

Proposed Horowhenua District Plan

Hazardous Substances & Contaminated Land Hearing: 30 April 2013

Reporting Officer Response – 21 May 2013

Response to Tabled Evidence

The Oil Companies (submitter number 93.00) sought a number of changes to the Proposed Plan provisions relating to the management of hazardous substances and contaminated land. The Oil Companies provided evidence to be tabled at the Hearing which addressed three matters where the submitter sought amendment to the recommendations made in the Section 42A Report. I have outlined and provided a response to these matters below.

1. Rule 23.3.1(b) - Hazardous Substances - Controlled Activities

In their original submission, the Oil Companies sought amendment to Rule 23.3.1(b) to provide for the multi vessel storage of LPG for retail sale. In responding to this submission point, Council received comment from hazardous substances expert Kerry Laing. Mr Laing held some reservations in providing for the multi vessel storage of a large number of LPG bottles given the increased risk and uncertain demand for such facilities in the Horowhenua. In the Section 42A Report on Hazardous Substances and Contaminated Land I recommended that multi vessel storage be provided for as a controlled activity provided the total number of multi vessels does not exceed 30. In making this recommendation I realised that this was a departure from the relief sought and therefore provided the submitter with an opportunity to present their case at the hearing.

The Oil Companies have provided a written statement which I have attached to this report. In this statement, the Oil Companies outline current and future regulations which seek to control the storage of LPG, outside of the District Plan. The Oil Companies have helpfully provided some context behind their relief sought in their original submission and have provided useful direction in terms of revisions to a New Zealand Standard to specifically address the storage of portable LPG cylinders. I am satisfied that there is a process in place to successfully address the storage of single and multi vessel LPG and that there are adequate regulations outside of the District Plan which will control this storage in the interim before the New Zealand Standard is finalised. I accept that the proposed threshold of 30 would seem to be overly restrictive in light of the other controls that would be regulated. On this basis, I recommend that the relief sought by the Oil Companies in submission point 93.26 is accepted and note that once the New Zealand Standard comes into effect, amendment to the District Plan to correctly refer to this updated standard will be necessary.

Recommended amendment:

Rule 23.3.1(b)

The retail sale of LPG, with storage of up to six tonnes (single or multi vessel storage) of LPG, provided it can be demonstrated that the following standard is adhered to:

- *Australian and New Zealand Standard 1596:2008 Storage and Handling of LP Gas.*

In providing a written statement to the Hearing Panel the Oil Companies have raised a matter which does not appear to fall within the scope of their original submission however, I consider it is a valid matter to have been raised. Controlled Activities in Chapter 23 provide quantity limits for the retail sale of fuel and of LPG. In the case that these quantity limits are exceeded, the Proposed Plan should have caught these activities as a Discretionary Activity. This default has not been provided for in the Proposed Plan which may lead to Plan users then relying on the Permitted and Discretionary quantities of fuel and LPG provided in Table 23-2. This is not the intent of Chapter 23 as the retail sale of hazardous substances has specifically been addressed as a controlled activity whereas the table seeks to control storage and use of fuel and LPG not for retail sale. The Oil Companies made specific submissions on both clause (a) and (b) of Rule 23.3.1 (submission points 93.25, 93.26) however do not specifically address the matter of the activity status where an activity exceeds the quantity limits of fuel and LPG. I recognise that there may not be the scope to address this matter as the submission points were not explicit about this, but I consider it appropriate to identify this matter for consideration by the Hearing Panel. If the Hearing Panel do consider there is scope, perhaps as a consequential change, to make an amendment to the rule I recommend the following changes to address this matter:

Rule 23.5 Discretionary Activity

23.5.1 The following activities shall be a Discretionary Activity:

...

(b) The retail sale of fuel, exceeding a storage of 100,000 litres of petrol and exceeding 50,000 litres of diesel in all zones in underground storage tanks.

(c) The retail sale of LPG, exceeding a storage of six tonnes (single or multi vessel storage) of LPG.

2. Issue Discussion for Issue 9.2 Contaminated Land

In their original submission (submission point 93.11), the Oil Companies sought amendment to the wording of Issue 9.2 to ensure that remediation is appropriately recognised as one method of managing contaminated land. The Section 42A Report recommends that this submission point be accepted and in addition, the Issue Discussion is amended to further support the requested relief.

The Oil Companies' tabled evidence provides alternative amendments to the Issue Discussion for Issue 9.2 for the purpose of clarification and consistency with the focus of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES).

The Oil Companies seek amendments to the Issue Discussion to ensure that contaminated land is managed to avoid unacceptable risk to current land owners, occupiers and/or users. The Issue Discussion as recommended in the Section 42A Report refers to unacceptable risk to current and future land owners, occupiers and/or users. I accept that the key issue that the NES seeks to manage contaminated land in a way that is fit for its intended or proposed purpose and not all potential future works on the subject site as different activities have different levels of unacceptable risk. However, I think that management measures should seek to avoid unacceptable risk in the long term not only for the current land owner or user. The land may be used for the same purpose in the future and the management measures should seek to maintain the level of risk over time. I also consider that in the case of a subdivision application concerning contaminated land, the intended or future use of the land may not be known and may change over time (e.g. subdivision of commercial land could be used for various activities in the future which may have a greater or lesser risk to

exposure from contamination depending on the number and length of occupancy). In addition, the use of land could change overtime, particularly if different activities (change of use) is permitted by the plan (e.g. commercial land changing from warehouse/storage to an education facility or child-care centre).

The Oil Companies also seek change to the Issue Discussion to remove any duplication or confusion with the management of 'contaminants on land' which could be misinterpreted to be referring to the management of hazardous substances. I support change to this sentence however, I do not support the deletion of the sentence. As outlined above, contaminated land requires ongoing management to avoid unacceptable risk in terms of current and future activities.

I accept the amendment to the final sentence of the second paragraph as sought by the Oil Companies in their tabled evidence for the purpose of clarification.

The Oil Companies also sought the removal of 'the environment' in managing the effects of contaminated land. I do not support this amendment as the 'the environment' is not considered to be solely natural elements such as land, air and water, but can include the built environment and people. The Proposed Plan refers to 'the environment' in policies for the management of contaminated land and the submitter has not objected to the use of the term in these provisions of the Plan. On this basis, I recommend that 'the environment' remains in the final sentence of the second paragraph.

