HSWA

QUICK GUIDE

Keeping your service station compliant with the hazardous substances regulations

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New Zealand Government

WORKSAFE
Mahi Haumaru Aotearoa

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ACKNOWLEDGEMENT

These guidelines are a collaborative effort of WorkSafe New Zealand and the Motor Trade Association Inc.

1.0 Introduction

1.1 How to use this guide

This guide is designed to help you, as the PCBU (person conducting a business or undertaking) understand how to comply with your regulatory obligations in relation to hazardous substances at your service station. There are also suggestions to help you or your staff prepare for your compliance certifier's visit to issue your site location compliance certificate.

There are references to various parts of the Health and Safety at Work (Hazardous Substances) Regulations 2017 (the Regulations) should you wish to understand the background to certain requirements.

References to petrol in this guide also include ethanol and methanol blends of petrol, for example, biofuels and E85.

1.2 What does this guide contain?

This guide outlines your responsibilities under the Regulations. These responsibilities are in addition to other statutory requirements, such as those in the Resource Management Act 1991 and the Building Act 2004. These other legislative requirements include, for example, how a service station must manage drainage from its site.

This is a guide only and limited to explaining general requirements to assist you in keeping your service station compliant under the Regulations rather than the full requirements of Health and Safety at Work Act 2015 (HSWA) with which you must still comply.

R Relevant part of the Regulations

H Relevant part of HSWA

2.0 Know your substances

2.1 Safety data sheets

Safety data sheets contain important information including, first aid, safe storage, cleaning up spills and what safety gear (personal protective equipment) should be worn by the people using a substance.

You must have a safety data sheet for every hazardous substance in your service station; ask your supplier for one if it is missing or is more than five years old.

You must make sure that a current safety data sheet or a condensed version of the safety data sheet is readily accessible to workers, emergency services and anyone else who may be exposed to a hazardous substance in the workplace.

You will need the safety data sheets for completing your inventory.

See the WorkSafe guide to Safety data sheets in the workplace

R Regulation 2.11

2.2 Inventory

You need to have a list (inventory) of the types and quantities of hazardous substances you have. Keeping an inventory is a regulatory requirement and it needs to be readily accessible to emergency workers. It will also be required when applying for a location compliance certificate. Reg 3.1 of the Regulations tells you what information is required in your inventory.

You can use WorkSafe's online hazardous substance calculator to create your inventory. The calculator will also tell you most of the controls you need to put in place to manage your hazardous substances.

Remember as well as petrol, diesel and LPG, you may be holding hazardous substances in your retail store and these must be included in the inventory.

See the WorkSafe guide to Inventory requirements for hazardous substances

R Regulation 3.1

3.0 Training of workers

3.1 Appropriate training for workers

The Regulations tell you what a business needs to do to ensure that every worker who uses, handles, or stores a hazardous substance has the knowledge and practical experience to do so safely.

You must provide information to workers on all work involving hazardous substances taking place at your site. Workers need to know where to find information about each hazardous substance, and about safe handling and storage. They also need to be aware of what to do in an emergency.

Workers need training on:

- the health risks and safety issues associated with the hazardous substances they work with
- how to safely use, handle and store the substances
- the safe use of associated equipment, including personal protective equipment
- their obligations under the Regulations
- their responsibilities and actions to be taken in an emergency.

Training needs to be readily understandable by any person to whom it is provided so far as is reasonably practicable.

You will need to keep training records. When you renew your location compliance certificate, your compliance certifier will review your worker training records as part of the certification renewal process.

See the WorkSafe guide to Information, training and instruction for workers handling hazardous substances

R Regulation 4.5

3.2 Workers dispensing petrol and diesel

Workers dispensing petrol and diesel must be suitably trained so that they are fully aware of the risks and what to do in an emergency.

Training for workers handling petrol and diesel at service stations

LEARN AND GET EXPERIENCE

Learn about the hazards of petrol and diesel and how to safely manage them to protect people and the environment. Know what to do in an emergency.

Demonstrate practical skills and knowledge of the operating equipment.

Access industry training and on-the-job training. See Petroleum Convenience Compliance New Zealand (PCCNZ)

PROVE KNOWLEDGE AND COMPETENCE

Get a written record describing the method used to assess skills and knowledge about the substances.

Have this record signed by the work supervisor (PCBU) or course provider.

3.3 Workers dispensing LPG

Filling LPG cylinders

An approved filler certificate or a LPGA (LPG Association) filler certificate is needed for anybody filling an LPG cylinder.

> If a customer needs a cylinder filled and there are no qualified fillers available, the cylinder must **not** be filled.

See Certification of workers

Handling LPG exchange cylinders

Workers handling LPG cylinders that are provided through a bottle exchange scheme do not need to be approved fillers but must be adequately trained in the safe handling and storage of the cylinders.

Filling LPG cars

Vehicles running on LPG do not need to be filled by an approved filler. Self-serve customers at a service station may fill their own vehicles. However, the supplier should ensure that:

- the stationary container system is fitted with an emergency shutdown system
- the dispensing unit is clearly identified and displays a clear set of filling instructions
- the dispenser hose has a self-sealing hose break coupling.

3.4 Availability of staff

You can work out the availability of competent staff by doing a risk assessment, or similar appraisal, considering the:

- service station's hours of operation
- skills and competencies of workers, and
- types of hazardous substances onsite.

4.0 Storing hazardous substances

Storing hazardous substances according to the rules is an important part of protecting you, your workers and your customers.

At your service station, petrol will be stored in below-ground tanks, LPG in tanks or as exchange cylinders and packages of hazardous substances will be stored in retail areas.

While it may be easy to keep your petrol, diesel and LPG separate on the forecourt, you need to consider what is held in your for retail store too. Check your safety data sheets (usually section 7) to find out what your substances should **not** be stored next to.

You must make sure that your workers are trained on the information in this Section, and that this information is available to them.

4.1 Incompatible substances

Not all hazardous substances can be stored together safely. Different types of substances can cause a fire or explosion if they come into contact with each other. These substances are usually described as 'incompatible' and it is important to store them separately to prevent them from mixing if they leak or spill.

Your safety data sheets will tell you which substances and materials should be kept away from each other. Remember to check your retail store and workshop. Some body fillers for cars are oxidisers and should be stored separately.

Note

The most important things to remember about incompatible substances is to keep:

- your flammables away from your oxidisers, and
- flammable liquids and flammable gases separate.

