
Innovative Building Materials and Sick Building Syndrome: Liabilities of Manufacturers and Importers of Defective Materials

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Abstract

The influence on indoor air quality of volatile organic compounds contained in a wide range of building materials has been known for some time. However in order to reduce materials costs and construction times, builders are increasingly using alternative innovative construction materials which may contain hazardous compounds. This paper firstly considers the use and composition of innovative materials and discusses the legal issues arising from Sick Building Syndrome with particular emphasis on Part VA of the *Trade Practices Act 1974* (Cth) which creates a statutory right to damages in the event that goods are defective and injury or damage is suffered as a result, by imposing a strict liability for manufacturers and importers of defective goods without being constrained by the limitations at common law.

Introduction

Traditional methods of building construction involve the use of construction methods and materials which are energy inefficient, involve long construction times and give rise to problems of workmanship.¹ In order to reduce costs and project times designers and builders, with the encouragement of both state and federal governments, are increasingly using alternative construction materials. The Building Code of Australia (BCA) is a national code adopted by all states and the territories, which establishes minimum criteria for the design and construction of buildings. It is performance-based rather than prescriptive and allows for the use of alternative and innovative materials, forms of construction and design.² Consequently, hybrid materials created by blending disparate materials such as plastics, metals and rubber, adhesives, polymer

composites and geo-polymers are increasingly being used to produce durable, high strength, lightweight building materials which when used in modular form greatly reduce construction times. Additionally, the use of plastics and rubber materials in buildings for both decoration and building is also popular with the building industry as a result of savings in construction times and reduced maintenance costs.

The increase in the use of innovative materials and new technology in the building industry can be seen in the recent announcement by the Western Australian State Government that they have committed \$6 million to the Innovation in Housing Project which will involve building up to 50 demonstration homes in Western Australia using new and innovative building materials. These buildings will feature roofing made from insulated polystyrene and metal *Colorbond* sandwich panels, exterior walls consisting of plastic foam blocks filled with fibre cement interlocked with aluminium, and glass fibre reinforced gypsum plaster load bearing internal walls. The use of these techniques and materials

¹ S Assaf, A AL-Hammad, M Al-Shimah, 'The Effect of Faulty Construction on Building Maintenance' (1995) 23(3) *Building Research and Information* 175-181; Building Research Establishment, *Quality in Traditional Housing – An Investigation into Faults and their Avoidance* (1982).

² Australian Building Codes Board, *Building Code of Australia* (1996) Volume 1, s A05.

should reduce construction times from around 40 weeks to 14 weeks.³

In addition to these materials, current residential and commercial construction features significant use of wood products such as particle boards, medium density fibreboard (MDF),⁴ plywood and plastic laminated fibreboard. These materials contain formaldehyde and other potential contaminants such as phenyl methanol, toluene and xylene.⁵

The volatile organic components (VOC) contained in these materials are released into the indoor air at room temperature. VOCs are numerous and in addition to the materials described above are typically found in interior furniture, floor polishes, carpets, building adhesives and paints. Formaldehyde is the most common VOC found in these products. With increasing demands to conserve energy, formaldehyde insulating foam has been widely used in residential construction. It is estimated that in New South Wales over 70,000 homes have been insulated using this material.⁶ Over time, formaldehyde foam exudes or outgases formaldehyde. The health issues arising from the use of formaldehyde have been known for over 20 years. For example in 1983 it was suggested that ‘... formaldehyde litigation is only just beginning. As with asbestos, it is likely that another “wave” suit seeking compensation ... is forthcoming.’⁷

³ See Western Australian Government Media Office Ministerial Media Statements, *Building WA's Future, Innovative Building materials to Cut Costs and Time* (19 June 2007) <<http://www.mediastatements.wa.gov.au>> at 10 July 2007.

⁴ MDF is widely used in place of hardwood. Formaldehyde resins have traditionally been used to manufacture MDF but they are being replaced by lignin based adhesives. Currently all MDF produced in Australia is categorised as LFE (Low Formaldehyde Emission) in accordance with the Australian Standard AS/NZS 1859.2:1996.

⁵ See Minter Ellison, ‘On Site’ (November 1996) 5(11).