I recommend that the Issue Discussion of Issue 9.2 as recommended in the Section 42A Report, is amended as follows:

“Hazardous substances can contaminate land when discharges occur and are not cleaned up. Contaminated land is an area where contaminants occur at greater levels than naturally occurring background levels. Within the Horowhenua there are a number of known sites containing contaminated land where testing has confirmed the presence of hazardous substances. An owner wishing to conduct activities on contaminated land needs to ensure the contaminant is not exposed during activities or that it is appropriately managed, usually through remediation or removal of contaminated material from the land or other management measures.

In circumstances where more sensitive land uses are proposed on land that has not been fully remediated (but level of contamination was acceptable for the previous land use) or is potentially contaminated land, it is important to ensure that the land is remediated to a satisfactory degree to avoid or reduce risks to human health. Alternatively, contaminated land needs to be managed so that it does not pose an unacceptable risk to current or proposed land uses~~future owners, occupiers and/or users~~. The on-going management of contaminants on land needs to be adequate to protect the reasonably foreseeable needs of present and future landowners, occupiers and users. Poorly implemented risk management plans can result in unforeseen and unexpected adverse effects and poorly managed information can result in uninformed land use decisions both of which can~~and~~ expose people and the environment to unacceptable risks.

Horizons Regional Council has accepted principal responsibility for identifying and investigating contaminated sites within the region. Territorial authorities are responsible for controlling the effects of the use and development of land for the purpose of preventing or mitigating any adverse effects of the subdivision, use and development of contaminated land. When land has been contaminated by historical activities, it is not controlled by regional councils because hazardous substances are no longer being discharged to the environment. In this situation, processes need to be put in place so that future owners and users of the land are not adversely affected. The best time to do this is when there is an

application to subdivide the land, or to change the land use. The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health directs the requirement for consent or otherwise for activities on contaminated or potentially contaminated land in this regard.”

Response to Commissioners Questions

The Oil Companies' response on the use of the term 'unacceptable risk' in Policy 9.2.4:

In terms of the query on 'unacceptable risk', this is illustrated quite well by the Soil Contaminant Standards set out in Appendix B of the MfE User Guide on the NES for assessing and managing contaminants in soil (“the NES”) – refer: <http://www.mfe.govt.nz/publications/rma/users-guide-nes-for-assessing-managing-contaminants-in-soil/guide-nes-for-assessing-managing-contaminants-in-soil.pdf>

The Appendix sets out the soil contamination standards that have been derived by MfE for five standard land-use scenarios:

- *Rural / lifestyle block*
- *Residential*
- *High-density residential*
- *Parks / residential*
- *Commercial / industrial outdoor worker (unpaved)*

The standards essentially indicate what level of soil contamination is considered acceptable for each of those land-use scenarios.

The soil contaminant standard for arsenic, for example, is set at 70mg/kg for a commercial site, but only 17mg/kg for a rural residential block, where 25% consumption of home-grown produce is assumed.

So at a commercial site where arsenic concentrations are up to 70mg/kg, while there will still be some risk to human health, that risk is considered to be acceptable because the type of land use involves few pathways by which the contaminants could affect human health.

In contrast, if that same site was to be used for rural / lifestyle purposes a concentration of 70 mg/kg of arsenic in the soil would be considered to pose an 'unacceptable risk', as there are numerous pathways by which the soil contaminants could affect human health, including through eating food grown on the site.

These soil contamination standards are also used as consent thresholds in the NES itself.

So in terms of Policy 9.2.4, the Oil Companies are seeking to include a reference to 'unacceptable risk' rather than just to 'risk' to recognise that in some situations, a higher level of soil contamination (e.g. 70 mg/kg of arsenic), may be considered acceptable because the risk of those contaminants affecting human health is low because of the specific land use (e.g. a commercial site).

Reporting Officers Right of Reply

Federated Farmers of New Zealand and Horticulture New Zealand both spoke to their submissions on the hazardous substances provisions in the Proposed Plan. There were several parallels between the two submitters in their response to the recommendations in the Section 42A Report and the further amendments sought. I have discussed these points below.

Rule 23.1 Exemptions

Fertilisers

Federated Farmers sought an advice note referring plan users to the Regional Council requirements for fertiliser and agrichemical use. Federated Farmers tabled an amended advice note at the hearing which refers specifically to Regional Council requirements for fertiliser and agrichemical use. This advice note applies to all exemptions listed in Rule 23.1 and if the note refers specifically to the use of fertilisers and agrichemicals, this implies that there are no other Regional Council requirements that apply to any exemption. Rule 23.1(i) and (j) refer to hazardous wastes contained in waste disposal facilities and trade waste or sewage stored, transported, treated or disposed respectively. The Proposed Plan has requirements for the discharge and disposal of waste, trade waste and sewage which would not be covered by the advice note as requested by Federated Farmers. For this reason I recommend that the wording of the advice note as provided in the Section 42A Report is retained.

Horticulture NZ support in part the Section 42A Report recommended amendments to the exemption of fertilisers. Horticulture NZ raised a concern that the Proposed Plan does not include a definition of 'Fertiliser' and some definitions of fertiliser do not include the substance lime. For completeness Horticulture NZ requested in their tabled evidence at the hearing, that the exemption be amended to refer to "Storage of fertilisers and lime...". I recommend that the amendment sought to the exemption be accepted for the purpose of clarity and certainty in the application of the exemption.

Commissioner van Voorthuysen also suggested amending the wording of the exemption to refer to "primary production activities". I support this suggestion as this term is defined in the Proposed Plan and therefore the amendment would provide consistency and clarity in the application of the exemption.

Rule 23.1.1(e)

As notified

"Storage of superphosphate or lime or similar fertilisers in the Rural Zone."

As recommended in the Section 42A Report

"Storage of ~~superphosphate or lime or similar~~ fertilisers on farms for the purpose of primary production in the Rural Zone where that storage is in accordance with the Fertiliser Group Standards (corrosive (HSR002569), oxidising (HSR002570), subsidiary hazard (HSR002571) and toxic (HSR002572) 2006)."

As recommended following the hearing

"Storage of ~~superphosphate or lime or similar~~ fertilisers and lime on farms for the purpose of primary production activities in the Rural Zone where that storage is in accordance with the Fertiliser Group Standards (corrosive (HSR002569), oxidising (HSR002570), subsidiary hazard (HSR002571) and toxic (HSR002572) 2006)."

Storage of fuel above ground

Federated Farmers and Horticulture NZ made submissions on the Proposed Plan seeking amendment to Chapter 23 to provide specifically for storage of fuel above ground for primary production purposes on farms. The Section 42A Report discusses this matter and recommends that the storage of fuel above ground on farms is provided for in large quantities in the existing provisions as a permitted activity.

