EXPLANATORY STATEMENT

Select Legislative Instrument 2008 No. 17

Issued by the Authority of the Minister for Competition Policy and Consumer Affairs

Trade Practices Act 1974

Trade Practices (Consumer Product Safety Standard) (Hot Water Bottles) Regulations 2008

Subsection 172(1) of the *Trade Practices Act 1974* (the Act) provides, in part, that the Governor-General may make regulations not inconsistent with the Act, prescribing all matters that are required or permitted by the Act to be prescribed or are necessary or convenient to be prescribed for carrying out or giving effect to the Act.

Paragraph 65C(1)(a) of the Act provides that a corporation shall not, in trade or commerce, supply goods that are intended to be used, or are of a kind likely to be used, by a consumer, if there is a consumer product safety standard for those goods and they do not comply with that standard.

Subsection 65C(2) of the Act provides that a regulation may, in respect of goods of a particular kind, prescribe a consumer product safety standard consisting of such requirements as are reasonably necessary to prevent or reduce risk of injury to any person. These requirements may relate to, among other things, performance, design, or construction of the goods; testing of the goods; and the markings, warnings or instructions to accompany them.

The purpose of the Regulations is to set out a safety standard for hot water bottles to reduce the risk of death or injury (particularly to the elderly) caused by those bottles bursting or leaking.

The Regulations adopt and make mandatory a number of significant requirements drawn from the British Standard BS 1970:2006. The British Standard seeks to establish minimum specifications for safe hot water bottles and deals with their physical properties (such as the thickness of the material from which they are constructed), their performance when subjected to tests for strength and leakage, and labelling to provide consumers relevant information concerning their usage.

Details of the Regulations are at Attachment A.

The Regulations are a legislative instrument for the purposes of the *Legislative Instruments Act 2003*. For the purposes of section 17 of that Act, consultation undertaken in relation to the Regulations is detailed in the Regulation Impact Statement which is at Attachment B.

The Regulations commence on the day after they are registered on the Federal Register of Legislative Instruments, and apply to all hot water bottles manufactured in or imported into Australia on or after 1 June 2008.

Attachment A

Details of the *Trade Practices (Consumer Product Safety Standard) (Hot Water Bottles) Regulations 2008*

Part 1 Preliminary

Regulation 1 – Name of Regulations

This regulation provides that the name of the Regulations is the *Trade Practices (Consumer Product Safety Standard) (Hot Water Bottles) Regulations 2008.*

Regulation 2 – Commencement

This regulation provides that the Regulations commence on the day after they are registered.

Regulation 3 – Purpose

This regulation provides that the Regulations set out the safety standard for hot water bottles.

Regulation 4 – Application

This regulation provides that the Regulations apply to hot water bottles manufactured in or imported into Australia on or after 1 June 2008.

Regulation 5 – Interpretation.

This regulation defines the various parts of a hot water bottle and explains other terminology used in the Regulations.

Part 2 Physical Properties

Regulation 6 – Rubber hot water bottles – capacity and thickness.

This regulation specifies the minimum thickness of the rubber material used to make the body of the bottle. To ensure the safety of larger hot water bottles (those with a capacity of two litres or more), the construction must use thicker rubber material than that required for smaller hot water bottles. The requirements are based on those adopted by British Standard BS1970:2006 – *Hot water bottles manufactured from rubber and PVC.*

Regulation 7 – PVC hot water bottles – capacity and thickness.

This regulation specifies the minimum thickness of the PVC material used to make the body of the bottle. To ensure the safety of larger hot water bottles, the construction must use thicker PVC material than that required for smaller hot water bottles. The requirements are based on those adopted by British Standard BS1970:2006 – *Hot water bottles manufactured from rubber and PVC.*

Regulation 8 – Filling characteristics.

This regulation specifies the requirements for the filling apertures for hot water bottles, to reduce the likelihood of scalding water overflowing when the hot water bottle is being filled.

Part 3 Stoppers

Regulation 9 – General.

This regulation provides that stoppers must not show any signs of leakage or suffer damage when the tests in Part 1.2 of Schedule 1 are carried out.

Regulation 10 – Test for separation of screw stopper.

This regulation provides that screw stoppers must not leak or show signs of failure when the tests in Part 1.3 of Schedule 1 are carried out.

Part 4 Performance

Regulation 11 – Leakage.

This regulation provides that hot water bottles must not leak when tested by inflation with air to a specified pressure and immersion in water for at least 5 seconds.

Regulation 12 – Strength of seams.

Schedule 2 provides for the manner of testing the strength of the seams of hot water bottles. This regulation provides that when this test is used, the seams must be capable of withstanding a certain specified force.

Regulation 13 – Pressure test.

Schedule 3 describes the procedure for pressure testing hot water bottles provides details of the testing equipment which must be used. This regulation provides that when this test is used, the hot water bottle must not leak or display any other visual defect.

Part 5 Informative labelling

Regulation 14 – General.

This regulation requires that hot water bottles must be permanently marked with a warning message, and be accompanied by certain further information stipulated in Schedule 4.

Schedule 1 – Tests for stoppers

Part 1.1 Filling a hot water bottle prior to testing

This part provides two procedures to be used when filling hot water bottles for the purposes of the tests to be carried out in accordance with the other requirements of the schedules. The procedure to be followed will depend on whether the hot water bottle is designed to be partly or completely filled. Whether a hot water bottle is designed to be partly or completely filled will be determined by the manufacturer/importer of the product and, under regulation 14, must be indicated in labelling which must accompany the hot water bottle when it is sold to a consumer.