⁶ Standing Committee on Public Works, NSW Legislative Assembly, *Report on Sick Building Syndrome* (2001) 30

⁷ M G Curzman and J Golden, ‘Formaldehyde Litigation: A Beginning’ (1983) 19 *Trial* 82.

Sick Building Syndrome (SBS)

The potential health hazards associated with these materials and the uncertainties relating to the toxicity of many composite and hybrid materials and the resultant effects on indoor air pollution have been well documented.⁸ The effects have been described as ‘Sick Building Syndrome’ (SBS). There is currently no universally accepted definition of SBS, however one common definition of a ‘sick building’ is that given by the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) which states:

The term ‘sick building’ is used to describe a building in which a significant number (more than 20 per cent) of building occupants report illness being perceived as building related. This phenomenon also known as ‘sick building syndrome’ is characterised by a range of symptoms including, but not limited to, eye, nose and throat irritation, dryness ... mucous membranes and skin, nose bleeds, skin rash, mental fatigue, headache, cough, hoarseness, wheezing, nausea and dizziness. Within a given building there will usually be some commonality among the symptoms manifested as well as temporal association between occupancy in the building and appearance of symptoms.⁹

Put simply, the Western Australian Department of Consumer and Employment protection describes SBS as ‘the occurrence of a variety of symptoms experienced while people are working or living in a particular building. These may include eye, nose and throat irritation, chest tightness, skin reactions, fatigue,

⁸ Standing Committee on Public Works, above n 6 (Appendix E of the report lists a large number of references and sources). For a detailed discussion of the description and health effects of materials affecting the indoor quality of buildings, see ELMATOM Pty Ltd, *Investigation of Reported Cluster of Cancer Cases at the National Gallery of Australia – Draft Stage 1 Report* (March 2007).

⁹ American Society of Heating Refrigeration and Air Conditioning Engineers Inc, *Indoor Air Quality: Position Paper* (1998).

headache, nausea, dizziness and difficulty concentrating.’¹⁰

While there is also no agreement as to the extent and subsequent costs associated with SBS, research in the USA has indicated that productivity losses as a consequence of SBS could range from 0.3% to 2% of gross domestic product (GDP). Relating these figures to the Australian environment suggests that the annual loss in productivity would range from \$1.7 billion to \$11 billion annually.¹¹

Legal decisions

In the Australian jurisdiction there are few reported decisions which have considered the issue of SBS in the context of sensitivity to chemicals exuded from constructional materials resulting in hazardous indoor air quality. In *Re Milec Milenkovic and Compare*¹² expert medical evidence was submitted that the applicant was affected by, amongst other things: ‘... components of polyester fabrics, components of rubber, and of polyurethane foam, nitrogen dioxide, formaldehyde (emitted from particle board and textiles), toluene (a widely used solvent) and phenol.’¹³

In *Re Janice Mary Gordon and Australian and Overseas Telecommunications Corporation*¹⁴ the Administrative Appeals Tribunal held that the applicant suffered a personal injury described as either Vasometer Rhinitis or Sick Building Syndrome and was entitled to compensation for periods of absence for her work due to the symptoms of the syndrome.¹⁵

The general concerns regarding the affects of SBS can also be seen in the application by a large number of

unions and employee organisations to the Federal Industrial Relations Committee for an award provision for the regulation and monitoring of air conditioning in member’s workplaces in order to reduce the effects of SBS.¹⁶

Legal causes of action

There are a number of possible causes of action for persons affected by SBS. These include:

- (1) Breach of contract;
- (2) Negligence;
- (3) Occupiers liability legislation;
- (4) Occupational health and safety legislation;
- (5) Actions against manufacturers and importers under the *Trade Practices Act 1974* (Cth) (The ‘TPA’).

Possible defendants in these actions would include architects, engineers, building designers, builders and product manufacturers. While this paper will focus on the manufacturer’s liability under the TPA, the other causes of action will be briefly discussed.

Breach of contract

Most standard form building contracts will contain an express term that the works under the contract will be carried out using suitable new materials and proper and tradesmanlike workmanship.¹⁷ At common law the builder must do the work with proper skill and care¹⁸ or similar to the express term, in a workmanlike manner and tradelike way.¹⁹ With respect to construction materials it is trite to say that the materials used should be of good quality and reasonably fit for the purpose for

¹⁰ WorkSafe, *Sick building syndrome* (2007) Department of Consumer and Employment Protection <http://www.docep.wa.gov.au/workSafe/Content/Safety_Topics/Diseases_and_health/More_information/Sick_building_syndrome.html> at 23 October 2008.