R Regulation 10.5

R Regulation 12.5

R Regulation 12.26

R Regulation 13.29

4.2 Storing flammable liquids

Flammable liquids are highly hazardous and you must store them appropriately. Your storage requirements will depend on what and how much of each hazardous substance is on site.

Petrol and diesel for pumps will be stored in stationary tanks – you need compliance certificates for these; see Certification of tanks of this guide for more information.

4.3 Access to petrol and LPG

Petrol and LPG, when left unattended, must be secured from access by anyone other than the people that have your permission to access it.

4.4 LPG cylinder storage

If your service station holds LPG cylinders in a cage as LPG exchange cylinders, the cylinders:

- must be stored more than 1m away from a drain
- must be stored more than 1m away from an opening into a building if there is up to 100kg LPG, or more than 2m away from an opening if there is between 100–300kg LPG. Openings include windows and doorways (unless the building is used only for the storage of LPG)
- may be stored in the same area as an LPG stationary tank, but should be stored more than 3m away from the tank and pipework
- must be secured against unauthorised access.

No electrical equipment or ignition sources may be located within the hazardous area for the cylinders.

You should mark out an area on the forecourt that meets these requirements, so the cage is always put in the same place each day.

4.5 Separation requirements

Separation requirements are the minimum distances that are required from your hazardous substances to protected and public places. These are particularly relevant when designing a service station.

There are two separation requirements that you need to consider:

1. **Separation from protected places** – hazardous substances must be a minimum distance from dwellings, buildings, factories.
2. **Separation from public places** – hazardous substances must be a minimum distance from places that are open to, and frequented by, the public, including public roads.

What is a protected place?

A protected place includes a place:

- where people reside (for example, a house)
- of worship, a public building, a school or college, a hospital, a child care facility, or a theatre
- where large numbers of people regularly gather (for example, a sports ground)
- where people are regularly employed (for example, a workplace).

A protected place may be within or outside the boundary of the service station.

A protected place does not include a small office or building associated with the service station.

What is a public place?

A public place is any place, other than a private property or a protected place, that is open to the public and where the public are often present, and includes public roads.

Size of separation distance

The minimum separation distance depends on:

- the hazard classifications of the substance, and
- the quantity of the substance held.

The separation distances for petrol, LPG and diesel will be different. Your separation distances will depend on your site so talk to your fuel provider to find out what separation requirements you need.

4.6 Hazardous areas

A hazardous area surrounds a place where flammable substances are used, handled or stored and where flammable vapours may be present. Within these areas, you need to take special precautions to prevent unintended ignition so that a fire or explosion does not occur.

At service stations, hazardous areas usually apply to petrol and LPG. Diesel is less flammable and does not require a hazardous area.

You will usually need to establish hazardous areas at:

- dispensers
- dip, fill-points and vents of below-ground stationary tanks
- above-ground tanks, LPG cylinder-filling and storage areas
- LPG Cylinder storage cabinets
- above-ground interceptors.

Typical examples of hazardous areas are shown on the site plans in Appendix 1

Requirement

Hazardous areas must be established and recorded on your site plan.

Hazardous areas for service stations must comply with Australian/New Zealand Standard: AS/NZS 60079.10.1:2009 *Explosive atmospheres – Classification of areas – Explosive gas atmospheres*. You can find this at: www.standards.govt.nz

Tank wagons delivering flammable gases or liquids create hazardous areas during the transfer process, and these should be recorded on your site drawing.

Management of hazardous areas

Managing hazardous areas is important in preventing the risk of ignition or explosion.

Hazardous areas must be protected from ignition sources, including electrical equipment, electric vehicle charging stations, mobile phones, naked flames and hot surfaces.

Any electrical device or instrument installed in a hazardous area must be correctly rated for the zone – this is required under the Electricity (Safety) Regulations 2010. You must keep a verification dossier for your electrical equipment which includes periodic re-inspection reports from four-yearly inspections by a licensed electrical inspector.

You will need to make these periodic re-inspection reports available for review as part of the location compliance certificate assessment.

For more information about the requirements of the Electricity (Safety) Regulations 2010, see: Energy Safety

R Regulation 10.6

5.0 Signage

5.1 Signs where petrol, diesel and LPG are stored

You must clearly display signs immediately next to LPG tanks and near petrol pumps.

These signs need to be understandable, clearly visible and legible at the point of refuelling.

5.2 Signs where hazardous substances are stored in a building

For your retail store, you only need to display signs if you store large amounts of hazardous substances. Use the Calculator or see Schedule 3 of Regulations to find out if you exceed the thresholds for your substances.

There is some useful guidance information on the types of signage required on our website: worksafe.govt.nz

R Regulation 2.5

6.0 Secondary containment systems

A secondary containment system is designed to hold liquid which leaks from a storage container. It must have sufficient integrity to hold the leaked liquid and to withstand reasonably foreseeable events, such as a fire and you must be able to recover the substance from it.

You must have a secondary containment system for all below-ground stationary tanks or containers holding petrol or diesel and for above-ground stationary tanks or containers holding more than 100L of petrol or 1000L of diesel.

LPG does not need a secondary containment system.

6.1 Below-ground tanks

Common secondary containment systems for below-ground stationary tanks include double-skin stationary tanks or a stationary tank in a watertight pit. The system must be able to hold at least as much as the stationary tank. Some older below-ground tanks may not have a secondary containment system; however, these sites should now have compliance plans in place.

6.2 Above-ground tanks

Common forms of secondary containment systems for above-ground stationary tanks are double-skin tanks and compounds with bund walls.

These systems must be able to hold at least 110% of the capacity of the stationary tank.

A secure drain valve device attached to an above-ground secondary containment system will prevent hazardous substances draining into the system in the event of a spill.

R Regulation 10.3

R Regulation 17.99

7.0 Emergency preparation

7.1 Emergency response plan

Every service station must have an emergency response plan and ensure that it is implemented in the event of an emergency. The plan must cover your response to every reasonably foreseeable emergency scenario involving each of your hazardous substances. This includes advising workers how to protect themselves in the case of an emergency.

You should seek your workers' input on the emergency response plan and see that it is tested.

This plan can be part of any other emergency management documentation that you keep.

Train your workers

You must train your workers about what to do in an emergency. They also need to know where safety and first aid equipment is stored and how to use it.

Test your plan

You need to test your whole plan at least once a year, and within three months if there has been a change to your workforce or procedures, to show that it works and is effective. If needed, you must amend the plan in response to the test, so far as reasonably practicable, to ensure the plan is workable and effective.

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

Every person responsible for carrying out a part of the emergency response plan must be trained in what to do in an emergency. Keep records of this training.

