APPENDIX 1

INDIVIDUALS AND ORGANISATIONS

WHO MADE WRITTEN SUBMISSIONS TO THE COMMITTEE

	Submission Number
ACTION for World Development (Townsville Group), Townsville, Qld.	51
ADDISON, Mr R., Adelaide, SA.	23
ALBANY Peace Group, Albany, WA.	15
ALLEN, Ms K., Scarborough, Qld.	44
AUSTRALIAN Conservation Foundation (Adelaide Chapter), Adelaide, SA.	13
AUSTRALIAN Council of Churches, Sydney, NSW.	93
AUSTRALIAN Ionising Radiation Advisory Council, Canberra, ACT.	90
AUSTRALIAN Nuclear Free Zones Secretariat, Sydney, NSW.	63
AUSTRALIAN Nuclear Science & Technology Organisation, Menai, NSW (formerly the Australian Atomic Energy Commission).	70
AUSTRALIAN Peace Committee (NSW), Sydney, NSW.	65
AUSTRALIAN Peace Committee (SA), Adelaide, SA.	50
AUSTRALIAN Quaker Peace Committee, O'Connor, ACT.	30
AUSTRALIAN Radiation Laboratory, Yallambie, Vic.	94
BALMAIN People for Nuclear Disarmament, Balmain, NSW.	39
BLAKE, Mr K.G., Shenton Park, WA.	17
BOCQUET, Mr H., Port Melbourne, Vic.	12
BOLT, Mr R., Richmond, Vic.	43
BRUEN, Mrs E., South Perth, WA.	14
BUDGE, Mr J.R., Nedlands, WA.	33
CAMPAIGN for International Cooperation & Disarmament, Melbourne, Vic.	34
CHERNOBYL Collective of the Canberra and South-East Region Environment Center Inc, Canberra, ACT.	31
COALITION Against Nuclear Armed & Powered Ships, Melbourne, Vic.	68
COLBUNG, Mr K. MBE, JP, Gnangara District, WA.	5
CONCORD, Burwood & District Peace Group, Homebush, NSW.	28
DARWIN Combined Port Unions, Darwin, NT.	96
DAVIS, Prof W.J., Santa Cruz, California, USA.	92
DEPARTMENT of Arts, Heritage and Environment, Canberra, ACT.	91
DEPARTMENT of Defence, Canberra, ACT.	80
DERWENT Valley Peace Group, Lachlan, Tas.	71
DODGES Ferry Peace Group, Dodges Ferry, Tas.	72
EPPING & District Peace Group, Epping, NSW.	16
ESPERANCE Nuclear Awareness, Esperance, WA.	7
EWALD, Dr B., Woolwich, NSW.	53
FRIENDS of the Earth, Collingwood, Vic.	77
GEELONG People for Nuclear Disarmament, Geelong, Vic.	27
GILDING, Mr P., Sydney, NSW.	101
GREENPEACE Australia (NSW) Ltd, Sydney, NSW.	4
HAYES, Mr P., Sydney, NSW.	102

APPENDIX 2

WITNESSES WHO APPEARED AT PUBLIC HEARINGS

Australian Nuclear Science and Technology Organisation
(formerly Australian Atomic Energy Commission)

Mr Desmond Robert Davy, Chief, Environmental Science Division
Mr John Maitland Rolland, Head, Technical Secretariat
Mr Donald Basil McCulloch, Leader, Nuclear Analysis Section
Mr James Edward Cook, Senior Principal Research Scientist, Regulatory Bureau
Mr Paul Neville Michael Wright, Health and Safety Division Officer

Australian Radiation Laboratory/National Health and Medical Research Council

Dr Keith Henry Lokan, Director

Australian Ionising Radiation Advisory Council

Professor Ralph Whaddon Parsons, Chairman
Dr Desmond Robert Davy, Member
Dr Richard John Petty, Member
Dr Gilbert Brian Tucker, Member

Bolt, Mr Richard

Coalition Against Nuclear Armed and Powered Ships

Mr Leslie Richard George Taylor

Davis, Professor William Jackson

Department of Defence

Mr Ross Kenneth Thomas, Special Adviser, Strategic and International Policy Division
Commodore Ian MacDougall, Director-General, Joint Operations and Plans
Commodore Nigel John Stoker, Director General, Joint Operations and Plans

Commander Bryan Damien Hunt, Joint Planning Staff
Lieutenant Commander Ernest Thomas James, Secretary, Visiting Ships Panel (Nuclear)
Mr Robin Arthur George Herron, Natural Disasters Organisation

Lynch, Mr Michael

People for Nuclear Disarmament

Mr Paul Gilding

Scientists Against Nuclear Arms

Dr Geoffrey Frederick Davies, President, Australian Capital Territory Branch
Dr Lindsay Thomas Matthews, Member, Western Australian Branch/Member, Medical Association for the Prevention of War (WA)
Professor William Alan Runciman, Committee Member, Australian Capital Territory Branch

Speed, Dr Terence

Vallentine, Senator Jo

APPENDIX 3

VISITS TO AUSTRALIAN PORTS BY NUCLEAR POWERED WARSHIPS 1976-1988

1976

Dates	Vessel	Type	Port
14-19 August	USS Snook	submarine	HMAS Stirling, WA
7-13 Sept	USS Truxtun	cruiser	Melbourne
14 Sept	USS Truxtun	cruiser	Jervis Bay
29 Oct-5 Nov	USS Enterprise	aircraft carrier	Hobart
30 Oct-6 Nov	USS Long Beach	cruiser	Melbourne