¹¹ Standing Committee on Public Works, above n 6, iv. [1993] AATA 17.

¹² *Ibid*, para 22.

¹³ *Ibid*, para 22.

¹⁴ [1992] AATA 253.

¹⁵ *Ibid*, para 78.

¹⁶ Industrial Relations Commission Decision 1533/1993 [1993] 1533 IR CommA.

¹⁷ See Clause 29.1 AS 4000-1997 General Conditions of Contract and clause 30.1 AS 2124-1992 General Conditions of Contract.

¹⁸ See *Young & Martens Ltd v McManus Childs Ltd* [1969] 1 AC 454, 469.

¹⁹ *Riverside Motors Pty Ltd v Abrahams* [1945] VLR 45.

which they are being used.²⁰ Additionally there are warranties relating to merchantable quality and fitness for purpose which will also be implied or imposed by statute.²¹

The difficulty faced by persons affected by SBS suing in contract for a breach of one or more of these terms is that the doctrine of privity requires the existence of a contract between the manufacturer (or supplier) and the plaintiff. This may be applicable in the context of parties to a domestic construction contract but not in circumstances where the plaintiff cannot establish that they were the direct recipient of the above warranties.

Negligence

Where a person suffers personal injury, death or pure economic loss caused by defective goods this may give rise to a tort action in negligence against the manufacturer. For a claim in negligence the plaintiff must establish that there has been a breach of the duty of care recognised in the landmark case of *Donoghue v Stevenson*.²² A manufacturer will have a duty with respect to the design of the product to ensure that it is produced with a degree of care taking into account any possible dangers that are reasonably foreseeable arising from its use. With new and innovative materials however, the issue of reasonable foreseeability will involve an examination of the state of knowledge at the time of manufacture of the product. While most risks may be reasonably foreseeable, the risk must not be far-fetched or fanciful.²³ The issue of reliance and vulnerability will also be significant following the decision in *Woolcock Street Investments Pty Ltd v CDG Pty Ltd and Anor*.²⁴

Additionally the *Civil Liability Act 2002* (WA) applies to personal injury claims arising from incidents occurring post 1 January 2003. The Act also provides for proportionate liability where the claim is for economic loss or damage to property.²⁵

Occupiers liability legislation

The *Occupiers' Liability Act 1985* (WA) prescribes the standard of care owed by occupiers and landlords of premises to persons or property on premises. At common law an occupier's liability is to be determined by the ordinary principles of negligence and those principles are to be applied to actions under the *Occupiers' Liability Act*. These principles were summarised by the High Court of Australia in the case of *Jones v Bartlett*.²⁶ As the Act is directed towards occupiers such as building owners, landlord and employers it will not provide a cause of action by an injured person against manufacturers or suppliers.

Occupational health and safety legislation

The *Occupational Health Safety and Welfare Act 1984* (WA) places the responsibility for making workplaces safe directly on to both employers and employees. The legislation is applicable to most workplaces with the exception of the mining industry. The duty upon employers to provide a safe workplace is essentially the same as under the common law tort of negligence. Since under the Act the general duty is only cast on employers it will be difficult to determine the relevant standard of care where the choice of material is beyond their control or the level of knowledge of the materials' properties could not be reasonably known.²⁷

²⁰ *Independent Broadcasting Authority v EMI Electronics Ltd and BICC Construction Ltd* (1980) 14 BLR 9, 44.

²¹ *Sales of Goods Act 1895* (WA); *Fair Trading Act 1987* (WA); *Home Building Contracts Act 1991* (WA) and Part V Division 2A of the *Trade Practices Act 1974* (Cth).

²² [1932] AC 562.

²³ *Wyong Shire Council v Shirt* (1980) 146 CLR 40.

²⁴ [2004] HCA 15.

²⁵ See ss 5AL to 5AO.

²⁶ (2000) 205 CLR 166.

²⁷ The Act does however place architects and engineers who design buildings under a statutory duty to ensure that the design and construction of a building is such that it does not expose those who properly construct, maintain or use the building to hazards. See s 23.