Part 1.2 Tests for stoppers

This part provides two tests for the purposes of regulation 9, designed to ensure that the integrity of hot water bottle stoppers. When tested in accordance with these testing procedures, there must be no visible sign of leakage or of damage to the stopper.

Part 1.3 Test for separation of screw stoppers

This part provides a test designed to ensure the integrity of the seal between a screw stopper and a hot water bottle for the purposes of regulation 10, and provides details of the equipment to be used for the test. When tested in accordance with this testing procedure, there must be no sign of visible leakage or of any separation of the stopper.

Schedule 2 – Seam test

This schedule provides a test procedure for the purpose of ensuring compliance with regulation 12, which provides that the seams of a hot water bottle must be of not less than a specified strength.

Schedule 3 – Determination of pressure resistance

This part provides a test procedure designed to determine the ability of a hot water bottle to withstand the application of pressure to it, for the purposes of regulation 13, and provides details of the equipment to be used for the test.

Schedule 4 – Informative labels

Part 4.1 General

These clauses provide details of the labels that are required by regulation 14 to accompany hot water bottles when they are supplied.

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Attachment B

REGULATION IMPACT STATEMENT

POSSIBLE REGULATION OF HOT WATER BOTTLES UNDER THE *TRADE PRACTICES ACT 1974*

July 2007

Product Safety Policy Section

Australian Competition & Consumer Commission

Office of Best Practice Regulation Approval: 9090

Regulation Impact Statement: Hot Water Bottles

PREAMBLE

Hot water bottles are generally manufactured from either rubber or polyvinyl chloride (PVC). In Australia, it appears that most hot water bottles currently supplied are made from rubber. Rubber hot water bottles tend to be available at lower cost than PVC hot water bottles. They retail for between approximately $2 and $10 each, while PVC hot water bottles are generally in the $10 to $20 price range.

Rubber hot water bottles are widely sold throughout Australia by the major retail chains, pharmacies, discount variety stores and other retail outlets. They appear to be predominantly imported from/made in China and are a low cost item. PVC hot water bottles are also sold in more limited quantities from similar outlets and through pharmacies. It is estimated that around 500,000 hot water bottles are sold annually in Australia.

Construction of both types of hot water bottles is similar but they can vary significantly in size from small 'hand-sized' models (similar to first aid heat packs) to larger 'A4 paper-sized' models. Construction usually consists of two main parts: the body of the bottle with a collar or neck which contains the aperture for filling the bottle with water; and a stopper or closure which seals the bottle at the filling aperture. Some hot water bottles are now also sold with novelty/decorative covers to make them more 'attractive' or 'appealing' (for example, to children or older persons).

Both rubber and PVC products may vary in quality and performance and are susceptible to deterioration over time. Rubber is particularly affected by light and moisture, while PVC can lose its flexibility over time, become brittle and prone to cracking.

As the majority of hot water bottles currently on the Australian market are rubber, (estimated at around 90% of market share), the majority of related consumer complaints concern rubber hot water bottles. However, available injury statistics on burns from hot water bottles do not identify whether these bottles are rubber or PVC. Hot water bottles of either type which do not meet at least minimum safety specifications can be equally hazardous, and hazards arising from inappropriate use of hot water bottles are independent of the manufacturing material. The British Standard on hot water bottles creates safety specifications for both rubber and PVC bottles.

INTRODUCTION

This Australian Competition and Consumer Commission (ACCC) Regulation Impact Statement (RIS) examines the case for government regulation of the supply of hot water bottles. The decision maker is the Parliamentary Secretary to the Treasurer.

Over the past few years, consumers have periodically raised concerns about the safety of hot water bottles on the Australian market. There have been a

number of reports to consumer affairs/fair trading agencies in Australia of hot water bottles leaking or bursting whilst being filled and in use causing injury, in some cases serious, including death.

PROBLEM

What is the problem being addressed?

The problem to be addressed is the protection of consumers, particularly those most vulnerable such as young children and the elderly, against the risk of injury and death associated with the supply of unsafe hot water bottles.

Hot water bottles have been widely used in the community for many years. They are easy to use/used to help provide warmth, comfort and soothing. The continuing high volume of sales of this product indicates that the community perceives benefits/utility from hot water bottles and that there is no other product which is a real direct substitute. The nature of the product, being particularly attractive for use by the elderly and infants, has acute implications for the safety of these groups.

The fact that infants and the elderly are particularly vulnerable to hazards because they may not be able to react quickly enough if a hot water bottle leaks or bursts while in use and no national mandatory product safety standard for hot water bottles exists, is seen as a failure in consumer product safety regulation.

Hot water bottles are failing for a variety of reasons, resulting in burn injuries. Many hot water bottles currently on the market are mass produced at low cost. Many are not manufactured to any particular quality or safety standard. This is unacceptable for an item intended to be filled with hot water and placed in close contact with the body. Available information from injury data and consumer complaints indicates that these products can fail in several ways. The stopper may be inadequate, and either separate or allow hot water to leak in sufficient quantities to cause burns. The overall robustness of the bottle may be totally inappropriate for a hot water container. The wall thickness and seam strength are critical in this respect. Some bottles have suffered catastrophic failure of the seams, resulting in the total hot water content being vary rapidly disgorged, causing serious burn injuries. Wall thickness and strength of construction are also important factors in ensuring that the hot water bottle can withstand being subjected to reasonable pressure forces, as could be expected in normal use. If the fill opening is too small, burns can result from spillage or splashback.

