



## Minor Amendments to Hazardous Substances Regulations

The Ministry of Business, Innovation and Employment is proposing a number of minor amendments to the *Health and Safety at Work (Hazardous Substances) Regulations 2017*.

You may be interested in these changes if your work involves the storage or handling of toxic or corrosive chemicals, storing LPG, paints or other flammable liquids, or diesel tank systems.

### The purpose of these changes

These amendments intend to correct a number of technical issues that have been noted under these regulations. These issues make some requirements unclear, and are creating unintended compliance costs for some businesses without improving safety.

In most cases, we are suggesting these issues are addressed by restoring the requirements that were in place prior to the 2017 regulations. The Health and Safety at Work (Hazardous Substances) Regulations 2017 were intended to combine the rules for hazardous substance use, handling and storage at workplaces into a single set of regulations and to move these rules to the health and safety at work system, rather than to make any substantial changes to requirements. Because of this, restoring the requirements in place prior to these 2017 regulations seems an effective way to address issues created in this transfer process without significantly changing safety outcomes or creating new requirements unfamiliar to businesses.

We want to hear your feedback on what impacts these proposals will have on you, whether you think these suggestions will help resolve issues, and any impacts you think they may have on safety.

### The amendments

We are proposing 39 amendments in total. You can find a list of these amendments by subject on page 3.

A full list of the amendments and an explanation of each can be found in Parts 1-4. We have grouped these amendments into four types:

- Correcting simple typographical errors ([Part 1](#))
- Correcting references to New Zealand or International Standards ([Part 2](#))
- Resolving inconsistencies within the Regulations ([Part 3](#))
- Amendments to address unintended compliance issues ([Part 4](#))

## How to make a submission

Please provide your submissions on these proposed amendments to [HSWRegs@mbie.govt.nz](mailto:HSWRegs@mbie.govt.nz) by 5pm 15 January 2020, including your name and (if applicable) the name of your organisation.

Any questions regarding this consultation can also be directed to [HSWRegs@mbie.govt.nz](mailto:HSWRegs@mbie.govt.nz)

## Use and release of information

The information provided in submissions will be used to inform MBIE's policy development process, and will inform advice to Ministers about health and safety at work regulatory reform. Submissions may be shared with WorkSafe New Zealand as part of policy development. We may contact submitters directly if we require clarification of any matters in submissions.

Submissions are subject to request under the Official Information Act 1982. Please clearly indicate in the cover letter or e-mail accompanying your submission if you have any objection to the release of any information in the submission, and which parts you consider should be withheld, together with the reasons for withholding the information. MBIE will take such objections into account and will consult with submitters when responding to requests under the Official Information Act 1982.

The Privacy Act 1993 applies to submissions. Any personal information you supply to MBIE in the course of making a submission will only be used for the purpose of assisting in the development of policy advice in relation to this review. Please clearly indicate in the cover letter or e-mail accompanying your submission if you do not wish your name, or any other information, to be included in any summary of submissions that MBIE may publish.



## Amendments by subject

Subject	Relevant Amendments
Above ground stationary tank design standards	11, 21
Agricultural fuel storage and tank systems	16, 25
Alcohol storage	28-29
Certified handler certificates	26
Diesel tank systems	11, 25, 35-36
Fire protection devices (extinguishers, hydrants etc.)	27, 32, 35
Fire safe valve requirements	13, 37
LPG tank systems	10, 22-24, 27
Paint storage	2, 5, 17, 30
Pesticide use	18
Tank wagon requirements	9, 33
Toxic or corrosive substance bulk storage	14, 19, 31, 34, 38, 39

## Part 1: Correction of simple typographical errors

	Regulation	Regulation Subject	Proposed Amendment
1.	10.28 (4) (b)	Controlling adverse effects of ignition of classes 3.2 and 4 substances at hazardous substances locations	<b>Correct wording from “referred in to in” to “referred to in”.</b>

This regulation has a simple wording error. We propose this is corrected to ensure the regulation is clear.

2.	11.17 (5)	Separation of building containing class 3.1 substances from protected places	<b>Add reference to “paint mixing room that complies with AS/NZS 4114.1:2003” to subsection (5) “other than” list.</b>
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Other subsections of 11.17 refer to paint mixing rooms alongside workrooms. While this will have no impact on requirements, we propose adding a reference to paint mixing rooms to subsection (5) as well, to make this subsection consistent with the remainder of the regulation.

3.	11.17	Separation of building containing class 3.1 substances from protected places	<b>Remove “holding package” from the title of regulation.</b>
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This regulation applies to open containers of all sizes, not solely packages. We propose removing this wording from the title to prevent it being misleading.

See also similar proposed amendment 6.

4.	11.23 (1)	Separation of building containing certain flammable aerosols and LPG cartridges from protected places	<b>Correct cross-reference from “approved under Part 13” to “approved under Part 15” of these Regulations.</b>
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This cross reference is an error. The relevant part of the Regulations for 11.23 (1) to reference is Part 15. We propose correcting this.

5.	11.32 (3)	Storage of class 3.1 substances in retail stores	<b>Delete subsection (3) penalty provision.</b>
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Regulation 11.32 provides an exception for certain class 3.1 substances from separation distance requirements. As an exception, penalties for this regulation being breached are not applicable, yet are provided for in 11.32 (3). We propose deleting this inapplicable subsection.

6.	11.37	Separation of building containing class 3.1 substances from protected places	<b>Remove “holding package” from the title of regulation.</b>
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This regulation applies to open containers of all sizes, not solely packages. We propose removing this wording from the title to prevent this title being misleading.

See also similar proposed amendment 3.

7.	13.38 (1)	Compliance certificate requirements for hazardous substance locations	<b>Correct cross-reference from “requirements specified in regulation 13.34” to “requirements specified in regulation 13.39”.</b>
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This cross reference is an error. The matters to be certified in a hazardous substances location that 13.38 (1) refers to are located in regulation 13.39, not 13.34. We propose correcting this.

