



Tasmania

# Plumbing Regulation *Advisory Notes*

## Building Standards and Regulation

Department of Infrastructure, Energy and Resources  
30 Gordons Hill Road Rosny Park or PO Box 56 Rosny Park Tas. 7018

Issued: August 2000

Number: 01

These advisory notes are issued to assist in the interpretation of Tasmanian plumbing legislation

### AS/NZS 1547:2000

The recently published AS/NZS 1547:2000 *On-site domestic-wastewater management* was prepared by the Joint Standards Australia/Standards New Zealand Committee WS/13/1 On-site Domestic Wastewater Management to supersede AS 1547-1994, *Disposal systems for effluent from domestic premises*.

The committee, when revising the Standard, adopted a new approach that focuses on outcomes, (i.e. desired results, that are needed to achieve sustainable public health and environmental performance and the processes needed to achieve these,) rather than prescribing how to achieve such outcomes. This has resulted in a significantly different Standard.

The revised Standard has been broadened in scope to include performance statements necessary to define outcomes and to accommodate new technologies. It provides basic performance provisions for septic tanks (AS/NZS 1546.1-1998) and introduces performance requirements to cover all types of wastewater treatment units and land-application systems.

AS/NZS 1547:2000 sets out the administrative and managerial responsibilities and the education and training needed to ensure that on-site domestic wastewater systems are effective long-term options. The

Standard also gives guidance in the following areas:

- Operation and maintenance of wastewater systems;
- On-site evaluation methodology and soil assessment;
- Wastewater treatment and land-application system options; and
- Design, construction and installation.

**NOTE:** Australian Standards are not mandatory until called up by legislation or regulation. Now that this Standard has been published it will be considered by the Building and Plumbing Regulations Board for adoption in Tasmania to replace the current 1994 version.



For further information see page 2 for on site disposal update or contact Alan Humphreys on 03 6233 6638.

Please circulate to:

-----

-----

-----

-----

-----

-----

### Contents

- ◆ AS/NZS 1547:2000 On-site domestic wastewater management.
- ◆ On Site Disposal Update Tasmania
- ◆ Draft AS/NZS 3500.5: 2000 Domestic Plumbing Code
- ◆ Draft AS/NZS 1546.# Waterless Composting Toilets
- ◆ Draft AS/NZS 1546.2 Aerated Wastewater Treatment Systems
- ◆ Temporary Advisory Officer
- ◆ Thermostatic Mixing and Tempering Valves
- ◆ Q & A
- ◆ Shared Trenching
- ◆ Tasmanian Plumbing Code - Revision
- ◆ How will the new Building Bill affect me

To keep Local Government, Statutory Authorities, Engineers, Designers and the Plumbing Industry informed on developments, and to assist in the clarification and interpretation of parts of the Act, the Plumbing Regulations, and the Tasmanian Plumbing Code, this new series of advisory notes will be issued as and when necessary.

## On-Site Disposal Update

For those who are not aware the Department of Infrastructure Energy and Resources (DIER) is now the Agency responsible for the administration of legislation relevant to on-site wastewater disposal in this State. Building Standards and Regulation Branch carry out this function for DIER. You will find relevant legislative requirements in the *Plumbing Regulations 1994* and the *Tasmanian Plumbing Code (TPC)*.

The "Health Department" previously held the leading role in the setting of policies and practices as well as the accreditation of on-site wastewater disposal systems. The Building Standards and Regulation Branch of DIER has recently reviewed the Health Department's former policy regarding the disposal of untreated sullage water. The review was carried out as a result of concerns raised by Council Environmental Health Officers and others as to whether the formerly sanctioned practices met current day environmental and health

standards.

The review revealed that the previous policy of the Health Department is outdated. The Director of Public and Environmental Health, Dr Mark Jacobs, has advised that former policies of the Health Department were superseded by Australian Standard AS 1547 – 1994, *Disposal systems for effluent from domestic premises*.