It is also fair to say that, in addition to some hot water bottles not being fit for the intended purpose, consumer behaviour has also contributed to some burn injuries. Using boiling water straight from the kettle contributes to the seriousness of burn injuries, while holding the bottle close to the body when filling is precarious behaviour. Also placing an unreasonable amount of pressure on a hot water bottle, such as lying on it with most of the body weight

applied, can cause the bottle to burst. Nevertheless, if hot water bottles are made to a reasonable minimum design and performance standard, including appropriate warnings not to use boiling water, injuries from inappropriate consumer behaviour can be reduced. As discussed later in this document, any new mandatory standard would be supplemented by targeted consumer education materials.

Deaths

In late 2004, an elderly lady died in South Australia from serious complications arising from a severe scalding attributed to a burst hot water bottle resulting from a split in the bottom hem/seam of the bottle. This case was brought before the South Australian Coroner and his report on the matter was released on 30 January 2007. The SA State Coroner concluded that the death of the 82 year old nursing home resident in November 2004 was "clearly preventable". The Coroner recommended that the State Government consider a public education campaign, particularly directed towards the elderly, warning of the dangers of the improper use of hot water bottles, including, but not necessarily limited to, the practice of filling hot water bottles directly from sources of boiling water, and failure to expel all air and steam from the hot water bottle before fixing the stopper. The evidence indicated that the hot water bottle burst when the lady applied some limited pressure to it with her lower back when lying in a reclined position propped up by cushions.

Injury Data

While there is currently no nationally coordinated collection of injury data that would allow a direct measure of total injuries in Australia associated with hot water bottles, data available to organisations such as Monash University Accident Research Centre (MUARC) give an indication of the injuries being sustained. MUARC analyses data from the Victorian Injury Surveillance System (VISS), which is collected by major Victorian hospital emergency departments and provides a significant data sample.

MUARC reports that VISS data for the four year time period July 2002 to June 2006 shows a total of 146 injuries associated with hot water bottles. Injury numbers have increased annually over that period with the 2005-06 injury level of 45 injuries almost double the 2002-03 level. Injuries were spread across all age groups with most injuries (about 40%) involving the particularly vulnerable groups of children in the 0-14 years age group and older persons in the 65 years plus category. As expected, about 97% of the total injuries involved scalds or a contact burn. The data does not identify details of the particular products involved.

Cost of Injuries

It is an extremely difficult task to estimate the cost of hospital or other medical treatment specifically related to injury/death from an 'unsafe' hot water bottle or the inappropriate use of a hot water bottle. Treatment costs form only part

of the total cost of injury to the community with other costs, including items such as an associated loss of family income, lost productivity, etc, contributing significantly to the total cost burden on society.

Similarly, it is very difficult to place a dollar amount on the value of an individual's life lost in a hot water bottle accident. Many varying estimates of the $ value of a life have been made by overseas and Australian research experts. Although the range of estimates contained in the literature is quite wide, it suffices to say that all experts attribute a fairly significant $ amount to the value of a human life. In the USA, for example, a A$20 million equivalent was considered a reasonable estimate for the value of one human life lost [based on the US National Bureau of Economic Research (NBER) Working Paper Series, No. 9396, 'Changes in the Value of Life, 1940-1980', December 2002]. In Australia, an article entitled "*The value of life and health for public policy*" (Abelson, P) estimates the value of a life lost in the range A$3.3 to 6.6 million.

Consumer Reports

The ACCC is aware of, and has received, a number of anecdotal reports/complaints from throughout Australia concerning incidents where hot water bottles have burst, split, perished or leaked, in some cases causing serious burns. There have also been several recalls of rubber hot water bottles in Australia over recent years for various safety defects such as possible bursting or splitting.

The New Zealand Ministry of Consumer Affairs has also received a number of complaints about rubber hot water bottles, including a cluster of 10 complaints between May and July 2004. As a result, a media alert was issued and a further 150 complaints were received in New Zealand.

Product Surveys

The various Australian State/Territory and New Zealand product safety regulatory authorities have examined and conducted testing of hot water bottles sold in their jurisdiction against the British Standard for hot water bottles BS 1970:2001, which is generally used internationally as the benchmark safety standard for this product. No International Standards Organisation (ISO) or Standards Australia Australian Standard currently exists and many hot water bottles on the Australian market are marked as claiming compliance with the British Standard. (The British Standards Institution has only recently published an update to BS 1970:2001. The newly updated Standard BS 1970:2006 came into effect on 31 October 2006.)

These surveys and tests found that the main problem appears to be that the walls of the bottle can be less (in some cases, significantly so) than the minimum required thickness (1.4mm under BS 1970:2001 for rubber bottles up to 2 litres at various points on the bottle). Some hot water bottles are also failing the British Standard in regard to the diameter of the bottle's filling aperture being too small (should be 18mm at a minimum). These

inspections/tests have also confirmed that some hot water bottles on sale are being misleadingly/fraudulently marked as complying with BS 1970:2001 when in fact they fail – particularly the rubber thickness requirements. The ACCC has taken appropriate action on such detected breaches of the Trade Practices Act. However, this action has only addressed a small segment of the total supply of hot water bottles. Many hot water bottles on the market do not claim to meet any standard, particularly those in the cheaper price range.

(Note: The minimum physical property requirements for a hot water bottle mentioned above which are contained in BS 1970:2001 *are essentially the same* in the newly updated British Standard BS 1970:2006 which came into effect on 31 October 2006.)