8.	15.71 (2) (f)	Cylinder location requirements for supply of LPG	<b>Correct wording “not located with 1 metre” to “not located within 1 metre”.</b>
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This regulation has a simple wording error. We propose correcting this to ensure the regulation is clear.

9.	16.22 (2)	Road tank wagon rear-end collision protection requirements	<b>Correct wording “the static load must not be more...” to “the static load must be more...”.</b>
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This regulation is incorrectly worded, suggesting one of the weight amounts referred to is a maximum, not a minimum.

The remainder of the subsection shows this is an error, referring to “whichever is the lesser” of the weight measurements. Other sources like the current and previous codes of practice also clearly indicate this requirement is a minimum.

It is therefore unlikely this error has had any practical effect. However, to avoid any misunderstanding, we propose amending the regulation to remove the word “not”.

10.	Sch. 25, table 2	Separation distances for above ground stationary tanks containing class 2.1.1 liquefied gases	<b>Correct unit reference in heading of column 1 from “Water capacity (L) of tank A” to “Water Capacity (000 L) of tank A”.</b>
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This table has an error in the units it refers to. We propose this is corrected.



## Part 2: Correcting references to New Zealand and International Standards

<b>11.</b>	11.28 (3)	Separation requirements for above ground tanks, transportable containers and tank wagons containing class 3.1 substances from protected and public places	<b>Amend reference from “SwRI 93-01” to “SwRI 95-03”.</b>
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This regulation incorrectly references a lower design standard than intended. We propose amending this reference to the correct standard.

<b>12.</b>	12.45 (1) (a)	Requirements for securing class 5.2 substances in containers	<b>Amend reference from “section 3 of AS 2714: 2008” to “section 2 and section 4 of AS 2714: 2008”.</b>
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This regulation refers to the incorrect section of the referenced standard. We propose this is amended to the relevant sections.

<b>13.</b>	17.2, 17.74 and 17.75	Valve fire safety requirements for tanks and transfer lines containing class 3.1 substances	<b>Amend references to “BS EN ISO 10467:2004” in 17.2, 17.4 (4) and 17.75 (4) to “BS EN ISO 10497:2010”.</b>
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Due to an error, all three of these regulations reference an inapplicable standard. We propose this corrected.



<b>14.</b>	17.29 (1) (a)	Separation of tanks containing class 8 substances from protected and public places	<b>Amend reference from “section 5.3.2.2 (b) to (d) of AS 3780:2008 (2nd Edition)” to “section 5.3.2 of AS 3780:2008 (2nd Edition)”.</b>
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This regulation incorrectly refers to only part of the relevant section. We propose the regulation is amended to refer to the full section.

<b>15.</b>	Sch. 7, Table 1	Class 1 substances requiring a controlled substance licence	<b>Add reference to UN standard “1.4S UN0432 Articles, pyrotechnic for technical purposes”.</b>
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A reference to UN0432 was left out of Table 1 in error. Table 2 (“Substances that do not require controlled substance licence”) correctly lists “1.4S UN0432 Cassette degradation devices”. However, the remainder of UN0432 does require controlled substance licences and so should be listed in table 1.

We therefore propose that this reference is added to Table 1.





### Part 3: Correcting inconsistencies within the Regulations

16.	10.30 (6)(b) / 17.99 (6) (b) and (d)	Excluding limited fuel storage at certain farms from specific requirements to have secondary containment systems	<p><b>Amend 10.30 (6) (b) to state that the exclusion referred to in that subsection applies to storage of the specified substances in containers of 450 L or less.</b></p> <p><b>Amend 17.99 (6) (b) and (d) to state the exclusion referred to in that subsection applies to storage of the specified substances in containers of more than 450 L.</b></p>
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There is a current inconsistency between 10.30 (6) (b) and 17.99 (6). 10.30 has an exception from certain secondary containment requirements for certain farms storing less than 2000 L of specified fuel substances. 17.99 has a similar exception from certain secondary containment requirements for the same farms that applies to storage of up to 2500 L.

The exception in 10.30 is intended to apply to where fuel is being stored in individual containers with capacity of up to 450 L, while that in 17.99 is intended to apply to stationary tanks larger than 450 L. However, this is not currently stated in the regulations, which leaves requirements unclear, and can lead to unrequired secondary containment measures being applied where the farm is storing between 2000 and 2500 L of fuel in large stationary tanks.

We therefore propose amending 10.30 (6) (b) to explicitly state this exception applies to the specified farms storing fuel in quantities up to 2000 L where this fuel is contained in packages of 450 L or less, and amending 17.99 (6) (b) and (d) to state this exception applies to the specified farms storing fuel in quantities up to 2500 L where this fuel is contained in stationary container systems with a capacities of more than 450 L.



<b>17.</b>	11.37 (2) / Sch. 12	Separation of building holding class 3.1 substances in use or opened package from protected places	<b>Remove reference in 11.37 (2) (a) to a “type 1 workroom” and add reference in 11.37 (2) (b) to type 1 workrooms.</b>
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Regulation 11.37 (2) specifies maximum quantities of class 3 substances certain types of room are permitted to hold. Type 1 workrooms are included as one of the rooms the limits specified in 11.37 (2) (a) apply by error. These quantity limits in 11.37 (2) (a) contradict the limits for type 1 workrooms that are correctly stated in Sch. 12 Table 8.

We therefore propose removing the reference to “type 1 workroom” in 11.37 (2) (a), and adding a reference to type 1 workrooms to 11.37 (2) (b), which provides maximum quantities consistent with those in Sch. 12 for type 1 workrooms.

<b>18.</b>	13.19 (7) / 13.9	Signage requirements for vertebrate toxic agents	<b>Transfer the exception to the requirements of regulation 13.9, currently in 13.19 (7), to a new subsection within regulation 13.9.</b>
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Regulation 13.19 (7) provides an exception to 13.9’s requirements to have specified class 6.1 substances secured or under the control of a certified handler, where certain signage requirements have been met. We consider this exception would be more logically placed within regulation 13.9, the regulation it applies to.

We therefore propose transferring the exception currently in 13.19 (7) to a new subsection within regulation 13.9.