1977

No visits

1978

Dates	Vessel	Type	Port
5-10 March	USS Queenfish	submarine	Melbourne
7-12 July	USS Bainbridge	cruiser	Darwin
7-12 August	USS Enterprise	aircraft carrier	Gage Roads, WA
7-12 August	USS Long Beach	cruiser	Gage Roads, WA
7-12 August	USS Truxtun	cruiser	HMAS Stirling, WA

1979

Dates	Vessel	Type	Port
19-27 April	USS Tunny	submarine	HMAS Stirling, WA
20-25 Oct	USS Bainbridge	cruiser	HMAS Stirling, WA
20-25 Oct	USS Pintado	submarine	HMAS Stirling, WA
24-29 Oct	USS Gurnard	submarine	Melbourne

1980

Dates	Vessel	Type	Port
26 Mar-2 Apr	USS Haddock	submarine	HMAS Stirling, WA
1-7 April	USS Los Angeles	submarine	HMAS Stirling, WA
16-21 May	USS Guardfish	submarine	HMAS Stirling, WA
18-25 July	USS Puffer	submarine	HMAS Stirling, WA
25-30 July	USS Baton Rouge	submarine	HMAS Stirling, WA
14-20 August	USS Tautog	submarine	HMAS Stirling, WA
6-11 Sept	USS Groton	submarine	HMAS Stirling, WA
12-17 Sept	USS Permit	submarine	HMAS Stirling, WA
10-17 Nov	USS Omaha	submarine	HMAS Stirling, WA
16-22 Dec	USS Haddo	submarine	HMAS Stirling, WA
23-29 Dec	USS Philadelphia	submarine	HMAS Stirling, WA

1981

Dates	Vessel	Type	Port
6-11 Feb	USS Memphis	submarine	HMAS Stirling, WA
27 Feb-Mar 6	USS Gurnard	submarine	HMAS Stirling, WA
15-22 April	USS Cavalla	submarine	HMAS Stirling, WA
20-27 May	USS Pintado	submarine	HMAS Stirling, WA
29 May-3 June	USS Bluefish	submarine	HMAS Stirling, WA
6-13 July	USS Los Angeles	submarine	HMAS Stirling, WA
8-13 July	USS Cincinnati	submarine	HMAS Stirling, WA
11-17 Aug	USS Haddock	submarine	HMAS Stirling, WA
25-31 Aug	USS California	submarine	HMAS Stirling, WA
23-30 Sept	USS New York City	submarine	HMAS Stirling, WA
5-12 Oct	USS Bremerton	submarine	HMAS Stirling, WA
22-28 Oct	USS Flasher	submarine	HMAS Stirling, WA
30 Nov-7 Dec	USS Aspro	submarine	HMAS Stirling, WA

1982

Dates	Vessel	Type	Port
29 Jan-5 Feb	USS Tautog	submarine	HMAS Stirling, WA
10-17 Feb	USS Puffer	submarine	HMAS Stirling, WA
23 Feb-1 Mar	USS Truxtun	cruiser	HMAS Stirling, WA
19-26 Mar	USS Sea Horse	submarine	HMAS Stirling, WA
29 Apr-5 May	USS Truxtun	cruiser	Brisbane
8-13 May	USS Truxtun	cruiser	Hobart
14-21 June	USS Cavalla	submarine	HMAS Stirling, WA
26 Jul-2 Aug	USS Indianapolis	submarine	HMAS Stirling, WA
11-18 Oct	USS San Francisco	submarine	HMAS Stirling, WA
16-23 Nov	USS Jacksonville	submarine	HMAS Stirling, WA

1983

Dates	Vessel	Type	Port
30 Dec-6 Jan	USS Omaha	submarine	HMAS Stirling, WA
20-26 Jan	USS Enterprise	aircraft carrier	Gage Roads, WA
20-26 Jan	USS Bainbridge	cruiser	HMAS Stirling, WA
20-26 Jan	USS Los Angeles	submarine	HMAS Stirling, WA
27 Jan-4 Feb	USS Sea Dragon	submarine	Hobart
12-14 Feb	USS Sea Dragon	submarine	Jervis Bay
31 Mar-7 Apr	USS Drum	submarine	HMAS Stirling, WA
6-13 May	USS Guitarro	submarine	HMAS Stirling, WA
1-7 July	USS Carl Vinson	aircraft carrier	Gage Roads, WA
1-7 July	USS Texas	cruiser	HMAS Stirling, WA
1-7 July	USS Phoenix	submarine	HMAS Stirling, WA
14-19 July	USS Texas	cruiser	Brisbane
18-25 Aug	USS Texas	cruiser	Hobart
29 Aug-1 Sep	USS Texas	cruiser	Albany
9-16 Sept	USS Boston	submarine	HMAS Stirling, WA
20-24 Sept	USS Boston	submarine	Hobart
5-12 Dec	USS William H. Bates	submarine	HMAS Stirling, WA

1984

Dates	Vessel	Type	Port
1-8 Feb	USS New York City	submarine	HMAS Stirling, WA
4-11 May	USS Tunny	submarine	HMAS Stirling, WA
22-27 June	USS Long Beach	cruiser	HMAS Stirling, WA
18-25 Sept	USS Corpus Christi	submarine	HMAS Stirling, WA
28 Sep-5 Oct	USS Aspro	submarine	Darwin
1-5 Nov	USS Dallas	submarine	Albany
6-12 Nov	USS Dallas	submarine	HMAS Sterling, WA

