|--|
| Prefa   | ce3   |  |  |  |  |
| Purpe   | ose of this publication4                      |  |  |  |  |
| 1.  | Introduction5                                 |  |  |  |  |
| 2.  | Hazardous substances11                        |  |  |  |  |
| 3.  | Location test certificates                    |  |  |  |  |
| 4.  | Site plans                                    |  |  |  |  |
| 5.  | Approved handlers21                           |  |  |  |  |
| 6.  | Emergency response plan25                     |  |  |  |  |
| 7.  | Fire extinguishers                            |  |  |  |  |
| 8.  | Signage                                       |  |  |  |  |
| 9.  | Secondary containment systems                 |  |  |  |  |
| 10.   | Storage of flammable gases and liquids        |  |  |  |  |
| 11.   | Controlled zones and separation distances     |  |  |  |  |
| 12.   | Hazardous atmosphere zones                    |  |  |  |  |
| 13.   | Segregation and packaging42                   |  |  |  |  |
| 14.   | Stationary container systems 43               |  |  |  |  |
| 15.   | Tracking                                      |  |  |  |  |
| 16.   | Further information                           |  |  |  |  |
| 17.   | Test certificate information requirements     |  |  |  |  |
| Appe  | Appendix 1: Hazardous substance records54     |  |  |  |  |
| Appe  | Appendix 2: Location test certificate records |  |  |  |  |
| Appendix 3: Stationary container system records56 |   |  |  |  |  |
| Appendix 4: Electrical certification58            |   |  |  |  |  |

## Preface

This publication has been prepared to provide guidance to the person in charge of a retail hardware store. It sets out your responsibilities for test certification under the Hazardous Substances and New Organisms Act 1996 (HSNO Act).

ERMA New Zealand developed this guidance publication with the assistance of Dangerous Goods Compliance Limited.

Our role at the EPA is to assist you to protect your staff, customers and the environment by preventing or managing the adverse effects of hazardous substances. Retail hardware stores stock and distribute significant quantities of hazardous substances, for example, paints, solvents and pool chemicals. It is imperative that these are stored and handled in compliance with the legislation.

The New Zealand Retailers Association has been particularly supportive of this initiative. We would like to thank the Association and those people who commented on drafts of this publication.

Rob Forlong Chief Executive EPA

4

## Purpose of this publication

This publication is to help you, the person in charge of a retail hardware publication store, to obtain the test certificates required by the Hazardous Substances and New Organisms Act 1996 (HSNO Act).

This publication is a guide only. It is not a comprehensive explanation of the requirements of the HSNO Act and is limited to an explanation of the test certification requirements.

You may need to check further and receive advice on specific issues from a test certifier or hazardous substance consultant.

You will need to establish the requirements for the specific store you are in charge of.

#### Assistance by a test certifier

Test certifiers issue test certificates. Test certifiers are able to provide assistance and guidance to your business.

The term "must" refers to an action that is a mandatory requirement of the HSNO Act and the term "should" refers to an action that is good practice.

#### **Further information**

For information on hazard substances compliance:

- visit the EPA website; or
- call the Hazardous Substances Compliance Line: 0800 376 234; or
- contact the EPA at:

PO Box 131

Wellington

Tel: 04 916 2426

Email: hsinfo@epa.govt.nz.

You may also contact the Department of Labour at: Tel: 0800 20 90 20 Email: <u>http://www.dol.govt.nz/contact/index.asp</u>

5

## 1. Introduction

## Hazardous Substances and New Organisms Act1996

The HSNO Act applies to hardware retail stores. Regulations, Transfer Notices and Group Standards support the Act and introduce "controls", which are conditions of use to help manage the risks posed by the hazardous substances.

## Purpose of the HSNO Act

The purpose of the HSNO Act is to protect the environment and the health and safety of people and communities by preventing or managing the adverse effects of hazardous substances.

#### Other legislation

The requirements of the HSNO Act are in addition to other statutory requirements such as those in the Resource Management Act 1991, the Health and Safety in Employment Act 1992, and the Building Act 2004.

#### The EPA

The Environmental Protection Authority is the governing authority responsible for administering the HSNO Act.

For more information, see the EPA's website (http://www.epa.govt.nz).

#### **Test certificates**

The HSNO Act requires sites that store flammable or oxidising hazardous substances in excess of a threshold quantity to have test certificates. These certificates verify that the relevant legal requirements of the HSNO Act have been met.

At your retail hardware store you may need:

- location test certificates for storing paints, thinners, aerosols, pool chemicals and fuels such as liquefied petroleum gas (LPG)
- · test certificates for stationary container systems storing diesel or other fuels
- staff with approved handler test certificates if the more hazardous substances are stored or handled.

The different types of test certificates are explained in this publication.

#### **Test certifiers**

Test certifiers are people who are approved by the EPA to issue test certificates. A test certifier will issue test certificates if you can demonstrate compliance.

A register of test certifiers is on the EPA website.

#### Enforcement

The Department of Labour enforces the HSNO Act at retail hardware stores. A Department of Labour enforcement officer has the right to enter your property for the purpose of inspection.

The Ministry of Health also has a role in enforcement at retail hardware stores to ensure public health is protected.

Enforcement officers will help you to comply with the legislative requirements.

#### Person in charge is responsible

The person in charge is the person with effective control or possession of the store or part of the store, for example, he or she may be the store's owner, manager or lessee.

As the person in charge, you must ensure that:

- · the requirements of the HSNO Act are complied with
- all necessary test certificates are obtained.

#### Hazardous substances inventory

You should maintain a record of all the hazardous substances on-site (separate from the stock reconciliation records). This is called a hazardous substances inventory.

For more information, see section 2.

#### Safety data sheets

A safety data sheet (SDS) tells about you the properties of a hazardous substance, how to handle or work with the substance safely and what to do in an emergency.

Make sure you have an SDS for each hazardous substance in the hazardous substances inventory. If you do not have an SDS or have an outdated SDS, ask your supplier to send you a new sheet.

For more information, see section 2

#### Location test certificates

You may require a location test certificate if you store substances with flammable or oxidising properties, such as paints, thinners, aerosols, pool chemicals and fuels such as liquefied petroleum gas (LPG).

The storage of diesel does not require a location test certificate.

Location test certificates verify that site features such as hazardous atmosphere zones, distances to neighbouring activities, segregation, signage and emergency response plans are being correctly managed and that an approved handler has been appointed and is available.

For more information, see section 3.

#### Site plan

If your retail hardware store requires a location test certificate, you must have a site plan (or plans) that show:

- the site boundary
- the location of all hazardous substances in relation to the site boundary
- · any controlled zones associated with the hazardous substances
- any hazardous atmosphere zones associated with the hazardous substances.

For further information, see section 4.

#### Approved handler to be available

Substances that are highly hazardous must be under the control of an approved handler i.e. a person who is the holder of a current approved handler test certificate.

Approved handlers must meet the qualifications set out in the regulations made under the HSNO Act and must be available. If an approved handler is not available, hazardous substances must be secured (that is, locked away) to prevent their unauthorised use.

For more information, see section 5.

#### Emergency response plan

Your retail hardware store may require an emergency response plan. This plan must cover every reasonably likely emergency that may arise from the storage or handling of the hazardous substances.

You must test each aspect of the emergency response plan at least once a year or within three months of a change to staff, procedures or actions in the plan. Records of these tests must be kept for at least two years.

For more information, see section 6.

#### **Fire extinguishers**

You are likely to require fire extinguishers to be available on-site. These must have a rating of at least 30B.

For more information, see section 7.

#### Signage

You are likely to require signage. This must detail:

- that hazardous substances are present
- the general type and degree of hazards
- steps that are required to prevent the unintended ignition of hazardous substances
- action to be taken in an emergency.

For more information, see section 8.

#### Secondary containment systems

Areas that store hazardous substances in liquid form must have a means to contain any leakage. This is referred to as 'secondary containment' and may be in the form of a bund or compound.

For more information, see section 9.