<b>19.</b>	13.29 (2) / Sch. 15	Requirement to segregate class 6 and 8 substances from certain other hazardous substances.	<b>Replace statement in 13.29 (2) “substances...specified in Schedule 15 are incompatible with class 6.1A, 6.1B, 6.1C, 8.2A, 8.2B, and 8.2C substances” with a statement that substances are incompatible if listed as incompatible in Sch. 15.</b>
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Regulation 13.29 (2) currently states the substances and materials specified in Sch. 15 are incompatible with “class 6.1A, 6.1B, 6.1C, 8.2A, 8.2B, and 8.2C substances”. However, class 8.2C substances were not intended to be included in these requirements, and are not listed as incompatible in Sch. 15. This list of substances in 13.29 (2) is also unnecessary, as Sch. 15 has a full list of incompatibilities that identifies which substance class each incompatibility applies to.

We therefore propose amending 13.29 (2) to replace the statement “substances...specified in Schedule 15 are incompatible with class 6.1A, 6.1B, 6.1C, 8.2A, 8.2B, and 8.2C substances” with a statement that substances are incompatible for the purpose of this regulation if listed as incompatible in Sch. 15.

<b>20.</b>	15.4	Applications for WorkSafe to determine the maximum pressure for altered designs of compressed gas cylinders.	<b>Add a subsection allowing WorkSafe to approve, approve subject to conditions or decline applications to determine the maximum pressure altered designs of compressed gas cylinders can contain.</b>
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Regulation 15.4 (2) allows, where a design for compressed gas cylinders has been altered from a standard, an application to be made to WorkSafe to approve the altered design and the maximum developed pressure it is permitted to contain.

However, while regulation 15.4 allows applications forms to be set, it does not currently provide WorkSafe a power to accept or deny these applications.

We therefore propose adding a subsection to 15.4 providing a power for WorkSafe to approve, approve subject to conditions or decline applications under 15.4.



21.	17.6	Design standards for above ground stationary tanks to store hazardous liquids	<b>Add references to standard API STD 650 to 17.6 (2) and (3).</b>
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API STD 650 is listed in 17.6 (1) as an acceptable design and construction standard for above ground stationary tanks. However, it is not listed in subsections 17.6 (2) and 17.6 (3) as an acceptable standard to meet installation and seismic and wind loading requirements. Practically, this has meant businesses are not able to design and construct with reference solely to this standard as intended.

We propose this is corrected by adding API STD 650 to the acceptable standards for installation and seismic and wind loading listed in 17.6 (2) (b) and 17.6 (3) (a).



## Part 4: Amendments to address unintended compliance issues

<b>22.</b>	Sch. 1, cl 11	Separation of class 2.1.1 liquefiable gas cylinders and above ground tanks from protected and public places (where tanks were installed and approved prior to 2004).	<p><b>Make amendments for clarification:</b></p> <ul style="list-style-type: none"> <li>• <b>Add to cl. 11 (1) “installed and approved before 1 April 2004” following “cylinders or above ground tanks”</b></li> <li>• <b>Change cl. 11 (2) (a) reference from “subpart 1 or 2 of Part 11” to “tables 2 or 3 of Schedule 12” to make reference more direct</b></li> <li>• <b>Change cl. 11 (4) (a) (ii) from “the wall that does not comply with subparagraph (i)” to “the wall that is not included in subparagraph (i)”</b></li> </ul>
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A number of wording issues have been noted in Sch. 1 cl 11 that make the scope and requirements of this clause unclear.

We propose three changes are made to cl 11 to address these issues:

- Adding to cl 11 (1) the wording “installed and approved before 1 April 2004” following “cylinders or above ground tanks”. This will make the scope of this transitional arrangement clearer and reduce the need to refer to the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice No. 35 2004.
- Changing the reference in cl 11 (2) (a) from “subpart 1 or 2 of Part 11” to “tables 2 or 3 of Schedule 12”. Subparts 1 and 2 of Part 11 refer to Sch. 12, so this change will make the reference more direct and provide certainty on which of the tables in Sch. 12 are relevant. This will also clarify cylinders and above ground tanks that were installed and approved prior to 2004 were not intended to be subject to the separation distances listed in Sch. 12 table 4, which would impose distance requirements slightly higher than those in place when these systems were installed.
- Changing the wording of cl 11 (4) (a) (ii) from “the wall that does not comply with subparagraph (i)” to “the wall that is not included in subparagraph (i)”. This will restore the wording used in requirements prior to the 2017 regulations and should reduce the ambiguity over what requirements each part of a relevant wall are required to comply with.



<b>23.</b>	Sch. 1, cl 11	Separation of class 2.1.1 liquefiable gas cylinders and above ground tanks from protected and public places (where tanks were installed and approved prior to 2004).	<b>Add a new subclause allowing certain intervening walls for liquefiable gas cylinders and tanks installed and approved prior to 2004 to be recognised in calculating separation distances</b>
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A number of intervening walls installed prior to 1 April 2004 between liquefiable gas installations and protected and public places can no longer be recognised when calculating separation distances under the 2017 regulations. Higher construction standards under the 2017 regulations mean certain walls that were approved prior to 1 April 2004 no longer qualify as intervening walls.

No allowance for such intervening walls that met pre-2004 standards was included in the 2017 regulations. This means such pre-existing walls may need to be reconstructed, or liquefiable gas cylinders and tanks relocated, to meet separation requirements. Such reconstructions will often cause significant costs, but will provide little additional safety benefit.

To recognise this, we propose adding a subclause to cl. 11 allowing liquefiable gas cylinders and above ground tanks installed and approved prior to 2004 to be compliant with separation requirements from protected places where:

- There is a intervening wall that was installed prior to 2004 which has a fire resistance rating of at least 180/180/180 minutes, or is at least 140 mm thick and constructed of reinforced concrete or solid-filled reinforced concrete block; and
- There is a separation distance measured around that intervening wall between the tank and the protected place of at least that prescribed by tables 2 or 3 of Schedule 12 of the HSW (Hazardous Substances) Regulations 2017; and
- There is a direct separation distance between the tank and the protected place of at least 50% of that prescribed by tables 2 or 3 of Schedule 12 of the HSW (Hazardous Substances) Regulations 2017.