Both Federated Farmers and Horticulture NZ presented evidence at the hearing supporting their original submissions in seeking to make the above ground storage of fuel on farms an exempt activity in Chapter 23 provided the relevant HSNO requirements and guidelines are complied with.

The submitters raise concern for the administrative difficulties of applying the quantity limits in practice as the quantities for fuel are not provided in litres. The submitters also express concern for unnecessary duplication of the Hazardous Substances and New Organisms Act (HSNO) requirements and the District Plan. I attach the thresholds in place for the storage of fuel that trigger the requirement for a location test certificate. Horticulture NZ provided these thresholds to highlight regulations that would still apply if the storage of fuel is an exempt activity under the Proposed Plan.

I consider that without this exemption the permitted quantity limits for fuel stored above ground would allow for storage of fuel on farms in relatively large quantities and although the storage facility would be required to comply with the conditions for permitted activities, these conditions are not dissimilar to the standards outlined in the EPA Guidelines for 'Above ground fuel storage on farms'. As the storage of fuel is not likely to trigger consent in many cases, I consider that the EPA Guidelines could provide for best practice implementation of the HSNO Act which would also remove duplication between the Proposed Plan and national legislation. I also note that both Federated Farmers and Horticulture NZ stated that the storage of fuel on farms is largely industry-regulated in that facilities for the storage of fuel on farms must remain at a high standard with relevant guidelines to receive and store substances such as fuel.

Commissioner van Voorthuysen also suggested amending the wording of the exemption to refer to "primary production activities". I support this suggestion as this term is defined in the Proposed Plan and therefore the amendment would provide consistency and clarity in the application of the exemption.

It was also raised at the hearing whether it would be appropriate to amend the wording of the exemption to refer to 'all subsequent amendments' of the Guidelines for Above Ground Fuel Storage on Farms. I do not support using this phrasing where a particular standard or guideline has been referred to in the Proposed Plan. I note that the Quality Planning website¹ advises against this practice of using words such as "or any replacement standard" or "or any subsequent corresponding successor" after the reference to the document. Clause 31 of Schedule 1 requires that there has to be a variation or plan change for an amendment to an externally referenced document to have effect through the Plan. On this basis it is not appropriate to simply expect an updated version of the Guidelines for Above Ground Fuel Storage on Farms to apply to the Proposed Plan without that updated standard or document having gone through the First Schedule process. If documents by reference were replaced by any subsequent or amended document without this process, the community would not have their say on these changes and the Council would not have

¹ [http://www.qualityplanning.org.nz/index.php/plan-steps/witig-plans/external-documents-and-appendices\(e\)](http://www.qualityplanning.org.nz/index.php/plan-steps/witig-plans/external-documents-and-appendices(e))

discretion to choose whether the updated standard was appropriate without a Plan Change. For this reason I recommend that only the document incorporated by reference is referred to in this provision.

On this basis, I recommend that Rule 23.1 Exemptions is amended to include the following:

23.2.1(a) Fuel contained in tanks of motor vehicles, agricultural and forestry equipment, boats, aircrafts, locomotive and small engines and the storage of fuel of primary production activities where it complies with the Guidelines for Above Ground Fuel Storage on Farms (Environmental Protection Agency 2012).

Definition - Hazardous Facility

Federated Farmers and Horticulture NZ made submissions seeking the amendment and deletion of the definition for Hazardous Facility.

Federated Farmers submitted that the definition did not provide a full list of those activities exempt from the provisions for hazardous facilities and therefore was not consistent with Rule 23.1. Federated Farmers upheld this position at the hearing.

Horticulture NZ made a submission that questioned the relevance of the definition and sought the deletion of the definition. Horticulture NZ upheld this view at the hearing and further reinforced that the definition for hazardous facility is provided in District Plan's where the Hazardous Facility Screening Procedure is adopted. As the Horowhenua District Council has not adopted this approach Horticulture NZ do not see the need for such a definition.

Federated Farmers are concerned that if the definition does not specifically set out the facilities that would be exempt from the term, this could be a cause of confusion in application of provisions relating to hazardous facilities. While it is important that the Proposed Plan provides clarity for plan users to ensure that provisions are interpreted and applied correctly, the exemptions of Chapter 23 are clearly stated at the outset of the Chapter and the submitter noted this helpful location for plan users. I consider that the definition of hazardous facility would become overly complicated and extensive if all exemptions were provided when these are already clearly outlined within the chapter relating specifically to hazardous facility provisions.

In addressing the matter of relevance raised by Horticulture NZ, a full search of the Proposed Plan identified that the following chapters of the Proposed Plan Chapter 8 Natural Hazards, Chapter 9 Hazardous Substances and Contaminated Land and Chapter 23 Hazardous Substances all contained references to the term Hazardous Facility. For this reason I consider that there is the need for the definition of the term Hazardous Facility for the purpose of clarity and consistency in the application of this term.

Rule 19.6.25

Horticulture NZ also raised that the hazardous substances provision in Chapter 19 Rural Zone does not reference all provisions in Chapter 23 and could in turn undermine the purpose of Rule 23.1 Exemptions.

This matter was addressed in the Miscellaneous section of the Section 42A Report for General Parts 2, 3 and 4. I have provided an extract from this report below:

“In the hearing for Hazardous Substances and Contaminated Land submitter Horticulture NZ raised that Rule 19.6.25 fails to refer to all provisions in Chapter 23 - Hazardous Substances, namely Rule 23.1 Exemptions. This could be problematic as the Rule currently (as notified) only refers to the quantity limits in Table 23-1 in requiring all hazardous facilities within the Rural Zone to comply with the defined quantity limits. This Rule does not account for a list of exemptions to these quantity limits as outlined in Rule 23.1. These exemptions include the storage of fertiliser and the storage of fuel above ground on farms and without such exemptions in the Rural Zone, farmers and growers could be unnecessarily caught which would undermine the intent and purpose of Rule 23.1. Council seek that the Rural Zone Conditions for Permitted Activities provide a rule for hazardous substances which replicates the wording of the identical rule in all other zones in the Proposed Plan.

Rule 19.6.25 should read:

(a) All activities using or storing hazardous substances shall comply with the Hazardous Substances Classification parameters for the Rural Zone in Table 23.2 in Chapter 23 and shall comply with the permitted activity conditions in that Chapter.

While this rule does not specifically refer to Rule 23.1 Exemptions, it refers to Chapter 23 in its entirety and therefore applies the exempt activities. This matter was not raised in Horticulture NZ's original submission but was raised during the hearing by this submitter. It would seem that there is no scope within the submissions received to have addressed this matter and seek to resolve this issue.

