



BRIEFING

Freedom Camping Regulations – Proposed self-containment technical requirements

Date:	28 March 2022	Priority:	Medium
Security classification:	In Confidence	Tracking number:	2122-3110

Action sought		
	Action sought	Deadline
Hon Stuart Nash Minister of Tourism	Approve the proposed self-containment technical requirements for inclusion in the Freedom Camping Regulations discussion paper	4 April 2022

Contact for telephone discussion (if required)				
Name	Position	Telephone		1st contact
Dale Elvy	Manager, Tourism Operations and Partnerships	Privacy of natural persons	Privacy of natural persons	✓
David Fraser	Senior Advisor, Tourism Operations and Partnerships	Privacy of natural persons		
Craig Hill	Principal Policy Advisor, Tourism Policy	Privacy of natural persons	Privacy of natural persons	

The following departments/agencies have been consulted

Minister's office to complete:

- | | |
|---|--|
| <input type="checkbox"/> Approved | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Noted | <input type="checkbox"/> Needs change |
| <input type="checkbox"/> Seen | <input type="checkbox"/> Overtaken by Events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn |

Comments



BRIEFING

Freedom Camping Regulations – Proposed self-containment technical requirements

Date:	28 March 2022	Priority:	Medium
Security classification:	In Confidence	Tracking number:	2122-3110

Purpose

To seek your agreement to the proposed technical requirements for self-containment being included in the Freedom Camping Regulations discussion paper.

Executive summary

Officials are developing a discussion paper on proposed Freedom Camping Regulations. The aim is for the paper to be released for public feedback around the same time as the Freedom Camping Bill is referred to Select Committee.

This briefing provides an overview of discussions in the Freedom Camping Regulations Technical Advisory Group on technical requirements for self-containment, and recommends the inclusion of proposed technical requirements in the discussion paper.

Recommended action

The Ministry of Business, Innovation and Employment recommends that you:

- a **Note** that officials have considered taking the relevant technical requirements for self-containment set out in *Self containment of motor caravans and caravans* (NZS 5465:2001), modernising them, and putting them into Regulations, but concluded this approach was not desirable (paragraphs 18-22).

Noted

- b **Agree** that technical requirements for self-containment be performance-based where practicable, and set out in the following four tiers:
- an objective – the social or environmental objective that must be achieved
 - functional requirements – what the regulated thing must do to satisfy the objective
 - performance requirements – the qualitative or quantitative criteria the regulated thing must meet in order to comply
 - details on how requirements should be interpreted so as to ensure consistency in certification decisions (paragraphs 23 – 25).

Agree / Disagree

- c **Agree** that the discussion document include an objective of the self-containment technical requirements: *to protect the natural environment from contamination and pollution from wastewater and solid waste by prescribing the minimum facilities needed to contain the waste which vehicle occupants produce, and to provide fresh water which they require.* (Paragraph 21)

- d **Agree** that the discussion document include the following outcome-based functional requirements that a motor vehicle must have in order to be self-contained for a minimum of 72 hours:
- a. a water supply system which stores and conveys potable water to sanitary appliances for the purposes of safe food preparation and personal hygiene
 - b. a fixed toilet to collect the human waste of occupants
 - c. a wastewater system of adequate capacity for the secure and safe collection and storage of grey water and black water
 - d. a sink which is supplied with potable water, installed with a waste trap and which drains to a grey water tank
 - e. ventilation systems to ensure unpleasant or unhealthy odours do not accumulate in the motor vehicle
 - f. mechanisms for the safe loading of water and off-loading of wastewater which avoid spillage, leakage or cross-contamination, and
 - g. sufficient secure storage of occupants' rubbish (paragraph 30).

Agree / Disagree

- e **Agree** that the discussion document include a set of general technical requirements relating to manufacture and installation of fixtures, as set out in **Annex Two** (paragraph 31).

Agree / Disagree

- f **Agree** that the discussion paper include a set of lower-level outcome-based performance requirements for the following specific items: water systems, toilets, wastewater, ventilation, waste discharge, and rubbish, as set out in **Annex Four** (paragraphs 32-34).

Agree / Disagree

- g **Note** that the proposed performance requirements are roughly equivalent to those set out in NZS 5465:2001 (excluding the removal of portable toilets from the certification regime) so will not significantly change the associated regulatory costs (paragraphs 26-27).