#### Storage of flammable gases and liquids

When flammable gases (2.1.1 hazard class), flammable aerosols (2.1.2A hazard class) or flammable liquids (3.1 hazard class) are stored in a building, the building must be of a certain type.

For more information, see section 10.

#### Controlled zones and separation distances

You may need to establish a controlled zone. A controlled zone is an area around the location of a flammable or oxidising substance, within which the adverse effects of the hazardous substance must be managed.

Controlled zones at a retail hardware store typically relate to the areas in which paints, thinners, aerosols and pool chemicals are stored. If LPG cylinders for fork trucks are stored, these also require a controlled zone.

You may need to establish separation distances. These are the minimum distances that must be maintained from the location of the hazardous substance with flammable or oxidising properties (i.e. classes 2 to 5) to other activities, such as sire boundaries, residential properties, commercial premises and traffic routes.

For more information, see section 11.

#### Hazardous atmosphere zones

You may need to establish hazardous atmosphere zones where flammable substances are stored.

Ignition sources must be excluded from these zones and electrical equipment must be suitable for the zone e.g. flameproof.

For more information, see section 12.

#### Segregation

Flammable or oxidising substances that are incompatible with other substances must be segregated from those other substances.

For more information, see section 13.

#### Stationary container system (tanks)

If your retail store uses diesel or LPG in bulk tanks (for example, for heating), you may need a stationary container test certificate.

Tanks that were constructed before 1 April 2004 may not comply with the current regulations. Where these tanks have a capacity of no more than 60,000 L, they may be managed in accordance with a code of practice approved by the Authority.

For more information, see section 14.

#### Tracking

You must track extremely hazardous substances. Tracking is the recording of what happens to, and who is responsible for, a hazardous substance from the time it is imported or manufactured through to its end use or disposal.

For more information, see section 15.

#### Verification dossiers

A verification dossier is a collection of information about the store. It will help you speed up the certification process.

You should store this verification information either in the appendices to this publication or store it elsewhere and record its location in section 17 of this publication.

#### **Further information**

For information on hazard substances compliance:

- see website; or
- call the Hazardous Substances Compliance Line: 0800 376 234; or
- contact the EPA at: PO Box 131, Wellington Tel: 04 916 2426 Email: hsinfo@epa.govt.nz

You may also contact the Department of Labour at:

Tel: 0800 20 90 20

Website: http://www.dol.govt.nz/contact/index.asp

## 2. Hazardous substances

#### Hazardous properties

At your store you may have significant quantities of hazardous substances; in particular, substances with flammable properties such as paints, thinners, liquefied petroleum gas (LPG) for fork trucks, and substances with oxidising properties such as pool chemicals, and so on. You may also have pesticides and agricultural chemicals.

Each substance must be managed in accordance with its hazardous properties.

#### Hazard classifications

The properties of hazardous substances are assessed against criteria in regulations made under the HSNO Act<sup>1</sup> to establish the hazard classifications. A substance may be allocated more than one hazard classification.

Each class of substance is expressed in a similar format, for example, the classification '3.1A', means:

'3' is the class

'1' is the subclass

'A' is the level of hazard (with A being the most hazardous).

A classification of '3.1A' means a liquid that is flammable and a very high hazard. Some substances have an additional subclass, for example, '2.1.1A'.

The hazard classes are listed in Table 2.1.

<sup>&</sup>lt;sup>1</sup> Hazardous Substances (Classification) Regulations 2001.

Guide to Certification for Retail Hardware Stores A Guide for the Person in Charge

| Property            | *                                    | Explosiveness                 |  |  |  |  |                       | Flammability             |                       |  |   |                                  |   |  | Capacity to Oxidise                         |                                    |                       |  |
|---------------------|--------------------------------------|-------------------------------|--|--|--|--|-----------------------|--------------------------|-----------------------|--|---|----------------------------------|---|--|---|------------------------------------|-----------------------|--|
| Class               | Class 1                              |                               |  | CI   | ass 2                                  | Cla  | ass 3                 |                          |                       | Class 4  |   |                                  |   | Class 5  |   |                                    |                       |  |
| Subclass            | <b>1.1</b><br>Mass<br>explo-<br>sion | <b>1.2</b><br>Pro-<br>jection | <b>1.3</b><br>Fire &<br>minor<br>blast | <b>1.4</b><br>No<br>signif-<br>icant<br>hazard | <b>1.5</b><br>Very<br>insen-<br>sitive | <b>1.6</b><br>Extre-<br>mely<br>insen-<br>sitive | <b>2.1.1</b><br>Gases | <b>2.1.2</b><br>Aerosols | <b>3.1</b><br>Liquids | <b>3.2</b><br>Liquid<br>desensit-<br>ised<br>explosive | <b>4.1.1</b><br>Readily<br>comb-<br>ustible | <b>4.1.2</b><br>Self<br>reactive | <b>4.1.3</b><br>Desen-<br>sitised<br>explo-<br>sive | <b>4.2</b><br>Spontan-<br>eously<br>combust<br>-ible | <b>4.3</b><br>Dan-<br>gerous<br>when<br>wet | <b>5.1.1</b><br>Liquids/<br>solids | <b>5.1.2</b><br>Gases | <b>5.2</b><br>Organic<br>peroxide<br>s |
|                     | 1.1A                                 |                               |  |  |  |  | 2.1.1A                | 2.1.2A                   | 3.1A                  | 3.2A   | 4.1.1A                                      | 4.1.2A                           | 4.1.3A  | 4.2A   | 4.3A  | 5.1.1A                             | 5.1.2A                | 5.2A                                   |
|                     | 1.1B                                 | 1.2B                          |  | 1.4B   |  |  | 2.1.1<br>B            |                          | 3.1B                  | 3.2B   | 4.1.1B                                      | 4.1.2B                           | 4.1.3<br>B  | 4.2B   | 4.3B  | 5.1.1B                             |                       | 5.2B                                   |
|                     | 1.1C                                 | 1.2C                          | 1.3C                                   | 1.4C   |  |  |                       |                          | 3.1C                  | 3.2C   |   | 4.1.2C                           | 4.1.3<br>C  | 4.2C   | 4.3C  | 5.1.1C                             |                       | 5.2C                                   |
| Hazard              | 1.1D                                 | 1.2D                          |  | 1.4D   | 1.5D                                   |  |                       |                          | 3.1D                  |  |   | 4.1.2D                           | -   |  |   |                                    |                       | 5.2D                                   |
|                     | 1.1E                                 | 1.2E                          |  | 1.4E   |  |  |                       |                          |                       |  |   | 4.1.2E                           |   |  |   |                                    |                       | 5.2E                                   |
| Classifi-<br>cation | 1.1F                                 | 1.2F                          | 1.3F                                   | 1.4F   |  |  |                       |                          |                       |  |   | 4.1.2F                           |   |  |   |                                    |                       | 5.2F                                   |
|                     | 1.1G                                 | 1.2G                          | 1.3G                                   | 1.4G   |  |  |                       |                          |                       |  |   | 4.1.2G                           |   |  |   |                                    |                       | 5.2G                                   |
|                     |                                      | 1.2H                          | 1.3H                                   |  |  |  |                       |                          |                       |  |   |                                  |   |  |   |                                    |                       |  |
|                     | 1.1J                                 | 1.2J                          | 1.3J                                   |  |  |  |                       |                          |                       |  |   |                                  |   |  |   |                                    |                       |  |
|                     | 2                                    | 1.2K                          | 1.3K                                   |  |  |  |                       |                          |                       |  |   |                                  |   |  |   |                                    |                       |  |
|                     | 1.1L                                 | 1.2L                          | 1.3L                                   |  |  |  |                       |                          |                       |  |   |                                  |   |  |   |                                    |                       |  |
|                     |                                      |                               |  |  |  | 1.6N   |                       |                          |                       |  |   |                                  |   |  |   |                                    |                       |  |
|                     |                                      |                               |  | 1.4S   |  |  |                       |                          |                       |  |   |                                  |   |  |   |                                    |                       |  |