Plan details

Your emergency response plan must cover every reasonably foreseeable situation and be specific to your site.

Your plan must include:

- What actions you will take to warn people of the emergency, and how they can protect themselves.
- Actions to be taken to help or treat injured people.
- Actions to be taken to manage the emergency and how the controls can be re-established to manage the risk.
- Identification of each person with responsibility under the plan including:
  - their contact details
  - skills they must have
  - any special training needed
  - actions they are expected to take

- Specifics regarding obtaining information about hazardous properties of and means of controlling substance/s involved.
- How to contact emergency services.
- Purpose and location of emergency equipment or facilities.
- How to decide what action to take and in what order.

The plan must include your inventory and a site plan.

It does not need to specifically identify each of the situations below, but they must be covered by the principles underlying the plan.

Emergency situations

Your emergency response plan should cover situations such as:

- small and large flammable liquid spills, for example:
  - overfilling a customer's fuel tank
  - a person driving away with the dispenser nozzle still in the vehicle
  - damage to pipework or a dispenser (for example, a customer crashing into a petrol pump)
  - a dispenser nozzle failing to close
  - a stock reconciliation showing a significant discrepancy
  - a leaking dispenser
  - a person being splashed with fuel
- small and large flammable liquid fires, for example a:
  - fire in fuel-handling equipment or in a vehicle being filled
  - fire in a building
  - person sustaining burns.

If your service station stores LPG, your plan might also cover:

- a leak from the stationary tank or a customer's vehicle fill point
- a fire adjacent to the stationary tank
- a person receiving a burn from contact with LPG
- damage to pipework or a stationary tank
- a cylinder leak
- a cylinder fire.

Emergency equipment

Once you have written your emergency response plan, make a list of the equipment needed in it, including the reason for and location of each piece of equipment.

Plan review

Your plan may be reviewed by Fire and Emergency New Zealand (FENZ). FENZ will consider whether what is in your plan is achievable and if it is consistent with their operational policies.

FENZ may make specific recommendations and you must, so far as is reasonably practicable, follow these recommendations and amend your plan.

For further information see: fireandemergency.nz

Availability of the plan

Your plan needs to be easily accessible to workers, emergency services and every person with a responsibility under the plan.

Plan template

Download a basic emergency response plan template from WorkSafe at: worksafe.govt.nz

R Regulations 5.7–5.13

Unstaffed service stations

Whether your service station has workers or not, the same rule applies: emergency response plans must be available to any person who has been identified in it as having a role during the emergency.

Your plan can be presented in a way that considers the absence of workers at your site. For example, the plan should be as practical as possible and have instructions that are easily read so there is quick action in the event of an emergency. Instructions that are printed on a large sign, rather than having a paper document on site, may be a viable option.

EMERGENCY PROCEDURES

FUEL SPILL

1. STOP PUMPING FUEL
2. PRESS THE EMERGENCY STOP BUTTON
3. ELIMINATE ALL IGNITION SOURCES – NO SMOKING, STOP ENGINES, TURN OFF CELL PHONES
4. INFORM [COMPETENT PERSON] BY [METHOD]
5. [COMPANY 0800 NUMBER]

FIRE

1. STOP PUMPING FUEL
2. PRESS THE EMERGENCY STOP BUTTON EVACUATE EVERYONE FROM THE SITE
3. DO NOT ATTEMPT TO START VEHICLE
4. EXTINGUISH THE FIRE USING [METHOD] – ONLY IF IT IS SAFE TO DO SO

RING 111

FIGURE 1:
Example sign

7.2 Fire extinguishers and hydrant systems

You must have at least two fire extinguishers available at your service station with a minimum 30B rating (you will find the rating on the label). They must be clearly visible and readily accessible.

Every fire extinguisher and hose reel needs to be serviced at regular intervals – check the manufacturer's recommendations.

R Regulation 5.5

LPG stationary tanks

For LPG stationary tanks, you can substitute a fire extinguisher with a hydrant system that has a 20mm diameter hose fitted with a spray nozzle. The hose needs to be long enough to direct water to all sides of the LPG tank. If your tank has a capacity of 12,000L or more, you can use a spray cage that operates automatically.

Talk to your LPG supplier about all the rules that apply.

R Regulation 17.40

Unattended stations

Permanently unattended dispensing stations, such as truck stops and unattended petrol stations, are not required to have fire extinguishers.

7.3 Spills

Use the emergency response template to plan your station's response.

Small spills

At a service station, the most common spills will be of petrol, diesel or lube oil.

A spill kit may be enough to contain small spills, such as when a nozzle falls out while a car is being filled. You can purchase spill kits from safety equipment suppliers or you can make a kit to suit your needs.

Spill kit equipment depends on the hazardous substances you have and the amount that could likely be spilled. Generally, your spill kit should contain:

- safety gear (including gloves, goggles and gumboots)
- spill handling equipment
- spill containment equipment (like drain guards and drip pans)
- absorbent material (such as sand or kitty litter; be aware that sawdust is unsuitable as it will act as a fuel if a fire were to start), and
- a leak-proof disposal container to put the waste in once the spill has been cleaned up.

Read your safety data sheets (usually section 6) for full information on how to handle spills.

Tell workers where the spill kits are kept and how to use them.

Large spills

Large spills can be caused from quick mechanical failures or slow leaks over time. Flammable vapours can linger and liquids can travel across paved areas, into storm water drains and across roads, resulting in waterways and ground becoming contaminated.

If you encounter a large spill you must you must initiate your emergency response plan and call FENZ (see Emergency response plan in these guidelines).

8.0
Site plans

Your service station must have a site plan (or plans) showing the location of all:

- buildings
- tanks used to store petrol, diesel and LPG
- storage areas for packages containing hazardous substances
- storage areas for gas cylinders
- secondary containment system
- fire-fighting equipment and facilities
- fill-points and dispensers for LPG and petrol
- hazardous areas associated with hazardous substances.

8.1 Site plan details

Your compliance certifier will need to see the plan to verify its accuracy and ensure it contains all prescribed information and sufficient detail, when considering issuing a location compliance certificate. It must be accurate and drawn to scale so that anyone who needs to use it can identify the distances involved and any other relevant information about the location.

9.0 Compliance certificates

Location compliance certificates are issued by compliance certifiers to show that users of hazardous substances are managing their flammable, oxidising, corrosive and toxic substances according to the Regulations. You will need compliance certificates for the site, LPG fillers and some equipment.