Under the TPC performance requirements, all wastewater must be disposed of in a safe and healthy manner. Current best practice for on-site wastewater disposal is defined by AS 1547 and compliance would meet the performance requirements for sullage disposal. The Standard does not permit the disposal of untreated sullage in any form without primary treatment and unless secondary treatment is carried out spray irrigation or flooding is not permitted because the effluent quality would not meet the required standards.

## Draft AS/NZS 3500.5: 2000 Domestic installations

Standards Australia is currently reviewing all parts of AS/NZS 3500, *National plumbing and drainage code*, in order to include relevant parts into a separate part for domestic installations.

The objective of the Standard is to describe in a simplified way the installation requirements for hot and cold water services, sanitary plumbing and drainage and stormwater drainage. Alternate systems will not be included in this Standard and references to alternative methods will be referred to relevant Parts of AS/NZS 3500.

The Standard will incorporate extracts from the current National Plumbing and Drainage Code to suit domestic plumbing installations.

For ease of use Standards Australia has indicated that the final document will be sectionalized and each section will have its own clause numbers and colour scheme along the edge of the page. For example Water supply - blue, Hot water - red, Sanitary drainage - grey and Stormwater drainage - green. The Code is likely to be published in A5 size (both hard and soft back) and possibly in A4 size subject to demand.

Australian Standards are not mandatory until called up by legislation or regulation. This Part when published will have to be considered by the Building and Plumbing Regulations Board before it takes affect in Tasmania.

## Draft AS/NZS 1546 - Waterless Composting Toilets

This Standard is another of a series being prepared by the Joint Standards Australia/Standards New Zealand Committee WS/13 on On-site Domestic Wastewater Management. It will cover the requirements of waterless composting toilets, waterless dehydrating toilets and other related systems.

There are three objectives in the Standard. They are to provide a set of performance statements that give a base against which any waterless composting toilet, conventional or innovative may be assessed. Secondly to provide manufacturers of waterless composting toilets with a performance evaluation test that will confirm the conditions

under which they will function best. This will enable certification bodies to check that a product conforms to the Standard. The third objective is to ensure that the operation and maintenance of a waterless composting toilet, involving as it does the removal of composted or partially composted material, is done in a safe manner that meets basic health requirements.

Australian Standards are not mandatory until called up by legislation or regulation. This Part when published will have to be considered by the Building and Plumbing Regulations Board before it takes affect in Tasmania.

## Australian - New Zealand Standard AS/NZS 1546.2 Aerated Wastewater Treatment Systems

### Joint Australian New Zealand Standard AS/NZS 1546:2 Aerated Wastewater Treatment Systems

This Standard also forms part of a series currently being developed by the Joint Standards Australia/Standards New Zealand Committee WS/13/4 Aerated Wastewater treatment systems which is a sub-committee of WS/13 On-site Domestic Wastewater Management. The Department of Infrastructure, Energy and Resources, Building Standards and Regulation Branch is a contributing member of these committees. The Standard is proposed to cover the treatment of wastewater predominantly domestic in origin. Its application will not circumvent approvals, licenses or permits necessary from any relevant regulatory authority.

The Standard specifies performance requirements, performance criteria and a test regime for aerated wastewater treatment systems (AWTS) and associated fittings that are suitable for the reception and treatment of wastewater from domestic

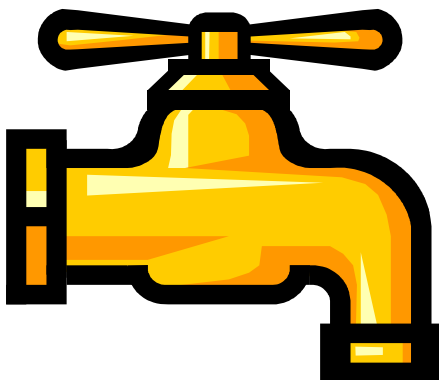
premises.

The Standard will provide guidance on technical means for compliance with its performance requirements and is intended to be used by regulators, manufacturers, certifying bodies, consultants, designers, and installers.