Potential for Injury

Health and safety specialists recognise that infants and the elderly are particularly vulnerable to injury from hot water bottle failure as their skin has a lower burn threshold than other persons. As this is a product that is frequently used by these people, it is essential that they are safe for use. Potential major hazards for this product include: possible splitting or bursting; leaking stoppers; deterioration/perishing; and too small an aperture at the filling point which makes filling difficult/possibly dangerous.

The continuing reports to consumer affairs/fair trading agencies in Australia of injury incidents involving hot water bottles, and the availability on the market of potentially unsafe bottles, illustrates the need for some intervention in the market to ensure that these products provide at least basic levels of safety.

Based on the identification of hot water bottles claiming to meet the British Standard but in fact do not, random testing by product safety authorities in their jurisdiction, and the large range of hot water bottles which bear no reference to the British Standard, it is estimated that up to 40% (or around 200,000) of hot water bottles sold each year in Australia may be potentially unsafe.

OBJECTIVES

What are the objectives of government action?

The Government's consumer protection policy includes the objective of ensuring that consumer products are safe. Particular attention is paid to products intended to be used by vulnerable groups such as children and the elderly. The Trade Practices Act (TPA) includes provisions to support this objective through the establishment of mandatory consumer product safety and information standards, product bans, recalls of unsafe products and the issuing of product safety warning notices.

The Government's aim is to reduce the risk of serious injury and death to consumers, particularly children and the elderly, as a result of accidents involving unsafe hot water bottles.

Is there a regulation currently in place? Who administers it?

There is no current regulation at the Commonwealth level concerning hot water bottles.

Victoria (permanent ban) and New Zealand (unsafe goods notice) have regulations currently in place banning hot water bottles that do not comply with the British Standard. The NSW Government recently introduced a mandatory safety standard for hot water bottles in its jurisdiction, which came into effect on 1 January 2007, based on the British Standard BS 1970:2001. Other Australian jurisdictions are also considering the need to regulate the product.

A warning notice to the public was issued under Section 65B of the TPA by the Commonwealth Parliamentary Secretary to the Treasurer via publication in the Commonwealth of Australia Gazette No. GN35, 7 September 2005, warning of possible risks involved in the use of hot water bottles.

The ACCC issued (in July 2006) a consumer safety publication on hot water bottle safety. Other Australian States/Territories have also issued similar consumer awareness literature in their own jurisdictions. The ACCC's publication is expected to be updated and re-released in light of the recommendations from the recent South Australian State Coroner's report into a hot water bottle related death of an 82 year old woman.

OPTIONS

The only viable options considered available to achieve the above objective are:

1. Maintain the status quo, i.e. industry self-regulation; or

2. Quasi-government regulation, being government endorsement of a voluntary industry program, such as a code of practice, that requires suppliers to adhere to safety standards; or

3. Government regulation of hot water bottles. The appropriate mechanism would be to regulate the supply of hot water bottles through a Trade Practices Act consumer product safety standard that specifies compulsory safety requirements drawn from the British safety standard which is considered the most appropriate one to use.

Consumer education is <u>not</u> regarded as a viable *stand-alone* option because the technical nature of hot water bottle safety mechanisms is such that it is unlikely that an average consumer would be able to reliably assess the safety of a hot water bottle. In addition, market surveys have shown that consumers cannot rely on the accuracy of product labelling that (misleadingly) indicates compliance with particular safety standards. Safe use of hot water bottles is an important factor in reducing associated injuries, and planned consumer

awareness and education initiatives will highlight the potential hazards and safe use techniques.

IMPACT ANALYSIS

Who is affected by the problem and who is likely to be affected by its proposed solution? *(See table of costs and benefits at **Attachment B**)*

The proposed viable options would affect consumers who purchase hot water bottles for themselves and their children/others, aged care services such as nursing homes, businesses involved in the supply of hot water bottles (manufacturers, importers, distributors and retailers), government (including consumer product regulators) and providers of emergency hospital services.

Option 1: Status Quo – Industry Self-Regulation
(voluntary compliance with standards)

Continuing the present arrangements whereby industry largely determines which products it will supply would permit the supply of any hot water bottles, regardless of compliance with product safety features. To date, this has resulted in the sale of some products that do not provide basic safety features, and the exposure of consumers, particularly vulnerable groups such as infants and the elderly, to serious risks. It is estimated that up to 40% (or around 200,000) of all hot water bottles sold annually in Australia may be potentially unsafe.

The outcomes are:

- Continuing availability on the Australian market of hot water bottles that are unsafe;
- Continuing uncertainty for consumers, manufacturers, distributors and retailers that hot water bottles in the market provide sufficient levels of safety; and
- Continuing uncertainty for suppliers as to the standards that are appropriate to the Australian market.

The status-quo combination of self-regulation and varying regulation by some states is not currently addressing the safety problem. Without national legislation under the Trade Practices Act leading to a uniform legislative approach throughout Australia, sub-standard and unsafe hot water bottles are continuing to be supplied and those States with current regulations report that the sheer volume and variety of hot water bottles makes enforcement of their regulations very difficult. These States report that many unsafe, non-complying hot water bottles are being detected. Uniform national regulation of hot water bottle safety and a co-operative compliance program (involving the

ACCC and the States and Territories) appears essential to properly and adequately address the safety concerns.

Costs and benefits to consumers

The potential costs to consumers include:

- Continuing uncertainty that the hot water bottles on sale provide an adequate level of safety;
- A continuation of the risk to consumers where hot water bottles do not provide basic levels of safety; and
- Medical and other costs of injury/death where this occurs.

