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Submission to:
Parliament of Australia
House of Representatives

House Standing Committee on
Environment and Heritage

'Inquiry into the regulation of plumbing product quality in Australia'

Prepared by *Plumbing Connection Magazine*
17 August 2007

Background

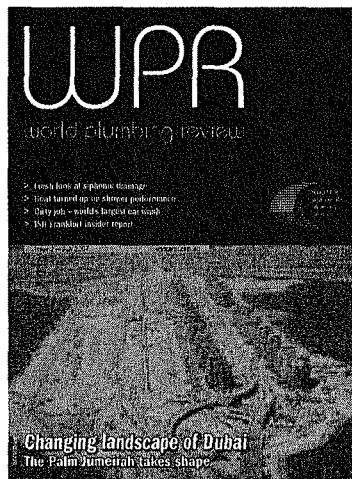
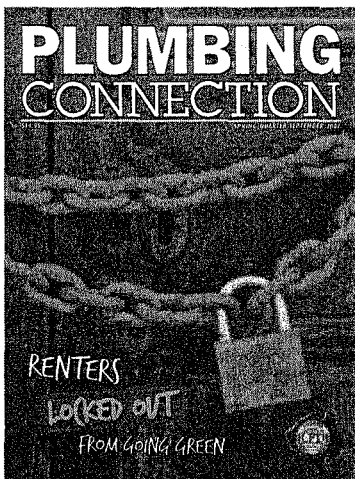
The following submission has been prepared by Connection Magazines Pty Ltd, publisher of the leading plumbing industry journal *Plumbing Connection*.

Plumbing Connection magazine has been the technical/business information resource of choice, for the Australian/New Zealand plumbing industry for over 20 years.

During that time, the magazine and its staff has gained a strong reputation for industry knowledge and involvement in the affairs of the sector.

It is with this resource of knowledge and commitment to the industry that we commissioned the development of this submission.

Connection Magazines is the global leader in technical information for the plumbing sector:



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Summary of Submission

Over the past five years, Australia has embraced a new attitude to water saving/recycling, due to the obvious reasons of drought, climate change and population growth.

As the public has become cognizant of the shortage of water, one evolution has been the growth of recycling solutions/product, in particular grey water systems.

Connection Magazines has therefore taken it upon itself to develop this submission on the 'out of control' grey water segment. It is an important issue that this inquiry needs to address the regulation of grey water systems and plumbing product quality in general in Australia.

The grey water market has grown rapidly over recent years and it is only when one steps back from it, that you can clearly view the issues in context to the rest of the 'regulated' plumbing industry.

This submission covers the following topics in relation to grey water:

- Lack of regulatory control
- The lack of national leadership / co-ordination
- Factors inhibiting the uptake of water recycling
- Risk management
- Health & Environmental risks
- Recommendations

Grey water plumbing product and grey water reuse

There are three broad categories to consider each with its unique issues.

- Large Centralised or Regional Systems
- Small Decentralised Systems
- Lot or Individual Household Systems.

The existing regulatory arrangement for grey water reuse nationally is dysfunctional, without any nationally consistent approach to both technical regulation or uniform risk managed assessment. It also lacks a national approach for grey water diversion and reuse product approvals.

These, along with other factors, inhibit the uptake of water recycling. Other factors include affordability, policy and regulation, knowledge/education, health risk and, importantly, a uniform understanding of the environmental risks.

Grey water reuse does expose consumers to a range of risks particularly in small decentralised systems and individual house lot installations; in these classifications the management and maintenance provisions are unsupervised.

These schemes clearly represent a transfer of risk to the home owners from the traditional expertise of a water authority. It is for that reason effective industry standards, including national product standards, are required.

It is recognised that ongoing operation and maintenance of these systems increases the risk and the lack of any uniform maintenance program or process which could easily form part of any product approval is a potential weakness within all existing State and Territory regulatory frameworks.

Major points for consideration

- The existing regulatory model lacks a consistent effective national process for grey water plumbing product approval.
- There are major regulatory overlaps within each state and territory jurisdiction including DHS, (Health Departments) EPA, The Building Act, Plumbing Regulation and local government which all need to be re-organised and coordinated.
- There is currently no mutual recognition process or agreement which facilitates the recognition of recycled water plumbing product and systems nationally.
- State and Territory Governments' policies and regulations are adding to the complexity of the existing system when a manufacturer requires a product approved nationally. This has the potential to increase the cost of approvals.
- There is enough evidence to state that the national regulatory mix inhibits the uptake of grey water re-use, this thus highlights a driving need to for a nationally consistent regulatory approach covering approvals, products, installation practices and ongoing risk based maintenance requirements.
- The low level of plumbing industry knowledge and skills on sustainable issues needs urgent review by the licensing regulators responsible.