The Commissioner's may wish to keep these matters in mind when preparing the decisions on submissions in case the opportunity arises to address these matters as consequential changes or alternatively by providing some direction to Council on matters that would need to be addressed as part of future plan changes.”

Response to Commissioners Comments:

Councillor Rush raised that the function and responsibilities of Regional Council should not only be clarified by way of an advice note for Rule 23.1 as requested by Federated Farmers (96.39), but also clearly outlined in the policy context of Chapter 9.

As discussed at the hearing, it was agreed that I would amend the second paragraph of the Issue Discussion for Issue 9.1 to clarify the function of Regional Council in relation to both disposal and discharges of hazardous substances. I recommend that the second paragraph of Issue Discussion for Issue 9.1 is amended as follows:

"The disposal of hazardous substances is a daily need for the community, ranging from the disposal of paint and detergents from residential sites to the residuals of agricultural chemicals from farms. Where these substances are disposed of in a controlled way, the risks to the environment and communities can be avoided or mitigated. Horizons Regional Council is responsible for discharges onto land and therefore the discharge or disposal of hazardous substances into the environment, including farm applications of fertiliser which is controlled through the Proposed One Plan."

Response prepared by Sheena McGuire

Response reviewed by David McCorkindale

Dated: 21 May 2013



File: 12j142
DDI: 09 917 4301
Email: gmcpherson@burtonconsultants.co.nz

17th May 2013

Horowhenua District Council
Private Bag 4002
Levin 5540

Attention: Sheena McGuire

By email: districtplan@horowhenua.govt.nz

Dear Sheena,

**RE: PROPOSED HOROWHENUA DISTRICT PLAN HEARINGS –
HEARING 11: HAZARDOUS SUBSTANCES & CONTAMINATED LAND**

1. INTRODUCTION

The purpose of this letter is to provide further information on behalf of Z-Energy Limited, BP Oil New Zealand Limited and Mobil Oil New Zealand Limited (the Oil Companies) and with input from the LPG Association of New Zealand (LPGA) in relation to the matter of the proposed Horowhenua District Plan (*the Proposed Plan*) provisions for the storage of LPG in portable cylinders at retail sites.

The Oil Companies appreciate the opportunity provided by the Hearing Panel to provide additional information on this matter and would be happy to respond to any further questions the Panel may raise.

As identified in the statement tabled by the Oil Companies at the Hazardous Substances and Contaminated Land Hearing on 30th April, the Oil Companies have a number of concerns with the approach to LPG cylinder storage recommended in the Planning Officer's Report and in particular with the recommendation to cap the number of cylinders that can be stored on a single site at 30. This letter expands on the key concerns identified in the Oil Companies' Hearing Statement and in particular addresses the following matters:

- Interface between the Hazardous Substances and New Organisms Act 1996 (HSNO) and the Resource Management Act 1991; and
- Consistency of approach in the Proposed Plan.

2. INTERFACE BETWEEN HSNO AND THE RMA

The design, installation and operation of LPG storage facilities is strictly controlled through HSNO and the Australian and New Zealand Standard 1596:2008 Storage and Handling of LPG (AS/NZS 1596:2008). These requirements apply to all LPG storage facilities, including where LPG is stored in a single large vessel (e.g. up to 6 tonnes) or in multiple smaller vessels (e.g. 9kg cylinders in a bottle exchange cage).

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 and new organisms,*' and its provisions are designed to:

- reduce the likelihood of unintended occurrence of a hazardous event or exposure; and
- limit the adverse effects arising from that event or exposure.

Current advice from the Ministry for the Environment (*MfE*) available on the MfE's Quality Planning website¹ clarifies that in general, hazardous facilities which comply with the HSNO requirements for the management of hazardous substances should not have significant actual adverse effect on the environment and that the RMA need only deal with particular risks associated with a particular site that are not already managed by the generic controls under HSNO.

MfE goes on to advise that district plan provisions should not duplicate requirements imposed by the HSNO Act or other statutes, and that hazardous substance controls should only be included in district plans when a rigorous section 32 analysis shows that such controls are justified.

In this case, the storage of portable LPG cylinders in secure cages is well regulated by HSNO and is specifically addressed in AS/NZS 1596:2008, separately to the requirements around LPG storage in single large vessels (e.g. up to 6 tonnes). In addition, a location test certificate must be issued by an independent test certifier (approved by the Environmental Protection Agency (*EPA*)) for the storage of LPG in quantities over 100kg.

AS/NZS 1596:2008 is currently undergoing revision with one of the changes being to better align the standards relating to LPG cylinder exchange facilities with New Zealand regulatory practice. While the revised version of AS/NZS 1596:2008 (*the draft AS/NZS 1596*) has yet to come into effect (consultation closed on 5 April 2013), the standards relating to exchange facilities for portable cylinders have been agreed with the Environmental Protection Authority (*the EPA*) and the LPGA and are considered to provide the most up-to-date guidance on the safe storage and handling of portable LPG cylinders in the New Zealand context. A copy of the revised standards for exchange facilities is included as **Attachment 1**.

Of particular relevance is clause H3(d), which specifies that the maximum aggregate capacity of cylinders in a cage or single group of cages shall not exceed 1250kg. This equates to some 138 individual 9kg cylinders and is significantly more than the 30 cylinder

¹ <http://www.qualityplanning.org.nz/index.php/planning-tools/hazar/the-legislative-context>

maximum storage threshold recommended in the Officer's Report². It is also significant to note that the 1250kg limit relates to a maximum aggregate capacity of cylinders stored in a cage or single group of cages and not to the maximum quantity of cylinders that may be stored on a single site, such that it may be possible to accommodate 2 or more installations of 1250kg, provided all other relevant HSNO requirements can be met. This contrasts with the Officer's recommendation which proposes to set a limit of 30 bottles / 270kg per site.

The draft AS/NZS 1596 goes on to specify a range of restrictions on the positioning of cages based on the quantity of LPG stored. These restrictions include minimum separation distances from buildings, fire resistance ratings for buildings and minimum separation distances from high and low intensity land uses (HILU and LILU) (refer to **Attachment 2** for definitions of these terms). Further requirements relate to matters such as:

- Cylinder identification and labelling.
- Storage location or facility construction.
- Ventilation.
- Hazardous atmosphere zones and sources of ignition.
- Cylinder attitudes, restraints (e.g., protection of tall cylinders from toppling) and security.
- Where required, provision of fire fighting equipment, emergency response plan, warning signage and site location plan.
- Where required, that sufficient Approved Handlers are available to cover all normal working hours, shifts as well as after-hours contactability.