The benefits to consumers would be a wide choice of hot water bottle types and competitive prices from products not certified to any safety standards. The effect of product certification on prices is thought to be minimal since a number of cheaper products currently on the market do comply with the British Standard.

Costs and benefits to industry

The costs to industry include:

- Continuing uncertainty about the need for safety requirements for hot water bottles;
- Costs arising from suppliers making false or misleading claims about meeting certain standards;
- Continuing uncertainty about what safety standards are appropriate for the Australian market; and
- Continuing need for recalls of products that are identified as unsafe.

The benefits to industry would be some cost savings from not having to comply with a specific standard, allowing unrestricted product selection and pricing.

Costs and benefits to government

The costs to Government are:

- The need for consumer safety agencies to react to incidents involving unsafe products;
- Costs incurred as a result of reliance on the judicial system for redress in the case of the supply of dangerous goods;

- Medical costs associated with the treatment of injuries associated with the use of hot water bottles that are unsafe; and

- The cost of responding to criticisms that government is not concerned about protecting consumers from injury.

The benefits of self-regulation to government are those that flow from avoiding regulation, including the costs of developing and enforcing regulations.

Option 2: Quasi-Regulation

This option would comprise the development of a voluntary industry program for the supply of hot water bottles. The program would typically involve a Government endorsed industry code of practice whereby suppliers of hot water bottles voluntarily adhere to agreed product safety standards.

Costs and benefits to consumers

The costs to consumers could be:

- A reduced choice in the market, as some existing products would be withdrawn because either they do not meet voluntary standards or the supplier would not be prepared to undertake testing of the product to confirm compliance; and

- Because the coverage of products under this proposal is not comprehensive, there is expected to be a continuing cost of injuries associated with hot water bottles that do not provide adequate product safety.

The benefits to consumers would be increased confidence that the goods they buy are endorsed by the supplier as being safe, and overall, an expected reduction in hot water bottle related injuries due to improved levels of product safety.

Costs and benefits to industry

The costs to industry include:

- The need to put in place and maintain the infrastructure to support quasi-regulation. Previous experience with industry codes of practice suggests that these costs would amount to approximately $30,000 per year;

- This would require an on-going cooperative commitment by all industry participants, involving some form of supplier registration, monitoring of the market and a system of review and redress for cases of non-compliance; and

- The costs and inconvenience to individual suppliers of ensuring that products meet agreed safety standards.

The benefit to industry would be improved consumer confidence that products on the market are safe.

Costs and benefits to government

The cost to government mainly includes:

- The cost of negotiating a suitable industry program, monitoring the program and monitoring the market to ensure that the initiative is effective. The estimated cost to government is $20,000 per year.

The benefit to government would be an expected reduction in hot water bottle related injuries due to improved levels of product safety, which would result in less demand on public hospital emergency departments.

Option 3: Introduce a Mandatory Standard

It would be appropriate that a mandatory safety standard for hot water bottles be based on the relevant British Standard (now BS 1970:2006) as it includes key safety requirements that are widely accepted and it is used internationally.

Council of Australian Governments (COAG) guidelines relating to the introduction of new national regulation in Australia specify that only *minimum* safety requirements should be considered. The key safety features of the British Standard considered justified for inclusion in a mandatory TPA safety standard are those specifications that will assist in the prevention of splitting, bursting, leaking and spillage from an inadequate filling aperture size. Some requirements in the British Standard relating to informative labelling are also considered additional justified elements for inclusion in a total regulatory package designed to improve the overall safety with this product.

A mandatory standard incorporating these specifications/requirements would:

- Eliminate from the market those hot water bottles that do not meet the key safety requirements, thereby reducing the level of risk to consumers;
- Reduce the incidence of serious injury associated with unsafe products;
- Give consumers confidence that products on the market provide an acceptable level of safety; and
- Provide a framework for industry to determine appropriate levels of safety for these products.

Specifically, a mandatory safety standard based on the key design and performance requirements of BS 1970:2006 “Hot water bottles manufactured from rubber and PVC – Specification” would address safety hazards and reduce consumer injuries by:

a) Requiring hot water bottles to have the minimum wall thickness necessary to provide adequate performance as a hot water vessel;

b) Ensuring filling apertures are adequate to help prevent spillage and splashback;

c) Ensuring that the closure does not separate and allow escape of hot water;

d) Ensuring the stopper is adequate to prevent leakage of hot water;

e) Including a force test to ensure that the strength of the seams on the bottle is sufficient to prevent failure and escape of hot water content;

f) Requiring the hot water bottles to meet a pressure test which helps ensure that the bottle will not burst when subjected to reasonable use pressures;

g) Ensuring appropriate use instructions are provided with the hot water bottle (this requirement will be supplemented by consumer awareness materials); and

h) Requiring bottles to be conspicuously marked with the warning "Do not use boiling water" (this requirement will also be supplemented by the consumer awareness campaign).

Australian States and Territories are supportive of the introduction of a mandatory TPA safety standard and will amend any existing related legislation in their jurisdiction to achieve a nationally consistent outcome.

An outline of a proposed TPA mandatory safety standard is at ***Attachment A.***

Possible trade implications

Market data indicates that an estimated 500,000 hot water bottles are sold annually in Australia. Most appear to be imported from/made in China and many claim compliance with the British Standard on hot water bottles BS 1970 which is internationally recognized as the foremost safety standard for hot water bottles.

The Commonwealth Government is concerned that its regulations do not impose unnecessary barriers to trade by setting standards that make compliance by overseas manufacturers difficult, especially if it cannot be shown to be maintaining a higher level of consumer protection. However, under the terms of the Agreement on Technical Barriers to Trade, a Government is able to regulate to protect human life and health.