Noted

- h **Note** that members of the technical advisory group have suggested alternative options for performance requirements for separate toilet compartments, solid waste storage, and the minimum 72-hour self-containment period (paragraphs 35-36).

Noted

- i **Agree** that these alternative options be included in the discussion paper and that feedback be sought on the pros and cons, and potential impacts if these are adopted (paragraph 37).

Agree / Disagree

- j **Note** that formal guidance on how requirements should be interpreted will be produced by the Plumbers, Gasfitters and Drainlayers Board so as to ensure consistency in certification decisions (paragraph 38).

Noted

- k **Agree** that, at the appropriate time following the enactment of new legislation and the promulgation of Freedom Camping Regulations, *Self containment of motor caravans and caravans* (NZS 5465:2001), be withdrawn (paragraphs 38-39).

Agree / Disagree



Dale Elvy
Manager, Tourism Operations and Partnerships

Labour, Science and Enterprise, MBIE

..... / /

Hon Stuart Nash
Minister of Tourism

..... / /

Background

1. As advised in Briefing 2122-2952, officials are developing a discussion paper on proposed Freedom Camping Regulations. As noted in that briefing, the discussion paper will cover, among other things, the technical requirements for self-containment certification.
2. This briefing seeks your agreement to the proposed technical requirements.

There are problems with the current self-containment regime

3. As you are aware, there is no current regulatory system for self-containment of motor vehicles. There is a voluntary self-containment standard, *Self containment of motor caravans and caravans* (NZS 5465:2001) which sets out a basic standard for the containment of wastewater and solid waste in motor vehicles, and includes technical standards. One of the objectives of the NZS 5465:2001 is to define the minimum facilities (ie the technical requirements) that a motor vehicle needs to contain the waste its occupants produce, and to provide the fresh water which they require.
4. Compliance with NZS 5465:2001 is not compulsory, but compliance enables a vehicle to be occupied in some areas to which entrance would otherwise be denied (e.g. because a particular site is designated as being appropriate for self-contained vehicles to stay at overnight).
5. There is a lack of trust in the implementation of NZS 5465:2001 – a key tool currently relied on by enforcement authorities to manage freedom camping. NZS 5465:2001 is implemented inconsistently or inappropriately; self-containment stickers can be easily counterfeited; and there is no national register of self-contained vehicles to support enforcement.

The Freedom Camping Bill will introduce a new requirement for self-contained vehicles to have a fixed toilet and new regulatory regime for self-containment

6. On 27 October 2021, the Cabinet Economic Development Committee (DEV) agreed
 - a. that the regulatory requirements for a vehicle to be certified self-contained exclude portable toilets and require the toilet to be fixed within the vehicle, and
 - b. that, as soon as the Bill is enacted, a vehicle may not be certified self-contained under NZS 5465:2001 if it has a portable toilet. [DEV-21-MIN-0219 refers].
7. DEV also agreed to establish a 'light-touch' regulatory system for self-contained vehicles with the Plumbers, Gasfitters and Drainlayers Board (the Board) as the regulator [DEV-21-MIN-0219 refers].
8. With regard to technical requirements, DEV agreed to the creation of regulation-making powers to specify the technical requirements that must be met in order for a motor vehicle to be certified as self-contained, as well as prescribe criteria, processes, forms, fees, levies and related matters to give effect to the new regulatory regime.
9. While the draft regulations will refer to the need for a fixed toilet to get a motor vehicle certified as self-contained, the wording will simply mirror that of the Freedom Camping Bill currently being drafted. This is because the requirement for a fixed toilet is to come into effect immediately upon enactment, whereas the regulations will not come into effect until six months after enactment.

The Regulations technical advisory group has informed our proposals

10. MBIE established a cross-sector advisory group to help with the development of proposals to go into a discussion document on freedom camping regulations. The group is providing input into the setting of 'fit for purpose' technical requirements for self-containment, including the documentation issued, and the criteria for approval as a certification authority.

A list of organisations taking part is set out in **Annex One**.