Actions against manufacturers and importers under the *Trade Practices Act 1974 (Cth)*

Before the introduction of the product liability regime in the TPA, the only remedies for plaintiffs affected by defective products was under contract, tort or the statutory liabilities discussed above.²⁸ On 9 July 1992, the TPA was amended to give new rights to persons who suffer damage or injury from defective goods.²⁹ It does so by providing a series of statutory rights of action against the manufacturer (or importer), based neither in tort or contract, but by way of strict liability in favour of persons who suffer loss or damage from defective goods.

Part VA of the TPA creates a statutory right to damages in the event that goods are 'defective' and injury or damage is suffered as a result. It imposes a strict liability on manufacturers (or importers) of defective goods without being constrained by the limitations either at common law (the doctrine of privity or exclusion clauses) or in Divisions 2 or 2A of the TPA (implied terms). Divisions 2 and 2A however will only apply where there is a contractual relationship between the parties due to the doctrine of privity. Under Part VA, a plaintiff need only prove that a corporation³⁰ in trade or commerce supplied defective goods which were manufactured by the corporation and that loss or damage occurred because of the defective goods.³¹ However Part VA only applies to goods supplied by the manufacturer on or after 9 July 1992.

²⁸ Remedies may also be available under the misleading or deceptive conduct provisions of s 52 of the TPA or s 10 of the *Fair Trading Act 1987 (WA)* but further discussion is beyond the scope of this paper.

²⁹ Prior to 2006, a cause of action for personal injury resulting from contravention of the TPA Product Safety and Product Information regime (Division 1A of Part V) may have been relevant. However in 2006 ss 82 and 87(1) were amended to preclude actions for personal injury and death resulting from contravention of Division 1 Part V.

³⁰ It should be noted that s 6(2)(c) of the TPA extends the jurisdiction of the TPA to non incorporated manufactures and suppliers who are engaged in overseas or interstate trade and commerce.

³¹ *Glendale Chemical products Pty Ltd v ACCC (1998)*

In determining the application of Part VA of the TPA to new constructional materials it is necessary to consider (apart from the threshold jurisdictional issues of a corporation in trade or commerce) the relevant definitions under Part VA.

Manufacturer

Section 75AB imparts the identification of manufacturer in s 74A (3)-(8) of Part V (Division 2A – Actions against manufacturers and importers of goods) into Part VA of the Act. These sections list the circumstances in which a corporation will be deemed as the manufacturer. The provisions are all encompassing and include the actual manufacturer, the promoter of the goods and the importer of the goods where the manufacturer does not have a place of residence in Australia.

Where it is not possible to identify the actual manufacturer of the goods s 75AJ provides that where a person who suffers loss or injury is uncertain who manufactured the goods, the person may serve a notice on each known supplier of the goods requiring them to identify the corporation which actually manufactured the goods, or the person who supplied the goods to the supplier. If the information is not provided within 30 days, the supplier will be deemed to have been the manufacturer of the goods for the purposes of compensation.³²

The term manufactured is defined in s 75AA to include 'grown, extracted, produced, processed, or assembled'. These are words of extension³³ and would apply to both single component construction materials and assemblages such as hybrid materials.

Defective goods

The term defect is broadly defined in s 75AC which states goods will be defective 'if their safety is not such

³² Section 75AJ (2).

³³ See *Ryan v Great Lakes Council [1999] FCA 177*, para 358.

as persons are entitled to expect.’ The Act sets out a series of matters³⁴ to which regard is to be held in determining whether goods are safe. These matters include the manner in which the goods are marketed and any instructions and warnings provided with the goods.³⁵

Goods

The term goods is given a wide description in s 4(1) and includes, ‘ships, aircraft and other vehicles, animals including fish, minerals, trees and crops, whether on or under or attached to the land or not; and gas and electricity’.

In the context of constructional materials, especially hybrid materials, goods also include component parts which are later integrated into finished products.³⁶

Liability for loss or injury

The liability for loss or injury resulting from defective goods is imposed by ss 75AD-75AG of the Act. A liability action under Part VA can be commenced where:

- (a) a corporation in trade or commerce supplies goods manufactured by it;
- (b) the goods have a defect; and
- (c) because of that defect;
 - i) an individual suffers personal injury (s 75AD);
 - ii) a person other than the individual suffers loss because of the injuries or because of the death of the individual from those injuries (s 75AE);
 - iii) personal household or domestic goods are destroyed or damaged (s 75AF); and
 - iv) land, buildings or fixtures ordinarily acquired for private use and so used, or

³⁴ Section 75AC(2).

