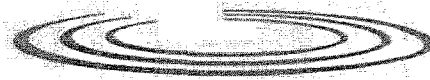


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WSAA
WATER SERVICES ASSOCIATION
OF AUSTRALIA

17 August 2007

Ms S Mannette
Inquiry Secretary
Standing Committee on Environment and Heritage
PO Box 6021
Parliament House
CANBERRA ACT 2600

Dear Ms Mannette

REGULATION OF PLUMBING PRODUCT QUALITY IN AUSTRALIA

The Water Services Association of Australia (WSAA) is the peak body of the Australian urban water industry. Our 30 members and 29 associate members provide water and sewerage services to the majority of Australia's urban communities and many of Australia's largest industrial and commercial enterprises.

WSAA was formed in 1995 to provide a forum for debate on issues of importance to the urban water industry and to be a focal point for communicating the industry's views. WSAA provides a national focus for the provision of information on the urban water industry for all interested parties. The Association aims to encourage industry cooperation to improve the urban water industry's productivity and performance and to ensure the regulatory environment adequately serves the community interest.

WSAA and its members have had a long involvement with the regulation of plumbing and drainage in Australia, including the authorisation of plumbing and drainage products. Several WSAA members still undertake these regulatory functions, including Hunter Water Corporation, Sydney Water Corporation and South Australia Water Corporation.

The Codes and Standards that define regulated product technical requirements and the means for assessing and certifying conformance are flawed, complicated and inconsistent. There is no accountability.

Notwithstanding that efforts have been made over the past 20 years to establish a uniform process for regulating plumbing products, the current regulation process is, prima facie, ineffective, not focused on regulators' interests and, for some products, a barrier to trade, an unreasonable impost on manufacturers and consumers, and should be reviewed to test these perceptions.

Quantifying environmental and public health benefits from controlling plumbing product quality has not been undertaken to the best of our knowledge.

An approval scheme administered by the Australian Government is recommended on the understanding that the relevant Department responsible for administering the Act and Regulations will undertake, inter alia, to set up an MoU with the Water Services Association of Australia recognising the significant overlap of products used in plumbing and sanitary drainage systems and water supply and sewerage networks and the need to maintain appropriate levels of product quality across these hydraulic network assets.

Such a scheme should be limited in scope (fewer regulated products), based on objective assessment of significant unfavourable consequence of product non-conformance. Only measurable, objectively determined product performance requirements and specifications that facilitate certification and marking should be applied. Product specifications and certification processes must, as far as practicable, recognise and/or harmonise with those of Australia's trading partners.

Where products include a measurable water consumption component, it is strongly recommended that minimum water efficiency standards be developed to underpin the Water Efficiency Labelling Standards (WELS) Scheme.

Finally, it is absolutely critical that any national regulatory framework not be limited to regulatory oversight to plumbing products quality to the exclusion of any regulatory oversight of the installation given its significant contribution to plumbing infrastructure performance risk.

The detailed submissions that address the terms of reference are provided in Appendices A, B and C. The relationship between plumbing product regulation (Watermark) and Water Efficiency Labelling Standards (WELS) scheme has also been addressed in Appendix D.

Thank you for the opportunity to provide input into your current inquiry before which we would be pleased to give oral evidence at any scheduled hearing. Please do not hesitate to contact David Cox in our Sydney office on 02 9290 3266 or david.cox@wsaa.asn.au if you require further information.

Yours sincerely



Ross Young
Executive Director

APPENDIX A

TERMS OF REFERENCE - SPECIFIC COMMENTS

The appropriateness and effectiveness of the current plumbing product quality regulatory arrangements

The appropriateness of the current plumbing product quality regulatory arrangements largely depends on the assumptions made on where the risk should be born for product non-performance and on how large are the appetites of the various parties to take on such risks. Given that we are addressing drinking water supply and collection of sewage, public health and environmental risks are uppermost in any decisions taken to determine the most appropriate level of product quality.