24.	Sch. 1	Separation of class 2.1.1 liquefiable gas tanks from protected and public places (where tanks installed and approved prior to 2 September 2010)	<b>Add a new clause to Sch. 1 allowing tanks installed prior to 2 September 2010 to be compliant if they meet the separation requirements in table 3, Schedule 12 rather than table 4, Schedule 12 (as required by reg. 11.21).</b>
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The separation distance requirements for class 2.1.1 liquefiable gas tanks in Sch. 12, table 4 have some minor distance increases from those that were in place under the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice No. 35 2004 for tanks installed prior to September 2010.

It was intended that these adjusted separation requirements in the 2017 regulations would apply only to new tanks, not pre-existing tanks which had been installed under previous requirements. However, no exception to the Sch. 12, table 4 requirements was included in the 2017 regulations for tanks installed prior to 2 September 2010 (from which point requirements equivalent to those in the 2017 regulations took effect).

The result of this is that a number of tanks installed prior to September 2010 may need to be relocated small distances to be compliant. Such relocations may cause significant costs. However, we consider such relocations will provide little safety benefit.

To recognise this, we propose adding a clause to Sch. 1 allowing class 2.1.1 liquefiable gas tanks installed prior to September 2010 to be compliant if they meet the separation distance requirements specified in table 3, Schedule 12, rather than table 4, Schedule 12. These separation distance requirements in table 3 are equivalent to those in place for these tanks prior to September 2010.



<b>25.</b>	Sch. 1	Diesel tanks installed prior to December 2017	<b>Add a new clause to Sch. 1 excepting stationary container systems for class 3.1D substances between 500-600 L in capacity from the requirements of reg. 17.57, where these systems were installed prior to December 2017 and are used for agricultural or horticultural purposes.</b>
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Regulation 17.57 provides a range of installation requirements for stationary container systems used to supply class 3.1 substances to internal combustion engines or burners. 17.57 (7) provides a range of exceptions to these requirements, including for stationary container systems with a capacity of 500 L or less that supply class 3.1D substances to internal combustion engines.

Prior to the 2017 regulations, a range of container systems for diesel with capacities between 500 and 550 L were installed as part of frost fan systems used in the horticulture and viticulture industries. Expensive alterations will be required to make many of these systems compliant with the requirements of 17.57. However, such systems pose little risk beyond those already excepted under 17.57 (7), and so we consider these alteration costs will be disproportionate to any safety gains.

We therefore propose adding a new clause to Sch. 1 excepting stationary container systems for class 3.1D substances with capacities between 500 L and 600 L to be excluded from the requirements of reg. 17.57, where these systems were installed prior to December 2017 and are used for agricultural or horticultural purposes.

<b>26.</b>	4.2 (3)	Issue of compliance certificates for certified handlers	<b>Amend so certificates remain valid for 5 years from “date of coming into force specified in the certificate”, in place of five years from “date of issue”.</b>
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Regulation 4.2 (3) provides that compliance certificates for certified handlers are valid for five years from “date of issue”. This differs, for instance, from compliance certificates issued by compliance certifiers which come into force “on the date specified in the certificate” (reg. 6.25).

Limiting certificates for certified handlers to coming into effect “on the date of issue” makes it difficult for handlers to get renewed certificates that come into effect immediately when their previous certification expires. This can result in handlers being temporarily uncertified or obtaining less than the full five year term when they renew certificates.

We therefore propose amending 4.2 (3) so certificates remain valid for 5 years from the date the certificate specifies it comes into force, rather than the “date of issue”.





27.	5.3 (3) (b)	Requirements for fire hydrants to manage risks of LPG, propane, butane and isobutene tanks	<b>Amend 5.3 (3) (b) so the types of hydrants that will meet the requirements of 5.3 (3) are:</b> <ul style="list-style-type: none"><li>• <b>Hydrant systems with hoses enabling a flow of 0.33 L/sec; or</b></li><li>• <b>Hydrant systems that incorporate hoses with a 19 mm nominal bore</b></li></ul>
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AS/NZS 1596:2014 is the New Zealand standard that provides the current best practice for the storage and handling of LPG. However, the requirements of regulation 5.3 (3) (b) for fire hydrant systems to manage the risk of LPG stores of 50 kg or more do not currently align with this standard.

We therefore propose amending the types of hydrants that will comply with 5.3 (3) to align with AS/NZS 1596:2014 by:

- Adding a subsection stating hydrant systems with hoses that enable a flow of 0.33 L/sec to will meet requirements; and
- Replacing the current requirement of 5.3 (3) (b) for hydrants to incorporate a 20 mm diameter hose with a requirement for the hydrant system to incorporate a hose with a 19 mm nominal bore



28.	8.7	Modified requirements for ethanol-water dilutions intended for drinking	<b>Amend to correct the scope of exception by:</b> <ul style="list-style-type: none"><li>• <b>Adding Parts 11 and 17 as additional sections that dilutions compliant with this regulation are excepted from; and</b></li><li>• <b>Modifying subsection 8.7 (c) to require containers are constructed according to Appendix F of AS 1940:2017 or a relevant safe work instrument, instead of from stainless steel</b></li></ul>
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Ethanol-water dilutions intended for drinking were intended to be excluded from most requirements in the regulations regarding the storage of flammable liquids, provided they are stored according to the requirements for alcohol in the relevant Australian standard, AS 1940:2017.

However, 8.7 only partially excepts such dilutions from the requirements of these regulations. Contrary to the intent of this exception, such dilutions are not excluded from Part 17 relating to stationary container systems or Part 11 relating to controlling the effects of unintended ignitions. 8.7 (c) also limits this exception to containers constructed from stainless steel (or other materials specified in a safe work instrument), which is inconsistent with the standard's allowance for containers to be constructed from a range of materials.