1985

Dates	Vessel	Type	Port
31 Jan-7 Feb	USS Indianapolis	submarine	HMAS Stirling, WA
11-17 March	USS Pogy	submarine	Darwin
16-20 April	USS Texas	cruiser	Hobart
19-26 April	USS Carl Vinson	aircraft carrier	Gage Roads, WA
24-29 April	USS Texas	cruiser	Brisbane
3-9 May	USS Puffer	submarine	HMAS Stirling, WA
19-24 July	USS California	cruiser	HMAS Stirling, WA
16-22 Sept	USS Jacksonville	submarine	HMAS Stirling, WA
31 Oct-7 Nov	USS Lapon	submarine	HMAS Stirling, WA
21-27 Dec	USS Portsmouth	submarine	HMAS Stirling, WA

1986

Dates	Vessel	Type	Port
29 Jan-4 Feb	USS Tautog	submarine	HMAS Stirling, WA
18-24 July	USS Enterprise	aircraft carrier	Gage Roads, WA
18-24 July	USS Arkansas	cruiser	HMAS Stirling, WA
18-24 July	USS Truxtun	cruiser	HMAS Stirling, WA
19-27 Dec	USS Carl Vinson	aircraft carrier	Gage Roads, WA

1987

Dates	Vessels	Type	Port
12-19 Dec	USS Long Beach	cruiser	HMAS Stirling, WA
23-30 Dec	USS Long Beach	cruiser	Hobart

1988

no visits

Sources: the annual reports on radiation monitoring. Dates for visits vary in minor respects in some cases from dates given in Senate, Hansard, 8 May 1985, pp. 1573-1581. The latter also lists a visit by USS Los Angeles to Cockburn Sound, WA between 15-22 February 1983, which is not listed in the 1983 annual report.

APPENDIX 4

BACKGROUND NOTE ON COMPENSATION ISSUES

PREPARED BY THE COMMITTEE SECRETARIAT

Introduction

A4.1 This note addresses legal issues relating to compensation for injury and loss caused by a reactor or nuclear weapon accident on a visiting warship. The threshold issue is determining the most suitable avenue for bringing compensation claims. Within whatever avenue is chosen issues arise with respect to: proving causation; the standard of liability to be applied; and possible time limits for the bringing of claims. Only with respect to the standard of liability is there a formal difference between weapon and reactor accidents with respect to the issues discussed in this note.

Views in Submissions

A4.2 As an accident involving a nuclear weapon or warship reactor has never happened in Australia, it is not surprising that a number of submissions express uncertainty as to the legal arrangements that would apply to those seeking compensation for injuries suffered in such an accident.[1] Others exhibit misconceptions, such as that United States acceptance of nuclear weapon accident liability is contingent on it retaining control of the emergency,[2] or that individuals cannot sue a foreign government

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1. See for example the submissions from the Peace Squadron (Sydney), p. 14; Greenpeace Australia (NSW) Ltd, pp. 34–35.
2. Submission from Chernobyl Collective of the Canberra and South-East Region Environment Centre, p. 3. No basis was provided for the statement. As a speculation, it may have been based on a misreading of article 20 of the 1963 Australia–United States status of forces agreement: see chapter 13 footnote 74.

in an Australian court.[3]

A4.3 The United States Congress, in Public Law 93-513 in 1974,[4] accepted absolute or strict liability[5] with respect to accidents involving its nuclear powered warship reactors. The British Government 'has provided a unilateral assurance to Australia on reactor accident liability comparable to that given by the United States'.[6] There does not appear to be any equivalent assurance issued by the French Government, although this point ought to be confirmed with the French authorities before it is stated unequivocally.

A4.4 Concern is expressed in submissions over the formal

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3. Submission from Senator J. Vallentine, p. 27 (Evidence, p. 1070).
4. US Public Law 93-513 (1974), codefied at 42 USC 2211.
5. Acceptance of absolute or strict liability means that the plaintiff would be relieved of the need to show that the accident was caused by the fault or negligence of the United States Government or those for whose acts it was legally responsible: US Senate Report No. 93-1281, (Public Law 93-513), U. S. Code Congressional and Administrative News, 1974, p. 6365. The acceptance of absolute liability does not extend to cases arising from combat or civil insurrection (PL 93-513) or to those who intentionally caused the accident (Senate Report No. 93-1281: ibid., p. 6366). To avoid possible confusion with the law setting ceilings on the liability of civil reactor operators in the United States, the following passage from the Senate Report No. 93-1281, which accompanied PL 93-513 should be noted.
   > The Resolution [which became PL 93-513] avoids mentioning any particular dollar ceiling on the amount of U. S. liability. It is important to be flexible on this so that domestic needs are not governed by practice in other countries. A specific sum would serve only as a target, and the U. S. Government has stated that it will take care of whatever damage its ships cause.
6. Senate, Hansard, 14 March 1986, p. 1096. The British Government has stated with respect to a reactor accident:
   > in the unlikely event of such an accident it would be our policy to pay compensation, subject to parliamentary approval of the necessary funds, for personal injury, death or damage to or loss of real or personal property proved to have resulted from the accident. Certain exceptions would have to be made. For example, such compensation would not necessarily be paid for damage or injury arising in the course of any armed conflict or civil disturbance, nor would compensation be paid to a person or his personal representatives or dependants, who intentionally caused the nuclear reactor accident ... .