The Standard does not cover the plumbing or drainage systems conveying wastes to and effluent from the AWTS units unless such components form an integral part of the unit, nor does it cover land application systems. These can be found in other relevant Standards i.e. information on the land-application of effluent from AWTS systems, (including effluent irrigation systems), will be found in AS/NZS 1547:2000 On-site domestic-wastewater management, which is now available from Standards Australia.

Contact Standards Tasmania 10 Barrack Street Hobart

PH: 6224 2380.



### Temporary Advisory Officer

Some of you may know Alan Humphreys. He has been working in Local Government for the past 8 years as a Building and Plumbing Control Officer. Alan is currently filling in for Wayne Eastley whilst he is on secondment to the Department of Health and Human Services as a GST Project Officer. Alan's experience in Local Government and the private sector will be a great asset to this Department while he is with us.

*Graeme Hunt Manager, Building Standards and Regulation*

## Thermostatic Mixing and Tempering Valves

You may recall an article in the "Plumbing and Mechanical Connection" magazine, Autumn issue, regarding the unfortunate death of a nursing home patient. An inquest into the death of the nursing home patient was held and the Coroner found the patient died from acute bilateral bronchopneumonia as a result of receiving second degree burns caused by the failure of a thermostatic mixing valve whilst being showered by a nurse's aide.

Thermostatic mixing valves only operate correctly when all components have been serviced and tested for correct performance. If any component is faulty, including the thermostat, valves will not

operate correctly and could allow full hot water to pass through the valve.

Therefore, it must be understood that mixing valves are not "failsafe" and it is recommended that frequent servicing of valves is carried as recommended by the manufacturer. As a result of the article and the Coroners finding this Department advised all Councils and appropriate Health Authorities of potentially faulty RADA Thermoscopic Mixing Valves.



## Q & A

Since the introduction of the Plumbing Regulations 1994, and the Tasmanian Plumbing Code, this Office has received numerous calls for information and advice on the Regulations and the TPC. For the benefit of all users of the Regulations and the TPC, some of the advice given is included. The purpose is to promote consistency of interpretation between all users of the Legislation.

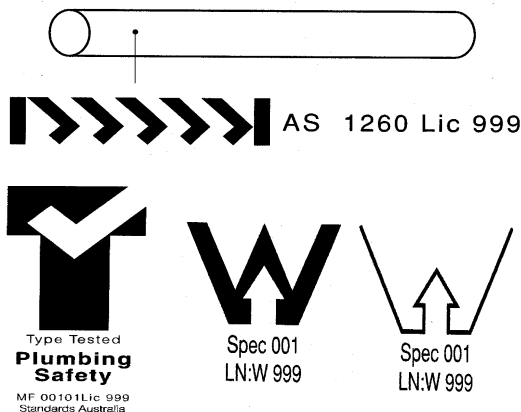
**Q.** Is the manufacturer of an Aerated Wastewater Treatment System (AWTS) the only person able to enter into a contract with the council, as previously required under the old Tasmanian Department of Health *Guidelines for the Installation and Operation of Aerobic Wastewater Treatment Systems*, to maintain the AWTS?

**A.** It never was a requirement to enter into a contract with the manufacturer. The purpose was for the owner to either enter into a contract with the Council or another competent third party. It was and still is up to the relevant council to determine whether the person is competent to carry out the required maintenance and testing of the system.

**Q.** Is this plumbing product authorised for use under the *Tasmanian Plumbing Code* (TPC)?

**A.** The responsible person can satisfy himself or herself as to whether the product is authorised by one of the following methods:

**'National Certification of Plumbing and Drainage Products Scheme'** Under this scheme you can simply check the product for a 'WaterMark', 'StandardsMark', or 'TypeTest', mark. These marks are mentioned in table C1.8.1 of specification C1.8.1 of the TPC as minimum levels of authorisation for plumbing and drainage products.



A data base of these products is currently being developed by Quality Assurance Services and can be accessed on the internet by going to the following web page:  
<http://www.qas.com.au>.