Table 2.1 Hazard Classification - Physical Hazard Classification

Guide to Certification for Retail Hardware Stores A Guide for the Person in Charge

| Property  |                         | Toxicity                       |                               |                           |                       |                   |  |                               | 0                            | Corrosiven               | ess                     |                | Eco                | toxicity                                 |  |  |
|-----------|-------------------------|--------------------------------|-------------------------------|---------------------------|-----------------------|-------------------|--|-------------------------------|------------------------------|--------------------------|-------------------------|----------------|--------------------|--|--|--|
| Class     |                         | Class 6                        |                               |                           |                       |                   |  |                               | Class 6 Class 8              |                          |                         |                | Class 9            |  |  |  |
| Sub-class | 6.1<br>Acutely<br>toxic | <b>6.3</b><br>Skin<br>irritant | <b>6.4</b><br>Eye<br>irritant | 6.5<br>Sensiti-<br>sation | <b>6.6</b><br>Mutagen | 6.7<br>Carcinogen | 6.8<br>Reproduc-<br>tive /<br>develop-<br>mental | <b>6.9</b><br>Target<br>organ | 8.1<br>Metallic<br>corrosive | 8.2<br>Skin<br>corrosive | 8.3<br>Eye<br>corrosive | 9.1<br>Aquatic | <b>9.2</b><br>Soil | <b>9.3</b><br>Terrestrial<br>vertebrates | 9.4<br>Terrestrial<br>inverte-<br>brates |  |
| Hazard    | 6.1A                    | 6.3A                           | 6.4A                          | 6.5A                      | 6.6A                  | 6.7A              | 6.8A   | 6.9A                          | 8.1A                         | 8.2A                     | 8.3A                    | 9.1A           | 9.2A               | 9.3A                                     | 9.4A                                     |  |
| Classifi- | 6.1B                    | 6.3B                           |                               | 6.5B                      | 6.6B                  | 6.7B              | 6.8B   | 6.9B                          |                              | 8.2B                     |                         | 9.1B           | 9.2B               | 9.3B                                     | 9.4B                                     |  |
| cation    | 6.1C                    |                                |                               |                           |                       |                   | 6.8C   |                               |                              | 8.2C                     |                         | 9.1C           | 9.2C               | 9.3C                                     | 9.4C                                     |  |
|           | 6.1D                    |                                |                               |                           |                       |                   |  |                               |                              |                          |                         | 9.1D           | 9.2D               |  |  |  |
|           | 6.1E                    |                                |                               |                           |                       |                   |  |                               |                              |                          |                         |                |                    |  |  |  |

#### Table 2.1 Hazard Classification - Biological Hazard Classification

#### Substances at retail hardware stores

Table 2.2 provides hazard classifications for some substances typically held at a retail hardware store.

Table 2.2: Hazard classifications for some hazardous substances typically held at a retail hardware store

| Hazardous substance           | Hazard classification                            |
|-------------------------------|--|
| Paint (solvent based-typical) | 3.1C, 6.3B, 6.4A, 9.1C                           |
| LPG                           | 2.1.1A   |
| Flammable aerosols            | 2.1.2A   |
| Methylated spirits            | 3.1B, 6.1E, 6.4A, 6.8B, 6.9A, 9.1D               |
| Turpentine                    | 3.1C, 6.1E, 6.3B, 9.1B                           |
| Kerosene                      | 3.1C, 6.1E, 6.3B, 9.1B                           |
| Diesel                        | 3.1D, 6.1E, 6.3B, 6.7B, 9.1B                     |
| Calcium hypochlorite granules | 5.1.1B, 6.1B, 6.6B, 6.9A, 8.2B, 8.3A, 9.1B, 9.3B |
| Hydrochloric acid solution    | 6.1B, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C               |

Note 1: The hazard classifications in this table are indicative only; each individual substance has hazard classifications that are specific to that substance.

Note 2: Many substances are non-hazardous, so do not have hazard classifications assigned to them.

#### Transfer notices and group standards

Transfer Notices and Group Standards are documents used to approve hazardous substances for use in New Zealand.

For more information, refer to Section 16.

#### Hazardous properties

Manufacturers and importers must identify the hazard classes of their substances and the Group Standard conditions necessary to manage the substances safely.

Manufacturers, importers and distributors must also ensure each hazardous substance carries an accurate label that describes the hazardous nature of the substance and must make safety data sheets available.

#### Hazardous substance inventory

The nature and quantity of the hazardous substances that you have on-site will influence the way they should be stored and handled. You must make an inventory of the hazardous substances to determine the requirements.

A hazardous substance inventory is a list of all hazardous substances at your store and the quantities you are likely to have at any time. Maintaining an inventory helps to expedite the test certificate process.

It is important to keep the inventory up to date, revising it whenever the type or quantity of a hazardous substance changes.

You also need to know the hazardous properties of each substance. Product labels and safety data sheets (SDS) provide this information.

You can create an inventory of hazardous substances at your store by using the template in Appendix 1 or you can prepare it separately and record the location in Section 17.

#### Safety data sheets

A safety data sheet (SDS) tells you the properties of a hazardous substance, how to handle or work with the substance safely, and what to do in an emergency.

For each hazardous substance in the hazardous substances inventory, make sure you have an SDS. If you do not have an SDS or you have an outdated SDS, ask the supplier to send you a new one.

Some stores may store hazardous substances at quantities below the threshold quantity at which you are legally required to hold SDSs. This means you are not required to hold SDSs, but it is good practice to do so.

Keep SDSs where staff can find them easily and quickly, and make sure staff know where they are and how to use them. SDSs do not need to be held in paper form (that is, hard copy), but could be in electronic form (that is, on a computer or a website). However, they must be available quickly (within 10 minutes) in the event of an emergency.

When you are selling to trades people, you must provide them with a copy of the SDS at the first transaction of each hazardous substance. Furthermore, you must also supply them with a copy of the SDS at

subsequent transactions if they ask for one. It is also good practice to provide them to other persons if they request one.

You can file a copy of each SDS in Appendix 1, or store the copies elsewhere and record their location in section 17.

## 3. Location test certificates

#### Description of a location test certificate

Your store will require a location test certificate if flammable substances (such as paints, thinners, aerosols or fuels) or oxidising substances (such as pool chemicals) are stored in excess of the threshold quantities.

A location test certificate verifies that site features such as hazardous atmosphere zones and distances to neighbouring activities are being correctly managed, that signage and an emergency response plan are in place, and that where required an approved handler has been appointed and is available.

#### Person in charge is responsible

As the person in charge, you are responsible for getting the required location test certificates for your retail hardware store.

Each year you need to engage a test certifier to re-issue the location test certificate unless an extension (for up to three years) has been approved (see 'Duration' in this section).

#### Test certifiers issue location test certificates

To obtain a location test certificate, contact a test certifier approved by the EPA. The test certifier will need to visit and assess your site before the test certificate can be issued.

A register of test certifiers is on the EPA website.

#### Duration

Location test certificates are usually valid for one year. However, you may apply to the EPA for an extension of up to three years.

To be granted an extension you need to:

- demonstrate a history of compliance
- have review and monitoring systems in place (for example, regular audits).

Your test certifier can assist with an application.

#### Substances requiring a location test certificate

Table 3.1 gives examples of substances typically present at retail hardware stores and the quantities above which a location test certificate is required.

December 2011 EPA0102

Guide to Certification for Retail Hardware Stores A Guide for the Person in Charge

| Hazard Classification               | Threshold quantity         |                               |  |  |  |  |
|-------------------------------------|----------------------------|-------------------------------|--|--|--|--|
| Hazaru Classification               | Closed container           | Open container                |  |  |  |  |
| 2.1.1A (e.g., LPG)                  | 100 kg                     | 100 kg                        |  |  |  |  |
| 2.1.2A (e.g., flammable aerosols)   | 3,000 L                    | 3,000 L                       |  |  |  |  |
| 3.1B (e.g., Methylated spirits)     | 100 L (containers > 5 L)   | 50 L (containers > 5 L)       |  |  |  |  |
|                                     | 250 L (containers ≤ 5 L)   | 50 L (containers ≤ 5 L)       |  |  |  |  |
| 3.1C (e.g., Turpentine)             | 500 L (containers > 5 L)   | 250 L (containers > 5 L)      |  |  |  |  |
|                                     | 1,500 L (containers ≤ 5 L) | 250 L (containers $\leq$ 5 L) |  |  |  |  |
| 5.1.1B (e.g., Calcium hypochlorite) | 500 kg or 500 L            | 500 kg or 500 L               |  |  |  |  |

Table 3.1: Location test certificate threshold quantities for some typical substances

Note 1: If a single container is opened near closed containers, the total volume is considered open. If a single container is taken to a location away from closed containers and opened, this is considered a separate hazardous substance location with only the single container considered open.

