



DOMESTIC HOME HEATING TANKS CHECKLIST

1. What is the tank material?

- Aluminium – do not accept under advice from EPA
- Stainless Steel / Mild Steel in accordance with AS 1692:2006 - acceptable

2. What is the tank capacity?

- 450L Single Skin / 5000L Double Skin limit, if greater resource consent required
 - » 2GP 9.3.4 / Appendix A6.1 – Table A6.1.3 Class 3 – Flammable Liquids.

3. Is Design Certified in accordance with standards?

- **Not Exceeding 2500L;** S.29(3)(a)(iii) Consolidated Hazardous Substances (Hazardous Property Controls) Notice 2017 requires design that is certified under regulation 17.93(1)(a) of the Health and Safety at Work (Hazardous Substances) Regulations 2017.
- **Greater than 2500L;** S.30(3)&(4) Consolidated Hazardous Substances (Hazardous Property Controls) Notice 2017 requires installer to ensure HSN0 cert. in accordance with regulation 17.91 Health and Safety at Work (Hazardous Substances) regulations 2017.
- S.17.6 of the Health and Safety at Work (Hazardous Substances) Regulations 2017 provides standards, **AS 1692:2006** is acceptable.

4. Is the Tank constructed by an approved fabricator?

- S.29(3)(a)(iv) Consolidated Hazardous Substances (Hazardous Property Controls) Notice 2017 requires construction by a certified fabricator under regulation 17.93(1)(b) of the health and Safety at Work (Hazardous Substances) Regulations 2017.

5. Is the Tank marked in accordance with regulations (manufacturers plaque)?

- S.29(3)(a)(v) Consolidated Hazardous Substances (Hazardous Property Controls) Notice 2017 requires markings in accordance with Regulation 17.76(1) of the Health and Safety at Work (Hazardous Substances) Regulations 2017.
- Example of Manufacturers Plaque:





6. Is the tank installed by an approved installer who will meet requirements of S.29 of the Consolidated Hazardous Substances (Hazardous Property Controls) Notice 2017?

7. Separation Distances

Health and Safety at Work (Hazardous Substances) Regulations 2017 requires separation distances from the tank based on Capacity (L). This is listed in Schedule 12, Table 5, Column 3.

Table 5			
rr 11.9, 11.28, 17.40, 17.63			
Capacity (L)	Protected place (m)		Public place (m)
Column 1	Column 2	Column 3	Column 4
	3.1A, 3.1B, 3.1C	3.1D	3.1A, 3.1B, 3.1C
Up to 600	2	0	0
1000	2	1.5	0
2500	3	2	0
5000	4	3	2
25,000	5	4	3
50,000	6	5	4
100,000	7	6	4
250,000	8	7	4.5
500,000	10	8	5
1,000,000	11	9	7
2,000,000	13	10	8
4,000,000	15	12	9
10,000,000	20	16	10
40,000,000 and over	30	25	15

Domestic Home Heating Tanks

Domestic Home Heating Tanks are not included as part of a building consent as the tank is not a part of the 'Building' in terms of consent legislation. The following outlines the regulations and standards to be checked by DCC Planning and Possible Requirements for Resource Consent.

No aluminium tanks – stainless steel or mild steel that complies with AS 1692:2006

The Environmental Protection Agency (EPA) has provided advice that **tanks made of aluminium as part of domestic oil burning installations for residential properties are not acceptable.**

Aluminium tanks would not meet the requirements of the Health and Safety at Work (Hazardous Substances) Regulations 2017 and Hazardous Substances (Hazardous Property Controls) Notice 2017.

Clause 29 of the Notice requires tanks to be designed and constructed in accordance with 17.93 of the Health and Safety at Work – Hazardous Substances Regulations. Regulation 17.6 provides the standards that must be used for construction including AS 1692:2006.

Stainless Steel or Mild Steel that comply with the AS 1692:2006 standard are acceptable.

Tank capacity – 450L single skin / 5000L double skin, or resource consent required

The Second Generation District Plan (2GP) sets limits for the storage and use of hazardous substances with explosive or flammable properties.

If the tank is more than 450L single skin OR 5000L double skin, then a resource consent is required.