   UK, Parliamentary Debates (Commons), 5th series, vol. 913, Written Answers, 15 June 1976, col. 99.

difference in the standard of liability as between weapon and reactor accidents.[7] Criticism is made of provisions in the Australia-United States Status of Forces Agreement (SOFA)[8] which provide that in nominated circumstances Australia would bear a proportion of the compensation costs due to an accident involving United States forces in Australia even though those forces were alone responsible for the accident.[9] Submissions note that it may be difficult to prove the cause of a radiation-induced illness, especially if a long time has elapsed between exposure to the radiation and the manifestation of symptoms.[10]

AVENUES FOR CLAIMING COMPENSATION

Official Statements

A4.5 In March 1986, the Government repeated its earlier statement relating to weapon accident compensation claims:

> Any claims for compensation resulting from a nuclear weapons accident would be dealt with through diplomatic channels in accordance with customary procedures for settlement of claims under generally accepted principles of law and equity. In the case of the United States, settlement of claims would take place in accordance with Article 12 of the Agreement between Australia and the US concerning the status of US Forces in Australia.[11]

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7. Submissions from the Medical Asociation for Prevention of War Australia (Vic), p. 1; Victorian Association of Peace Studies, p. 3; Mr M. Lynch, p. 5 (Evidence, p. 878).
8. Agreement between Australia and the United States of America concerning the Status of United States Forces in Australia, Canberra, 9 May 1963, (Australia, Treaty Series, 1963, No. 10).
9. Supplementary submission from Ms A. Weate and Ms L. Beacroft, p. 10; submission from Senator J. Vallentine, p. 27 (Evidence, p. 1070).
10. e.g. submissions from Ms A. Weate and Ms L. Beacroft, p. 6; Senator J. Vallentine, p. 26 (Evidence, p. 1069); the Peace Squadron (Sydney), p. 18.
11. Senate, Hansard, 14 March 1986, p. 1096 repeating a statement made in HR, Hansard, 23 August 1985, p. 458.

A4.6 A year later the Government modified the last sentence of this statement, saying instead that the 1963 SOFA 'contains provisions regarding claims arising from the activities of United States forces in Australia'.[12] Australia has no SOFA with the United Kingdom or with France.

A4.7 For reactor accident compensation claims relating to their respective warships, the United States and United Kingdom 'Standard Statements' both state that claims 'will be dealt with through diplomatic channels in accordance with customary procedures for the settlement of international claims under generally accepted principles of law and equity'.[13]

Government to Government Claims

A4.8 It is helpful to distinguish between the avenues open to an aggrieved individual to seek compensation and those open to the Australian Government to seek damages from the foreign country to which the warship belonged. The latter category of compensation might include any sums that the Australian Government had spent in compensation to individuals.

A4.9 The Committee might choose not to address the issue of inter-government compensation, regarding it as beyond the scope of its inquiry. It should be noted that warship visits are seen as beneficial to both the sending and receiving countries by the governments concerned. It is not inconsistent with this premise that both governments share the burden of providing compensation for accidents relating to the visits.

A4.10 The Victorian Government submission raises the issue of the present lack of contingency arrangements under which the Commonwealth would indemnify a State in respect of costs incurred by the State arising from a nuclear accident involving a visiting

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12. Senate, Hansard, 26 March 1987, p. 1389.
13. Evidence, p. 1079 (US) and p. 1300.16 (UK).

warship.[14] The Committee might also choose not to consider this issue. Investigation and resolution of compensation issues arising between the States and the Commonwealth would involve broad questions of policy going well beyond the Committee's terms of reference.

Individual Claims

A4.11 Individual compensation claims can be brought in a number of ways, either through the courts or administratively.

A4.12 First, the claim could be brought in the Supreme Court or a lower court of the State or Territory in which the accident occurred. It would be brought as an action for tort causing death or personal injury to a person and/or loss or damage to tangible property.[15] The foreign country would be immune to a claim where the only type of harm alleged was economic loss unconnected with physical injury or damage.[16] Australian law would apply. The terms of the Australia-United States SOFA would not affect the

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14. Submission from the Victorian Government, p. 4. See also the submission from Greenpeace Australia (NSW) Ltd, p. 34 (liability of State bodies).
15. Foreign States Immunities Act 1985, s. 13 read with the Judiciary Act 1903, s. 39.
16. Ability to recover for economic loss (e.g. cost of delay to a ship due to port closure during the emergency arising from the accident) would be uncertain even in an ordinary accident caused by an Australian: see for example D. F. Partlett, 'Economic Loss and the Limits of Negligence', Australian Law Journal, February 1986, vol. 60(2), pp. 73-76. On the reason for excluding foreign states from whatever liability might otherwise exist in respect of economic loss unconnected with physical harm to the plaintiff, see Australian Law Reform Commission, Foreign State Immunity, (AGPS, Canberra, 1984), p. 68. Note that under the British policy relating to reactor accidents (see para. A4.3) there would be no compensation for such economic loss.

litigation.[17] Legislation permitting ship owners to limit their liability in respect of shipping accidents does not apply to visiting naval vessels.[18]

A4.13 Secondly, the claim could be brought in the appropriate court of the foreign country concerned. The prospects of obtaining compensation in this way depend to some extent on the laws of the country, and differ as between the United States and Britain.