As noted above, a location test certificate must be issued by an independent test certifier for the storage of LPG in quantities over 100kg. The test certifier will visit and inspect the storage location for compliance with the relevant HSNO and AS/NZS 1596 requirements, including those requirements identified above. Once a test certifier is satisfied that compliance in all of the relevant aspects has been met the certifier may issue a location test certificate. The standard validity period for a location test certificate is one year and the certificate must be renewed on an annual basis.

In the context that HSNO already provides a regulatory regime around LPG storage, which is designed to protect the environment, and the health and safety of people and communities, it is not clear why the Council considers it necessary to include additional and significantly more restrictive rules in the Proposed Plan to regulate LPG cylinder exchange facilities. Nor is it clear what environmental outcome the Council seeks to achieve through this additional regulation that is not already achieved by compliance with HSNO requirements.

The threshold of 30 bottles is recommended in the Officer's Report on the basis of advice provided to the Council by Mr Kerry Laing of Kerrich Environmental. Mr Laing raises the concern that in the event of a fire each LPG cylinder would provide an additional fuel source and would be a potential missile, meaning the greater the number of bottles the greater the risk. No specific reason is given for setting the threshold at 30 bottles per site, other than that

² In comparison, the operative 2008 version of AS/NZS 1596 provides for a maximum aggregate capacity of 2,500 litres, which equates to some 141 individual 9kg cylinders.

Mr Laing is not familiar with bottle swap facilities holding up to 150 bottles and considers this example to be unrealistic. This is clearly not the case as Z-Energy currently operates a number of bottle swap facilities around the country, albeit not in the Horowhenua District, with capacity for up to 150 bottles. Nor has any reason been provided to justify why the Council does not consider compliance with the existing HSNO framework, which contemplates storage of up to 1250kg of LPG (or approximately 138 cylinders) per exchange facility, to provide adequate management of LPG in the context of the Horowhenua District.

As such, the Oil Companies do not accept there is a need to impose additional controls on the management of LPG cylinder exchange facilities in the Proposed Plan.

3. THE PROPOSED PLAN

As noted above, the recommendations in the Officer’s Report would result in a situation where controlled activity consent was required under Rule 23.3.1(b) for the retail sale of LPG with a storage of up to six tonnes (single vessel storage) and for the storage of up to 30 individual 9kg LPG cylinders on a site (or 270kg of LPG).

The default position for the storage of LPG in quantities exceeding those amounts is not specifically stated in the chapter and it is assumed the activity would default to being considered under Appendix 1 – ‘Table 23-2: Quantity Limits for Hazardous Substances’ for the relevant zone.

In relation to LPG those quantity limits are set as follows:

Table 1: LPG Quantity Limits for Each Zone as Specified in Table 23-2 of the Proposed Plan

Zone	Permitted	Discretionary
Residential	300kg	300kg
Industrial	15 tonnes	30 tonnes
Commercial	3 tonnes	6 tonnes
Open Space	1.5 tonnes	3 tonnes
Rural Zone	7.5 tonnes	15 tonnes

From Table 1 above, it can be seen that the 30 bottle / 270kg controlled activity threshold recommended for individual LPG cylinders is significantly more restrictive than the permitted activity standard set out in Table 23-2 in all but the residential zone. This creates a significant conflict within the Proposed Plan in terms of its approach to dealing with LPG storage and further underlines the lack of robust analysis that has gone into recommending the 30 cylinder per site threshold, when Table 23-2 already provides for LPG storage in significantly larger quantities (in all but the residential zone) as a permitted activity.

In terms of Table 23-2 it is noted that there are not specific restrictions on the manner in which LPG is stored, it simply relies on a quantity limit.

The Oil Companies note that this conflict also applies to a lesser extent with respect to the storage of LPG in single vessels up to six tonnes. Specifically, Rule 23.3.1(b) requires

controlled activity consent for the storage of up to 6 tonnes of LPG, whereas Table 23-2 provides for storage of up to 15 tonnes in the Industrial Zone and 7.5 tonnes in the Rural Zone as a permitted activity.

The Oil Companies accept that this matter was not identified in their original submission. However, if there is scope, the Oil Companies consider this matter should be addressed in order to avoid the potential for conflict and confusion in the application of the hazardous substances rules in Chapter 23.

In order to address this issue and to appropriately provide for the storage of LPG in both single and multiple cylinders, as sought in their submission 93.26, the Oil Companies seek the following changes to Rule 23.3.1(b) (additions underlined; deletions in strikethrough):

23.3.1 Unless otherwise provided for as a permitted activity by Table 23-2, ~~the~~ following activities shall be Controlled Activities:

(b) The retail sale of LPG, with a storage of up to six tonnes (single or multi vessel storage) of LPG, provided it can be demonstrated that the following standard is adhered to:

- Australian and New Zealand Standard 1596:2008 Storage and Handling of LP Gas.*

4. CONCLUDING STATEMENT

Thank you for your time and acknowledgement of the issues raised in the Oil Companies' submission. Please do not hesitate to contact the writer on (09) 917 4301 should you wish to seek any clarification as to the above. Alternatively Peter Gilbert, Executive Director of the LPG Association of NZ has indicated he would be willing to answer any additional questions raised by the Hearings Panel. Peter Gilbert can be contacted on 04 914 1765.

Yours faithfully,

BURTON CONSULTANTS



Georgina McPherson

Senior Planner

Attachment 1: Appendix H of the Public Consultation Draft AS/NZS 1596 – The storage and handling of LP Gas (Revision of AS/NZS 1596:2008)

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APPENDIX H

EXCHANGE FACILITIES FOR PORTABLE CYLINDERS NEW ZEALAND

(Normative)

H1 INTRODUCTION

Portable exchange LP Gas cylinders shall be kept in a secure cage or cages. This Appendix provides requirements and recommendations for the location of such cages. These facilities provide customers with an exchange system for LP Gas cylinders for barbecues and other uses, in place of refilling the customer's own cylinder. Such facilities are usually located at, but not limited to, service stations and hardware shops. A customer exchanges an empty cylinder for a filled cylinder of LP Gas of equivalent size.

This Appendix compiles the requirements already given elsewhere in this Standard and provides further guidance for this specific application.

H2 LOCATION OF SITE

The following factors shall be considered when deciding the location of an exchange facility:

- (a) Before placing a cylinder cage at a site, an assessment shall be made on the need to provide security measures to prevent vandalism on the LP Gas cylinder cage.

NOTE: If a vandalism risk is present, additional physical security measures should be provided, such as a site perimeter fence.

- (b) The cage shall not be located near significant trafficable areas, unless suitably protected by the use of bollards or guardrails or similar.