To address these issues we propose:

- Adding references in 8.7 to Parts 11 and 17 as additional parts of these regulations that ethanol-water dilutions meeting the requirements of 8.7 (a) – (c) are excepted from; and
- Replacing the requirement of subsection 8.7 (c) for containers to be “constructed from stainless steel or another material specified in a relevant safe work instrument” with a requirement for containers to be “constructed in accordance with Appendix F of AS 1940:2017 or the requirements of a relevant safe work instrument”.



<b>29.</b>	8.7	Modified requirements for ethanol-water dilutions intended for drinking	<b>Update to reflect the current Australian standard on the storage of flammable liquids by:</b> <ul style="list-style-type: none"><li>• <b>Amending 8.7 (b) to require storage areas to be equipped with fire protection according to the requirements of Appendix F of AS 1940:2017 or a relevant safe work instrument, instead of Appendix G of AS 1940:2004; and</b></li><li>• <b>Adding a new subsection to 8.7 (b) to continue requiring storage areas to be equipped with an appropriate vapour detectors</b></li></ul>
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Regulation 8.7 also refers to an Australian standard that has now been revised and reissued. We therefore propose amending 8.7 (b) to refer to the relevant section of the current standard, Appendix F of AS 1940:2017, instead of Appendix G of AS 1940:2004.

However, this standard does not include requirements for vapour detection devices. We consider storage areas subject to this regulation should continue to be required to have vapour detectors, as these are an appropriate way to minimise safety risks. We therefore additionally propose adding a new subsection to 8.7 (b) so that, in addition to requiring storage areas to be equipped with fire protection according to the requirements of Appendix F of AS 1940:2017 or a relevant safe work instrument, they are required to have appropriate vapour detectors.

<b>30.</b>	11.32	Storage of class 3.1 substances in retail stores	<b>Delete subsection 11.32 (2).</b>
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Regulation 11.32 excepts certain class 3.1 substances in small packages for retail sale from separation distance requirements. However, subsection (2) states that this regulation does not apply to class 3.1B and 3.1C substances. This is an error, as this regulation was intended to apply to all class 3.1 substances.

We therefore propose removing subsection (2) from regulation 11.32.



31.	13.43	Separation of hazardous substance locations holding large quantities of 8.2A or 8.2B substances from protected places	<b>Add a subsection allowing the specified separation distances between hazardous substance locations and on-site protected places to be reduced where appropriate risk identification, assessment and control processes are in place.</b>
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Requirements for the separation of stores of class 8 substances from protected places in the HSW (Hazardous Substances) Regulations 2017 were intended to be based on the relevant Australian standard, AS 3780-2008. However, 13.43 does not include a provision present in AS 3780-2008 which allows the prescribed separation distances to be reduced between class 8 substance stores and on-site protected places where appropriate risk identification, assessment and control had occurred.

The absence of such a provision in 13.43 means a number of stores installed according to the best practice guidance provided by AS 3780-2008 may no longer be compliant. To meet current separation requirements such stores may need to be relocated, which will often cause significant costs. However, in some of these cases the relocations required will only be for small distances and will provide little additional safety benefit.

To recognise this, and to make the regulation more consistent with the Australian standard, we propose adding a new subsection to 13.43 stating the separation distances specified in 13.43 (2) and 13.43 (3) may be reduced where:

- The protected place is on the same site as the hazardous substance location, and is an integral part of the storage, processing and handling of class 8 substances; and
- The PCBU with management or control of the hazardous substance location has adopted appropriate risk identification, assessment and control measures.

See also the similar proposed amendments 33 and 39.



32.	15.16 (3)	Compliance certificate requirements for imported refillable pressure gas cylinder (including fire extinguishers)	<b>Add a new subsection excepting low pressure fire extinguishers that have obtained a extinguisher registration number under reg. 15.22 from the inspection and design verification requirements of 15.16 (3) (a) and (g).</b>
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Regulation 15.16 requires imported cylinders of gases under pressure to obtain compliance certificates. To obtain such a certificate, each imported cylinder or batch of cylinders is required under 15.16 (3) (a) to have a manufacturer’s certificate endorsed by a recognised inspection agency, and under 15.16 (3) (g) to have a design verification certificate.

Regulation 15.22 requires each low pressure fire extinguisher to be issued an extinguisher registration number. Per 15.22 (2) such a number can only be issued if a product certification body is satisfied the extinguisher has been manufactured to a prescribed standard and has been subject to quality assurance requirements.

We consider that the combination of these two subsections creates unnecessary repeated testing for low pressure fire extinguishers. The requirements for batch inspections in 15.16 are often impractical for importers of low pressure fire extinguishers, and quality assurance appears adequately dealt with by the requirements of 15.22.

We therefore propose adding an exception to the requirements of 15.16 (3) (a) and (g) for low pressure fire extinguishers that have obtained an extinguisher registration number under reg. 15.22.

33.	16.41	Restriction on where workers can leave tank wagons unattended	<b>Amend so workers are only required to place tank wagons in transit depots or hazardous substances locations when unattended if the substance the wagon contains would otherwise need to be stored in such locations.</b>
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Regulation 16.41 currently requires that when a worker is leaving a tank wagon transporting a hazardous liquid or gas unattended for more than 15 minutes they place the tank wagon in a transit depot or hazardous substance location.

However, tank wagons frequently contain substances that would not need to be located at transit depots or hazardous substances locations were they stored in another manner (for instance, class 3.1D substances used for asphaltting and earthmoving). We consider that requiring tank wagons containing such substances to be placed at transit depots or hazardous substances locations when unattended does not significantly increase safety, and is often highly impractical for workers.



We therefore propose amending this regulation so that workers only have a duty to place unattended tank wagons in transit depots or hazardous substance locations if the substance the tank wagon contains requires storage at a transit depot or hazardous substance location under Parts 9 - 13 of the HSW (Hazardous Substances) Regulations 2017.

<b>34.</b>	17.28 (1)	Separation of above ground stationary tanks containing class 6 substances from protected and public places	<b>Amend 17.28 (1) (a) so that instead of tanks needing to meet the separation distance requirements specified in Sch. 17 they are required to meet the separation distance requirements of AS/NZS 4452:1997.</b>
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Regulations relating to storage and separation requirements for class 6 substances in stationary container systems were intended to be based on the relevant Australian and New Zealand standard, AS/NZS 4452:1997. However, 17.28 (1) does not include provisions that are present in AS/NZS 4452:1997 allowing prescribed separation distances between class 6 substance stores and on-site protected places to be reduced where appropriate risk identification, assessment and control had occurred, and allowing separation distances to be measured around qualifying intervening walls, rather in a direct line.