³⁵ *Ransley v Black and Decker (A/ASIA) Pty Ltd* (1977) 3 TPR 138.

³⁶ Explanatory Memorandum to the *Trade Practices Amendment Act 1992*, para 57.

intended to be used are destroyed or damaged. (s 75AG).

Goods may be defective for a number of reasons. These include design defects in the form, structure and composition of the goods; manufacturing defects as a consequence of the process of construction and assembly, and incorrect or inadequate warnings or instructions.

In terms of the TPA definition, s 75AC (1) states that ‘goods have a defect if their safety is not such as persons generally are entitled to expect.’³⁷ In this regard the definition in the TPA has a special meaning which differs from the term defect as usually applied to building materials.³⁸ When assessing if the goods are defective, s 75(2) requires that ‘regard is to be given to all of the relevant circumstances’. These include:

- The manner in which and the purposes for which the goods have been marketed (s 75AC(2)(a));
- Their packaging (s 75AC(2)(b));
- The use of any mark in relation to them (s 75(2)(c));
- Any instructions for or warnings with respect to, doing, or refraining from doing, anything with or in relation to them (s 75(2)(d));
- What might reasonably be expected to be done with or in relation to them (s 75AC(2)(e)); and
- The time when they were supplied (s 75AC(2)(f)).

The following items will be relevant in the context of new materials.

³⁷ *Glendale Chemical Products Pty Ltd v ACCC* (1999) ATPR 41-672.

³⁸ *Hudson’s Building and Engineering Contracts* (10th ed, 1970) 389 states: ‘a defect includes any breach of contract affecting the quality of work whether structural on the one hand or merely decorative on the other and whether due to faulty material or workmanship or even design if the latter is part of the contractors obligation.’

Manner and purposes for which goods are marketed

Where a product is marketed for professional or trade use, the assumption is that there would be some degree of pre-existing knowledge regarding the properties of the product. However the level of warnings or instructions would be much more detailed if the goods were to be sold to the public consumer. If goods are marketed for use in habitable buildings there would be an expectation of suitable warnings.

Instructions and warnings

Suitable instructions and warnings are especially relevant in the context of material containing VOCs or potentially hazardous chemicals. Manufacturers should list the nature and extent of any potential hazard, and explain how the product should be properly used. In *Glendale Chemical Products Pty Ltd* a person was injured when he poured caustic soda down a drain containing boiling water. The label on the container warned customers to use rubber gloves and goggles but did not state that if the product was used with hot water it was extremely dangerous. While there was no defect in the caustic soda, the lack of adequate warnings on the container was considered a defect in accordance with s 75AC. There is no requirement for a manufacturer to provide directions which would prevent all forms of harm but only warnings against forms of use which might cause harm.³⁹

What the Act requires is that manufacturers should consider all reasonable uses of a product (as well as likely potential misuses), in meeting obligations to warn consumers of the potential consequences of such uses and misuses.

The time when supplied

This refers to current knowledge at the time the product was placed on the market. That is, the current scientific and technical knowledge at that time. The potential

health hazards associated with VOCs in building materials have been known since the 1980s.⁴⁰ In Australia over the last 15 years a number of health problems associated with indoor air quality have also been identified.⁴¹ Despite this there is currently widespread use of building materials containing VOCs.

The liability under Part VA

The TPA encompasses a wide range of losses which may be recoverable by persons who may suffer damage as a result of a defective product.⁴² In the context of hazardous materials the two relevant sections are 75AE and 75AD. It should be noted however that in accordance with s 75AI,⁴³ both of these sections do not apply to situations where an injured party could claim under commonwealth or state workers compensation laws.⁴⁴

Defective goods causing loss by an individual

Section 75AD imposes liability on the manufacturer of goods which have a defect. If, because of that defect, any individual suffers injury, the manufacturer will be liable for the actual loss. Note, however, there must be a causal link between the defect and the injury.⁴⁵ This may be problematic for a plaintiff affected by one or more hazardous materials contained in a hybrid material.