Other countries have some local 'voluntary' controls in place to protect their public from unsafe hot water bottles. For example: hot water bottles supplied in the USA have available a voluntary standard ASTM D4316-95 (2005). While no hot water bottles claiming compliance with the US ASTM Standard have been identified on the Australian market, the specifications in that standard are similar to those contained in the British Standard BS 1970:2006. Suppliers of hot water bottles manufactured to the ASTM Standard would be

in the same position as suppliers of hot water bottles made to the British Standard in respect of compliance with the proposed mandatory standard. The EU has a general product safety directive in place which aims to ensure that only safe consumer products are sold in the EU. However, in the *absence* of a published International Standards Organisation (ISO) safety standard, the British Standard on hot water bottles BS 1970 is widely accepted and used in Europe, and by the overall international community, as the leading and most comprehensive safety benchmark for the product. There is no Australian Standard for hot water bottles and, latest indications are, one is *not* likely to be developed in the near future by Standards Australia.

Accordingly, it is proposed that a suitable TPA mandatory standard would include relevant safety requirements of the British Standard. The proposed mandatory standard would facilitate compliance by overseas manufacturers by being compatible with what is considered the major recognised overseas standard on hot water bottles, that is, the British Standard BS 1970:2006.

Costs and benefits to consumers

The costs to consumers would be some reduction in the choice of hot water bottles and a possible loss of access to some cheaper models.

The estimated additional per unit production cost of 30-50 cents to comply with the new mandatory standard (see analysis in section below on *Costs and benefits to industry*) would be likely to be passed on directly to the consumer. At the retail level, consumers would be expected to pay 60 cents to $1 extra for some hot water bottles in return for an assurance that the product meets required safety standards.

It is not expected that any class of consumer would be disproportionately affected by the introduction of the mandatory standard. Less expensive hot water bottles will continue to be available on the market.

The benefits to consumers would be a reduced cost of injury associated with unsafe hot water bottles due to the exclusion of unsafe products from the market, and an assurance that hot water bottles on the Australian market meet acceptable community standards.

Costs and benefits to industry

The possible costs to industry will be the loss of opportunity to retail an unrestricted choice of hot water bottles and the cost of ensuring that products comply with prescribed safety requirements.

Some hot water bottles sell in Australia for as little as $1.50 each. Based on supplier feedback, it is estimated that improved quality control systems and minor additional labelling would add a further 50 cents to the per unit production cost of these very cheap hot water bottles. Many higher quality bottles already claim compliance with the British Standard. The additional per

unit production cost to comply would therefore be very minor and is estimated at a maximum of 30 cents per bottle.

Some periodic testing of hot water bottle production outputs for compliance with required standards is usual practice in manufacturing industry and is part of the many commercial decisions faced by producers. While full testing of a hot water bottle against the proposed TPA mandatory standard will cost in the range of an estimated $300-400, such costs would be amortised over the complete production cycle. It is therefore estimated that the cost of testing would add less than 1% to per unit production costs.

Having regard to the estimated cost of improving the quality controls on non-compliant bottles, the relatively lower compliance costs for higher quality bottles and the very minor costs of testing, total annual costs to industry of the regulatory option would be approximately $200,000.

All hot water bottles on the Australian market are imported, mainly from Asia. Most overseas manufacturers of hot water bottles operate on a large scale due to the equipment and technology required to (mass) produce these items and other items on their production lines. Therefore there is no evidence that any one particular manufacturer will be disproportionately affected by the mandatory standard.

A mandatory standard provides benefits to industry because it provides clarity as to what is required in providing a safe product, and should make it easier for suppliers to identify complying hot water bottles. This can reduce management and administrative effort to ensure compliance, lead to a higher level of confidence in compliance, and avoids the cost and inconvenience of product recalls and possible litigation.

Costs and benefits to government

Enforcement costs of an estimated $30,000 per annum, which would include the costs of market surveys to monitor the compliance of products with safety requirements, and any associated enforcement action deemed necessary. An additional cost to government would be the cost of administering, reviewing and amending (if necessary) the mandatory standard on a timely basis. This cost is estimated at an annual average cost of $5,000. If implemented, Option 3 (a mandatory safety standard under the Trade Practices Act) would be supplemented by consumer and supplier product safety awareness materials and programs (at an estimated one-off cost of around $20,000, or annualised over 5 years at $4,000 per annum).

The benefits to government would be improved consumer safety due to the elimination from the market of unsafe products, an associated reduction in personal and community trauma, reduced medical and hospitalisation costs and a stronger and more responsible market. The wellbeing of the community in general, and especially those most vulnerable such as children and the elderly, is a keystone of government policy and establishing product regulation will assure the community that product safety is being addressed. There

would also be an increase in GST returns available to government from slightly higher hot water bottle prices.

CONSULTATION

This Regulation Impact Statement setting out the case for the regulation of hot water bottles has been submitted for consideration by industry, the Ministerial Council on Consumer Affairs (MCCA), the Standing Committee of Officials of Consumer Affairs (SCOCA), and the Consumer Products Advisory Committee (CPAC) (these bodies comprise Commonwealth, State, Territory and New Zealand Consumer Affairs/Fair Trading Ministers/officers). Other stakeholders consulted included consumer groups, industry organizations including manufacturers, distributors and retailers, child safety experts such as Kidsafe, and the medical/health sector.

All parties consulted who responded (including industry) were *supportive* of the need to regulate hot water bottles at the Commonwealth level under the Trade Practices Act.