Prior to 2017, the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice No. 35 2004 directly adopted the requirements of the standard, including these provisions.<sup>1</sup>

The exclusion of these provisions from 17.28 (1) means a number of tanks that were previously compliant under the Transfer Notice may require relocation to meet current separation requirements, which will often cause significant costs. However, in some of these cases the required relocations will only be for small distances and will provide little additional safety benefit.

17.28 (1) (a) also has a further error in referencing the incorrect tables in Sch. 17. The tables relevant to above ground stationary containers are Sch. 17 tables 1 and 3, rather than tables 2 and 4 as currently stated.

To address these issues, we propose amending 17.28 (1) (a) to require above ground stationary tanks containing class 6.1A, 6.1B, 6.1C or 6.1D substances comply with the separation distance requirements from protected and public places specified in section 5.8 of AS/NZS 4452:1997, instead of the distances specified in Sch. 17.

See also the similar proposed amendments 31 and 39.

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<sup>1</sup> See Sch 8, cl. 29.



35.	17.57	Installation requirements for stationary container systems containing class 3.1 substances to fuel internal combustion engines or burners	<b>Add a subsection excepting certain stationary container systems supplying diesel-fuelled engines for fire protection purposes from the requirements of 17.57 (5), provided specific location requirements are met.</b>
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Regulation 17.57 establishes a range of requirements for stationary container systems providing class 3.1 substances as fuel for internal combustion engines or burners. This includes a requirement in 17.57 (5) for anti-siphon valves or other mechanisms to prevent substances draining from a tank.

However, a number of diesel-fuelled stationary engines used for fire protection are unable to easily comply with this requirement, as such systems are generally required to supply engines by gravity and draw from 25 mm above the tank bottom. Such tanks will also usually have a capacity of more than 500 L and so will also fall outside of the exceptions to this regulation currently provided in 17.57 (7).

To allow these fire protection systems to be compliant, we propose adding a subsection to 17.57 excepting stationary container systems supplying diesel-fuelled stationary engines from the requirements of 17.57 (5) where:

- These engines are used for fire protection purposes; and
- The container system has a maximum capacity of 1500 L or less; and
- The system does not include a service tank.

Provided that:

- The tank and stationary engine are in separate rooms, or there is a 120/120/120 minute fire resistance rated concrete or concrete block divider between the tank and stationary engine; and
- Both the tank and engine room are at least 2 m from any protected place, or have an intervening wall between tank and engine room and the protected place (which may be the building wall) of at least 120/120/120 minute fire resistance rating.

We consider these requirements will be sufficient to minimise the safety risks these systems pose and will prevent the need for expensive replacement of fire protection systems.



<b>36.</b>	17.64 (4) (a)	Restriction on where service tanks containing class 3.1C and 3.1D substances can be located	<b>Amend 17.64 (4) (a) (ii) to require service tanks located within buildings to be placed in rooms complying with 17.63 (7), instead of rooms complying with 17.63 (4) (a).</b>
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Regulation 17.64 (4) (a) currently requires service tanks containing class 3.1D and certain class 3.1C substances to be located either outside the building the stationary container system is located in or in rooms compliant with 17.63 (4) (a). 17.63 (4) (a) requires rooms to be located on the lowest level of a building and to be constructed according to the requirements of 17.63 (7).

This requirement for service tanks to be placed on the lowest level of a building is impractical for many systems, such as emergency generators, which need their service tanks to be adjacent to the stationary engine or other equipment for the system to function.

We propose amending 17.64 (4) (a) to require service tanks to be located either outside the building, or in rooms compliant with 17.63 (7) rather than 17.63 (4) (a).

We consider the room construction requirements in 17.63 (7) are sufficient to minimise the safety risks these service tanks pose. Supply tanks, holding longer-term fuel supplies, will continue to be required to be located on the lowest level of buildings.

<b>37.</b>	17.74 (4) / 17.75 (4)	Requirements for valves to be considered fire safe	<b>Amend 17.74 (4) and 17.75 (4) so that valves can also be considered “fire safe” for the purposes of 17.74 (3) and 17.75 (3) if they are considered fire safe under clause 6.3.3 of AS 1940:2017.</b>
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Regulations 17.74 (4) and 17.75 (4) provide a list of standards for valves to comply with to be considered fire safe, for the purposes of 17.74 (3) and 17.75 (3) respectively.

However, certain types of valves will not ordinarily be tested for compliance with these listed standards, such as large diameter cast steel valves. The current Australian standard on the storage and handling of combustible liquids, AS 1940:2017, recognises the characteristics of these valves make them inherently fire safe.

Requiring valves to meet one of the standards listed in 17.74 (4) and 17.75 (4) is therefore resulting in unnecessary extra testing of valves that are established as fire safe.

To address this, we propose amending 17.74 (4) and 17.75 (4) so valves can also be considered “fire safe” for the purposes of 17.74 (3) and 17.75 (3) if they are considered fire safe under clause 6.3.3 of AS 1940:2017.





<b>38.</b>	Schedule 17	Separation distances for stores of packaged class 6.1 substances from protected and public places	<b>Amend the fourth column of each of the tables in Sch. 17 so the separation distances required for class 6.1C substances match the separation distance requirements for these substances specified in AS/NZS 4452:1997.</b>
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The separation distances provided for in Sch. 17, tables 1-4 for class 6.1C substances are incorrect. These separation distances were intended to match those provided in AS/NZS 4452:1997, but currently do not.