11. With regard to technical requirements for self-containment, there is a general consensus amongst the group to moving away from the current largely prescriptive requirements of NZS 5465:2001 towards a performance or outcome-based approach, where possible.
12. There was also a strong call not to overregulate the sector. The current self-containment inspection network is primarily undertaken by volunteers, who need simple inspection criteria.
13. The Master Plumbers Association have raised an old issue you have previously considered – that only plumbers can, and should, do this work. Master Plumbers has concerns about how unqualified vehicle inspectors can assess compliance with building-related plumbing standards (as NZS 5465:2001 requires). Master Plumbers currently views self-certification as being akin to sanitary plumbing, and therefore primarily to be a health and safety issue. This view is not shared by the other groups on the advisory group, who see self-containment as primarily about protecting the natural environment from unwanted waste. Moreover, several members have raised instances of problems with vehicles being incorrectly certified by plumbers due to a lack of understanding that vehicles are different to buildings.
14. We also disagree with Master Plumbers. We briefed you on this matter on 1 July 2021 [Briefing 2021-3954 refers], noting that such a policy change would have a detrimental impact on the self-certification system, due to the current shortage of plumbers willing to involve themselves in self-certification work.
15. Members of the technical advisory group noted, however, that testing officers of issuing authorities can at times struggle to provide a high level of assurance that the plumbing-related facilities have been installed in strict accordance with the sanitary requirements in the building code. Testing officers are nevertheless able to detect sub-standard fittings, loose connections, and leaks etc in relation to plumbing fittings. This situation has informed our approach to developing the proposed technical requirements, and will be considered when we develop the competency requirements for recognised vehicle inspectors under the new regulatory regime.

Current technical requirements

16. NZS 5465:2001 specifies the requirements for water supply, plumbing and drainage installation and solid waste containment in motor caravans and caravans for the purpose of obtaining a self-containment certificate. A copy of NZS 5465:2001 may be found at **Annex Two**.
17. At a glance, NZS 5465:2001 requires a:
 - a. Fresh water tank – requiring 4 L per person per day for up to 3 days
 - b. Sink – via a smell trap/water trap connected to a watertight sealed wastewater tank
 - c. Grey/black wastewater tank: 4 L per person per day (12 L per person minimum, vented and monitored if capacity is less than the freshwater tank)
 - d. Evacuation hose: (3 m for fitted tanks) or long enough to connect to a sealed portable tank

- e. Sealable refuse container (rubbish bin with a lid)
- f. Toilet (portable or fixed): Minimum capacity 1 L per person per day (3 L net holding tank capacity per person minimum).

Proposed technical requirements

One option considered was to put the technical requirements of NZS 5465:2001 into Regulations

- 18. Consideration was given to taking the relevant technical requirements set out in NZS 5465:2001, modernising them, and putting them into Regulations. Most of these requirements are very prescriptive, for example, they specify pipe diameters and length, minimum volumes for potable and wastewater containers etc.
- 19. This would mean the technical requirements would very clearly specify what must be done in order to meet a requirement. For example, it would be explicit that all waste pipes with a length of less than 3 metres from sanitary fitting to waste tank must not be of a diameter less than 18 millimetres (mm). For pipes that exceeded 3 metres, the diameter must not be less than 25mm.
- 20. Nevertheless, prescriptive standards may not provide the best solution to the different types of self-contained vehicles. Prescriptive standards can stifle innovative ways to meet self-containment outcomes, and would need to be frequently amended to keep up with innovation in motorhome and motorcaravan technology and products. They can also impose unnecessary costs if there are less costly ways to comply with the outcome being sought.
- 21. The majority of the technical advisory group members are not in favour of having prescriptive requirements set out in regulations, for the reasons set out in paragraph 20. These members have a strong preference for technical requirements to be performance based.
- 22. We concluded that providing for prescriptive requirements in Regulations is not desirable.

Our preferred option is for Regulations to set out performance-based technical requirements where it is practical to do so

- 23. We recommend that the technical requirements for self-containment be performance-based where practicable. This approach means that the technical requirements would be less prescriptive than NZS 5465:2001. The requirements will set outcomes or objectives and provide flexibility as to how these are met. For example, rather than specifying that an evacuation hose must be at least 3 metres in length, the technical requirements would instead require that the hose be fit for purpose, with guidance on how to determine what fit for purpose means in that context.
- 24. Performance-based technical requirements allow for innovation and technological development in ways that prescriptive standards cannot typically accommodate, may result in lower costs if there are several possible ways of complying, and will avoid the need to frequently update the regulations. We are mindful that such an approach can lead to greater subjectivity with inspections – which we propose to address through formal guidance on interpreting the requirements that vehicle inspectors must comply with or have regard to, and requiring the use of an agreed inspection checklist.
- 25. We propose that the self-containment technical requirements be set out in four tiers. The first three tiers would be set in Freedom Camping Regulations, whilst the fourth would be in the formal guidance referred to above, that would be issued by the Board. The four tiers are:
 - a. an objective – the social or environmental objective that must be achieved

- b. functional requirements – what the regulated thing must do to satisfy the objective
- c. performance requirements – the qualitative or quantitative criteria the regulated thing must meet in order to comply
- d. details on how requirements should be interpreted so as to ensure consistency in certification decisions.