Some respondents to the consultation process considered that a far more extensive informative labelling regime extracted from BS 1970:2006 should be introduced *beyond that proposed in the attached draft mandatory standard*, including specifying that several warnings be placed on the outside of the bottle. It was considered, however, that these additional warnings (beyond that proposed in the attached draft mandatory standard) would lead to an unwieldy amount of information being placed on a bottle, or would usually be disposed of if included on any accompanying packaging. The provision of this additional information would be better addressed through the updated consumer education material being prepared by the ACCC (and likely supported by complementary education campaigns of State/Territory consumer affairs/fair trading agencies) in response to the recommendations contained in the recent South Australian Coroner's report into a hot water bottle related death in that State.

Whether a hot water bottle fails due to splitting, bursting, leaking, perishing, etc, the causal factor of injury is **THE USE OF BOILING WATER**. The prevention of this practice (or misuse of product) is therefore the main/crucial message that needs to be brought to a consumer's attention. A minimalist regulatory approach (as advocated by the Council of Australian Governments' guidelines) therefore suggests *limiting* the mandatory warning message to this and not extending it to other warnings such as expelling air from the bottle and/or filling to only 2/3 capacity, etc. These 'commonsense' type additional supporting messages are better addressed through the enhanced consumer education proposals which are 'in the pipeline'.

CONCLUSION AND RECOMMENDED OPTION

Option 1 to continue the present industry self-regulation is not considered viable, given the high level of risk (in particular) to children and the elderly, and the lack of industry self-governance. An education campaign is *not* considered feasible on its own for the same reasons, in addition to the difficulties for consumers in assessing the safety of hot water bottles.

Option 2 to ensure the provision of safe hot water bottles through quasi-regulation is *not* considered feasible because of the uncoordinated nature of the market. Product sold through major retail outlets might be effectively controlled through industry associations, but the product is also sold through a myriad of supply chains and retail outlets for which there is no effective means of coordination.

Option 3 establishing explicit government regulation by declaring a mandatory TPA safety standard for hot water bottles that includes selected performance safety requirements of the (newly updated) British Standard BS 1970:2006 will assist in the prevention of hot water bottles splitting, bursting, leaking, and spilling from an inadequate filling aperture size. Some requirements in the British Standard relating to informative labelling are also considered additional justified elements for inclusion in a total regulatory package designed to improve the overall safety with this product. This option *is* considered the only real feasible/effective means of achieving an improved level of protection for consumers. The proposed regulation would make compliance simple for industry and impose a minimum burden on consumers and industry. ***For these reasons, Option 3 is the preferred option***.

As mentioned earlier, if implemented, Option 3 (a mandatory safety standard under the Trade Practices Act) would be supplemented by consumer and supplier product safety awareness materials and programs (at an estimated one-off cost of around $20,000, or annualised over 5 years at $4,000 per annum). This would help ensure consumers purchased only those hot water bottles which meet the mandatory standard and that they take reasonable precautions when using the products themselves or when providing a hot water bottle to infants or the elderly for their use. The proposed enhanced consumer education materials being prepared by the ACCC (and likely supported by the States/Territories through their own consumer education efforts) should go a significant way to addressing the serious concerns/recommendations raised by the SA State Coroner in his 30 January 2007 Coroner's report into the death of an elderly lady in a nursing home which was related to a burst hot water bottle. A supplier's guide would raise awareness of a supplier's responsibility to ensure that only hot water bottles meeting the prescribed standard are manufactured or imported for sale in Australia.

Net Benefits to Society

As mentioned earlier, the accepted value of a human life used for public policy purposes in Australia is within the range A$3.3m - A$6.6m. The average cost of a minor burn from a hot water bottle, some of which require GP attendance and include the cost of lost productivity, etc, is estimated at $500 per injury incident. The average cost of a more serious burn requiring hospitalisation and possible extensive/expensive cosmetic surgery, skin grafting, etc, is 'conservatively' estimated at $4,000 per injury incident. By extrapolation from the Victorian (MUARC) injury data mentioned earlier in the RIS, the cost of injury in Australia for hot water bottle burns requiring hospitalisation is estimated at around $700,000 per annum. This cost figure does not include the cost of hot water bottle burns requiring visits to a GP only, as no access to such records or data is available

Using the costs to consumers, industry and government outlined under Option 3 and comparing these to the preventable costs of injury of around $700,000, results in a clear *net benefit to society of around $460,000 per annum* from adopting Option 3 (supported by a consumer/supplier awareness campaign).

The above analysis assumes that most serious injuries from hot water bottles would be avoided through these combined regulatory/education initiatives. Provided hot water bottles are well constructed and responsibly used by consumers, only occasional minor burn injuries should occur. Improved hot water bottle wall thickness and seam strength performance requirements will prevent any substantial and catastrophic rupture of hot water bottles. The consumer awareness campaign will focus on reinforcing the message of not using boiling water and using bottles in a safe manner.

IMPLEMENTATION AND REVIEW

It is proposed that the new mandatory standard for hot water bottles be introduced as soon as practicable. Any products currently being supplied that do not meet the minimal safety requirements of the proposed TPA safety standard are considered unsafe for use and should be eliminated from the market.

Following the regulation impact assessment in this RIS and the consultation process, it is considered justified that a *lead time* be implemented to assist industry in preparing for the introduction of this new regulation. It is therefore proposed that the new TPA mandatory standard will commence on **1 June 2008** and *be subject to review five years later*.