NOTE: As a guide, cylinder cages should only be located in—

- (a) high visibility areas e.g. there is passing traffic after hours and on weekends;
(b) areas with low incidence of vandalism, or
(c) areas cleared of combustibles (e.g. plastic rubbish bins, empty boxes etc.).

H3 RESTRICTIONS

The following restrictions shall apply:

- (a) Cages shall be located outdoors.
(b) The cage shall be sturdy and stable, and shall allow free air movement through it.
(c) The maximum capacity of any individual cylinder shall be limited to 10 kg.
(d) The maximum aggregate capacity of cylinders in a cage or single group of cages shall not exceed 1250 kg.
(e) There shall be a minimum distance of 3 m between each aggregate quantity.

The positioning of the cage will depend on the quantity of LP Gas present: the following requirements apply:

- (i) Up to 100 kg of LP Gas may be located within 1 m of a building, provided there are no openings into the building below the top of the cylinders and within 1 m either side of the cylinders.
(ii) Between 100 kg and up to 300 kg of LP Gas may be located within 2 m of a building, provided the wall of the building behind and 2 m either side of the cylinders is

constructed of fire resisting materials and the building does not have any openings below the top of the cylinders and within 2 m either side of the cylinders.

- (iii) Between 300 kg and up to 1000 kg of LP Gas may be located within 2 m of a building provided the wall of the building (or a wall between the cylinders and the building) directly behind the cylinders is vapour tight and has a minimum fire resistance rating of 60/60/60 minutes extending at least 2 m either side of the cylinders and any building within 2 m of the cylinder does not have any opening located below the top of the cylinder and within 2 m either side of the cylinder.
- (iv) If the quantity is 1000 kg or more, the cylinder shall be separated as follows:

Quantity, kg	HILU, m	LILU, m
1000	2.5	2
1500	2.75	2
2000	3	2

NOTE: Fire resisting glass that meets the tests set out in 10 mm laminated glass complying with one of the following standards is acceptable as fire resisting material:

- (a) Toughened Safety Glass Lic. No. 2446 T.F.A.12.
- (b) Tempafloat AS/NZS 2208:96 Lic. No. 2518 T.F.A.12.
- (c) Tempafloat AS/NZS 2208:96 Lic. No. 2465 T.F.A.12.
- (d) Metroglass tech AS/NZS 2208 Grade 1.
- (e) Pilkington AS/NZS 22011 LS Grade Laminated Safety Glass.

H4 MANAGEMENT OF CYLINDER CAGE

Cages shall be located:

- (a) At least 1 m from the hose reach of an automotive dispenser.
- (b) At least 1.5 m horizontally and 0.5 m vertically from any ignition source.
- (c) At least 1 m from drains, pits, basements, public places or fuel dispensers. Where a drain or gully trap is unavoidable, the opening shall be securely covered or fitted with a water seal.
- (d) At least 5 m from any tank containing LP Gas.
- (e) At least 3 m from aboveground tanks containing hazardous substances other than LP Gas.
- (f) At least 2 m from structures limiting access past the cages.
- (g) Clear on at least 2 sides from walls, solid structures or obstacles that may restrict airflow.
- (h) So that the area within 1.5 m of the cylinder cage shall be kept clear of weeds, rubbish and other combustible materials.
- (i) The cylinder cage shall be periodically inspected and any defects, such as damage to the structure, shelves, padlocks or signage which shall be remedied.

H5 STORAGE OF CYLINDERS WITHIN THE CAGE

The following requirements apply:

- (a) Cylinders shall be stored or displayed with their valves uppermost. This ensures that if there is a leak, vapour and not liquid will be released.
- (b) The outlet valve of every cylinder shall be kept closed.

- (c) Only LP Gas cylinders shall be stored within the cylinder cage.
- (d) The cylinder cage shall be kept locked and under supervision.
- (e) There shall be at least one fire extinguisher with a minimum rating of 30B located within 30 metres of the cylinder cage. A 2 kg dry chemical extinguisher is the minimum requirement.
- (f) Cylinders in the cage shall be inspected regularly to ensure they are not damaged or leaking.

H6 SAFETY CONSIDERATIONS

The following requirements apply:

- (a) Smoking or other sources of ignition shall not be permitted within 1.5 m of the cylinder cage.
NOTE: A vehicle is not regarded as being an ignition source while it is entering or leaving a hazardous area zone surrounding the cage.
- (b) No electrical apparatus shall be installed either in the cylinder cage or within 1.5 metres of the cylinder cage.
- (c) No flammable liquids, corrosive or oxidising materials shall be stored within 3 m of the cylinder cage unless they are separated by a 240/240/240 fire resistance rated structure.
- (d) The cylinder cage shall not hinder or endanger the means of escape from the premises or adjoining premises.

H7 SIGNS AND LABELS

Every individual cylinder cage where the aggregate quantity of LP Gas present is 250 kg or more shall be provided with signage. A sign that includes the following items shall meet the New Zealand legislative requirements:

- (a) State that hazardous substances are present.
- (b) State the hazardous property of the substance.
- (c) Describe the general type of hazard of the substance.
- (d) The precautions necessary to prevent unintended ignition.
- (e) Advise what action is to be taken in an emergency.

Attachment 2: Definition of ‘High Intensity Land Use’ / ‘Protected Place’ and ‘Low Intensity Land Use’ / ‘Public Place’ used in the draft AS/NZS 1596

1.4.51 Protected place

Any of the following:

- (a) A dwelling, place of worship, public building, school or college, hospital, theatre, building or open area in which persons are accustomed to assemble in large numbers, whether within or outside the property boundary of the installation.
- (b) A factory, office, workshop, store, warehouse, shop or building where people are employed, except a building used for the storage and handling of LP Gas.
- (c) A vessel (e.g. a ship) lying at permanent berthing facilities.
- (d) Any storage facility for dangerous goods outside the property boundary of the installation, except those defined as minor storages in other Standards or regulations.

NOTE: In New Zealand, the HSNO Act does not use the term ‘protected place’ (it uses the term

‘Area of High Intensity Land Use’ (HILU)), however, for the purposes of this Standard, the term ‘protected place’ and corresponding definition should be used.

1.4.52 Public place

Any place, other than private property, open to the public and including a street or road.

Parking areas for commercial and public buildings are not considered public places.

NOTE: In New Zealand, the HSNO Act does not use the term ‘public place’ (it uses the term

‘Area of Low Intensity Land Use’ (LILU)) however for the purposes of this Standard the term ‘public place’ and corresponding definition should be used.