Plumbing product approval issue

In order to promote innovation and grey water use uptake, a nationally based product approval process supported through a mutual recognition agreement between the States and Territories is required to deliver real benefits.

1. The existing product standards for all grey water reuse plumbing product captured under the Watermark scheme should include a measure of the product environmental efficiency performance. (Example a Star Rating)
2. To enhance consumer choice there is a need for a standardisation of performance (Star Ratings) nationally for plumbing products.
3. The rating should have measurable benchmarks for environmental efficiency, water efficiency and energy efficiency outcomes.
4. To ensure consumers are protected all plumbing product, including WELS specified product needs a transparent third party product accreditation scheme such as that imbedded in the existing Watermark Scheme.
5. There is a lack of technical product specifications designed to set efficiency performance outcomes for grey water reuse products in the existing Standards Australia product approvals at all levels.
6. National minimum performance standards will deliver certainty to the industry and allow standardisation of products encouraging higher levels of best practice and community awareness.

Regulation overlap

1. The lack of any uniform institutional regulatory framework for grey water is an impediment to the uptake of recycled water systems nationally.
2. The recent release of the "*Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*" should form the basis for any standard of recycled water.
3. The guidelines provide a consistent approach to the management of health and environmental risks, utilising a risk management framework through the application of a hazard analysis and critical control point methodology.
4. All regulatory applications must be consistent with this benchmark document if any workable uniform regulatory model is to be successful.

For example, Victoria has five Acts of Parliament which impact on the grey water installation and approval process for grey water product and systems.

The relevant Acts and subordinate regulation for grey water diversion and reuse in the State of Victoria mirrors a mess of regulatory intervention found nationally.

Victorian Regulatory Framework

1. Water Industry Act 1994.

2. Water Act 1989.

Both the above Acts require consent to be given for any Grey Water reuse.

3. Environment Protection Act 1970.

EPA Victoria has limited or no jurisdiction when dealing with onsite grey water reuse, unless that grey water reuse is placing the discharge to ground. In this instance it then applies an approval system for appliances which direct grey water discharge to in-ground disposal, irrigation or other activities which do not direct the grey water to sewer. (Today this approval process is not recognised by other state jurisdictions.)

4. Building Act 1993

This Act enables the establishment of a type of work as Plumbing Regulated Work, and defined as such by the Plumbing Regulations 1998.

The plumbing regulations should set the construction standards for plumbing work including all grey water diversion and reuse; it is short on any detail in this regard. (Note The Plumbing regulation is places the Water-mark product approval scheme into regulation.)

5. The Health Act

This Act is relevant where a nuisance that is dangerous to health or offensive in that it is noxious or annoying or injurious to personnel comfort.

Examples

- Grey water reuse is seen as a low risk, with Pathogen levels assessed as low, the problem is that the water use and risk assessment is not consistent from one jurisdiction to another.
- The minimum treatment for the reuse of any wash down water and basin waste may be from a course filter plus attached UV activation. This definition of process is also not consistent between state jurisdictions.
- The risk regarding onsite retention and storage is also a point of contention and without any national uniform approach.

Note: There are also issues where adjoining properties may be exposed to civil liberties associated with nuisance, trespass and negligence.

Recommendations

- Connection Magazines recommends that a national regulatory process for grey water plumbing product approval be included in the existing Water-Mark Scheme and be available on the Water-Mark public accessible product web site for reference.
- Connection Magazines also recommends that a mutual recognition process or agreement which facilitates the recognition of recycled water systems nationally must be implemented.
- Connection Magazines is also of the opinion that the issues associated with the lack of industry knowledge and skills needs to be measured then addressed nationally by enhancement of the existing agreed plumbing industry training competencies.

While this submission points out many of the obvious shortcomings in the market at the moment, the document doesn't profess to be fully conclusive.

We would recommend that a complete evaluation be conducted, using some of our references above, to enable a comprehensive report to be tabled and results acted upon.