Note 2: For a comprehensive list of hazard classifications that activate the requirement for a location test certificate, refer to the Retail Hardware Stores section of the industry information on the EPA website.

#### Quantity ratio

You may have substances with different hazard classifications or package sizes. While the quantity of each hazard classification or package size may be below the threshold quantity, the total quantity stored may still require a location test certificate.

To determine this, sum the ratios of quantity stored to the threshold quantity. If the sum is more than 1, a location test certificate is required. Contact your test certifier or the EPA for further information.

#### Items to be verified

When a test certifier assesses your store, he or she will check:

- the hazardous substance inventory (see section 2)
- site plans (see section 4)
- approved handlers (see section 5)
- emergency response plans, including evidence that they have been tested (see section 6)

19

- fire extinguishers (see section 7)
- signage (see section 8)
- secondary containment systems (see section 9)
- the design of buildings in which hazardous substances are stored (see section 10)
- the location, extent, and management of controlled zones and separation distances (see section 11)
- hazardous atmosphere zones (see section 12).

To be prepared for a location test certificate assessment, review the relevant sections of this guide and ensure you have the required documentation available.

#### File your location test certificates

File a copy of your location test certificate in Appendix 2, or file it elsewhere and record its location in section 17.

## 4. Site plans

#### Site plan

If your store requires a location test certificate, you must have a site plan (or plans).

See the examples of site plans in Example 1 (immediately following section 17).

#### What the site plan must show

Your site plan(s) must show:

- the location of all hazardous substances in relation to the site boundary
- any controlled zones associated with hazardous substances (for information about controlled zones, see section 11)
- any hazardous atmosphere zones associated with hazardous substances (for information about hazardous atmosphere zones, see section 12).

#### **Recommended items**

You should show on each site plan:

- buildings located within the site boundary
- · openings into buildings within the site boundary
- the scale to which the plan has been drawn
- the date the plan was drawn
- site identification, including the address of the site.

Including this information will make the test certifier's task simpler and quicker.

#### File your site plan

File a copy of each site plan in Appendix 2, or file the plan elsewhere and record its location in section 17.

# 5. Approved handlers

#### Approved handler

Your store may have substances that are highly hazardous and which must be under the personal control of an approved handler or secured so that an unapproved person cannot access them.<sup>2</sup> This includes substances that are required to be tracked (see section 15).

## Threshold quantities

Table 5.1 gives examples of typical substances held at retail hardware stores and the quantities above which an approved handler is required.

| Relevant hazard<br>classification | Example of<br>hazardous substance | Threshold quantity            |
|-----------------------------------|-----------------------------------|-------------------------------|
| 2.1.1A                            | LPG                               | 100 kg                        |
| 2.1.2A                            | Flammable aerosol                 | 3,000 L                       |
| 3.1B                              | Methylated spirits                | 250 L (containers > 5 L)      |
| 0.10                              |                                   | 500 L (containers $\leq$ 5 L) |
| 5.1.1B                            | Calcium hypochlorite              | 500 kg or 500 L               |

Table 5.1: Examples of approved handler threshold quantities

Note 1: Many hazardous substances have multiple hazard classifications. Each hazard classification must be separately considered.

Note 2: For a list of hazard classifications that activate the requirement for an approved handler, refer to the Retail Hardware Stores section of the industry information on the EPA website.

## Certification

An approved handler can be certified for a range of hazardous substances, specific lifecycle stages (such as processing, storage or use) and handling activities, depending on his or her work experience and competence.

<sup>&</sup>lt;sup>2</sup> Regulation 56 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001 and regulation 9 of the Hazardous Substances (Classes 6, 8 and 9 Controls) Regulations 2001.

#### Quantity ratio

You may have substances with different hazard classifications or package sizes. While the quantity of each hazard classification or package size may be below the threshold quantity, the total quantity stored may still require an approved handler.

To determine this, sum the ratios of quantity stored to the threshold quantity. If the sum is more than 1, an approved handler is required. Contact your test certifier or the EPA for further information.

#### Person in charge is responsible

As the person in charge, you are responsible for making sure approved handlers:

- are certified
- remain competent in their responsibilities
- are available when required.

#### Certification as approved handler

To be certified as an approved handler, you must be able to demonstrate, for the hazardous substances you intend to deal with, that you have:

- knowledge of the HSNO Act and regulations
- knowledge of the hazardous substances you are controlling
- practical skills (competency) to safely handle and use the hazardous substances
- practical knowledge of the operating equipment.

You must be able to show you have had previous experience handling the substance and can handle it competently. This evidence would usually be a written record from a work supervisor or provider of a training course.

#### Duration

Approved handler test certificates are valid for five years.

To renew a certificate, contact your test certifier. You will need to show your test certifier that you have kept up to date with any changes in work practices and the regulations made under the HSNO Act over the intervening five years. Usually, it will be a simpler process than the initial certification.

#### Test certificates to be available

An approved handler test certificate is a legal document, and a copy must remain on-site at the retail hardware store. If an enforcement officer asks to see the certificate, you must be able to show them an original or a copy.

#### Availability

When an approved handler is required, this person must 'be available' when flammable or oxidising substances are present (hazard classes 2 to 5) or "at the place" when toxic, corrosive or ecotoxic substances are present (hazard classes 6, 8 or 9), unless the substance is secured.

The number of approved handlers your particular retail hardware store needs depends on several factors, including:

- the store's hours of operation
- the number of staff, including cover required for leave and sickness and so on
- staff attrition.

You can determine the availability requirement by doing a risk assessment, or similar appraisal, taking into account the:

- store's hours of operation
- skills and competencies of staff
- types of hazardous substances on-site.

You may decide to have an approved handler on-site at all times the retail hardware store is open. This is the preferred approach.

#### Handling by other staff

Other staff may handle substances required to be under the personal control of an approved handler provided that:

- the approved handler has provided guidance to the person, and
- the approved handler is available to provide assistance at all times the substance is being handled by that person, and
- for substances with toxic, corrosive or ecotoxic hazard classifications (i.e. hazard classes 6, 8 and 9), the approved handler is present at the retail hardware store.

24

#### Test certifiers issue test certificates

To obtain an approved handler test certificate, contact a test certifier. Not all test certifiers can certify approved handlers, so check your requirements with the test certifier.

A register of test certifiers is on the EPA website.

#### File your test certificates

File copies of each approved handler test certificate in Appendix 2, or file certificates elsewhere and record their location in section 17.

25

## 6. Emergency response plan

#### Emergency response plan

Your store must have an emergency response plan if hazardous substances are stored in quantities in excess of the threshold quantities.

The emergency response plan must cover the response to every reasonably likely emergency involving each substance.<sup>3</sup>

#### Threshold quantities

Table 6.1 gives examples of some substances typically held at a retail hardware store and the quantities above which an emergency response plan is required.

| Relevant hazard<br>classification | Example of hazardous substance | Threshold quantity               |
|-----------------------------------|--------------------------------|----------------------------------|
| 2.1.1A non permanent gas          | LPG                            | 300 kg                           |
| 2.1.2A                            | Flammable aerosol              | 3,000 L aggregate water capacity |
| 3.1B                              | Methylated spirits             | 1,000 L                          |
| 5.1.1B                            | Calcium hypochlorite           | 500 kg or 500 L                  |
| 9.1B                              | Pesticide                      | 1,000 kg or 1,000 L              |

Table 6.1: Examples of emergency response plan threshold quantities

Note 1: Many hazardous substances have multiple hazard classifications, and each hazard classification needs to be considered.