From the utility service provider point-of-view we would argue that the requirement for authorisation of plumbing products has delivered substantial benefits to our customers in that the performance of the current plumbing and drainage asset base is arguably commensurate with the water supply and sewerage network asset base, largely because:

- (a) the same product standards have been applied to both classes of assets;
- (b) the same quality assurance principles have been adopted; and
- (c) a similarly trained workforce has installed those products.

Applying a different set of product quality requirements would in our view be counter-productive to sustainable asset management outcomes. For example, there is little point in the utility service providers having long lasting watertight sewers if the sanitary drains connected to those sewers are not long lasting and allow infiltration and inflow causing sewage overflows that endanger public health and the environment. A similar situation exists in drinking water supply and plumbing systems which must be effectively managed to preserve public health and minimise wastage of drinking water.

Nevertheless, notwithstanding that efforts have been made over the past 20 years to establish a uniform process for regulating plumbing products, the current "system" is considered to be fragmented, excessively complex, not understood by regulators and the regulated.

The scope of plumbing product regulation should address environmental, public health, installer and consumer OH&S and, perhaps, avoidance of consumer exploitation for products for which cost to repair is relatively high i.e. requires significant costs additional to product replacement.

The Codes and Standards that define regulated product technical requirements and the means for assessing and certifying conformance are flawed, complicated and inconsistent. There is no accountability.

The regulation process is, prima facie, ineffective, not focused on regulators' interests and, for some products, an unreasonable impost on manufacturers and consumers.

It is appropriate that a review be undertaken to test these perceptions.

Scale of environmental (and public health) benefits from controlling plumbing product quality

Quantifying environmental and public health benefits from controlling plumbing product quality has not been undertaken to the best of our knowledge.

WSAA is aware that there have been systemic failures of plumbing products in Australia and overseas that have led to poor environmental and public health outcomes. Probably the best example of this is the use of lead service pipe. While the use of lead service pipe was restricted to the early 1900's in Australia, in some overseas jurisdictions its use continued well into the 20th century leaving a legacy of elevated blood lead levels in children and expensive replacement programs. Australia was also one of the first jurisdictions to restrict the use of lead in plumbing and drainage products such as leaded copper alloy tapware and PVC water pipes. In recent times this restriction has been applied to sanitary drainage and sewer pipes given that it is now well understood that lead should be eliminated as far as practicable from sewage given that it is now considered an important resource for recycling schemes that are now commonplace across Australia.

Trade implications of controlling plumbing product quality

The National Certification Plumbing and Drainage Products (NCPDP) Scheme was adopted by water authorities in 1988. At that time most water authorities were also plumbing regulators. Previous to NCPDP Scheme all plumbing and drainage products were inspected and stamped at the place of manufacture or at the place of importation into Australia. Organisations such as the Melbourne Metropolitan Board of Works and the Metropolitan Water Sewerage and Drainage Board in Sydney employed hundreds of inspectors to undertake this task. As was common at that time the majority of the costs of such inspections was born by the water authorities and the community, not the product manufacturers and suppliers.

The introduction of third-party quality assurance of products at the place of manufacture was largely supported by Australian and overseas manufacturers since it introduced more transparent and cost effective assurance of quality. Implementation of the NCPDP Scheme, which was largely completed by 1993, inevitably resulted in some suppliers of products with limited sales to withdraw from the market since the cost of quality assurance and on-going surveillance could not be spread across a large enough product base.

The principles of the NCPDP Scheme still apply today in the WaterMark Certification Scheme.

Again, notwithstanding that efforts have been made over the past 20 years to establish a uniform process for regulating plumbing products, the current "system" is, prima facie, a barrier to trade and should be reviewed to test this perception.