What is proposed is roughly equivalent to NZS 5465:2001 (except for the removal of portable toilets)

- 26. What is proposed below is roughly equivalent to the NZS 5465:2001 in terms of impacts (outside of the removal of portable toilets from the certification regime). We are not proposing technical requirements that significantly increase or reduce the current requirements or the associated regulatory costs. What is proposed is a simpler set of technical requirements that focus on the critical self-containment facilities.
- 27. The performance requirements will also specify, where practicable, applicable New Zealand and international standards (or parts thereof) that will be recognised as demonstrating compliance.

We propose an objective focusing on protection of the natural environment

- 28. At the top of the performance requirements hierarchy for self-containment technical requirements sits the high-level objective that self-contained vehicles must satisfy.
- 21. To help address the issue on sanitary plumbing outlined in paragraph 12 and provide a clearer statement on the scope of the self-containment technical requirements, we propose the discussion document consult on the following objective:

“to protect the natural environment from contamination and pollution from wastewater and solid waste by prescribing the minimum facilities needed to contain the waste which vehicle occupants produce, and to provide fresh water which they require.”

Functional requirements

- 29. The second tier of the self-containment technical requirements are the functional requirements that self-contained vehicles must meet.
- 30. We propose the discussion document consult on eight functional requirements that a vehicle must have in order to be self-contained for a minimum of 72 hours. These functional requirements are:
 - a. a water supply system which stores and conveys potable water to sanitary appliances for the purposes of safe food preparation and personal hygiene
 - b. a fixed toilet to collect the human waste of a camping vehicle’s occupants
 - c. a wastewater system of adequate capacity for the secure and safe collection and storage of grey water and black water
 - d. a sink which is supplied with potable water, installed with a waste trap and which drains to a grey water tank
 - e. ventilation systems to ensure unpleasant or unhealthy odours do not accumulate in a camping vehicle
 - f. mechanisms for the safe loading of water and off-loading of wastewater which avoid spillage, leakage or cross-contamination, and
 - g. sufficient secure storage of occupants’ rubbish.

31. We also propose that there be a set of general requirements relating to manufacture and installation of fixtures. These too would be outcome focused. The proposed general requirements are outlined in **Annex Three**.

Performance requirements for specific items

32. The third tier of the self-containment performance requirements are the performance requirements that self-contained vehicles must meet for each of the functional requirements in the previous section (paras 29-31).
33. We propose a set of performance requirements for specific items that are critical components of self-containment. These are:
- a. Water systems – the systems that provide potable water to the vehicle. The requirements would stipulate that the system must ensure that water continues to be fit for human consumption and installed appropriately.
 - b. Toilets – would need to be fit for purpose, fixed, and drain or flush into a cassette or black water tank.
 - c. Wastewater systems – the systems that collect wastewater used in a vehicle, including grey and black water tanks and associated pipes. The requirements would stipulate that the system safely conveys and stores wastewater.
 - d. Ventilation system – motor vehicles would need to be adequately ventilated to prevent the build-up of unpleasant or unhealthy gases, odours or air.
 - e. Loading and off-loading mechanisms – would need to load potable water hygienically and offload wastewater sanitarily, and stored appropriately so as to minimise any health risks.
 - f. Occupant rubbish storage – would require that every self-contained vehicle have a sealed waste container of sufficient capacity to store rubbish generated by the occupants of a vehicle over a 72-hour period.
34. The proposed performance requirements for specific items are outlined in **Annex Four**.

Alternative options

35. There are differences of opinion between the advisory group members regarding some of the technical requirements. As noted in the MBIE Tourism weekly report dated 25 February 2022, NZMCA tabled several alternative options for consideration with the technical advisory group. These were discussed, with mixed views on the merits of each. These options were:
- a. Self-containment period --reducing the number of days a motor vehicle must be able to be self-contained, from 3 days (72 hours) to 2 days (48 hours). While this may allow for reduced water and waste storage tanks, it could result in difficulties in discharging the waste due to the distance between dump stations.
 - b. Toilets fitted in self-contained vehicles – the requirement for a fixed toilet will be set out in the Freedom Camping Act and mirrored in Regulations, but there are other performance matters we consider toilet systems should meet. The NZMCA has suggested the option that all toilets be located inside a separated toilet compartment on the basis that this would increase the likelihood the toilet would be used. Other group members dispute this assumption, pointing out that having a separate toilet compartment would likely be difficult for smaller camping vehicles to meet due to limits on floor space.