Compliance with the new TPA mandatory standard would be facilitated via comprehensive supplier information and guidance, and the mandatory standard would be enforced by regular market surveillance and selected product testing by the ACCC.

The effectiveness of the regulation will be assessed through analysis of market survey findings, recall action, and the incidence of hot water bottle related injuries that might be identified from injury data.

ATTACHMENT A

DRAFT STANDARD

CONSUMER PRODUCT SAFETY STANDARD FOR HOT WATER BOTTLES

To be introduced by Regulation under the product safety provisions of the *Trade Practices Act 1974.* The consumer product safety standard for hot water bottles is the Standard specified in Division 1 of the Schedule below, as varied by Division 2 of the Schedule.

THE SCHEDULE

Division 1: The Standard

The following provisions of British Standard BS 1970:2006, 'Hot water bottles manufactured from rubber and PVC – Specification', published by the British Standards Institution, which came into effect on 31 October 2006:

Physical properties

Clause 4.2, Thickness;

Clause 4.3, Filling characteristics;

Closures

Clause 5.1, General;

Clause 5.2, Test for separation of screwed closures;

Clause 5.3, Rubber components;

Performance

Clause 6.1, Leakage;

Clause 6.2, Strength of bonded (or welded) seams;

Clause 6.3, Pressure test;

Informative labelling

(i) Clause 8.1, General;

(j) As a minimum, the following extract from Clause 8.2, Hot water bottles with screw stoppers, and Clause 8.3 Hot water bottles with closures other than screw stoppers, is to be permanently, clearly and legibly marked in a conspicuous position on the surface of the hot water bottle: "Do not use boiling water".

Division 2: Variations

The Standard specified in Division 1 of the Schedule above is varied as follows:

Closures

(a) Clause 5.1, General - omit all of the words in the second paragraph;

Informative labelling

(b) Clause 8.1, General – omit the words "the identification of the European manufacturer, or the UK distributor for bottles manufactured outside the European Union, and".

Date of effect

This consumer product safety standard comes into effect and only applies to hot water bottles supplied in Australia **from 1 June 2008**.

Definition

A 'hot water bottle' is defined as a container made from rubber or PVC that is designed to be wholly or partially filled with hot water and sealed with a stopper or closure for the purpose of warming parts of a body or a bed.

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ATTACHMENT B

TABLE OF COSTS AND BENEFITS

		Option 1: Maintain Status Quo (Industry Self-Regulation)	**Option 2: Quasi-Regulation (Industry Code)**	**Option 3: Government Regulation (preferred option)**
COSTS	**Consumers**	Continuing uncertainty about the safety of hot water bottles on the market. Continuing incidence of injuries associated with hot water bottles that do not have key safety features.	Reduced choice in the market with the withdrawal of some non-complying products.	Reduced choice in the market with the withdrawal of non-complying products. Estimated increase of 60 cents - $1 in retail price of some hot water bottles.
	Industry and Small Business	Continuing uncertainty about appropriate safety standards for hot water bottles supplied in Australia. Continuing potential for product liability claims and product recalls where hot water bottles prove to be hazardous.	Need to put in place and maintain the infrastructure to support quasi-regulation. Previous experience with industry codes of practice suggests that these costs would amount to approximately $30,000 per year. The cost of ensuring that products meet safety standards.	Loss of opportunity to retail an unlimited choice of hot water bottles. The cost of ensuring that products meet safety standards. Total estimated at around $200,000 per annum. Includes estimated increase in per unit production costs of 30-50 cents. Includes $300-400 cost of product testing to add < 1% to

		Option 1: Maintain Status Quo (Industry Self-Regulation)	Option 2: Quasi-Regulation (Industry Code)	Option 3: Government Regulation (preferred option)
				per unit production costs.
	Government	The need for consumer safety agencies to react to incidents involving unsafe products. Potential costs incurred as a result of reliance on the judicial system for redress in the case of the supply of dangerous goods. Public health system costs related to the treatment of injuries associated with unsafe hot water bottles.	The need to invest considerable time and effort consulting with industry to educate and encourage the development of arrangements for industry codes. In addition, there will be monitoring costs. Total estimated costs of $20,000 per annum.	Enforcement costs of approximately $30,000 per annum. Accompanying one-off consumer/supplier safety awareness materials at estimated cost of $20,000 (or $4,000 per annum if annualised over 5 years). Cost of administering, reviewing and amending mandatory standard at estimated annual average cost of $5,000.
BENEFITS	**Consumers**	Continuation of the present wide choice of hot water bottles on the market.	Some reduction in injuries associated with hot water bottles due to expected overall improvement in product safety. Increased confidence that the goods they buy are safe.	Greatly minimised incidence of injuries associated with unsafe hot water bottles. An assurance that hot water bottles on the Australian market are as safe as anywhere else in the world which uses the benchmark and generally widely

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		Option 1: Maintain Status Quo (Industry Self-Regulation)	Option 2: Quasi-Regulation (Industry Code)	Option 3: Government Regulation (preferred option)
				accepted BS 1970:2006.
	Industry and Small Business	Freedom to supply an unrestricted range of hot water bottles and to decide appropriate levels of safety for the products supplied.	Industry guidance on appropriate levels of product safety.	Access to clear specific requirements which offer the opportunity to reduce management and administrative effort to ensure compliance. Avoidance of the cost and inconvenience of product recalls and litigation.
	Government	The absence of any requirement to formally monitor the safety of products on the market.	A stronger and more responsible market. Some improvement in product safety.	Improved consumer safety. Minimised personal and community trauma. Reduced medical and hospitalisation costs. Increase in GST returns.