A compliance certifier is an independent service provider authorised by WorkSafe to issue compliance certificates. For a list of compliance certifiers, see our website: worksafe.govt.nz

9.1 Location compliance certificates

Petrol and LPG

Any service station with petrol or LPG must have a location compliance certificate. Stations with only diesel (not petrol or LPG) do not need one.

Having a location compliance certificate means:

- notification requirements to WorkSafe have been complied with
- workers handling petrol and LPG have received information, training and instruction in the safe management of hazardous substances located on site
- the petrol and LPG can be appropriately secured from access by persons other than those permitted by you to access them
- incompatible substances are properly segregated
- you have the appropriate signs in the right places
- up-to-date site plans are available
- there are enough fire extinguishers
- an appropriate emergency response plan is in place and has been tested
- secondary containment systems are in place
- your hazardous areas are established and being managed
- your separation distances are met, and
- for LPG, fire-fighting systems (for example, a spray cage for large tanks) are in place.

Your location compliance certificate states which hazardous substance classes are on site in and in what quantity. The more you have on site, the higher the risk.

Frequency of certification for flammable substances

You need to renew your location compliance certificate for flammable substances every year, but you can apply to WorkSafe for an extension of the renewal period of up to three years. Talk to your compliance certifier about this.

You are responsible for getting the location compliance certificates needed for your service station.

Location of the certificate

You do not need to display the certificate but you do need to make it available to a WorkSafe inspector if they ask to see it.

Getting ready for check

BEFORE ISSUING A LOCATION COMPLIANCE CERTIFICATE, THE COMPLIANCE CERTIFIER WILL CHECK THAT YOU HAVE:	YOUR COMPLIANCE CERTIFIER MAY WANT TO SEE AND VERIFY THE FOLLOWING:
– appropriate training records for all workers involved in the handling and/or management of hazardous substances on your site	– training records – may ask workers about aspects of the safe handling and storage of hazardous substances
– a list (inventory) of hazardous substances present at the service station	– the inventory
– a site plan of your workplace showing: - all hazardous substance locations - hazardous areas - the location of your emergency response plan	– the site plan – may ask PCBU to: - show locations - show location of your emergency response plan
– fire extinguishers available and that: - you have the correct number - you have the correct type, and - they are clearly visible and readily accessible	– sight the fire extinguishers – may ask workers to demonstrate they know where they are and how to use them
– stored your hazardous substances safely in areas that can be secured	**Note**: Only workers who are trained in the task of checking fuel quantities (dip test and wet stock management) should be asked to demonstrate how they carry out these duties by the compliance certifier, WorkSafe inspector or another authorised person – check substances are secured where required
– incompatible substances stored separately	– check storage of incompatible substances
– separation distances needed are in place	– check separation distances
– established, documented and managed hazardous areas	– check documentation of hazardous area – check management of hazardous areas
– an approved filler (LPG) available, if needed	– check approved filler certification
– procedures in place to prevent a fire from starting	– check procedures to prevent ignition
– signs in place	– check that compliant signs are present
– prepared and tested an emergency response plan	– check emergency response plan and records of testing the plan – run through the emergency response plan
– secondary containment in place	– verify the capacity of the secondary containment
– the right safety gear and clothing for all substances	– check that PPE is supplied and that it is right for the substances
– told WorkSafe where your workplace is and what classification of hazardous substances and amounts of those classifications are used and stored there (for newly established service stations).	– check evidence of notification.

TABLE 1: Checklist for location compliance certification

R Regulation 10.34

9.2 Certification of workers

Approved fillers and LPG fillers

An approved filler certificate or a LPGA filler certificate is needed for anybody filling an LPG cylinder.

> If a customer needs a cylinder filled and there are no qualified fillers available, the cylinder must **not** be filled.

Approved filler certificates are issued by compliance certifiers that are authorised by WorkSafe to do so.

LPGA filler certificates are issued by LPGA appointed trainers and site trainers and allow the filler to charge LPG cylinders of less than 110kg water capacity.

There are several organisations who also offer training and assessment of competence in the safe management of LPG. The LPGA operate a scheme to cover the approved filler certification requirements under the Regulations

To obtain an approved handler certificate contact a compliance certifier who specialises in approved filler certificates. There is a list of compliance certifiers on our website: worksafe.govt.nz

R Regulation 15.64

9.3 Certification of tanks

Responsibility

You are responsible for making sure that your stationary container systems are certified, even if the service station owner does not own the stationary container system. For example, if the fuel supplier or another party owns and is responsible for the system it remains the service station owner's responsibility to make sure that they are certified.

> If a stationary container system does not have a compliance certificate, you must not put hazardous substances into it.

Stationary container systems compliance certificates

A stationary container system is a stationary tank and its associated equipment, pipework and fittings, up to and including the dispensers. The certification of the system shows that it has been designed and installed according to the Regulations.

Each petrol and diesel stationary container system must be:

- suitable for service with the substance it contains. This means that it must not leak at operating pressures, temperatures, stresses and loadings, and
- constructed of materials that are compatible with the substance it contains.

Your records should include the design and installation standards for your stationary container system components and your service records. These records can be drawings, a compliance certifier's report, or a design report. An equipment register is a helpful way to keep your records current. It's also helpful to include your As Built drawings and photos taken during construction with the record.

Stationary container systems containing petrol and diesel must have a stationary container system compliance certificate.

R Regulation 17.90

To obtain a stationary container system certificate contact a compliance certifier who specialises in such certificates. There is a list of compliance certifiers on our website: worksafe.govt.nz

You do not require stationary container certification for LPG tanks as they are covered off under the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999 (the PECPR regulations)

Older tanks

Stationary container systems constructed before 1 July 2006 with a capacity no greater than 60,000L can be managed under the Health and Safety at Work *(Hazardous Substances – Management of pre-2006 existing stationary container systems up to 60,000L) Safe Work Instrument 2017.*

You can find this Safe Work Instrument (SWI) on our website: worksafe.govt.nz

To comply with this SWI, your management procedures must cover events such as routine stock control and your system may need integrity testing or periodic checks of observation wells. If your system does not meet the requirements of this SWI, you should submit a compliance plan to WorkSafe. Your plan must explain how, and the time within which, the secondary containment system (or the operational procedures being applied) will be altered so that they comply. A compliance certifier must endorse your plan.

9.4 Approval of dispensers

Petrol and LPG dispensers must be approved types. A list of approved dispensers can be found on our website at: worksafe.govt.nz

R Regulation 17.47

10.0 Managing risks on your site

10.1 Your duties

Managing risks

In addition to obtaining the correct certification and approvals you are required to manage risks to health and safety associated with storing hazardous substances at your workplace.