Injuries to other persons

Section 75AE enables persons who are dependent on the injured person to recover compensation if they have suffered loss because of the injury or death of the injured person. This includes a dependant spouse, children or even elderly parents but would not include anyone in a business relationship with the injured

³⁹ See also *Carey-Hazell v Getz Bros & Co (Aust) Pty Ltd* (2004) ATPR 42-014.

⁴⁰ B Selinger, *Chemistry in the Marketplace* (1988).

⁴¹ Standing Committee on Public Works, above n 6, 21.

⁴² Sections 75AD, 75AE, 75AF and 75AG.

⁴³ Section 75AI. No liability action where workers compensation or law giving effect to an international agreement applies.

⁴⁴ *Lanza v Codemo Management Pty Ltd* (2001) NSWSC 72, para 187.

⁴⁵ *Bright v Femcare* (2000) 175 ALR 50.

person. That is, s 75AE is not to be used by third parties to pursue purely commercial rights.

In *Stegenga v J Corp Pty Ltd*⁴⁶ Stegenga claimed damages from J Corp in negligence for injuries he sustained when he stood on a defective timber beam being used to construct a roof. J Corp then commenced proceedings against the supplier of the beam, Regal Tower Pty Ltd, claiming that Regal was liable to compensate Stegenga for his injuries under s 75AD of the TPA. Regal then joined the actual manufacturer of the beam, Wespine Pty Ltd. The District Court of Western Australia ordered that Regal's claim against Wespine be struck out because Regal was attempting to pursue commercial rights whereas s 75AE was intended for the benefit of individuals who were in some dependent relationship with the person injured.

Defences to Part VA

The intention of Part VA is to create a strict liability regime but the liability is not absolute. Consequently there are a number of situations where a manufacturer will not be liable to compensate a plaintiff. The onus is on the manufacturer to establish a defence. The four defences available to manufacturers to defend claims made under Part VA are:

- The defect did not exist when the goods were supplied (s 75AK (1)(a));
- The defect occurred because of compliance with a mandatory standard (s 75AK (1)(b));
- The defect could not have been discovered given the state of scientific or technical knowledge when the manufacturer supplied the goods (s 75AK(1)(c); or
- If the defect is in finished goods, the defect is attributed to the design of the finished goods, the markings on them or instructions given with them (s 75AK (1)(d)).

⁴⁶ (1999) ATPR 41-695.

Defect did not exist when the product left the manufacturers control.

Manufacturers may not be liable for defects which occurred later in the manufacturing chain where the final product involves a number of processes or components. This defence will require that the manufacturer prove that the manufacturing process, quality control systems and pre-delivery checks were such that the defect could not have arisen prior to the product leaving the manufacturer's control, or the defect was due to the subsequent act or omission of a third party (for example, the incorrect installation of a component).⁴⁷

Mandatory standard

Where the commonwealth or state imposes a mandatory standard⁴⁸ on manufacturers and the compliance with that standard is the sole cause of the defect, the manufacturer will not be liable. Liability will pass to the commonwealth or state. Standards are made mandatory by inclusion in the *Trade Practices Regulations* or upon declaration by the Minister for Competition Policy and Consumer Affairs. There are currently 32 mandatory product safety and information standards. None of them refers to hazardous construction materials.⁴⁹

Mandatory standards as described in the TPA are not Australian Standards, produced by the Standards Association of Australia (SAA), which specify minimum quality or performance standards for building materials. These standards are not mandatory on manufactures or designers and have no coercive effect.⁵⁰

Knowledge

⁴⁷ Explanatory Memorandum to the *Trade Practices Amendment Act 1992*, paras 47-50.

⁴⁸ Section 75AA.

⁴⁹ A list of the mandatory standards can be obtained from the ACCC website, <www.accc.gov.au>.

⁵⁰ See *Henry Michael Lyons & Ors v Jandon Constructions (A Firm) & Ors* [1998] WASC 224; *Bevan Investments Pty Ltd v Blackall and Struthers (No 2)* [1978] 2 NZLR 97.

Where a defect arises that could not have been discovered in the light of current scientific or technical knowledge at the time of manufacture, the manufacturer will not be liable for damage caused by the defect. At the same time a manufacturer must take steps in order to be aware of any new information which may draw the manufacturer's notice of any possible defects. Consequently a manufacturer of formaldehyde-based building materials would be liable for damage caused by such products being left on the market in view of the scientific and medical knowledge of the hazardous affect of the VOCs in the material .