A4.14 The aftermath of the Bhopal chemical disaster in 1984 indicates how assistance from the legal profession in the United States can be made readily available on a contingency fee basis to those wishing to bring claims against a United States defendant following a disaster.[19] Similar assistance might be expected for Australians wishing to litigate their claims for compensation in United States courts following a nuclear accident involving a United States warship. However, from the limited research done in preparing this note it appears that obtaining compensation in United States courts would be problematical, at least for a weapon-related claim. This is because the United States has immunity from suit in its own courts except where the immunity has been waived by legislation. The general statute providing for waiver does not apply to 'any claim arising in a foreign

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17. In Australia treaties do not form part of the local law unless they have been made to do so by legislation. The Australia-US SOFA has been given legislative effect with respect to civil claims only in minor respects: see the Defence (Visiting Forces) Act 1963, s. 17. There does not appear to be any equivalent to the World War II regulation that provided that the Commonwealth stand in the stead of the United States as defendant in civil litigation relating to visiting US forces: cf. National Security (Claims against the Commonwealth in Relation to Visiting Forces) Regulations, No. 193 of 1943, r. 4(1).
18. Navigation Act 1912, ss. 3, 332(2).
19. The disaster occurred on 3 December 1984 at Bhopal, India. The first lawsuit was filed in a US court on 7 December, with other suits being filed in the following weeks: Keesing's Contemporary Archives, March 1985, vol. 131, p. 33468.

country'.[20]

A4.15 Other legislation permits actions to be brought in United States courts having Admiralty jurisdiction for 'damages caused by a public vessel of the United States'.[21] It seems reasonable to assume that a naval reactor accident would fall within this. It would depend to some extent on the particular facts whether a particular nuclear weapon accident on board a United States vessel came within this phrase. The meaning of the phrase has been much litigated in the United States in a number of contexts, none involving nuclear weapons.[22]

A4.16 A further hurdle for the plaintiff bringing a weapon

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20. Federal Tort Claims Act, 28 USC 2680(k). Any argument that an accident aboard a US warship in an Australian port or territorial waters occurred in the United States for the purpose of this Act would be unlikely to succeed: cf. Meredith v United States 330 F.2d 9 (1964): US Embassy in Bangkok is a 'foreign country' for purpose of the Federal Tort Claims Act. It should also be noted that the status of forces agreement between the US and Australia presumably applies as part of US law, pursuant to the general US constitutional provision giving treaties domestic legal effect. The consequences of this (if any) have not been explored in this note. Article 12(7)(a) of the 1963 SOFA provides:

> Claims shall be filed, considered and settled or adjudicated in accordance with the laws and regulations of Australia with respect to claims arising from the activities of Australia's own armed forces.

It might be that a US Court would interpret this provision as not merely a choice of law provision but rather as one denying it any jurisdiction over a claim brought in respect of damages suffered in relation to a US warship in Australia and to which the provisions of Article 12(7) apply. Among other matters, Article 12(7) does not apply to 'any claim arising out of or in connection with the navigation or operation of a ship ... other than claims for death or personal injury' to civilians: Art. 12(7)(f).

21. Public Vessels Act, 46 USC 781. The action may only be brought by a foreign national if the law in that national's country would permit a US citizen to bring an action in the courts of the foreign country in respect of the same type of claim as is being brought in the case; in other words, reciprocity is required: 46 USC 785. Australian law meets this test: Judiciary Act 1903, ss. 56, 64; Shaw Savill and Albion Co. Ltd. v The Commonwealth, (1948) 66 Commonwealth Law Reports 344.

22. It is clear that the phrase extends beyond damage directly inflicted by the vessel (e.g. by collision) to that caused by crew negligence: Canadian Aviator Ltd. v United States 324 US 215 (1945). The Extension of Admiralty Jurisdiction Act, 46 USC 740, obviates what would otherwise be a bar to Admiralty jurisdiction, that is when the negligent act occurs on a vessel but the resulting damage to the plaintiff occurs on land.

accident claim arises due to the ability of the United States to limit the monetary amount of its liability for shipping accidents in the same way as ordinary ship owners.[23] Limitation to $420 per gross ton[24] is available, but only where the accident happened without the 'privity or knowledge' of the owner.[25] Because the issue has never been litigated, it is not clear how this test would apply to a nuclear weapon accident.[26] The effect of the United States acceptance of absolute liability for its warship reactor accidents appears to be that limitation would not be available in suits arising from such accidents.[27]

A4.17 The Crown in right of the United Kingdom (ie. the British Government) does not have immunity in its own courts in respect of tort actions brought by foreign nationals arising out of British warship accidents occurring in foreign ports.[28] However, the question of the circumstances under, and extent to, which the British Government could or would limit its monetary

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23. Public Vessels Act, 46 USC 789. See for example a recent case not involving nuclear materials: Empresa Lineas Maritimas Argentinas S. A. v United States 730 F.2d 153 (1984).
24. 46 USC 183(b)-(c).
25. 46 USC 183(a).
26. There is a large body of case law on the meaning of 'privity or knowledge', none directly related to nuclear accidents. In 1960, the US Attorney General noted that it could be argued that as a matter of law a nuclear reactor accident could never happen without the 'privity or knowledge' of the vessel's owner: Opinions of the Attorney General, 1961-74, vol. 42, pp. 15-16.
27. See US Senate Report No. 93-1281, (Public Law 93-513), U. S. Code Congressional and Administrative News, 1974, p. 6366: in the event of a non-nuclear accident to a US nuclear powered warship, the ordinary Admiralty rules relating to exemptions and limitations would be available to the United States Government.
28. Crown Proceedings Act 1947 (UK), s. 2(1). See for example The Norwhale [1975] 2 All England Reports 501: action arising from the sinking of a barge in Fremantle harbour allegedly caused by the negligent operation of the British aircraft carrier, HMS Eagle.

liability in such an action would need to be considered.[29]

A4.18 A third avenue for those seeking compensation would be to ask the Australian Government to take up their claims with the foreign country. The Australian Government would negotiate through diplomatic channels for settlement. There is at least one precedent for settling radiation damage claims in this way.[30] The