- c. Occupant waste storage so that a vehicle has sufficient capacity to safely store solid waste (e.g. rubbish, food scraps etc.) – some group members do not think solid waste storage should continue to be a critical facility, noting that there are many more waste receptacles than there are dump stations in which vehicle users may deposit their solid waste. Others, including NZMCA, consider that a requirement for sealed waste storage containers of sufficient capacity should continue to form a part of the technical requirements.
36. We do not recommend that these alternative options be adopted at this point. There is insufficient information about the pros and cons, and likely impacts.
37. However, we therefore propose outlining these alternative options in the discussion paper and seeking feedback on the pros and cons, and potential impacts if these are adopted.

We propose withdrawing NZS 5465:2001 and providing for the PGDB to issue guidance regarding interpreting technical requirements

38. You recently agreed to enable the Plumbers, Gasfitters and Drainlayers Board to be able to issue 'mandatory guidance' that essentially spell out how vehicle inspectors will interpret the regulations, including a standard inspection checklist (Briefing 2122-2662 refers). This will enable the PGDB to produce the fourth-tier guidance referred to in paragraph 19.
39. That much of the content currently in NZS 5465:2001 (e.g. technical requirements, forms, requirements for vehicle inspectors, and criteria for certification authorities) will be set-out in regulations and interpretation material will be produced by the PGDB raises questions about the future of NZS 5465:2001. We propose that the NZS 5465:2001 be withdrawn at the appropriate time following the introduction of the new regulatory regime. Withdrawal will reduce any confusion and make it clear that the new technical requirements are set out in regulations. Standards NZ is comfortable with this.

Next steps

40. If you agree to the proposals for technical requirements for self-containment, officials will include them in the draft Freedom Camping Regulations discussion paper.
41. If you agree to the proposal to withdraw NZS 5465:2001, officials will inform Standards NZ of your decision.
42. Similar briefings on the other matters to be included in the discussion paper will be submitted to your office over the coming weeks. These will cover:
- The application process, criteria and evidence requirements for approval as a certification authority
 - Competency requirements of vehicle inspectors
 - Format of the self-containment certificate and warrant
 - Exemptions (if any), and
 - Proposed fees and levy.

Annex One – Regulations Technical Advisory Group Membership

- a. New Zealand Motor Caravan Association (NZMCA) – an issuing authority and advocacy group
- b. Taituara (previously SOLGM) – representing local government
- c. Plumbers, Gasfitters and Drainlayers Board (PGDB)
- d. Master Plumbers Association – representing plumbers
- e. Self-Contained NZ – an issuing authority
- f. NZ Lifestyle Camping – an issuing authority and advocacy group
- g. NZ Rental Vehicle Association – representing rental operators
- h. NZ Recreational Vehicle Association – representing manufacturers
- i. Tourism Holdings Ltd – major fleet owner
- j. Action Manufacturing – manufacturer of motorhomes.

Annex Two – NZS 5465:2001

Attached separately.

Annex Two - General technical requirements for self-contained vehicles

General Requirements

Fittings

A fitting or item of equipment to be used in a camping vehicle's self-containment system must be constructed in a way and of appropriate materials which make it clearly fit for the purpose and use intended of it.

Pipes, tanks fittings

Pipes and fittings, such as taps and valves, which reticulate water in a camping vehicle must be made of non-toxic materials, suitable for contact with potable water.

Tanks for the storage of wastewater as well as associated pipes, pipe fittings and valves should be made of non-corrodible material.

Standards of Installation

Fittings and equipment in a camping vehicle's sanitary system shall be installed and secured according to good trade practice.

Tanks must be securely mounted and capped to avoid damage or leaks from volumes of water moving about when the camping vehicle is moving.

Water reticulation pipes shall be fitted so that they do not fail or leak at the system's design pressure.

Appliances, fixtures, fittings, tanks, and pipes used in a wastewater system must be made of non-toxic, non-corrodible, stable materials and shall be securely fixed, fastened or glued.