Potential improvements to the plumbing quality regulatory system

A nationally administered scheme is recommended. Such a scheme should be limited in scope (fewer regulated products), based on objective assessment of significant unfavourable consequence of product non-conformance. Only measurable, objectively determined product performance requirements and specifications that facilitate certification and marking should be applied. Product specifications and certification processes must, as far as practicable, recognise and/or harmonise with those of Australia's trading partners.

If the current arrangements were to continue under State and Territory based regulators, WSAA suggests that the National Plumbing Regulators' Forum (NPRF) or its successor body should:

- (a) own the WaterMark trademark so that it derives the full royalty income from the use of the mark (it is currently owned by Standards Australia);
- (b) take on responsibility for the certification of products through commercial agreements with JAS-ANZ and equivalent overseas accredited product certification bodies so that the competency of such certification bodies can be matched to the services they undertake on behalf of the regulators; and

The NPRF should be viewed as a transitional arrangement following the expiry of the memorandum of understanding between ARMCANZ and Standards Australia i.e. NPRF was established as an advisory body, not a regulator. The Introduction of the Plumbing Code of Australia states that the NPRF is a co-operative arrangement, having no executive powers. Its "mission" and "principal objective" have not been realised (Refer to page 5, Plumbing Code of Australia).

The Plumbing Code of Australia arbitrary processes for certifying products are seriously flawed, not compatible with internationally recognised product certification systems and would inevitably result in inconsistent outcomes e.g. "deemed to comply" and "expert judgment".

In summary, the appropriateness and effectiveness of current 3rd party product certification is questionable, arising from:

- (a) It appears that too many products are "regulated" against too many requirements.
- (b) Auditors may not have relevant specialist expertise to understand or apply the technical specifications.
- (c) Certification bodies operate in a highly competitive industry and are under pressure to complete audits within limited time constraints.
- (d) The auditee's, i.e. paying customer, interests take precedence over the regulator interests.
- (e) The current system as outlined in MP52 and AS 5200.000 has significant barriers to overseas certification bodies participation

If third party product certification is required for any product i.e. if a manufacturer's declaration not accepted, regulation should "simply" require the product to have product certification to the relevant regulator specified technical specification and to be marked as specified by the regulator. Product certification should be undertaken by a certification body that has been accredited by JAS-ANZ or by an equivalent overseas accreditation body. The certification process should be in accordance with the relevant ISO requirement and accreditation body requirement (ISO Guide 65).

The appropriate level of government to administer plumbing product quality regulation

It is recommended that plumbing product regulation be an Australian Government responsibility. This is based on an understanding that:

- (a) the current system evolved from a temporary arrangement following the cessation of the agreement between COAG and Standards Australia;
- (b) free trade agreements such as NAFTA require national approaches to standardisation, certification, accreditation and mutual recognition;
- (c) mutual recognition legislation (1992) appears to be not understood or applied by regional regulators; and
- (d) in spite of best efforts of the NPRF and others, without authority and clear policy direction, the current system is considered to be unworkable and incapable of resurrection.

WSAA makes these recommendations on the understanding that the relevant Department responsible for administering the Act and Regulations will consult and cooperate with industry, regulators, water utilities and consumers, and, in particular:

- (i) participate actively in the development of Standards and Specifications for plumbing and drainage products;
- (ii) encourage the adoption of innovative solutions to address the issues confronting the urban water industry and the Australian community by enabling performance-based regulation;
- (iii) undertake to set up an MoU with the Water Services Association of Australia recognising the significant overlap of products used in plumbing and sanitary drainage systems and water supply and sewerage networks and the need to maintain appropriate levels of product quality across these hydraulic networks;
- (iv) liaise with the Australian Building Codes Board recognising that sustainable outcomes in the built environment cannot be addressed in isolation;
- (v) undertake a similar inquiry into the regulation of plumbing and drainage in Australia recognising that inconsistent and fragmented approach that currently exists across State and Territory jurisdictions; and
- (vi) investigate the setting up of a "one-stop shop" for manufacturers of products requiring plumbing product authorisation and registration and labelling under the Water Efficiency Labelling and Standards Act 2005.