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29. Given the UK Government's policy on liability for its warship reactor accidents, it would presumably not seek to limit its liability in a suit relating to such an accident. In broad terms, the ability to limit liability is the same with respect to naval as to merchant vessels: Crown Proceedings Act 1947 (UK), s. 5(1) as amended by the Merchant Shipping Act 1979 (UK), s. 19, Schedule 5, para. 3. The latter Act provides that the relevant rules shall be those contained in the 1976 international Convention on Limitation of Liability for Maritime Claims, modified as provided for in s. 17(2). Article 3(d) of the Convention states that the rules of the Convention do not apply to 'claims against the shipowner of a nuclear ship for nuclear damage'. 'Nuclear ship' is not defined. It presumably refers to a nuclear powered ship, but not to a conventionally powered, nuclear armed ship. If this is correct, the British Government could not rely on the legislation in order to limit its liability for a reactor accident. However, the right to limit would appear to be open in relation to a nuclear weapon accident, assuming the accident was sufficiently linked to the operation of the vessel for limitation to arise in the first place. The facts of a particular accident might negate the right to limit liability: for example, if the accident occurred due to the fault of the owner as defined in Article 4 of the Convention.

30. See Japanese Annual of International Law, 1959, vol. 3, p. 107, (Japan demanded compensation for radiation injuries suffered by its fishermen from a US nuclear test at Bikini Island on 1 March 1954; following negotiations the US agreed to pay $US2m.) Such diplomatic settlements are open to the criticism that they are arrived at through negotiation and compromise, rather than the normal winner-take-all result of arbitration or litigation: e.g. see Evidence, p. 581 (Prof W. J. Davis); submission from the Australian Nuclear Free Zones Secretariat, p. 6, which 'most certainly puts no trust in "normal diplomatic channels" to make adequate reparation'. cf. the submission from Ms A. Weate and Ms L. Beacroft, p. 8: 'it is doubtful if there is any customary [international] law governing reparation in cases of serious pollution such as nuclear damage'. This claim is repeated in L. Beacroft and A. Walton, '"Broken Arrows": Who Pays?', Australian Society, May 1987, p. 35. The sole source cited in support of the claim does not discuss radiation damage. The claim fails to distinguish the legal issues arising out of transfrontier pollution as a byproduct of normal industrial, irrigation, etc activities of private individuals from those due to an accident, moreover one involving a warship and occurring within the country seeking compensation, and hence lacking a transfrontier element.

Australia-United States SOFA would provide a framework.[31] In any large-scale accident it is likely that a special claims settlement procedure would be agreed, possibly with an ad hoc tribunal to resolve contested issues.[32]

A4.19 As a fourth avenue, those seeking compensation could make their claims directly on an administrative level to the foreign country concerned. These countries have an interest in maintaining goodwill and the continuation of warship visits. It cannot be assumed that they would fail to settle genuine claims. The opposite assumption is arguably more realistic.[33]

A4.20 This last method of compensation was used for nearly all claims arising from the United States nuclear weapon accident at Palomares, Spain in 1966.[34] The procedure involved a relatively informal statement of claim to a local office set up for the purpose by the United States. Claims were vetted administratively by United States personnel with local assistance, and justified claims were settled on the spot. Provision was made for emergency payments, pending settlement.

A4.21 One opinion of the Palomares settlement suggested that

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31. This framework has not had to stand the test of a large-scale disaster. In respect of the claims that have been brought, it is said that 'there have been very few problems': H. B. Connell, 'Australian Defence Arrangements' in K. W. Ryan (ed.) International Law in Australia (2nd edn., Law Book Co., Sydney, 1984) p. 245, n. 2.
32. To prevent such an agreed settlement procedure from being outflanked by individual actions in Australian courts, the Australian Government has the power to bar such actions if the agreed procedure so requires: Foreign States Immunities Act 1985, s. 42(2)-(4).
33. US Executive Order 11918 (1 June 1976), pursuant to Public Law 93-513, empowers the Secretary for Defense to authorise payment of claims as part of administrative claims settlement arising from a reactor accident on a US warship. With respect to nuclear weapon accidents, see Senate, Hansard, 29 September 1988, p. 1014: the Australian 'Government is confident that the US Government would promptly settle any proper claim for damage in the highly unlikely event of a nuclear weapon accident in an Australian port'.
34. The claims settlement is described in detail in US, Defense Nuclear Agency, Technology and Analysis Directorate, Palomares Summary Report, (DNA, 1975), pp. 149-181.

the particular procedure adopted was not the most appropriate and that administrative settlement pursuant to an international agreement was to be preferred.[35] The authors of an evaluation of the accident response concluded that the 'Palomares claims program was lengthy and caused considerable personal and political friction, both in Spain and in the United States'.[36]

A4.22 In July 1983, the USS Texas collided with a wharf in Brisbane, damaging the wharf. A claim for compensation for the damage was made to the United States Government on the administrative level. The claim was paid in full, with settlement occurring 22 months after the accident.[37] In September 1988, the USS Berkeley collided with a launch in Cairns during berthing. A claim for compensation has been made administratively by the launch-owner. It appears that the United States has accepted liability, although the amount of damages has yet to be settled.[38]

Conclusions

A4.23 There are good grounds on which the Committee could conclude that following any major accident a special claims settlement procedure would be established to meet the specific needs of claimants. Further, it would not appear to be useful to attempt to establish this procedure in advance. Such a procedure would probably be out of date if the need to use it ever arose. It might also not be optimum for the features of the particular accident.

A4.24 If the belief is incorrect that a specific procedure would be instituted following a major accident, it is nonetheless clearly arguable that existing avenues give plaintiffs adequate

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35. ibid., p. 180; the opinion is that of a senior US official involved in the Palomares settlement.
36. ibid.
37. Senate, Hansard, 12 December 1988, p. 4007.
38. ibid.

opportunity to pursue their claims.