9.3.4 Hazardous Substances Quantity Limits and Storage Requirements

The storage and use of hazardous substances with explosive or flammable properties must not be located in the National Grid Yard except as provided for in Rule 9.3.4.2. The storage and use of all other hazardous substances must comply with the quantity limits and storage requirements specified in Appendix A6, as follows:

Zones and activities		Appendix
a.	i. Residential activities in all zones ii. All activities in the: <ol style="list-style-type: none"> 1. residential zones; 2. Smith Street and York Place Zone (SSYP); 3. Ashburn Clinic Zone; 4. Mercy Hospital Zone; 5. Wakari Hospital Zone; and 6. Schools Zone. 	A6.1

A6.1 Group A

1. Tables A6.1.1 – A6.1.9 specify the hazardous substances quantity limits for the activities and areas set out in Rule 9.3.4.1.a, which are:
 1. residential activities in all zones;
 2. all activities in the:
 - residential zones;
 - Smith Street and York Place Zone (SSYP);
 - Ashburn Clinic Zone;
 - Mercy Hospital Zone;
 - Wakari Hospital Zone; and
 - Schools Zone.
2. Where a substance is listed by name only the specific class quantity limit where the substance is listed applies and other class quantity limits do not apply.
3. Where the volume or weight of a hazardous substance is affected by the temperature and pressure at which it is stored, the volume or weight will be considered (for the purposes of the hazardous substance quantity limits) to be that present in conditions of 20°C and 101.3kPa.
4. The permitted quantity limits apply per site.

Table A6.1.3 Class 3 – Flammable liquids

Subclass 3.1D (GHS category 4) Liquid: Low hazard (flash point more than 60°C, but less than 93°C)		
12.	Liquid petroleum fuels in below-ground single vessel tanks	0
13.	NA	a. NA b. NA
14.	All – e.g diesel, petroleum, fuel oils (stored above- ground)	a. Certified single skin tanks: 460 Litres b. Certified double skin tanks: 5000 Litres c. NA

Consolidated Hazardous Substances (Hazardous Property Controls) Notice 2017

The EPA issues notices for hazardous substances. The **Consolidated Hazardous Substances (Hazardous Property Controls) Notice 2017** includes rules to protect the general public when using and storing hazardous substances in places outside of work. This includes rules around certifying non-workplaces storing more than 100kg of LPG, and rules around stationary container systems for domestic oil-burning installations.

Section 29 of the Notice lists requirements for domestic oil burning installations that **do not exceed 2500L** using the Health and Safety at Work (Hazardous Substances) Regulations 2017, including for a:

- design certified under regulations – 17.93(1)(a)
- construction by a certified fabricator – 17.93(1)(b)
- markings in accordance with regulations – 17.76(1)



29. *Stationary container systems for domestic oil burning installations that do not exceed 2500L in capacity*

- (1) *This clause applies to a stationary container system if—*
 - (a) *it is in a building; and*
 - (b) *it is used to contain a hazardous substance; and*
 - (c) *it is used to supply a fuel to a burner; and*
 - (d) *the stationary container system has a capacity of 60L or more; and*
 - (e) *the stationary tank used to store the substance has a capacity of 2500L or less.*
- (2) *A person must not fill or partially fill the tank within the stationary container system with a hazardous substance that has a flashpoint less than 50°C.*
- (3) *A person who installs the stationary container system must ensure that:*
 - (a) *the stationary tank that is used to store the substance—*
 - (i) *is located outdoors; and*
 - (ii) *has a secondary containment system, if the capacity of the stationary tank is greater than 1200L; and*
 - (iii) *is of a design that is certified under regulation 17.93(1)(a) of the HSW HS Regulations; and*
 - (iv) *is constructed by a fabricator that is certified under regulation 17.93(1)(b) of the HSW HS Regulations, in respect of that design; and*
 - (v) *is marked in accordance with regulation 17.76(1) of the HSW HS Regulations; and*
 - (b) *the burner is—*
 - (i) *of a type approved in accordance with Subpart 12 (Burners) of Part 17 of the HSW HS Regulations; and*
 - (ii) *fed by gravity; and*
- (c) *any pipework that forms part of the stationary container system complies with regulation 17.59 of the HSW HS Regulations; and*
- (d) *the installation is equipped with an emergency shutdown valve that:*
 - (i) *stops the supply of fuel from the stationary tank to the burner; and*
 - (ii) *is located outside the building and as close as practicable to the stationary tank.*

Section 30 of the Notice lists requirements for domestic oil burning installations greater than 2500L using the Health and Safety at Work (Hazardous Substances) Regulations 2017. The tank installer must ensure there's a HSNO cert. as per the regulations:

30. *Stationary container systems for domestic oil burning installations greater than 2500L in capacity.*