See our quick guide Hazardous substance risk management for information on managing the risks associated with hazardous substances.

Notification

You must notify WorkSafe as soon as possible after becoming aware that one of the following events has taken place as a result of the operation of your service station:

- a death
- a notifiable illness or injury, or
- a notifiable incident.

A notifiable illness or injury is one that requires (or would usually require) a person to be admitted to hospital for immediate treatment.

A notifiable incident is an unplanned or uncontrolled incident where someone's health or safety is seriously endangered or threatened. Examples of notifiable incidents are risks arising from:

- a substance escaping, spilling, or leaking
- an implosion, explosion or fire
- gas escaping
- electric shock
- the fall or release from height of any plant, substance, or thing
- damage to or collapse, overturning, failing or malfunctioning of any plant or structure.

To notify WorkSafe go to: worksafe.govt.nz

Safe plant and structures

You must, so far as is reasonably practicable, make sure that plant and structures such as machinery, equipment and buildings are safely used, handled and stored.

H Section 36

Worker engagement, participation and representation (WEPR)

You must engage with your workers when you are:

- identifying hazards and assessing risk
- proposing changes that may affect workers' health and safety
- making decisions regarding:
  - ways to eliminate or minimise health and safety risks
  - procedures for resolving health or safety issues
  - whether facilities for workers' welfare (for example, tearooms) are adequate
  - procedures for engaging with workers
  - procedures for monitoring workers' health
  - procedures for monitoring workplace conditions
  - procedures for providing information and training for workers
- developing WEPR practices, including determining workgroups
- carrying out activities specified in regulations.

H Part 3

10.2 Worker duties

While at work, a worker must:

- take reasonable care for his or her own health and safety
- take reasonable care that they do not adversely affect the health and safety of other persons
- comply, as far as the worker is reasonably able, with any reasonable instruction that is given by the you to allow you to comply with HSWA or its regulations, and
- cooperate with any reasonable policy or procedure of yours relating to health or safety at the workplace that has been notified to workers.

H Section 45

11.0 More information

11.1 Hazardous Substances Toolbox website

If you have a workshop attached to your service station, you will need to consider what hazardous substances are on site there as well. A Hazardous Substances Toolbox website has been created to help PCBUs who own or manage small businesses to work safely with hazardous substances and to comply with the Regulations.

On the Toolbox website, you will find:

The Hazardous Substances Calculator

Helps you create your inventory and tells you the controls you need to put in place: www.hazardoussubstances.govt.nz

An inventory workbook

Gives you instructions for filling out your inventory and an inventory form. The form is set up so that you record all of the information needed to use the Hazardous Substances Calculator: www.hazardoussubstances.govt.nz

Your practical guide to working safely with hazardous substances

Describes what you need to do to be safe around hazardous substances and includes useful tables and checklists: www.hazardoussubstances.govt.nz

An emergency management plan template

Helps you set up your emergency response plan: www.hazardoussubstances.govt.nz

11.2 Safe Work Instruments

Safe Work Instruments (SWIs) are documents issued by WorkSafe that define terms, prescribe matters, or make other provision in relation to any activity or thing, including listing standards, control of substances, and competency requirements stated in the Regulations.

SWIs can be found at: worksafe.govt.nz

SWIs of relevance to service stations include:

- Filling of below ground stationary tanks by pumping – SWI 2017
- Management of pre-2006 stationary containers systems up to 60,000L – SWI 2017
- Markings for pipework connected to above ground stationary tanks – SWI 2017
- Design and construction of above ground stationary tank to ULC-ORD-C80.1-2000 – SWI 2017

11.3 Contacts

Your compliance certifier

Talk to your compliance certifier directly if you have questions specific to your service station.