Note 2: For a comprehensive list of hazard classifications that activate the requirement for an emergency response plan, refer to the Retail Hardware Stores section of the industry information on the EPA website.

#### Person in charge

As the person in charge, you must make sure the retail hardware store has an emergency response plan and that the plan is tested and kept up to date.

<sup>&</sup>lt;sup>3</sup> Regulation 27 of the Hazardous Substances (Emergency Management) Regulations 2001.

#### Contents of emergency response plan

Your emergency response plan must:

- cover every reasonably likely type of emergency
- be available to the people and emergency service providers identified in the plan
- be site specific

The emergency response plan should also address health and safety requirements under the Health and Safety in Employment Act 1992.

Your plan does not need to specifically identify each of the situations outlined below (see 'Situations to consider'), but they must be covered by the principles underlying the plan.

A template of an emergency response plan has been included inside the front cover of this folder.

#### File

Place the emergency response plan in a prominent place and record its location in section 17.

#### Situations to consider

The emergency response plan should cover situations such as:

- liquid spillages (small and large), for example:
  - broken bottles, tins or other packages
  - a storage tank stock reconciliation showing a discrepancy
- flammable liquid fires (small and large), for example a fire:
  - as a result of spilt flammable liquid
  - in the building
- a person being splashed with a hazardous substance
- a person sustaining burns as a result of chemical action or fire
- toxic fumes escaping from a leaking container or spillage.

If you store LPG, the emergency response plan might also cover (where applicable):

- a leak in pipework or flange
- a leak from a cylinder or stationary tank
- a fire adjacent to the cylinder or stationary tank
- a person receiving a cold burn from contact with LPG
- a fire at a cylinder or stationary tank leak.

## Register of emergency equipment

You must compile a register of the equipment identified in the emergency response plan, including the purpose and location of each piece of equipment. This could include, for example, fire extinguishers or spill kits.

#### Training of personnel

You must ensure that every person responsible for executing some part of the emergency response plan is trained in what to do in an emergency. You should keep records of this training.

#### Testing

You must ensure that each aspect of the emergency response plan is tested at least once a year and within three months of change to staff, procedures or actions in the plan. Testing must demonstrate that every procedure or action in the plan is workable and effective.

Testing can take the form of a practice or desk top discussion of the plan with all those persons likely to be involved.

The Fire Safety and Evacuation of Buildings Regulations 2006 require evacuation schemes to be tested twice a year and it may be prudent to align the testing of the emergency response plan with this.

You must keep records of these tests for at least two years and make them available to the test certifier.

# 7. Fire extinguishers

#### Fire extinguishers

Your store must have fire extinguishers available if the threshold quantity of hazardous substances is exceeded.<sup>4</sup>

This requirement for fire extinguishers does not negate the requirements of other statutes, for example, the Building Act 2004.

## Size of fire extinguisher

Each fire extinguisher must have a minimum 30B rating. (The rating is on the label on the extinguisher.)

Notwithstanding this, you should review your site's risks. You may decide that your store should have a greater number of extinguishers, or extinguishers of greater capacity.

#### Quantities requiring a fire extinguisher

Table 7.1 gives examples of some substances typically present at a retail hardware store and the quantities above which a fire extinguisher must be provided.

| Classification                                | Threshold quantity               | Number of fire<br>extinguishers<br>required |
|---|----------------------------------|---|
| 2.1.2A (e.g., flammable aerosol)              | 3,000 L aggregate water capacity | 1   |
| 3.1B (e.g., methylated spirits)               | 250 L                            | 2   |
| 3.1C, 3.1D (e.g., kerosene, oil based paints) | 500 L                            | 2   |
| 5.1.1B (e.g., calcium hypochlorite)           | 200 L or 200 kg                  | 1   |

Table 7.1: Examples of fire extinguisher threshold quantities

Note 1: Notwithstanding this, you should review the risks of your site. This number of extinguishers may be insufficient for the risks at your site.

Note 2: The number of fire extinguishers is not cumulative; that is, if your store has more than 50 kg of LPG and 200 L of petrol within close proximity of each other, it must have at least two extinguishers. In many premises the substances are stored apart, thus requiring two sets of extinguishers.

Note 3: For a comprehensive list of hazard classes that activate the requirement for fire extinguishers, refer to the Retail Hardware Stores section of the industry information on the EPA website.

<sup>&</sup>lt;sup>4</sup> Regulation 21 of the Hazardous Substances (Emergency Management) Regulations 2001.

## Location of fire extinguishers

Sufficient extinguishers must be available so that they are located within 30 m of each hazardous substance location.

## Servicing

Make sure each fire extinguisher is serviced at regular intervals.

# 8. Signage

#### Signage

Your store must have signs if the quantity of hazardous substances exceeds the threshold quantity.<sup>5</sup>

#### Threshold quantities

Table 8.1 gives examples of the threshold quantities for some substances typically held at retail hardware stores.

| Table 8.1: Examples of | of signage f | threshold | quantities |
|------------------------|--------------|-----------|------------|
|------------------------|--------------|-----------|------------|

| Relevant hazard<br>classification | Example of hazardous substance | Threshold quantity               |
|-----------------------------------|--------------------------------|----------------------------------|
| 2.1.1A non-permanent gas          | LPG                            | 250 kg                           |
| 2.1.2A                            | Flammable aerosol              | 3,000 L aggregate water capacity |
| 3.1B                              | Methylated spirits             | 250 L                            |
| 3.1C and 9.1B                     | Kerosene                       | 1,000L                           |
| 9.1B                              | Kerosene                       | 1,000 kg or 1,000 L              |
| 5.1.1B                            | Calcium hypochlorite           | 500 kg or 500 L                  |

Note 1: Many hazardous substances have multiple hazard classifications. Each hazard classification needs to be considered and where the threshold quantity of each hazard classification is exceeded, signage pertinent to that hazard classification must be erected.

Note 2: For a comprehensive list of hazard classifications that activate the requirement for signage, refer to the Retail Hardware Stores section of the industry information on the EPA website.

#### Information required on signs

The signage must explain:

- The hazardous substances present (see item 1 in Example 2). The signs do not have to list the specific substances stored on-site.
- The general type and degree of hazard (see item 2 in Example 2). The signs must depict the type of hazards associated with the substance.

<sup>&</sup>lt;sup>5</sup> Regulations 29 and 52 of the Hazardous Substances (Identification) Regulations 2001 and regulation 42 of the Hazardous Substances (Emergency Management) Regulations 2001.

- Steps to prevent unintended ignition (see item 3 in Example 2). If the retail hardware store exceeds the threshold quantity of a flammable substance, signs must explain how to avoid the unintended ignition of that substance.
- The action to be taken in an emergency (see item 4 in Example 2).

#### Location and visibility

When the hazardous substance is held outdoors, signs must be displayed near the substance, for example, near LPG cylinder storage.

Signs must be easy to read and understand from a distance of 10 m.

You should have signs at each public access to the building.

Within the building you need to identify the extent of hazardous atmosphere zones and controlled zones.

#### **Examples**

The exact nature (for example, size, colour, font or wording) of signs is not prescribed in the regulations. You can have signs that best suit your needs. The information can be in the form of pictures or words, but must be legible, durable and easily understandable.

Common pictograms and a typical sign are included in Example 2.

#### **Further information**

Further information is available in the Approved Code of Practice – Signage for Premises Storing Hazardous Substances and Dangerous Goods developed by Responsible Care New Zealand

December 2011 EPA0102

32

## 9. Secondary containment systems

#### Secondary containment system

Your store must have a secondary containment system if the quantity of liquid hazardous substances is in excess of the threshold quantity.

#### Description of a secondary containment system

A secondary containment system is a means of containing liquids in the event they spill or escape from the container in which they are stored.