APPENDIX B

TERMS OF REFERENCE - GENERAL COMMENTS

WSAA notes that the terms of reference of the inquiry are addressing only part of the issue and suggests that it is impracticable to look at “plumbing product quality” in isolation from “plumbing work quality”, which includes design, installation, operation and maintenance of plumbing (and sanitary drainage) systems and the licensing of competent persons to undertake such activities.

The terms of reference are also silent in defining the scope of “plumbing product quality” in the context of current regulations and requirements.

APPENDIX C

TERMS OF REFERENCE - ASSUMPTIONS

A number of assumptions have been made in preparing this submission. These assumptions are outlined below.

Scope of products

This submission assumes the widest possible scope of products, including plumbing and drainage products and materials, fixtures, appliances and equipment connected to water supply and sewerage systems and other systems used in urban water management such as rainwater collection and treatment systems, greywater collection and treatment systems, small scale privately owned and operated water treatment, water recycling and desalination plants and trade waste equipment connection componentry and the like.

Quality

This submission assumes that "Quality" is deemed to mean conformance to the requirements specified by the regulator, generally being conformance to a nominated technical specification for which non-conformance might result in significant adverse consequences to the environment, public health, water supply and wastewater collection, treatment and conveyance systems, OH&S of installers and consumers, economic cost, occupant amenity etc.

Product regulation

This submission assumes that the process of product regulation requires the regulator to undertake the following:

- (a) Determining what products, if not of suitable "quality", have an unacceptable probability of not meeting the performance expectations and result in unacceptable consequences.
- (b) Declaring/ specifying essential performance requirements and attributes of regulated products (quality).
- (c) Declaring the means by which "quality" shall be certified e.g. by manufacturer's declaration or by third party assessment and declaration, which should in turn be commensurate with the risk of non-conformance.

NOTE: This should be considered in the context of the effectiveness of penalties and the ability to apply them, e.g. in the case of overseas manufacturers, versus the incentive for the manufacturer/supplier to give a false declaration.

- (d) Declaring the means by which conforming product shall be marked.

NOTE: A conforming regulated product may also have market-attractive attributes.

Mutual dependence of regulations for "products" and "plumbing work"

This submission assumes that plumbing product regulation will be recognised in regulations covering the work of plumbing, albeit regulations will be separately developed and administered by persons having a working knowledge of the other. "Quality" products must be installed, commissioned, tested and maintained correctly to diminish the likelihood of unacceptable consequences.

Mutual dependence of the performance of “products” and “plumbing work” and the “utility service providers’ water supply and sewerage networks”

This submission assumes that plumbing and drainage systems and water supply and sewerage networks are seamless hydraulic systems that do not respect arbitrary jurisdictional boundaries such as currently exist between the privately owned, operated and managed plumbing and drainage systems and the publicly owned, operated and managed municipal water supply and sewerage systems.

Regional variations to national codes / standards relevant to plumbing work

This submission does not address complications arising from State and local government regulations that arbitrarily modify National Codes and Standards.

Co-existence of regulated and unregulated products in the market place

This submission assumes that plumbing products that do not conform to regulated requirements may continue to be sold i.e. these may be used in non-regulated applications. Clear marking of regulated products is necessary for differentiation.

National scheme for product regulation vs Regional building regulations

This submission assumes that a national scheme for regulating plumbing products may co-exist with regional building regulation and voluntary schemes that addresses sustainability within the built environment e.g. BASIX in NSW. It is expected that such schemes will require plumbing products to conform to any national product regulation scheme and, where appropriate, allow consumer choice on options to meet integrated requirements.

NOTE: It should be noted that in some jurisdictions certain products are not permitted to be connected to the water service provider's scheme e.g. food waste disposal units and non-demand operated urinal flushing devices are often prohibited. These specific limitations on use need to be acknowledged and provided for unless proven to be of no risk/benefit.