WorkSafe New Zealand

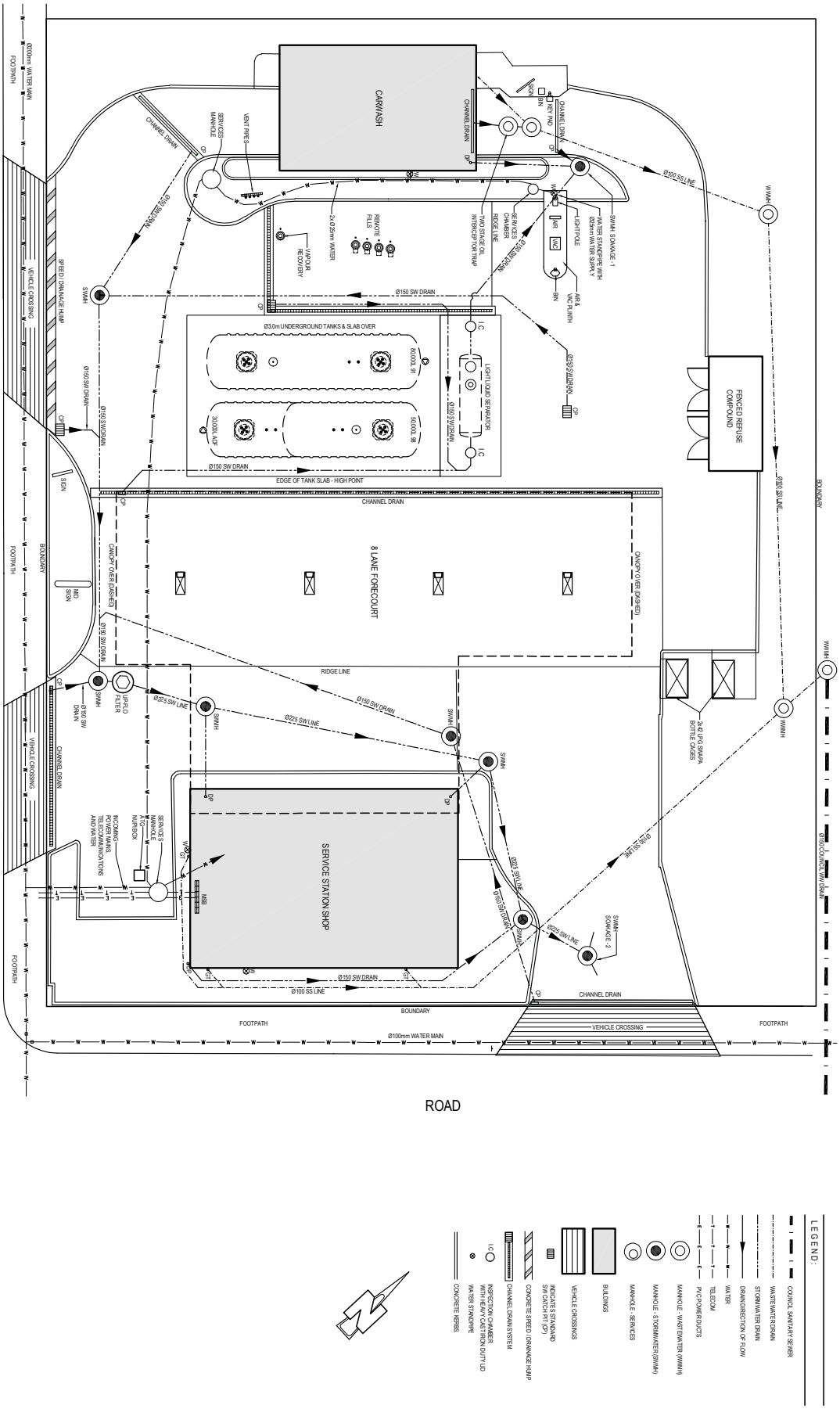
Visit our website: worksafe.govt.nz

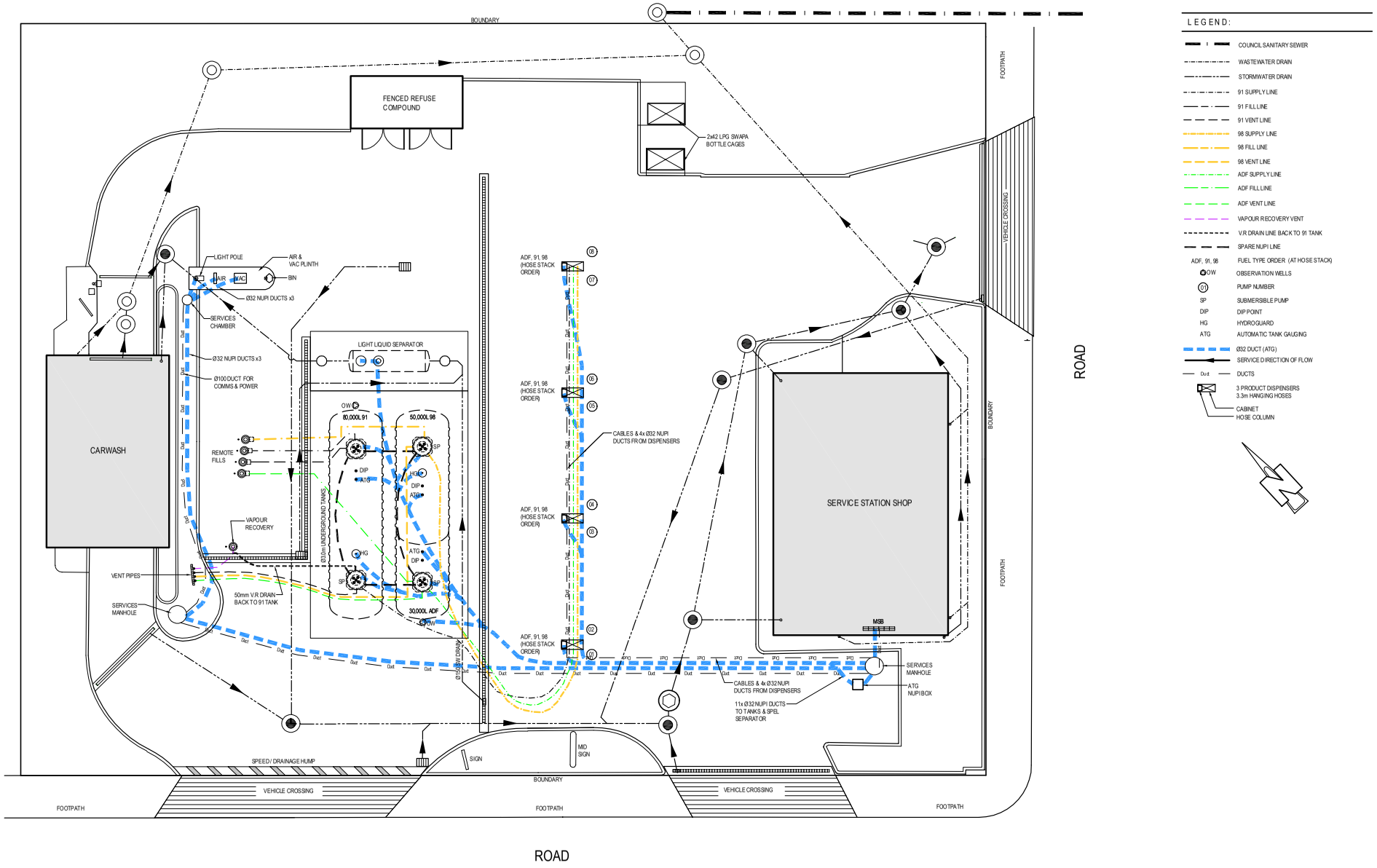
Fire and Emergency New Zealand

For information on emergency response plans see: fireandemergency.nz

For guidance on emergency response plan preparation see: fireandemergency.nz

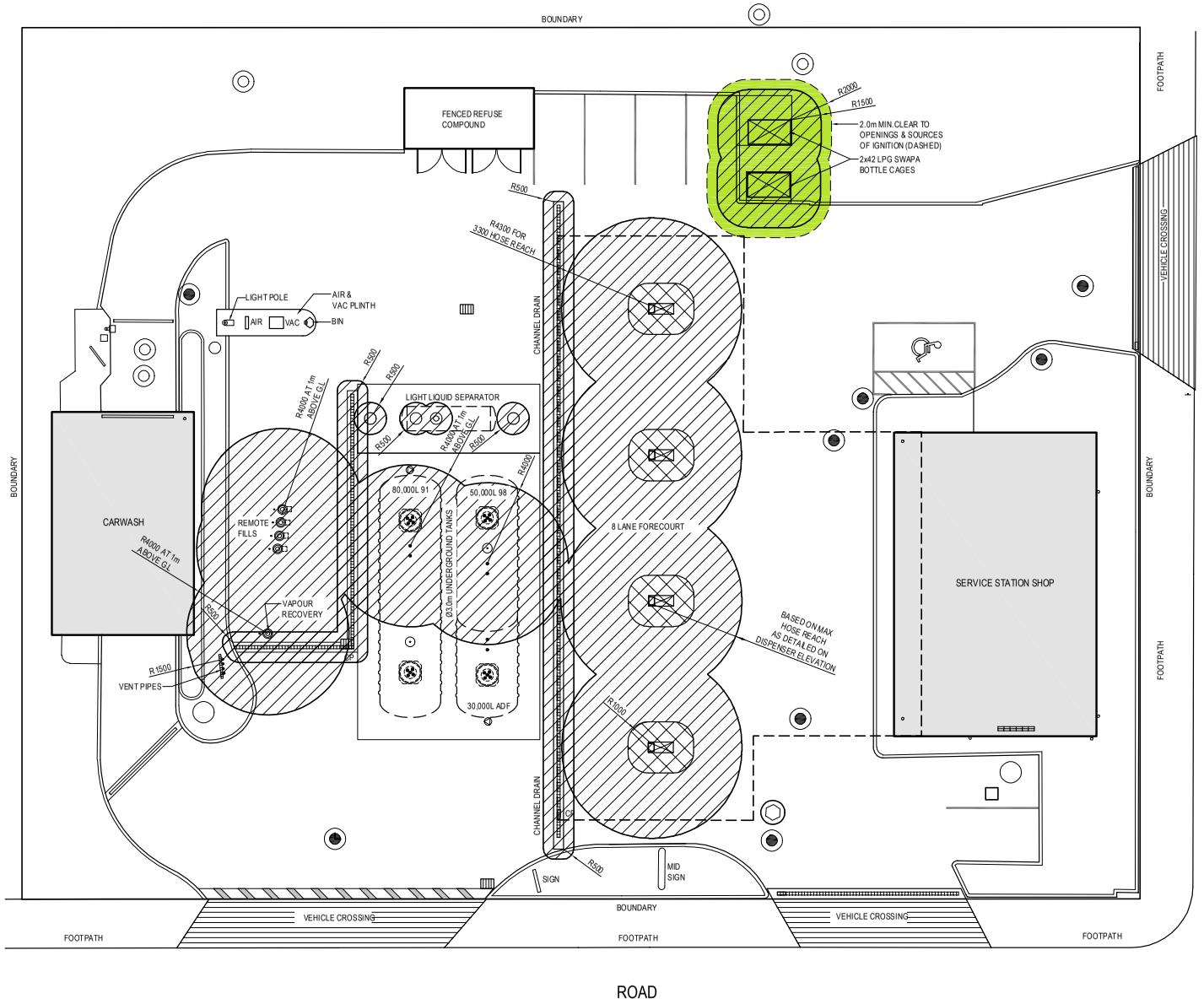
Appendix 1: Site plan examples





LEGEND:

- COUNCIL SANITARY SEWER
- WASTEWATER DRAIN
- STORMWATER DRAIN
- 91 SUPPLY LINE
- 91 FILL LINE
- 91 VENT LINE
- 98 SUPPLY LINE
- 98 FILL LINE
- 98 VENT LINE
- ADF SUPPLY LINE
- ADF FILL LINE
- ADF VENT LINE
- VAPOUR RECOVERY VENT
- V.R DRAIN LINE BACK TO 91 TANK
- SPARE NUPI LINE
- ADF, 91, 98 — FUEL TYPE ORDER (AT HOSE STACK)
- OW — OBSERVATION WELLS
- 01 — PUMP NUMBER
- SP — SUBMERSIBLE PUMP
- DIP — DIP POINT
- HG — HYDROGUARD
- ATG — AUTOMATIC TANK GAUGING
- Ø32 DUCT (ATG)
- SERVICE DIRECTION OF FLOW
- Duct — DUCTS
- 3 PRODUCT DISPENSERS 3.3m HANGING HOSES
- CABINET
- HOSE COLUMN



NOTES:

1. THIS IS A GROUND LEVEL EXPLOSIVE ATMOSPHERE AREAS DRAWING. FOR EXAMPLE, THE HEIGHT OF THE BOTTLE FILL ZONE 1 AREA IS 0.5m ABOVE THE TOP OF THE CYLINDER BEING FILLED AT 2m RADIUS AT THIS POINT. EXPLOSIVE ATMOSPHERE AREA EXTENDS IN A CONE DOWN TO MAX 5m RADIUS.