CAUSATION AND LIMITATION PERIODS

A4.25 In order to succeed in a compensation claim, a plaintiff has to show that exposure to radiation for which the defendant was responsible caused the plaintiff's injury. For prompt or acute effects this presents no particular difficulty. However, for late effects (ie. years after the event) due to exposure to low doses the position may be different. In many cases, the most that scientific evidence can show is that the exposure increased the probability that the illness would result. But the statistical correlation between exposure and illness may be too low to support a verdict that the exposure caused the illness. Moreover, plaintiffs may have difficulty in proving in court the actual level of radiation to which they were exposed.

A4.26 A related difficulty may arise due to the general legal requirement that a claim be brought within a limited period after the illness was capable of being diagnosed. The late effects of exposure to radiation may remain undiagnosed after they are capable of being diagnosed. When diagnosis is eventually made the limitation period may have expired, although there is generally some provision allowing courts a discretion to extend the time.[39] This difficulty is not removed by any acceptance of a standard of

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39. The position both on when the limitation period starts to run and on any discretion of courts to extend differs between each jurisdiction in Australia: see generally Western Australia, Law Reform Commission, Report on Limitation and Notice of Actions: Latent Disease and Injury, (Project No. 36, part 1, October 1982), pp. 15-17, 47-62. In respect to the accident at Palomares, Spain in 1966, Spanish law appears to be the law governing compensation claims. This law is reported to provide a 20 year period for bringing claims, which commences from the time when the accident occurred. The local population were reported in 1985 to be concerned that they would have no avenue for compensation should cancer cases attributable to the accident become manifest after the 20 year period had expired: New York Times, 28 December 1985, p. 2, 'Where H-Bombs Fell, Spaniards Still Worry'.

strict liability.[40]

A4.27 Any problems that there may be in these respects are not unique to the type of radiation exposure which may result from an accident involving a nuclear powered or armed vessel. Nor are they unique to radiation exposure of any type. The same points may arise in litigating any of what are sometimes referred to as toxic torts, that is torts involving injuries with long latency periods and possibly caused by exposure to relatively low doses of a drug, chemical or radiation.[41]

A4.28 It can be argued that no special rules should apply to these issues as they relate to visiting warships. Rather the ordinary Australian law should apply in a way that does not discriminate against foreign countries. It would arguably not be appropriate for the Committee to address in its report the adequacy of the ordinary Australian law in such a broad area.

STANDARD OF LIABILITY

Introduction

A4.29 To recover in law generally, it may not be sufficient for the plaintiff to show a causal link between the harm suffered

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40. It should be noted that, conceptually, the issue of the applicability of a limitation period is independent of the issue of the applicable standard of liability. Acceptance of absolute liability by the US for US warship reactor accidents does not mean that these accident claims are not subject to a limitation period. The Senate Report No. 93-1281, relating to Public Law 93-513, notes that amongst the subsidiary matters it leaves to executive discretion is the question of a limitation period. The Report envisages that a limitation period for the submission of claims would be applied, but does not specify the period. Executive Order 11918 (1 June 1976) provides rules for some of the matters the Law leaves to executive discretion, but does not deal with the length of the limitation period.
41. e.g see D. A. Farber, 'Toxic Causation', Minnesota Law Review, 1987, vol. 71, pp. 1226-28.

and the act or omission of the defendant. As a general rule, the plaintiff must also show that the defendant's act or omission was negligent. Matters of both law and fact are involved in showing this. It must be shown that the law imposes a particular standard on persons in a position such as that of the defendant. It must also be shown that on the facts the defendant's conduct fell short of this standard.

A4.30 Proof of this factual element may pose difficulties following a warship accident, not least because all of the relevant technical information will be exclusively in the defendant's possession. A standard of strict liability, rather than liability based on negligence, is generally understood as meaning that the plaintiff is relieved of the burden of having to show that the defendant was negligent.

A4.31 It was pointed out earlier in this note that both the United States and the United Kingdom accept that a test of strict liability will apply to accidents involving the reactor on one of their warships. It is not clear that the absence of formal acceptance of a similar standard with respect to nuclear weapon accidents would disadvantage plaintiffs greatly in practice.

A4.32 On the particular facts, evidence of negligence may be clear. Alternatively, the foreign country may concede the issue.[42] It might be motivated a general desire to preserve port access rights in other countries by not being seen to be taking refuge in technical legal issues in an attempt to avoid liability. On the particular facts, it might also be motivated by a wish to avoid disclosure of classified or embarrassing

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42. cf. in a brief to the New Zealand Minister of Foreign Affairs from his Department dated 17 August 1976, the Department commented:

> it is inconceivable that the United States would act other than generously in meeting claims in the remote eventuality of an accident involving a nuclear weapon on board a visiting American warship.

The document was released under New Zealand's Official Information Act in June 1987.

information relating to weapon design or handling procedures.

A4.33 The general law of negligence in Australia includes a principle described by the Latin phrase res ipsa loquitur, which can be loosely translated as 'the event speaks for itself'.[43] Under this principle the law allows the fact that the accident has occurred to be evidence that the defendant was negligent. The plaintiff is relieved of the normal burden of specifying and proving the particular negligent act or acts of the defendant which caused the accident. The onus is on the defendant to show an absence of negligence on its part.

A4.34 The principle of res ipsa loquitur applies where an accident occurs that would not ordinarily be expected to occur in the absence of negligence. A further requirement is that the defendant must have been in control of the situation so as to create an inference that the negligence was that of the defendant. Both these requirements could be met if a nuclear weapons accident occurred on a warship under the control of its crew.