### State Authorisation in accordance with Specification C1.8.3 of the TPC.

The product must be authorised by the Minister or any of the Major Urban Water Authorities of Australia. A list of authorised products is available from the Department of Infrastructure, Energy and Resources, Building Standards and Regulation. They will also soon be available on the internet via this Departments web page [www.wsa.tas.gov.au/bsr/building.htm](http://www.wsa.tas.gov.au/bsr/building.htm).

**Septic tanks** can be authorised for use if they are certified by an engineer (wastewater) to comply with Australian Standard AS 1546-1990, *Small Septic Tanks* or AS/NZS 1546.1:1998 *On-site domestic wastewater treatment units Part 1: Septic Tanks*.

**Unique products** (prototype or made on site) can be authorised for use by the Council Engineer if he or she is satisfied that the product satisfies the relevant performance requirements of the TPC.

**Q.** Can you transfer a special connection permit?

**A.** The holder of a special connection permit can only transfer that permit to another person in accordance with the permit or with the written permission of the engineer. Ref: Regulation 18, *Plumbing Regulations 1994*.

**Q.** Can I install any on-site disposal system?

**A.** Not unless it has been given a certificate of accreditation under Part C2 of the *Tasmanian Plumbing Code*. Ref: Reg. 26A *Tasmanian Plumbing Regulations 1994*.

**Q.** Do I have to treat sullage water?

**A.** As indicated in the article on page 2, AS 1547-1994 *Disposal systems for effluent from domestic premises*, requires sullage water to be treated regardless of the disposal method. The treatment process is to remove settleable solids and floatable fats, oils and greases from sullage water.

This is generally carried out in combination with toilet waste in all-waste septic tanks or separately in sullage treatment tanks with a minimum capacity of 1500 Lt. Always consult the relevant Council's Environmental Health Officer.



## Shared Trenching

Since the introduction of the National Plumbing and Drainage Code AS 3500 the Building Standards and Regulation branch of DIER has received many enquiry's regarding the requirements for shared trenching of plumbing installations with other services such as communications, electrical and other plumbing services.



As you may be aware the *Tasmanian Plumbing Code (TPC) amended AS 3500* Parts 1; 2; 3; and 4 regarding the separation of plumbing services to electrical cables, gas pipes and other services.

This amendment has given plumbers and regulators clear guidance for required exclusion zones. However, *AS/NZS 3500 National plumbing and drainage* series does not give an exclusion zone except for below ground crossovers (where one service is placed over the top of another service). The general requirements for AS/NZS 3500 are:

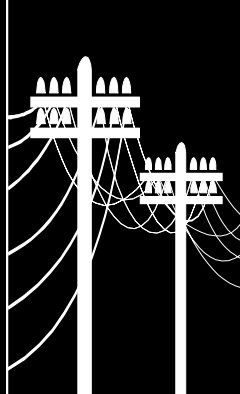
- Above and below ground services shall be installed so that no potential safety hazard is created when in close proximity to other services; and
- Access for maintenance and potential branch insertions is not impaired by other services.

However, These requirements must be read in conjunction with the relevant amendments in the *Tasmanian Plumbing code*.

Plumbers are continually confronted by other electrical and communications contractors placing their services in the plumbing services trenching with total disregard to the Plumbers efforts to satisfy the requirements of the TPC. Plumbers are therefore confronted by Council Plumbing Inspectors requiring them to comply with the TPC which puts them in the situation of having to either further excavate the trenching or remove the other service.

This can at times lead to an unpleasant situations on building sites where the builder should negotiate an amicable outcome for both contractors involved.

The following is an extract from AS/NZS 3000:2000 Wiring Rules.



Clause 3.11.4 Spacing from underground services.  
*All underground wiring systems shall be spaced not less than 100 mm from other underground services.*  
*Note: Regulatory authorities, such as water and gas suppliers and electricity distributors, may require their services to be spaced at a greater distance from underground wiring systems.*

Essentially this matter is, of course, one of co-ordination and is comparable to the situation in a bathroom where the location of electrical socket outlets or switches is dependent on the type of shower head and screening to be installed or its proximity to other fixed water containers as defined in AS/NZS 3000.