2. FOR OTHER ELEVATIONS OF EXPLOSIVE ATMOSPHERE AREAS, REFER TO AS/NZS 60079.10.1: 2009
3. DUCTS AND WIRING ENCLOSURES BELOW EXPLOSIVE ATMOSPHERE AREAS ARE ZONE 1. ULLAGE SPACE IN TANKS ARE ZONE 0.
4. AREA CLASSIFICATION DOES NOT INCLUDE FOR CATASTROPHIC FAILURES SUCH AS VESSEL RUPTURE, MAJOR SPILLS ETC.
5. MOTOR SPIRIT VENTS INCLUDE AN EXPLOSIVE ATMOSPHERE ZONE 1 AT OUTLET FOR A 1.5m SPHERE.

FUELS STORED AND DISPENSED ON BP RETAIL SITES

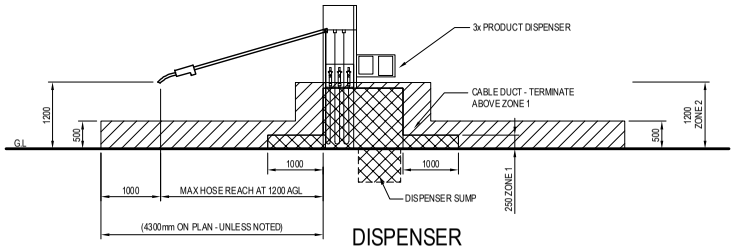
FUEL	DENSITY	FLAMMABLE RANGE	PRESSURE (APPROX.)	TEMPERATURE CLASS TO AS/NZS 60079.10.1	GAS GROUP TO AS/NZS 60079.10.1
LPG	HEAVIER THAN AIR	1.9% TO 8.5%	4-17 BAR	T3	IIA
MOTORSPIRITS (PETROL)	HEAVIER THAN AIR	1.5% TO 7.5%	1-3 BAR	T3	IIA

N.B. DIESEL IS BELOW ITS FLASHPOINT AT AMBIENT TEMPERATURE,(FLASHPOINT= 66°C)

LEGEND:

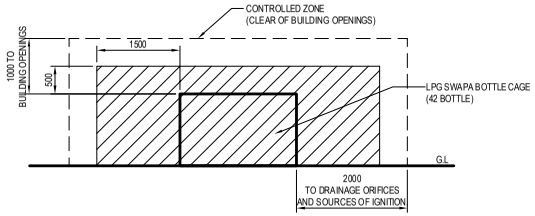
- ZONE 1 HAZARDOUS AREA
- ZONE 2 HAZARDOUS AREA
- PROTECTED PLACE SEPARATION (2m) (LPG UP TO 500kg BOTTLE) HEALTH & SAFETY @ WORK (HAZ SUBSTANCES), 11.20.1a & SCHEDULE 12 TABLE 2 (COLUMN 2).
- REMOTE FILL
- VENTS
- DIP & ATG POINTS
- HYDROGUARDS

THIS EXPLOSIVE ATMOSPHERE AREAS PLAN IS TO BE IN ACCORDANCE WITH AS/NZS 60079.10.1:2009 AND IS TO BE READ IN CONJUNCTION WITH HAZ ELEVATIONS SHEET.