Appropriate

Appropriate is assumed to mean:

- (a) Regulation is limited to products that, in the absence of regulator intervention, are reasonably assumed to result in “unacceptable” consequences arising from their installation and use.
- (b) The criteria against which products are regulated directly relate to controlling potential unacceptable consequences.
- (c) The means / processes of product regulation provide reliable assurance that products will conform to regulators’ expectations.

NOTE: The term “risk” is frequently used qualitatively / emotionally. From a regulatory perspective action should be guided by a quantitative assessment of the undesirable outcome, notionally measured in \$, determined from the Probability of Outcome x Consequence if it occurs. Take action where “risk” >\$i, where \$i specified by regulator.

Environmental benefits

Environmental benefits are deemed to accrue from adopting methods of design and installation that mitigate risks such as:

- (a) Avoiding pollution arising from failure of sanitary plumbing and drainage systems.
- (b) Water savings arising from prudent design, use of watertight systems and water efficient fixtures, appliances and equipment.

NOTE: A "system" is considered to be a "network of products" installed in accordance with regulations applicable to "plumbing work".

Public health benefits

Public health benefits are deemed to accrue from adopting methods of design and installation that mitigate risks such as:

- (a) Separation of the drinking water supply systems from non-drinking water supply systems and the sanitary plumbing and drainage systems.
- (b) Use of products and materials that do not adversely affect the quality of drinking water.

APPENDIX D

RELATIONSHIP BETWEEN PLUMBING PRODUCT REGULATION (WATERMARK) AND WATER EFFICIENCY LABELLING STANDARDS (WELS) SCHEME

All products that require labelling under the WELS Scheme are also required to be authorised under State and Territory plumbing or building regulation and bear the WaterMark product certification mark to be legally installed in prescribed works.

The National Certification Plumbing and Drainage Products (NCPDP) Scheme was adopted by water authorities in 1988 to improve product authorisation efficiency and to remove duplication. At that time the water authorities were also the plumbing regulators and many such as the Melbourne Metropolitan Board of Works (MMBW) and the Metropolitan Water Sewerage and Drainage Board (MWSDB) in Sydney required individual authorisation and marking of products. Mutual recognition was not always practised.

The introduction of third-party quality assurance of products at the place of manufacture was largely supported by Australian and overseas manufacturers since it introduced more transparent and cost effective assurance of quality and performance requirements. The principles of the NCPDP Scheme still apply today in the WaterMark Certification Scheme.

Manufacturers and/or suppliers of products are now required to fulfill two regulatory water-related schemes that could easily be rolled up into a "one-stop shop", thereby improving business efficiency and removing confusion from the marketplace.

There is scope for adopting the principles of the WaterMark Certification Scheme into the WELS Scheme, which would enable approved certifiers to undertake technical and quality assessment of products and to grant licences to apply a WELS label and a WaterMark, thus restoring the "one-stop shop" principle. Obviously the WELS regulator would need to undertake accreditation of the approved certifiers to ensure that the requirements of the Act were fulfilled and that on-going product surveillance was undertaken to ensure the labels continued to reflect the stated water consumption.

The WELS Scheme is currently deficient in that it does not include minimum water consumption performance standards to underpin the Scheme and eliminate water inefficient products from the marketplace. It is often not recognised that much of reduced water consumption in Australia's towns and cities can be attributed to the introduction of dual flush toilet suites throughout the last 20 years. Through the application product Standards and the WaterMark scheme, flushing volumes have progressively been reduced from 11 L / 5½ L to 9 L / 4½ L and now 6 L / 3 L by setting realistic targets and giving manufacturers the time for product research and development. Most recently we now have products with 4.5 L / 3 L flushing volumes. Under the WELS Scheme approach, it is doubtful that such progress would have been made given that minimum standards are not set and progressively raised to achieve the most cost effective and sustainable outcome.