We propose this error is corrected by amending tables 1-4 of Sch. 17 to align with AS/NZS 4452:1997. This would result in these tables reading:

Table 1, col 4	Table 2, col 4	Table 3, col 4	Table 4 col 4
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
6	3	3	3
8	4	4	3
10	5	5	3
16	8	8	4
20	10	10	5
30	15	15	7.5



<b>39.</b>	Schedule 17, tables 1 and 2	Separation distances for stores of packaged class 6.1 substances from protected and public places	<b>Add clause stating the specified separation distances may be reduced up to 50% for on-site protected places where appropriate risk identification, assessment and control processes are in place.</b>
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Regulations relating to storage and separation requirements for class 6 substances were intended to be based on the relevant Australian and New Zealand standard, AS/NZS 4452:1997. However, Sch. 17 does not include a provision present in AS/NZS 4452:1997 allowing the prescribed separation distances to be reduced between class 6 substance stores and on-site protected places where appropriate risk identification, assessment and control had occurred.

The exclusion of this provision from Sch. 17 means a number of stores previously installed according to the best practice guidance of AS/NZS 4452:1997 are no longer compliant. To meet current separation requirements such stores may need to be relocated, which will often cause significant costs. However, the relocations required will generally be for small distances and will provide little additional safety benefit.

To recognise this, and to make the regulation more consistent with AS/NZS 4452:1997 we propose adding a clause to tables 1 and 2 stating that the specified separation distances between stores containing class 6.1 substances and protected places may be reduced up to 50% where:

- The protected place is located on the same site as the hazardous substance location and is an integral part of the storage, processing and handling of class 6.1 substances; and
- The PCBU with management or control of the location has adopted appropriate risk identification, assessment and control measures.

See also the similar proposed amendments 31 and 34.



## Summary of proposed amendments

	Regulation	Regulation Subject	Proposed Amendment
1.	10.28 (4) (b)	Controlling adverse effects of ignition of classes 3.2 and 4 substances at hazardous substances locations	<b>Correct wording from “referred in to in” to “referred to in”.</b>
2.	11.17 (5)	Separation of building containing class 3.1 substances from protected places	<b>Add reference to “paint mixing room that complies with AS/NZS 4114.1:2003” to subsection (5) “other than” list.</b>
3.	11.17	Separation of building containing class 3.1 substances from protected places	<b>Remove “holding package” from the title of regulation.</b>
4.	11.23 (1)	Separation of building containing certain flammable aerosols and LPG cartridges from protected places	<b>Correct cross-reference from “approved under Part 13” to “approved under Part 15” of these Regulations.</b>
5.	11.32 (3)	Storage of class 3.1 substances in retail stores	<b>Delete subsection (3) penalty provision.</b>
6.	11.37	Separation of building containing class 3.1 substances from protected places	<b>Remove “holding package” from the title of regulation.</b>
7.	13.38 (1)	Compliance certificate requirements for hazardous substance locations	<b>Correct cross-reference from “requirements specified in regulation 13.34” to “requirements specified in regulation 13.39”.</b>
8.	15.71 (2) (f)	Cylinder location requirements for supply of LPG	<b>Correct wording “not located with 1 metre” to “not located within 1 metre”.</b>
9.	16.22 (2)	Road tank wagon rear-end collision protection requirements	<b>Correct wording “the static load must not be more...” to “the static load must be more...”.</b>
10.	Sch. 25, table 2	Separation distances for above ground stationary tanks containing class 2.1.1 liquefied gases	<b>Correct unit reference in heading of column 1 from “Water capacity (L) of tank A” to “Water Capacity (000 L) of tank A”.</b>



11.	11.28 (3)	Separation requirements for above ground tanks, transportable containers and tank wagons containing class 3.1 substances from protected and public places	<b>Amend reference from “SwRI 93-01” to “SwRI 95-03”.</b>
12.	12.45 (1) (a)	Requirements for securing class 5.2 substances in containers	<b>Amend reference from “section 3 of AS 2714: 2008” to “section 2 and section 4 of AS 2714: 2008”.</b>
13.	17.2, 17.74 and 17.75	Valve fire safety requirements for tanks and transfer lines containing class 3.1 substances	<b>Amend references to “BS EN ISO 10467:2004” in 17.2, 17.74 (4) and 17.75 (4) to “BS EN ISO 10497:2010”.</b>
14.	17.29 (1) (a)	Separation of tanks containing class 8 substances from protected and public places	<b>Amend reference from “section 5.3.2.2 (b) to (d) of AS 3780:2008 (2nd Edition)” to “section 5.3.2 of AS 3780:2008 (2nd Edition)”.</b>
15.	Sch. 7, Table 1	Class 1 substances requiring a controlled substance licence	<b>Add reference to UN standard “1.4S UN0432 Articles, pyrotechnic for technical purposes”.</b>
16.	10.30 (6)(b) / 17.99 (6) (b)	Excluding limited fuel storage at certain farms from specific requirements to have secondary containment systems	<b>Amend 10.30 (6) (b) to state that the exclusion referred to in that subsection applies to storage of the specified substances in containers of 450 L or less.</b> <b>Amend 17.99 (6) (b) and (d) to state the exclusion referred to in that subsection applies to storage of the specified substances in containers of more than 450 L.</b>
17.	11.37 (2) / Sch. 12	Separation of building holding class 3.1 substances in use or opened package from protected places	<b>Remove reference in 11.37 (2) (a) to a “type 1 workroom” and add reference in 11.37 (2) (b) to type 1 workrooms.</b>
18.	13.19 (7) / 13.9	Signage requirements for vertebrate toxic agents	<b>Transfer the exception to the requirements of regulation 13.9 currently in 13.19 (7) to a new subsection within regulation 13.9.</b>