A common secondary containment system for packaged goods stored inside retail premises is an impermeable concrete floor. Further measures may be required depending on the floor area, quantity stored and nature of the substance.

The secondary containment system must have sufficient integrity to enable the escaped liquids to be recovered and must withstand reasonably foreseeable events.

#### **Threshold quantities**

Table 9.1 gives examples of some substances typically held at a retail hardware store, and the quantities above which a secondary containment system is required. This is applicable irrespective of whether the substances are stored in packages or other forms of containers such as stationary tanks.

| Relevant hazard classification | Example of hazardous substance | Threshold quantity |
|--------------------------------|--------------------------------|--------------------|
| 3.1B                           | Methylated spirits             | 1,000 L            |
| 9.1B                           | Kerosene                       | 1,000 L            |

Table 9.1: Examples of secondary containment system threshold quantities

Note 1: Many hazardous substances have multiple hazard classifications. Each hazard classification needs to be considered and the hazard classification with the lowest threshold quantity is the relevant threshold quantity for that substance

Note 2: For a comprehensive list of hazard classifications that activate the requirement for secondary containment, refer to the Retail Hardware Stores section of the industry information on the EPA website.

December 2011 EPA0102

33

#### Capacity of containment system

Where hazardous substances are stored in packages, the required capacity of the secondary containment system is dependent upon the sizes of the packages and the hazard classes.

An above ground stationary tank must have a secondary containment system with a capacity at least 110% of the capacity of the tank.

A below ground stationary tank must have a secondary containment system with a capacity at least as large as the capacity of the tank.

## 10. Storage of flammable gases and liquids

#### **Building design**

If your store contains flammable substances, including aerosols (hazard classes 2 or 3), it must meet specific design requirements.<sup>6</sup>

The type of building that is required depends on:

- the hazard class of each substance
- the volume of each substance held
- · whether the substance is in storage or in an open container
- the proximity of neighbouring activities.

For more information, refer to your test certifier.

#### Storage in cabinets

Up to 250 L of substances with a flammable classification of 3.1A, 3.1B or 3.1C may be stored in a metal storage cabinet (for example, petrol in jerry cans) that is compliant with Australian Standard AS1940 The Storage and Handling of Flammable and Combustible Liquids.<sup>7</sup> This is an alternative to meeting the specific building design requirement. The capacity of any container in the cabinet must be no greater than 20 L.

An AS1940-compliant cabinet is:

- constructed of metal
- double skinned
- · has a secondary containment system
- has self-closing doors.

A nameplate or certificate should show the cabinet is compliant.

#### Storage of LPG cylinders

LPG cylinders should be stored outside and:

- must not be stored within 1 m of an opening (unless the building is solely used for the storage of LPG)
- must always be stored upright
- must be stored in an area that prevents the cylinders being damaged, tampered with, or affected by an excessive temperature rise (exposure to the sun is deemed to not cause excessive temperature)
- may be stored in the same compound as an LPG stationary tank, but may not be closer than 3 m from the stationary tank or pipework.

<sup>&</sup>lt;sup>6</sup> Schedule 10 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (as amended).

<sup>&</sup>lt;sup>7</sup> AS1940:2004<sup>´</sup> The Storage and Handling of Flammable and Combustible Liquids.

Guide to Certification for Retail Hardware Stores A Guide for the Person in Charge

The storage of LPG in cylinders, inside, other than in building designed for this purpose is not recommended and should be treated with caution.

## 11. Controlled zones and separation distances

#### Controlled zone and separation distances

Your store may need to have a controlled zones and separation distances established around the location of flammable or oxidising substances.

#### Description of a controlled zone

A controlled zone is an area established to protect people and places from the risks associated with the storage or use of hazardous substances with flammable or oxidising properties (i.e. hazard classes 1-5), including paints, thinners, diesel and LPG. Beyond the controlled zone, the public is provided with reasonable protection from the potential adverse effects arising from the hazardous substance. Within the zone, ignition sources must be controlled, access must be limited to authorised personnel, and potential adverse effects must be reduced or prevented.

#### Description of separation distance

The separation distance is the minimum distance that must be maintained from the location of a hazardous substance with flammable or oxidising properties (i.e. hazard classes 2-5) to other activities, such as site boundaries, residential properties, commercial premises, and traffic routes.

#### Distinct from segregation distance

Controlled zones and separation distances are quite distinct from segregation distances, which are required to be established between incompatible substances (refer to section 13).

#### Examples

Controlled zones at retail hardware stores typically relate to the area in which paints, thinners, aerosols and pool chemicals are stored. If cylinders of LPG are stored, these also require a controlled zone.

Typical controlled zones for a retail hardware store are shown in the example (immediately following Section 17).

#### Extent

The extent (size) of controlled zones and separation distances depends on the:

- hazard classifications of the substance
- quantities of the substances held
- the nature of neighbouring activities.

#### Managing controlled zones

Controls must be implemented to make sure the risks to the public or environment are managed and all nonauthorised personnel are excluded. Access to the controlled zone must therefore be restricted (for example by using barriers or fences.

Where hazardous substances are available for retail sale (including retail hardware stores) the public may go into the controlled zone provided warning signs are erected around it. The signage must specify the conditions of entry into the controlled zone, for example "no sources of ignition" and "no smoking".

#### Deemed compliance with separation distance

The separation distance from the building of a retail hardware store to a boundary is deemed to be zero, if a hazardous substance is:

- available for retail sale, and
- is in closed containers not exceeding a 10 L capacity, and
- does not exceed the threshold quantity.

#### Separation distance extends over boundary

If the separation distance extends over a property boundary or building, you may:

- ask the neighbouring property owner to give you permission (in writing) to allow the separation distance to extend into their property
- apply to the EPA for a variation to reduce the extent of the separation distance,<sup>8</sup> which may require you to install an intervening wall.<sup>9</sup>

<sup>&</sup>lt;sup>8</sup> Clause 33 of Schedule 10 to the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (as amended).

<sup>&</sup>lt;sup>9</sup> For example, a wall with a fire resistance rating of 240/240/240 minutes.

#### **Buildings**

Several allowable types of building or storage areas are specified in the regulations as well as the quantities of hazardous substances that may be stored in each of them. Once the type of building and the proximity of boundaries have been established, the maximum quantity that you may store can be evaluated. Your test certifier can advise you of the quantity.

#### Mark on site plans

You must mark controlled zones and separation distances on your site plan (see section 4).

File a copy of your site plan in Appendix 2, or file the copy elsewhere and record its location in section 17.

## 12. Hazardous atmosphere zones

#### Description of a hazardous atmosphere zone

A hazardous atmosphere zone is an area in which an explosive or a flammable atmosphere is present, or may be expected to be present, in quantities that require precautions.

Potential sources of ignition must be excluded from hazardous atmosphere zones.

Examples at retail hardware stores that may incur hazardous atmosphere zones include paints, thinners and LPG.

## Types

Hazardous atmosphere zones are categorised as one of three types, based on their likelihood and persistence (see Table 12.1). Areas classified into these zones must be protected from sources of ignition.

| Zone category | Description of zone   |
|---------------|---|
| Zone 0        | An explosive air–gas mixture is continuously present or is present for long periods or frequently                                     |
| Zone 1        | An explosive air–gas mixture is likely to occur during normal operation only occasionally   |
| Zone 2        | An explosive air–gas mixture is not likely to occur in<br>normal operation and, if it occurs, will persist for a short<br>period only |

Table 12.1: Types of hazardous atmosphere zones

#### Potential ignition sources

Examples of potential ignition sources include electrical equipment, naked flames, sparks from grinding and welding operations, and hot surfaces.

#### Examples of hazardous atmosphere zones

At retail hardware stores, hazardous atmosphere zones typically exist in:

- areas where paints are located
- areas where thinners are stored
- LPG cylinder storage areas
- areas where flammable aerosols are stored.

Typical examples of hazardous atmosphere zones are shown on the site plans included in the example (immediately following section 17).