Threshold guidelines

The Hazardous Substance and New Organism (HSNO) Act 1996 regulates hazardous substances based on the risks they pose to people and the environment. The hazardous properties of a substance are classified to determine how the risks of a substance can be safely managed. The HSNO Act places rules on a substance to manage the risks posed to people and the environment. These rules are known as controls and vary depending on the amount of hazardous substances you hold and the hazard classifications of these substances. Certain controls only apply in you have hazardous substances above certain quantities.



This document provides guidance on the quantities of hazardous substances that trigger the following key HSNO controls:

- Approved handlers
- Location test certificates
- Fire extinguishers
- Signage, and
- Emergency response plans and secondary containment.

Approved handlers

An approved handler is someone who is qualified to handle very hazardous substances. If you have quantities of hazardous substances that exceed the amounts below, you will need an approved handler test certificate.

Hazard classification	Quantity beyond which controls apply
2.1.1A	100 kg non-permanent gases or 100 m ³ permanent gases
2.1.2A	3,000 L aggregate water capacity
3.1A	Any amount
3.1B	250 L when in containers > 5 L or 500 L when in containers ≤ 5 L
3.2A	Any amount

Hazard classification	Quantity beyond which controls apply
3.2B	100 L
4.1.1A	100 kg
4.1.2A, 4.1.2B	Any amount
4.1.2C, 4.1.2D	25 kg
4.1.2E, 4.1.2F	50 kg
4.1.3A	Any amount
4.1.3B	100 kg
4.2A	Any amount
4.2B	100 kg
4.3A	Any amount
4.3B	100 kg
5.1.1A	Any amount
5.1.1B	500 kg or 500 L
5.1.1C	1 000 kg
5.1.2A	250 kg or 200 m ³
5.2A, 5.2B	Any amount
5.2C, 5.2D, 5.2E, 5.2F	10 kg or 10 L
6.1A, 6.1B, 6.1C	Any quantity
6.7A	≥10 kg or ≥10 L
8.2A	Any quantity
9.1A, 9.2A, 9.3A, 9.4A	Any quantity
Propellant powders of classes 1.1C (UN 0160) and 1.3C (UN 0161)	≥ 50 kg before sale to the public or ≥ 15 kg after sale to the public

Location test certificates

A location test certificate is needed at hazardous substance locations where explosive, flammable or oxidising substances are stored or used and the quantity exceeds the threshold set out in legislation. If you store quantities of these substances that exceed the amounts below, you will need a location test certificate.

Hazard classification	Quantity beyond which controls apply for closed containers	Quantity beyond which controls apply when use occurring in open containers
2.1.1A, 2.1.1B	100 kg or 100 m ³ permanent gas	100 kg or 100 m ³ permanent gas
2.1.2A	3,000 L (aggregate water capacity)	3,000 L (aggregate water capacity)
3.1A	20 L	20 L
3.1B	100 L in containers > 5 L or 250 L in containers ≤ 5 L	50 L
3.1C	500 L in containers > 5 L or 1,500 L in containers ≤ 5 L	250 L
3.2A, 3.2B, 3.2C	1 L	1 L

Hazard classification	Quantity beyond which controls apply
4.1.1A	1 kg
4.1.1B	100 kg
4.1.2A, 4.1.2B	1 kg
4.1.2C, 4.1.2D	25 kg
4.1.2E, 4.1.2F, 4.1.2G	50 kg
4.1.3A, 4.1.3B, 4.1.3C	1 kg
4.2A	1 kg
4.2B, 4.3C	25 kg
4.3A	1 kg
4.3B	25 kg
4.3C	50 kg
5.1.1A	50 kg or 50 L
5.1.1B	500 kg or 500 L
5.1.1C	1,000 kg
5.1.2A	100 kg non-permanent gas or 200 m ³ permanent gas
5.2A, 5.2B	> 10 kg
5.2C, 5.2D	> 25 kg
5.2E, 5.2F	> 100 kg

Note: Explosives (Class 1) are excluded from these tables.

Emergency management

If you store hazardous substances at your site you need to put measures in place so that if an incident or emergency occurs, the effects are minimised or controlled. The quantity and hazard classifications of the substances you hold will dictate the level of emergency management you require.

Fire extinguishers

If you hold flammable or oxidising substances above the quantities specified below you will require fire extinguishers at your site. In some cases you will need two fire extinguishers.

Hazard classification	Quantity beyond which fire extinguishers are required	Number
2.1.1A	50 kg non-permanent gas or 30 m ³ permanent gas	1
2.1.1B	200 kg non-permanent gas or 120 m ³ permanent gas	2
2.1.2A	3,000 L aggregate water capacity	1
3.1A	50 L	1
	200 L	2
3.1B	250 L	2
3.1C, 3.1D	500 L	2
3.2A, 3.2B, 3.2C	50 L	1
	200 L	2
4.1.1A	250 kg	2
4.1.1B	500 kg	2
4.1.2A, 4.1.2B, 4.1.2C, 4.1.2D, 4.1.2E, 4.1.2F, 4.1.2G	50 kg or 50 L	1
	200 kg or 200 L	2
4.1.3A, 4.1.3B, 4.1.3C	50 kg or 50 L	1
	200 kg or 200 L	2
4.2A	50 kg or 50 L	1
	200 kg or 200 L	2
4.2B	250 kg	2
4.2C	500 kg	2
4.3A	50 kg or 50 L	1
	200 kg or 200 L	2
4.3B	250 kg or 250 L	2
4.3C	500 kg or 500 L	2
5.1.1A	5 kg or 5 L	1
5.1.1B	200 kg or 200 L	1
5.1.1C	500 kg	2
5.1.2A	10 kg non-permanent gas or 10 m ³ permanent gas	1
	50 kg non-permanent gas or 50 m ³ permanent gas	2
5.2A, 5.2B	1 kg or 1 L	1
5.2C, 5.2D	10 kg or 10 L	1
5.2E, 5.2F	50 kg or 50 L	1

Note: Explosives (Class 1) are excluded from this table.

Signage

If you hold quantities of hazardous substances in excess of the amounts below you will require signage.

Signs notify employees, emergency services and other people of the presence of hazardous substances at your site. Signs should describe the hazards posed by the substances present.