- (1) *This clause applies to a stationary container system if—*
 - (a) *it is used to contain a hazardous substance; and*
 - (b) *it is used to provide fuel to a burner; and*
 - (c) *the stationary tank used to store the substance that is part of the stationary container system has a capacity greater than 2500L.*
- (2) *A person must not fill or partially fill the stationary tank within the stationary container system with a hazardous substance that has a flashpoint less than 50°C.*
- (3) *A person who installs the stationary containment system, and any person who fills or partially fills the stationary tank within the stationary container system with a hazardous substance, must ensure the stationary container system has a HSNO certificate issued in accordance with subclause (4), or a relevant test certificate.*
- (4) *The HSNO certificate must certify that the stationary container system would (if it was in a workplace) meet the requirements for a compliance certificate to be issued under regulation 17.91 of the HSW HS Regulations, with all necessary modifications.*



Certified Design and Certified Fabricator

Regulation 17.93(1) of the Health and Safety at Work (Hazardous Substances) Regulations 2017 provides for certified tank designs and fabricators.

17.93 Certification of designs or fabricators

- (1) A compliance certifier may certify—
 - (a) a design for a stationary tank or process container if that design complies with the requirements of this Part that relate to the stationary tank or process container (as the case may be); or
 - (b) in relation to a certified design or designs, a fabricator for the purpose of constructing a stationary tank or process container in accordance with the design.
- (2) The compliance certifier must advise Work Safe of,—
 - (a) for a certified design, the requirements for which the design is certified; or
 - (b) for a certified fabricator, the name and contact details of the fabricator and the design in respect of which the fabricator is certified.

Markings in Accordance with Regulations

Regulation 17.76(1) of the Health and Safety at Work (Hazardous Substances) Regulations 2017 lists the markings for tanks:

17.76 Marking of stationary tanks

- (1) A relevant PCBU must ensure that a stationary tank used to store a hazardous substance is marked—
 - (a) in accordance with the Health and Safety in Employment (Pressure Equipment, Cranes, and Passenger Ropeways) Regulations 1999, if those regulations apply; or
 - (b) if those regulations do not apply,—
 - (i) permanently and legibly with the following information:
 - (A) the specification to which the tank was designed (if any):
 - (B) the date on which the tank was manufactured:
 - (C) the materials used in the construction of the tank:
 - (D) the name or mark and address of the manufacturer of the tank:
 - (E) the maximum and minimum design pressure of the tank:
 - (F) the maximum and minimum design temperature of the tank:
 - (G) the maximum permitted density of any liquid that may be contained in the tank:
 - (H) the maximum safe fill level of the tank:
 - (I) an identifier that links the tank to the records and compliance certificate that relate to the tank:
 - (J) the design approval number (if any) for the tank; or
 - (ii) in accordance with the requirements in a relevant safe work instrument.
- (2) A PCBU who contravenes this regulation commits an offence and is liable on conviction,—
 - (a) for an individual, to a fine not exceeding \$6000:
 - (b) for any other person, to a fine not exceeding \$30,000.



An example of a fabricator's plaque is included below:



Installed by an Approved Contractor

The tank should be installed by an approved contractor who understands and can meet the requirements of S.29 of the **Consolidated Hazardous Substances (Hazardous Property Controls) Notice 2017** – outlined in the sections above.

Separation Distances

The tank should have a separation distance from protected places / Public places. The setback depends on the capacity (L) and is listed in Health and safety at Work (Hazardous Substances) Regulations 2017 Schedule 12, Table 5, Column 3:

Table 5			
rr 11.9, 11.28, 17.40, 17.63			
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S.3 'Interpretation' defines protected places / public places:



protected place—

(a) Includes:

(i) a dwelling, residential building, place of worship, public building, school or college, hospital, child care, facility, or theatre, or any building or open area in which persons are accustomed to assemble in large numbers, whether within or outside the property boundary of a place where a hazardous substance location is situated:

(ii) any factory, workshop, office, store, warehouse, shop, or building where persons are regularly employed whether within or outside the property boundary of a place where a hazardous substance location is situated:

(iii) a ship lying at permanent berthing facilities:

(iv) a public railway; but

(b) does not include a small office or other small building associated with a place where storage, handling, use, manufacture, or disposal of a class 2, 3, 4, 5, 6, or 8 substance is a major function

public place—

(a) means a place (other than private property or a protected place) that is open to, and frequented by, the public; and

(b) includes a public road

Planning Enquiries can be contacted as follows:

In Writing: Dunedin City Council, PO Box 5045, Dunedin 9054

In Person: Customer Service Centre, Ground Floor, Civic Centre, 50 The Octagon, Dunedin

By Phone: (03) 477 4000

By Email: planning@dcc.govt.nz