19.	13.29 (2) / Sch. 15	Requirement to segregate class 6 and 8 substances from certain other hazardous substances.	Replace statement in 13.29 (2) “substances...specified in Schedule 15 are incompatible with class 6.1A, 6.1B, 6.1C, 8.2A, 8.2B, and 8.2C substances” with statement substances are incompatible if listed as incompatible in Sch. 15.
20.	15.4	Applications for WorkSafe to determine the maximum pressure for altered designs of compressed gas cylinders.	Add a subsection allowing WorkSafe to approve, approve subject to conditions, or decline applications to determine the maximum pressure altered designs of compressed gas cylinders can contain.
21.	17.6	Design standards for above ground stationary tanks to store hazardous liquids	Add references to standard API STD 650 to 17.6 (2) and (3).
22.	Sch. 1, cl 11	Separation of class 2.1.1 liquefiable gas cylinders and above ground tanks from protected and public places (where tanks were installed and approved prior to 2004).	<b>Make amendments for clarification:</b> <ul style="list-style-type: none"><li>• Add to cl. 11 (1) “installed and approved before 1 April 2004” following “cylinders or above ground tanks”</li><li>• Change cl. 11 (2) (a) reference from “subpart 1 or 2 of Part 11” to “tables 2 or 3 of Schedule 12” to make reference more direct</li><li>• Change cl. 11 (4) (a) (ii) from “the wall that does not comply with subparagraph (i)” to “the wall that is not included in subparagraph (i)”</li></ul>
23.	Sch. 1, cl 11	Separation of class 2.1.1 liquefiable gas cylinders and above ground tanks from protected and public places (where tanks were installed and approved prior to 2004).	Add a new subclause allowing certain intervening walls for liquefiable gas cylinders and tanks installed and approved prior to 2004 to be recognised in calculating separation distances
24.	Sch. 1	Separation of class 2.1.1 liquefiable gas tanks from protected and public places (where tanks installed and approved prior to 2 September 2010)	Add a new clause to Sch. 1 allowing tanks installed prior to 2 September 2010 to be compliant if they meet the separation requirements in table 3, Schedule 12 rather than table 4, Schedule 12 (as required by reg. 11.21).



25.	Sch. 1	Diesel tanks installed prior to December 2017	Add a new clause to Sch. 1 excepting stationary container systems for class 3.1D substances between 500-600 L in capacity from the requirements of reg. 17.57, where these systems were installed prior to December 2017 and are used for agricultural or horticultural purposes.
26.	4.2 (3)	Issue of compliance certificates for certified handlers	Amend so certificates remain valid for 5 years from “date of coming into force on the date specified in the certificate”, in place of five years from “date of issue”.
27.	5.3 (3) (b)	Requirements for fire hydrants to manage risks of LPG, propane, butane and isobutene tanks	Amend 5.3 (3) (b) so the types of hydrants that will meet the requirements of 5.3 (3) are: <ul style="list-style-type: none"><li>• Hydrant systems with hoses enabling a flow of 0.33 L/sec; or</li><li>• Hydrant systems that incorporate hoses with a 19 mm nominal bore</li></ul>
28.	8.7	Modified requirements for ethanol-water dilutions intended for drinking	Amend to correct the scope of exception by: <ul style="list-style-type: none"><li>• Adding Parts 11 and 17 as additional sections that dilutions compliant with this regulation are excepted from; and</li><li>• Modifying subsection 8.7 (c) to require containers are constructed according to Appendix F of AS 1940:2017 or a relevant safe work instrument, instead of from stainless steel or according to a relevant safe work instrument</li></ul>
29.	8.7	Modified requirements for ethanol-water dilutions intended for drinking	Update to reflect the current Australian standard on the storage of flammable liquids by: <ul style="list-style-type: none"><li>• Amending 8.7 (b) to require storage areas to be equipped with fire protection according to the requirements of Appendix F of AS 1940:2017 or a relevant safe work instrument, instead of Appendix G of AS 1940:2004; and</li><li>• Adding a new subsection to 8.7 (b) to continue requiring storage areas to be equipped with an appropriate vapour detectors</li></ul>



30.	11.32	Storage of class 3.1 substances in retail stores	Delete subsection 11.32 (2).
31.	13.43	Separation of hazardous substance locations holding large quantities of 8.2A or 8.2B substances from protected places	Add a subsection allowing the specified separation distances between hazardous substance locations and on-site protected places to be reduced where appropriate risk identification, assessment and control processes are in place.
32.	15.16 (3)	Compliance certificate requirements for imported refillable pressure gas cylinder (including fire extinguishers)	Add a new subsection excepting low pressure fire extinguishers that have obtained a extinguisher registration number under reg. 15.22 from the inspection and design verification requirements of 15.16 (3) (a) and (g).
33.	16.41	Restriction on where workers can leave tank wagons unattended	Amend so workers are only required to place tank wagons in transit depots or hazardous substances locations when unattended if the substance the wagon contains would otherwise need to be stored in such locations.
34.	17.28 (1)	Separation of above ground stationary tanks containing class 6 substances from protected and public places	Amend 17.28 (1) (a) so that instead of tanks needing to meet the separation distance requirements specified in Sch. 17 they are required to meet the separation distance requirements of AS/NZS 4452:1997.
35.	17.57	Installation requirements for stationary container systems containing class 3.1 substances to fuel internal combustion engines or burners	Add a subsection excepting certain stationary container systems supplying diesel-fuelled engines for fire protection purposes from the requirements of 17.57 (5), provided specific location requirements are met.
36.	17.64 (4) (a)	Restriction on where service tanks containing class 3.1C and 3.1D substances can be located	Amend 17.64 (4) (a) (ii) to require service tanks located within buildings to be placed in rooms complying with 17.63 (7), instead of rooms complying with 17.63 (4) (a).



<b>37.</b>	17.74 (4) / 17.75 (4)	Requirements for valves to be considered fire safe	<b>Amend 17.74 (4) and 17.75 (4) so that valves can also be considered “fire safe” for the purposes of 17.74 (3) and 17.75 (3) if they are considered fire safe under clause 6.3.3 of AS 1940:2017.</b>
<b>38.</b>	Schedule 17	Separation distances for stores of packaged class 6.1 substances from protected and public places	<b>Amend the fourth column of each of the tables in Sch. 17 so the separation distances required for class 6.1C substances match the separation distance requirements for these substances specified in AS/NZS 4452:1997.</b>
<b>39.</b>	Schedule 17, tables 1 and 2	Separation distances for stores of packaged class 6.1 substances from protected and public places	<b>Add clause stating the specified separation distances may be reduced up to 50% for on-site protected places where appropriate risk identification, assessment and control processes are in place.</b>