Finished goods

This defence applies to component manufacturers. Where the defect is caused by a component, then both the manufacturer of the component and the company assembling the product will be jointly and severally liable.⁵¹ However if it can be established that the defect was caused through the assembly or design of the finished product, then the defence may apply.

Contributory acts by the consumer

A manufacturer could claim in defence that the product was not defective because an individual's misuse of the product that caused the harm. Such an assertion will be successful in cases of abuse or reckless use of a product. However, if the misuse was reasonably foreseeable then appropriate warnings should accompany the product as discussed in *Glendale Chemical Products Pty Ltd* above.

Section 75AN provides that compensation which is sought by consumers for loss under ss 75AD and 75AE may be reduced where the loss or damage was caused by an act or omission of an individual who suffers the injuries. However these sections may not be relative in the context of SBS.

⁵¹ Section 75AM.

Exclusion clauses

Liability under Part VA cannot be excluded or modified in any way and any contractual term which attempts to do so will be void.⁵²

Time for commencing actions

Claims under Part VA must be commenced within three years from the time a person became aware (or ought reasonably to have become aware) of the alleged loss, the defect and the identity of the manufacturer. Additionally any Part VA action must be commenced within 10 years of the initial supply of the defective goods.⁵³ Where compensation is sought for death or personal injury the time limits are prescribed in Part V1B of the TPA.

Part VIB was introduced into the TPA in July 2004 as a consequence of state and commonwealth concerns at the increasing cost of public liability insurance.⁵⁴ The features of Part VIB include a shorter time for the commencement of claims under the Act;⁵⁵ limitation of damages for non-economic loss of \$250,000;⁵⁶ and capping of damages for past and future earning capacity.⁵⁷

This part provides that a court must not award personal injury damages if the proceedings are commenced three years after the date of discoverability. However in some circumstances this may be extended by the court.⁵⁸

Representative and class actions

A problem with consumer protection law is that consumers generally are reluctant to institute legal

⁵² Section 75AA.

⁵³ Section 75AD.

⁵⁴ See Law of Negligence Review Panel, Commonwealth of Australia, *Review of the Law of Negligence* (2002).

⁵⁵ Sections 87D, 87E, 87F, 87G and 87H.

⁵⁶ Sections 87L, 87M, 87N, 87P, 87Q, 87R and 87S.

⁵⁷ Section 87U and 87V.

⁵⁸ Section 87F includes a diagram showing the application of the limitation periods.

proceedings. In March 1992, Part IVA was inserted into the *Federal Court of Australia Act* following the *Federal Court of Australia Amendment Act 1991* (Cth).⁵⁹ This Act provides that seven or more claimants can bring an action where the claims arise out of similar circumstances and give rise to common legal or factual issues.⁶⁰

Additionally s 75AQ of the TPA permits the Australian Competition and Consumer Commission (ACCC) to take representative action on behalf of consumers who have suffered loss from the use of a product, as occurred in *Glendale Products Pty Ltd*. The ACCC must first obtain the written consent of each person on behalf of whom the application is being made. In accordance with s 75AS of the TPA, Both the Federal Court and the state courts of competent jurisdiction have jurisdiction to hear Part VA claims.

Conclusion

The existence of volatile organic compounds contained in a wide range of building materials has been known for some time. The affect on indoor air quality and the development of Sick Building Syndrome has also been well documented over the last twenty years. Despite this there are no universally accepted mandatory standards regulating the use of these hazardous compounds.

Since July 1992, the TPA has given new rights to persons who suffer damage or injury from defective goods. It does so by providing a series of statutory rights of action against the manufacturer (or importer), based neither in tort or contract, but by way of strict liability in favour of persons who suffer loss or damage from defective goods.

Part VA imposes liability on manufacturers of defective goods without being constrained by the limitations either at common law (the doctrine of privity, exclusion

clauses, or issues of causation) or in Divisions 2 or 2A (implied terms). Under Part VA a plaintiff need only prove that a corporation in trade or commerce supplied defective goods which were manufactured by the corporation and that loss or damage occurred because of the defective goods.

⁵⁹ Section 33B.

⁶⁰ Section 33C(1). See also *Symington v Hoechst Schering Agrevo Pty Ltd* (1997) 78 FCR 164.