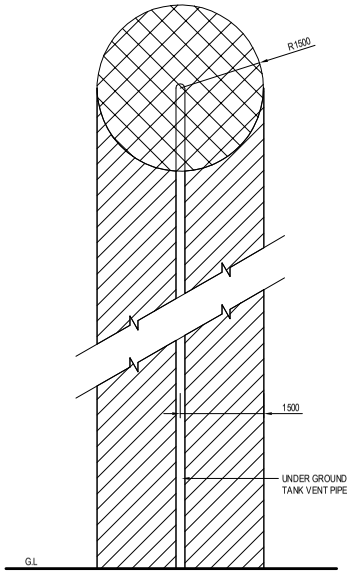
DISPENSER

SCALE: NTS



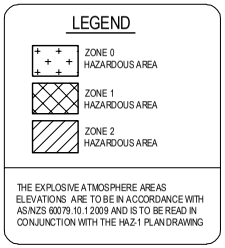
LPG SWAPA BOTTLE CAGE - ELEVATION (42 BOTTLE)

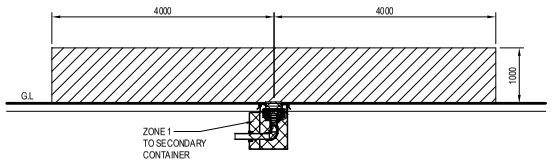
SCALE- NTS



FUEL TANK VENT PIPE

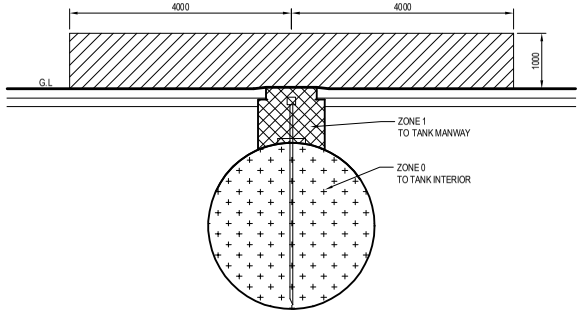
SCALE: NTS





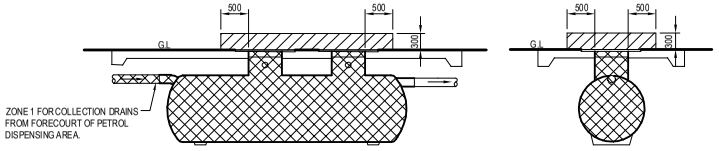
FUEL TANK FILL POINT

SCALE: NTS



FUEL TANK DIP AND ATG POINTS

SCALE: NTS



LIGHT LIQUID SEPARATOR

SEPARATOR VENT & FORECOURT CESSPIT HAZARDOUS AREAS HAVE SAME DIMENSIONS

SCALE: NTS

Appendix 2: Checklists

Location compliance certificate

You should prepare for a compliance certifier assessment by checking off each item below:

ITEM	CHECK
You have safety data sheets for each hazardous substance at your service station	
You have prepared an inventory of your hazardous substances	
You have provided information, training and instruction to the workers who handle the substances and have records of training and instruction	
You have an approved filler for LPG available, if needed	
You have the right safety gear and clothing available	
You have a site plan available for inspection	
You have stored your hazardous substances safely in areas that can be secured	
You are not storing substances with any incompatible substances	
You have the appropriate signs in the right places	
You have procedures in place to prevent a fire from starting	
You have the correct number of fire extinguishers available	
You have established, documented and maintained hazardous areas around your hazardous substances	
You have separated the substances from protected and public places by the required distances	
You have met any secondary containment requirements for your substances	
You have prepared and tested an emergency plan	
You have the clean-up materials and equipment you need	
If your service station is new, you have told WorkSafe about its location and the hazardous substances you hold	

Stationary container system compliance certificate

Before issuing a stationary container system certificate, a compliance certifier will check:

ITEM	CHECK
The system's design, construction and installation	
The pressure management and emergency pressure management system	
Liquid level indicators	
The distances between stationary containers, tank wagons and transfer points	
Lightning protection for above-ground stationary tanks	
Fire-fighting systems for above-ground stationary tanks	
Secondary containment systems	
Markings	
Maintenance carried out	
Pipework and fittings	
Dispensers	

You'll also need records showing:

ITEM	CHECK
Previous compliance/compliance certificates	
Site plans	
Design and installation verification records	
Compliance plans and approval letters	
Service records	
Stock reconciliation records	
Interstitial space monitoring (the space in double-skin tanks)	

For more information on stationary container systems see Certification of tanks

Emergency response plan

Your plan must include a description of what you will do to:

ITEM	CHECK
Call emergency services	
Warn people at the workplace and in nearby areas that an emergency has occurred	
Advise people how they can protect themselves and how they can help other people involved in the emergency	
Manage the emergency so that any impact is minimised	

The plan must also:

ITEM	CHECK
Name the people with specific responsibilities (such as fire wardens, first aiders) and include the contact information for them and emergency services	
Include how to get information about the hazardous properties of the substances involved in the emergency	
State the location and purpose of emergency equipment and materials that may be needed	
Set out the actions to take for each potential emergency and the order in which to take them	
Be available to all people who are listed in the plan as having responsibilities and to emergency services	
Be tested.	

For more information on stationary container systems see Emergency response plan

Disclaimer

This publication provides general guidance. It is not possible for WorkSafe to address every situation that could occur in every workplace. This means that you will need to think about this guidance and how to apply it to your particular circumstances.

WorkSafe regularly reviews and revises guidance to ensure that it is up-to-date. If you are reading a printed copy of this guidance, please check worksafe.govt.nz to confirm that your copy is the current version.

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