Water drainage pipes must be of sufficient diameter, without leaks and laid at grades which allows for the convenient egress of waste water from sinks, basins and showers into a grey water tank.

Interpretation

'Fit for purpose' means that an element of a vehicle's self-containment system has been designed for the purpose or function to which it is being put and has been installed or is used in a way which ensures that it remains functional at least for the certification period.

'Good trade practice' refers to a standard of work done in any installation of a self-containment system which is consistent with what would be expected from a qualified tradesperson.

Annex Three – performance requirements for specific items

1. Water systems

- 1.1 Water intended for human consumption, food preparation, utensil washing, or oral hygiene must be potable.
- 1.2 A potable water supply system must be—
 - a. protected from contamination; and
 - b. installed in a manner that avoids the likelihood of contamination within the system and the water main;
 - c. installed using components that will not contaminate the water; and
 - d. be able to breath.
- 1.2 There must be sufficient capacity for storing potable water to meet the needs of the expected number of occupants of the vehicle for a minimum period of 72 hours.
- 1.3 Such tanks shall be made of appropriate material and/or stored in such a way as to avoid contamination by sunlight.
- 1.4 Water supply systems must be installed in a manner that—
 - a. pipes water to sanitary fixtures and sanitary appliances at flow rates that are adequate for the correct functioning of those fixtures and appliances under normal conditions; and
 - b. avoids the likelihood of leakage; and
 - c. allows reasonable access to components likely to need maintenance.
- 1.5 Tanks must be adequately supported and secured to avoid creating any hazard while the motor vehicle is in motion.

2. Toilets

- 2.1 Toilets shall be manufactured by a reputable manufacturer and be fit for purpose for the expected number of occupants of the vehicle and the certified containment period.
- 2.2 Toilets shall be permanently fixed to the camping vehicle with the seat rigidly mounted in position and not required to be removed for the emptying of human waste.
- 2.3 Toilets shall drain or flush directly into a suitably designed and fitted cassette or black water tank.

3. Wastewater systems

- 3.1 A self-contained wastewater system must safely and reliably convey wastewater from sanitary fixtures and appliances to storage tanks or vessels and store this wastewater securely within the camping vehicle at least until it is emptied out.
- 3.2 Storage capacity shall be sufficient to store the wastewater produced by the expected number of occupants of the vehicle for a minimum period of 72 hours.

- 3.3 Wastewater must be stored separately as grey water and black water.
- 3.4 Black water must either be stored in removable cassettes which fit the vehicle's fixed toilet or in a fixed tank(s). If the latter, it must have a quick acting valve.
- 3.5 Grey water must be stored in fixed tanks or in portable tanks which are connected to the vehicle
- 3.6 Water drainage pipes should be of sufficient diameter, without leaks and laid at grades which allows for the convenient egress of wastewater from sinks, basins and showers into a grey water tank.

4. Ventilation systems

- 4.1 The motor vehicle must be adequately ventilated to ensure unpleasant or unhealthy odours are not able to escape directly to the inside of the camping vehicle.
- 4.2 Venting pipes should be of diameters and installed in a way, which ensures unpleasant odours or foul air can easily escape to the outside of the camping vehicle.
- 4.3 Wastewater storage tanks shall be ventilated to the outside of the vehicle to ensure that foul air and noxious gases do not accumulate in them or under the floor of the vehicle.
- 4.4 Vent outlets for wastewater storage tanks shall be fixed at a height which will safely avoid wastewater leaking out.
- 4.5 Pipes connecting sanitary appliances and fixtures to wastewater storage tanks must be fitted with water traps to limit the passage of foul air and noxious gases from these tanks into the interior of the camping vehicle.

5. Loading and off-loading mechanisms

- 5.1 Pipes and hoses for loading water into water storage tanks shall either be completely separate from the tank or be fitted with mechanisms which prevents potential contamination of community water supplies through backflows from the tanks.
- 5.2 Pipes and hoses for discharging wastewater from a camping vehicle shall be of sufficient length, diameter, strength and durability for wastewater to be discharged cleanly, conveniently and safely into dump stations or other appropriate discharge points.
- 5.3 Pipes and hoses for discharging wastewater shall be appropriately stored to minimise any health risks associated with the residual contaminants in left of them after use.

6. Occupant rubbish storage

- 6.1. Every self-contained camping vehicle shall have a sealable container of sufficient capacity to store the rubbish generated by the expected number of occupants of the vehicle for a minimum period of 72 hours.