Consequently, the responsibility falls to the principle contractor or responsible builder in each case.

The purpose of this article is to seek comment from the Plumbing Industry on their thoughts as to whether the TPC amendments are warranted or whether the requirements of AS/NZS 3500 series are satisfactory requirements.

Please forward all comments onto Alan Humphreys Advisory Officer. (See last page for contact details.)



## Tasmanian Plumbing Code - Revision

The *Tasmanian Plumbing Code* was drafted as a performance based code. It sets down the objectives, functional requirements, performance requirements, verification methods and any relevant deemed-to-satisfy provisions which apply

to the construction of plumbing and drainage installations in Tasmania. It also sets out the requirements for the use of plumbing products or plumbing systems.

*(Continued on page 6)*

(Continued from page 5)

The *Tasmanian Plumbing Code* was prepared by the old Department of Environment and Land Management (Local Government Office). On Tuesday, 1 November, pursuant to section 20 of the *Local Government (Building and Miscellaneous Provisions) Act 1993*, and on the recommendation of the Building and Plumbing Regulations Board, the Code was approved by the Honorable John Cleary MHA, Minister for Local Government, to provide for the technical requirements in respect of plumbing work and plumbing products in the State of Tasmania.

The *Tasmanian Plumbing Code* references Australian Standards that are subject to periodic review to keep abreast of progress in industry and are kept up-to-date by the issue of amendments or new editions as necessary.

The *Tasmanian Plumbing Code* has been amended from time to time to take account of those changes.

The Code now needs to be reviewed as part of the

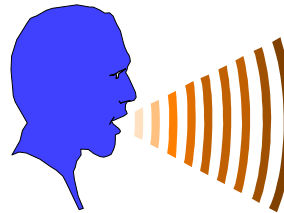
implementation of new legislation.

Therefore we are seeking comment regarding any inaccuracy or ambiguity that has been found in the *Tasmanian Plumbing Code* or improvements you may consider appropriate.

Any suggestions for improvements to the *Tasmanian Plumbing Code* are welcomed and should be forwarded in writing to the Manager Building Standards and Regulation.

Correspondence should be addressed to-

Manager  
 Building Standards and Regulation  
 Department of Infrastructure, Energy and Resources.  
 PO Box 56  
**ROSNY PARK TAS 7018**



## How will the new Building Bill affect me?

The Building Bill 2000 is due to be debated in the next Parliamentary Session. The Bill establishes a reformed system of building control including liability reform, private certification and building practitioner certification.

The Bill continues to contain all regulatory matters related to building or plumbing permits and enforcement procedures.

The Bill essentially treats plumbing control as it was under the *Local Government (Building and Miscellaneous Provisions) Act 1993*. This is because outcomes of the review of the *Plumbers and Gas-fitters Registration Act 1951* have not been finalised. The Bill does not require registered plumbers to become accredited building

practitioners, nor does it allow builders to carry out plumbing work. There has been some confusion about these aspects of the Bill.



## Building Standards and Regulation contacts

Graeme Hunt	Manager Technical Services	PH 03 6233 6575	email Graeme.Hunt@dier.tas.gov.au
Tony Rowell	Building Advisory Officer	PH 03 6233 2010	email Tony.Rowell@dier.tas.gov.au
Alan Humphreys	Advisory Officer (Temp)	PH 03 6233 6638	email Alan.Humphreys@dier.tas.gov.au
		FAX 03 6233 8338	

This document has been produced and published by the Building Standards and Regulation Branch, Department of Infrastructure, Energy and Resources. Although every care has been taken in the production of the work, neither the Crown in the right of the State of Tasmania nor any servant or agent of the Crown accepts responsibility for any loss or damage suffered at any time by any person as a result of any error or inaccuracy in the publication whether or not the error or inaccuracy has resulted from negligence or any other cause.