Hazard classification	Quantity beyond which signage is required
2.1.1A	250 kg non-permanent gas or 100 m ³ permanent gas
2.1.1B	500 kg non-permanent gas or 200 m ³ permanent gas
2.1.2A	3,000 L aggregate water capacity
3.1A	50 L
3.1B	250 L
3.1C	1,000 L
3.1D	10,000 L
3.2A	50 kg or 50 L
3.2B	250 kg or 250 L
3.2C	1,000 kg or 1,000 L
4.1.1A	250 kg
4.1.1B	1,000 kg
4.1.2A, 4.1.2B	50 kg or 50 L
4.1.2C, 4.1.2D	250 kg or 250 L
4.1.2E, 4.1.2F, 4.1.2G	1,000 kg or 1,000 L
4.1.3A	50 kg or 50 L
4.1.3B	250 kg or 250 L
4.1.3C	1,000 kg or 1,000 L
4.2A	50 kg or 50 L
4.2B	250 kg or 250 L
4.2C	1,000 kg or 1,000 L
4.3A	50 kg or 50 L
4.3B	250 kg or 250 L
4.3C	1,000 kg or 1,000 L
5.1.1A	50 kg or 50 L
5.1.1B	500 kg or 500 L
5.1.1C	1,000 kg
5.1.2A	250 kg non-permanent gas or 500 m ³ permanent gas
5.2A, 5.2B	1 kg or 1 L
5.2C, 5.2D, 5.2E, 5.2F	10 kg or 10 L
6.1A	5 kg non-permanent gas or 2.5 m ³ permanent gas
	50 kg or 50 L

Hazard classification	Quantity beyond which signage is required
6.1B	5 kg non-permanent gas or 2.5 m ³ permanent gas
	250 kg or 250 L
6.1C	5 kg non-permanent gas or 2.5 m ³ permanent gas
	1,000 kg or 1,000 L
6.1D	10,000 kg or 10,000 L
8.1A	1,000 kg or 1,000 L
8.2A	5 kg non-permanent gas or 2.5 m ³ permanent gas
	50 kg or 50 L
8.2B	50 kg non-permanent gas or 25 m ³ permanent gas
	250 kg or 250 L
8.2C	1,000 kg or 1,000 L
8.3A	1,000 kg or 1,000 L
9.1A,	100 kg or 100 L
9.1B, 9.1C	1,000 kg or 1,000 L
9.1D	10,000 kg or 10,000 L
9.2A	100 kg or 100 L
9.2B, 9.2C	1,000 kg or 1,000 L
9.2D	10,000 kg or 10,000 L
9.3A	100 kg or 100 L
9.3B	1,000 kg or 1,000 L
9.3C	10,000 kg or 10,000 L
9.4A	100 kg or 100 L
9.4B, 9.4C	1,000 kg or 1,000 L

Note: Explosives (Class 1) are excluded from these tables.



Emergency response plans and secondary containment

An emergency response plan is needed for sites that hold large quantities of hazardous substances. This plan should describe the emergency procedures for a site and take into account any foreseeable emergency such as a fire, spill or injury.

If a hazardous substance spill occurs, a secondary containment system can ensure that liquid substances are contained. This can prevent or minimise the release of hazardous substances into the environment, drains or waterways.

If you hold substances in excess of the amounts below you will require an emergency response plan.

If the substances are liquids or likely to liquefy in a fire, secondary containment is also required.

Hazard classification	Quantity beyond which controls apply
2.1.1A	300 kg non-permanent gas or 200 m ³ permanent gas
2.1.1B	1,000 kg non-permanent gas or 600 m ³ permanent gas
2.1.2A	3,000 L aggregate water capacity
3.1A	100 L
3.1B	1,000 L
3.1C, 3.1D	10,000 L
3.2A, 3.2B, 3.2C	100 L
4.1.1A	1,000 kg
4.1.1B	10,000 kg
4.1.2A, 4.1.2B	50 kg or 50 L
4.1.2C, 4.1.2D	100 kg solid or 100 L
4.1.2E, 4.1.2F, 4.1.2G	200 kg or 200 L
4.1.3A, 4.1.3B, 4.1.3C	100 kg or 100 L
4.2A	100 kg or 100 L

Hazard classification	Quantity beyond which controls apply
4.2B	1,000 kg
4.2C	10,000 kg
4.3A	100 kg or 100 L
4.3B	1,000 kg or 100 L
4.3C	10,000 kg or 10,000 L
5.1.1A	50 kg or 50 L
5.1.1B	500 kg or 500 L
5.1.1C	5,000 kg
5.1.2A	100 kg non-permanent gas or 100 m ³ permanent gas
5.2A, 5.2B	10 kg or 10 L
5.2C, 5.2D	25 kg or 25 L
5.2E, 5.2F	100 kg or 100 L
6.1A, 6.1B, 6.1C	5 kg non-permanent gas or 2.5 m ³ permanent gas 100 kg or 100 L
6.1D, 6.5A, 6.5B, 6.7A	50 kg non-permanent gas or 25 m ³ permanent gas 1,000 kg or 1,000 L
6.6A, 6.7B, 6.8A, 6.9A	10,000 kg or 10,000 L
8.2A	5 kg non-permanent gas or 2.5 m ³ permanent gas 100 kg or 100 L
8.2B	50 kg non-permanent gas or 25 m ³ permanent gas 1,000 kg or 1,000 L
8.2C, 8.3A	10,000 kg or 10,000 L
9.1A	100 kg or 100 L
9.1B, 9.1C	1,000 kg or 1,000 L
9.1D	10,000 kg or 10,000 L

Note: Explosives (Class 1) are excluded from these tables.



Contact Us

Please contact the EPA Hazardous Substances Information line on 0800 376 234 if you need further information about approved handler requirements, location test certificates or emergency procedures.

Quantities of hazardous substances that activate hazardous substance location requirements

Hazard classification	Quantity beyond which controls apply
2.1.1A and B	100 kg (or 100 m ³ if a gas)
2.1.2A	3,000 L (aggregate water capacity)
3.1A	20 L (open or closed containers)
3.1B eg petrol	100 L in containers greater than 5 L (closed) 250 L in containers up to and including 5 L (closed) 50 L (open)
3.1C eg diesel	500 L in containers greater than 5 L (closed) 1,500 L in containers up to and including 5 L (closed) 250 L (open)
4.1.1A	1 kg
4.1.1B	100 kg
4.2A	1 kg
4.2B and C	25 kg
4.3A	1 kg
4.3B	25 kg
4.3C	50 kg
5.1.1B	500 kg or 500 L (closed) 50 kg or 50 L (open)
5.1.1C	1,000 kg or 1,000 L (closed) 100 kg or 100 L (open)

NOTE –

- (1) Hazardous substance location test certificates are required only for class 2 (flammable gas), 3 (flammable liquid), 4 (flammable solid) and 5 (oxidisers).
- (2) These requirements also apply to transit depots.
- (3) A full list of relevant classifications is given in Hazardous Substances (Classes 1 to 5 Controls) Regulations.