## Threshold quantities

You must establish and document hazardous atmosphere zones when the threshold quantities are exceeded. The threshold quantities for hazardous substances typically held at retail hardware stores are included in Table 12.2.

| Relevant hazard<br>classification | Example of hazardous substance | Threshold quantity   |
|-----------------------------------|--------------------------------|--|
| 2.1.1A and B                      | LPG                            | 100 kg   |
| 2.1.2A                            | Flammable aerosol              | 3,000 L aggregate water capacity   |
| 3.1A, 3.1B 3.1C                   | Methylated spirits, kerosene   | 100 L (closed) 25 L (decanting) 5L<br>(open occasionally) 1L (if in an open<br>container for continuous use) |

Table 12.2: Examples of hazardous atmosphere zone threshold quantities for closed containers

Note 1: Hazardous atmospheres can still exist at lower volumes.

Note 2: Small scale paint tinting (such as that at retail hardware stores) is considered non hazardous.

#### Extent of hazardous atmosphere zones

Typical hazardous atmosphere zones for retail hardware stores have been established and are recognised in New Zealand standards.<sup>10</sup>

#### Mark site plans

You must show hazardous atmosphere zones on site plans (see section 4).

#### Managing hazardous atmosphere zones

You must manage hazardous atmosphere zones to prevent the risk of ignition or explosion.<sup>11</sup>

The Electricity Regulations 1997 require any electrical device or instrument installed in a hazardous atmosphere zone to be correctly rated for the zone.

The Electricity Regulations 1997 require a verification dossier to be kept for the electrical equipment. The dossier must include periodic re-inspection reports from the four-yearly inspections by a licensed electrical inspector.

 <sup>&</sup>lt;sup>10</sup> AS/NZS 2430.3 Classification of Hazardous Areas: Examples of area classification.
<sup>11</sup> Regulations 59 to 70 of the Hazardous Substances (Classes 1 to 5 Controls) Regulations 2001.

The periodic re-inspection reports must be available for review as part of the location test certificate assessment.

File the verification dossier and reports in Appendix 4, or file them elsewhere and record their location in section 17 of this publication.

#### **Further information**

For more information about the requirements of the Electricity Regulations 1997, see the Energy Safety website: (http://www.ess.govt.nz).

#### Oxidising substance

Oxidising substances (class 5) can aid combustion and are required to be separated from sources of ignition. This is different from the establishment of a hazardous atmosphere zone. The threshold for this separation requirement is the same as the threshold for the location test certificate (see section 3).

## 13. Segregation and packaging

#### Segregate incompatible substances

You must segregate (that is, keep separate) substances that are incompatible with each other. This means packages of incompatible substances must be held separately.

As a rule, flammable liquids, flammable gases, aerosols, flammable solids, oxidising agents and organic peroxides must be segregated from each other.

#### **Examples**

Examples of incompatible substances typically held at retail hardware stores are included in Table 13.1.

| Substance | Incompatible substance |  |
|-----------|------------------------|--|
| LPG       | Calcium hypochlorite   |  |
|           | Diesel                 |  |
| Korosono  | LPG                    |  |
| Relosene  | Calcium hypochlorite   |  |

Table 13.1: Examples of incompatible substances that must be segregated

Note: For a comprehensive list of substances that are incompatible, refer to the Retail Hardware Stores section of the industry information on the EPA New Zealand website.

#### Integrity of packaging

The packaging for hazardous substances must ensure that:

- · there is no visible release of any liquid or solid, and
- there is no release of gas or vapour unless the packaging is specifically designed to be vented, and
- the package maintains its ability to retain its contents.

#### Child resistant packaging

Where toxic substances with hazard classifications of 6.1D, 6.1E, 6.3A, 6.3B or 6.4A are offered for sale in packages of less than 2.5 L or 2.5 kg, the packages must be child resistant.

#### **Further information**

For further information about segregation refer to the codes of practice on the EPA website.

## 14. Stationary container systems

#### Description of a stationary container system

A stationary container system means a stationary tank and its associated equipment, pipework, and fittings up to and including the dispensers. These are typically at service stations and industrial premises and are not common at retail hardware stores. However, this section has been included as some sites may have stationary tanks that contain diesel for forklifts, for heating purposes or for emergency generators.

The certification process verifies that the system has been designed and installed and is operated in accordance with accepted engineering principles.

## Threshold quantities

You must obtain a stationary container system test certificate if the capacity of the stationary container system is above the threshold capacity (see Table 14.1).

| Substance | Container location                       | Threshold capacity |  |
|-----------|--|--------------------|--|
| LPG       | Above ground                             | 500 L              |  |
|           | Below ground                             | Any volume         |  |
| Diesel    | Above ground                             | > 5,000 L          |  |
|           | Below ground                             | Any volume         |  |
|           | Supplying a burner                       | 60 L               |  |
|           | Supplying an internal combustion engine. | 500 L              |  |

Table 14.1: Examples of stationary container system test certificate threshold capacities

#### Maintain records

Keep records detailing the standards to which all components of a stationary container system were designed and installed, as well as service records. These records may be in the form of drawings, a test certifier's report or a design report.

For existing stationary container systems, get and keep as many details as possible.

An equipment register, as included in Appendix 3, will help you to maintain up-to-date records.

File these records in Appendix 3, or file them elsewhere and record their location in section 17.

#### Person in charge is responsible

As the person in charge, you must ensure the stationary container system test certificate is obtained, even when the retail hardware store does not own the stationary container system (for example, the fuel supplier or another party owns and is responsible for the system).

#### No test certificate

Hazardous substances must not be put into a stationary container system unless the system has a valid test certificate.

#### Test certifiers issue test certificates

To obtain a stationary container system test certificate, contact a test certifier approved by the EPA. The test certifier will need to visit your retail hardware store and assess the stationary container system before he or she can issue a test certificate.

A register of test certifiers is on the EPA website.

File copies of the stationary container system test certificate in Appendix 3, or file them elsewhere and record their location in section 17.

#### Stationary container system certification

For a stationary container system to be certified, the items that a test certifier will assess and verify include:<sup>12</sup>

- the system's design, construction and installation
- · the pressure management and emergency pressure management system
- liquid level indicators
- lightning protection (above-ground stationary tanks)
- · the distances between stationary containers, tank wagons and transfer points
- fire-fighting systems (above-ground stationary tanks)
- secondary containment systems
- markings
- maintenance carried out
- pipework and fittings
- · dispensers used for retail sale.

<sup>&</sup>lt;sup>12</sup> Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (as amended)

#### Certification of secondary containment system

Secondary containment systems are required for stationary containers as outlined in section 9.

If the stationary container is storing diesel, the certification of the secondary containment system is part of the stationary container system test certificate.

#### LPG stationary container system

For an LPG stationary container system, the stationary tank is certificated under the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999. This reduces the documentation requirements required by the regulations under the HSNO Act for a stationary container system test certificate.

To obtain certification under the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999, see Pressure Equipment, Cranes, and Passenger Ropeways Regulations 1999: A general guide to the Health and Safety in Employment (1999), available from the Department of Labour website (http://www.osh.govt.nz/order/catalogue/354.shtml).

#### Existing stationary container systems

Not all stationary container systems constructed before 1 April 2004 will comply with the current requirements. If they have a capacity no more than 60,000 L, they may be managed according to an Authority approved code of practice.<sup>13</sup>

For stationary container systems encompassed by a code of practice, there are alternatives to full secondary containment systems. These require management procedures that incorporate activities such as routine stock reconciliation and periodic checks of observation wells or integrity testing.

#### Remove disused belowground stationary tanks

If your retail hardware store has stopped using a below-ground tank for more than three months, you must.

- have the stationary tank removed, or
- get the EPA's permission to leave the tank in place.

The EPA may allow the tank to remain for valid reasons, for example, if it is under a building and cannot be removed without destroying the building.

<sup>&</sup>lt;sup>13</sup> Code of Practice for the Management of Existing Stationary Container Systems up to 60,000 LitreCapacity.

# 15. Tracking

#### Tracking

Extremely hazardous substances must be tracked. Tracking is the recording of what happens to, and who is responsible for, a hazardous substance from the time it is imported or manufactured through to its end use or disposal.