A4.35 The effect of the applicability of res ipsa loquitur is that a plaintiff suing under Australian law in respect of a nuclear weapon accident would, depending on the facts and assuming the defendant put in issue the standard of liability, often not be disadvantaged in practice by the formal absence of a strict liability standard. The likelihood of any disadvantage could only begin to be estimated once a credible accident sceanrio or scenarios had been determined.

A4.36 For claims taken up through the diplomatic channel, it would be open to Australia to agree with the other country to apply a strict liability (or some other) standard. In the absence of agreement the standard imposed by public international law is

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43. See generally F. A. Trindade and P. Cane, The Law of Torts in Australia, (OUP, Melbourne, 1985), pp. 351-356.

likely to be one of strict liability,[44] again assuming that the issue of whether negligence led to the accident is in issue.

A4.37 It should be noted that any agreement between the nuclear weapons country and Australia that the standard should be one of strict liability would not be effective of itself to make that standard applicable in an action brought under Australian law. It might well be, however, that that country would feel morally or politically obliged not to plead its case in such a way as to require the plaintiff to prove more than would be called for under the strict liability standard.[45] That standard would apply where the claim was brought subject to the agreement through the diplomatic channel. It would also apply as part of the law of the foreign country if made part of that law, as has been done in the United States in respect of warship reactor accidents.

A4.38 It is obviously better to have a clear agreement that the relevant standard for nuclear weapon accidents is one of strict liability, although the practical effect of the statement might not be major. Other countries have sought assurances that the applicable standard of liability for weapon accidents was to be the same as that for reactor accidents.

A4.39 In 1976, the United States Government referred the Government of Spain to the provision with respect to reactor accidents and gave:

> its further assurances that it will endeavor, should the need arise, to seek legislative authority to settle in a similar manner claims for bodily injury, death or damages to or loss of real or personal property proven to have resulted from a nuclear incident involving any other United States nuclear component giving

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44. See generally I. Brownlie, Principles of Public International Law, (3rd edn., Clarendon, Oxford, 1979), pp. 436-40.
45. cf. the accident involving the USS Berkeley in Cairns in September 1988, in which it seems that the US has not disputed liability although the amount of compensation has been an issue: see para. A4.22.

rise to such claims within Spanish territory.[46]

A4.40 The New Zealand and Canadian Governments appear to have obtained amendment of the United States 'standard statement' relating to nuclear powered warships so that it also covers nuclear weapons aboard visiting United States warships.[47] This unilateral assurance appears with respect to compensation to provide no more than that claims will be dealt with through diplomatic channels. It makes no specific reference to the standard of liability to be applied in evaluating claims.[48] The Australian Government has obtained a similar assurance, the exact terms of which remain classified.[49]

A4.41 The view that only limited disadvantage might be caused by the absence of formal acceptance by the United States of absolute liability for its nuclear weapon accidents has been noted. In the past there apparently has been some reluctance on the part of the United States to entering into any agreement involving such formal acceptance. In view of these points, it could be argued that there is little merit in Australia expending scarce diplomatic capital attempting to secure a formal acceptance.

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46. Note of 24 January 1976 from the United States Ambassador to the Spanish Minister of Foreign Affairs, accompanying the Treaty of Friendship and Cooperation between Spain and the United States of America, United Nations Treaty Series, 1976, vol. 1030, p. 124. The Spanish reply of the same date states that the Spanish Government accepts the contents of the Note 'and trusts in a broad application of its provisions': ibid., p. 126.
47. Brief from the New Zealand Department of Foreign Affairs to its Minister, 9 August 1976, p. 2 and 17 August 1976, p. 1. Both documents were released in response to an access request under New Zealand's Official Information Act.
48. The revised versions of the 'standard statements' given to Canada and New Zealand have not been sighted by the Committee secretariat. The statements in the text are based on the secondary sources cited in the previous footnote.
49. Senate, Hansard, 12 October 1988, p. 1260.

INSURANCE POLICIES

A4.42 A number of submissions noted that insurance policies on property in Australia exclude, by means of a standard clause, cover in respect of all types of nuclear accidents.[50] It was asserted that the exclusion was as a result of the way in which insurance companies had assessed the risk.

A4.43 The Insurance Council of Australia (ICA) has informed the Committee that this type of exclusion from standard cover was not directly related to visits by nuclear powered or armed warships. The insurance industry had not carried out any assessment of the risks of such visits. The reason for the exclusion was 'to bring the Australian market into line with other insurance markets and to ensure compatibility in reinsurance and treaty arrangements effected on a global basis'.[51] Although insurers are free to offer non-standard cover for nuclear risks, to the best of the ICA's knowledge none do so in Australia.

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50. e.g. Scientists Against Nuclear Arms (Tas), p. 6 (Evidence, p. 825); Mr K. Colbung, p. 3; Senator J. Vallentine, p. 25 (Evidence, p. 1068); Mrs E. Bruen, p. 1; Greenpeace Australia (NSW) Ltd, p. 34. See also Evidence, p. 924 (Mr M. Lynch). The regulations made under the Insurance Contracts Act 1984 provide for the exclusion, from various types of 'standard cover' policies, of libility in respect of damage resulting from:

> the use, existence or escape of nuclear weapons material, or ionizing radiation from, or contamination by radioactivity from, any nuclear fuel or nuclear waste from the combustion of nuclear fuel.

Statutory Rules 1985, No. 162, r. 15(d)(iii), which relates to home contents insurance. Similar provisions in these Rules relate to insurance for home buildings, sickness and accident, consumer credit, and travel.

51. Letter from the Insurance Council of Australia, 1 July 1988.