It is anticipated that retail hardware stores would handle only a small number of tracked substances. You should be able to identify these from the hazardous substances inventory.

#### What substances require to be tracked?

Substances (excluding explosives) that must be tracked include:

- flammable liquids (classes 3.1A and 3.2A)
- flammable solids (classes 4.1.2A, 4.1.2B, 4.1.3A, 4.2A and 4.3A)
- oxidisers (classes 5.1.1A, 5.2A, 5.2B)
- toxic substances (classes 6.1A, 6.1B and 6.1C)
- ecotoxic substances (classes 9.1A, 9.2A, 9.3A and 9.4A)
- explosive substances (class 1) except for small fireworks, safety ammunition, some categories of flares and signalling devices for emergency use, model rocket engines, some articles of class 1.4.S, and small quantities of propellant powders and gunpowder.

It is important that you check the individual substances that you use as the requirement for tracking is removed for some specific substances, for example, pesticides with a 9.2A classification do not have to be tracked.

#### Records

When you take possession of a tracked substance you must record information on the quantities held and where they are held.

The records on the use or disposal of a tracked substance must be kept for three years. If you send the tracked substance to another place, the records must be kept for at least 12 months.

#### Disposal

If you dispose of a tracked substance, you need to record how much, how, when, and where it was disposed.

## Transfer

If you send a tracked substance to another place or return it to the supplier, you must ensure there is an approved handler at that place and that they will take responsibility for it. You need to record:

- the identity of the hazardous substance,
- when the substance was transferred,
- how much of the substance was transferred
- where the substance is going to,
- the identity of the approved handler who will be in control of it.

# 16. Further information

#### **HSNO Act**

The HSNO Act and regulations made under the HSNO Act are available on line from New Zealand Legislation (http://www.legislation.govt.nz).

#### **Transfer notice**

A transfer notice is a notice in the New Zealand Gazette that approves individual substances for use in New Zealand. Substances that have been approved by a transfer notice may be found in the EPA database "Controls for approved hazardous substances" which is on the EPA website.

#### Group standard

Group Standards approve a group of hazardous substances of a similar nature or type for use in New Zealand.

Surface coatings and colourants form one such group, which includes any material used as an adhesive, a dye, an ink, paint, a pigment or a graphic material, including any raw materials used in the manufacture of these materials. Solvents form another group.

Most hazardous substances at hardware retail stores will be approved under a Group Standard.

Manufacturers and importers of substances are responsible for evaluating and allocating their substances to a Group Standard, which must be recorded in the product safety data sheet.

If you use a substance and do not know the appropriate Group Standard, request the information from your supplier. Your supplier must supply it to you.

Group Standards are available on line from the EPA website.

#### Codes of practice

A code of practice approved by the Authority tells you how you can meet the requirements of the HSNO Act and the regulations made under the HSNO Act in a way that is legally defensible. It is not mandatory to follow the requirements of a code of practice, and you may adopt other ways of meeting the requirements.

Information on approved codes of practice is available from the EPA website

Useful codes of practice have also been prepared by Responsible Care New Zealand. See their website http://www.nzcic.org.nz.

#### Standards

For information on standards referenced in this publication, contact:

Standards New Zealand PO Box 2439, Wellington Phone: 04 498 5990 Fax: 04 498 5994 Email: snz@standards.co.nz

#### **Further information**

For information on hazard substances compliance:

- see the EPA website; or
- call the Hazardous Substances Compliance Line: 0800 376 234; or
- contact the EPA at: PO Box 131, Wellington Tel: 04 916 2426 Email: hsinfo@epa.govt.nz Website: http://www.epa.govt.nz

You may also contact the Department of Labour at: Tel: 0800 20 90 20 Web: http://www.dol.govt.nz/contact/index.asp

# 17. Test certificate information requirements

#### Records

You may file your records in this folder, or you may file them elsewhere and record their location in Table 17.1.

If any record is not applicable to your retail hardware store, write 'Not applicable' in the location column.

| Use  | Record  | Location |
|------|---|----------|
|      | Hazardous substances inventory                              |          |
|      | Safety data sheets  |          |
|      | Location test certificates                                  |          |
| 1, 2 | Site plans  |          |
| 1    | Approved handler test certificate(s)                        |          |
| 1    | Emergency response plan                                     |          |
| 1    | Emergency response plan practice records                    |          |
| 1    | Electrical certificates                                     |          |
|      | Stationary container system test certificate(s)             |          |
| 2    | Stationary container system design and installation records |          |
| 2    | Compliance plan(s)  |          |
| 2    | Stationary container system service records                 |          |
|      | Equipment register  |          |

Table 17.1: Location of records

#### Notes:

1 = Make available for location test certificate.

2 = Make available for stationary container test certificate.

Guide to Certification for Retail Hardware Stores A Guide for the Person in Charge

#### Example 1: Site plan drawings





Guide to Certification for Retail Hardware Stores A Guide for the Person in Charge

## Example 2: Signage

#### Examples

The following are examples of pictograms that can be included on signs in retail hardware stores. The requirements for signage are not prescriptive, so you can take the approach most suitable for your store.

| ltem*           | Pictogram                 | Description  |
|-----------------|---------------------------|--|
| Items 1 and 2   | PLAMMABLE GAS             | Flammable gas  |
|                 | FLAMMABLE<br>JUGUD<br>3   | Flammable liquid   |
|                 | DXIDISING<br>ABERT<br>5.1 | Oxidising agent  |
|                 | ×                         | Toxic to aquatic life  |
| Item 3          | 8                         | No smoking   |
|                 |                           | No ignition sources<br>No naked flames (including pilot<br>lights) |
|                 |                           | Turn off mobile phone and other electronic devices                 |
| Item 4          |                           | Dial 111 Fire Services   |
| * See section * | 1                         | 1  |

#### Example of typical sign

| HAZCHEM  |           |
|--|-----------|
| No smoking, no naked lights, no ignition sources     | FLAMMABLE |
| IN EMERGENCY DIAL 111, FIRE ,<br>POLICE OR AMBULANCE | 3         |

Guide to Certification for Retail Hardware Stores A Guide for the Person in Charge

# Appendix 1: Hazardous substance records

#### Hazardous substance inventory

Complete the following sample hazardous substances inventory or replace it with your own inventory.

#### Safety data sheets

File copies of your safety data sheets after the hazardous substance inventory.

**HSNO Act** Maximum Trade or Location in store **Container size** common name classification quantity 3.1C, 6.1E, 6.3B, Turpentine 9.1B

Hazardous substances inventory

# Appendix 2: Location test certificate records

#### Location test certificates

File copies of your location test certificates after this page.

#### Site plans

File copies of your site plans after your copies of location test certificates.

## Approved handler test certificates

File copies of your approved handler test certificates after your site plans.

## Appendix 3: Stationary container system records

#### Stationary container system test certificates

File copies of your stationary container system test certificates behind this page.

Stationary container system design and installation verification records File copies of your stationary container system design and installation verification records after the stationary container system test certificates.

#### Stationary container system compliance plans

If you have a compliance plan, file a copy of this with the approval letter after the stationary container system design and installation verification records.

#### Stationary container system service records

File copies of your stationary container service records after your compliance plans and approval letters.

#### Stationary container system equipment register

File a copy of your completed stationary container system equipment register after your stationary container service records.

#### Secondary containment system compliance plan

If you have a compliance plan, file a copy of this with the approval letter after the completed stationary container system equipment register.

| Stationary container system | Component | Registration<br>number | Manufacture | Design standard |
|-----------------------------|-----------|------------------------|-------------|-----------------|
|                             |           |                        |             |                 |
|                             |           |                        |             |                 |
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|                             |           |                        |             |                 |

Stationary Container System Equipment Register

# Appendix 4: Electrical certification

## **Electrical certification**

File copies of your electrical certification records after this page.

#### **Electrical dossier**

File records of your electrical equipment after the electrical certification records.



#### BP House, (Level 1), 20 Customhouse Quay, Wellington 6011, New Zealand

