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Ballast Water Research and Development Funding Levy Collection Bill 1997

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Passage History

Ballast Water Research and Development Funding Levy Collection Bill 1997

Date Introduced: 24 September 1997

House: House of Representatives

Portfolio: Primary Industries and Energy

Commencement: 1 July 1998

Purpose

To:

- set out the criteria for and details of the imposition of a levy on certain ships entering Australian ports in order to provide funds for the Strategic Ballast Research and Development Program, and
- establish the Strategic Ballast Water Research and Development Fund.

Background

A ship embarking on a voyage must carry sufficient extra distributed weight over and above its own weight to maintain stability and limit stresses to the hull, immerse the hull and propellers

sufficiently to maintain propulsion, and provide effective steering. When sufficient cargo is not available, the extra weight is made up by ballast. Until the 1870s ballast was stones, pig iron or any cheap or convenient high density material. Iron and steel ships have tanks constructed within the hull, and filling them with seawater by means of power driven pumps provides an economic and quick method of adding ballast. It remains the standard method of ballasting ships today.

Australia, by the nature of its export trade in bulk cargoes (coal, iron ore, grains, woodchips), and minimal imports of bulk cargoes, has a large number of ships arriving at its ports in ballast. Around 121 million tonnes of ballast water from 5100 vessels are discharged in Australian waters each year. At least 40 Australian ports receive ships that discharge ballast water, and five of these (Newcastle, NSW, Port Hedland and Dampier in Western Australia, and Hay Point and Gladstone in Queensland) receive more than 50% of the ballast water discharged in Australian waters each year. Most is carried by bulk carriers, and approximately 70% originates in Asian ports. Half comes from Japan, taken on board from more than 42 Japanese ports.(1) A further 34 million tonnes of ballast water are transferred between Australian ports by ships operating in the coastal trade.

Ships' ballast water has the potential to spread unwanted aquatic organisms. At least 15 exotic marine species are thought to have arrived in Australia in ballast water. Some of these are having a major adverse effect on Australia's marine environment and pose a significant threat to seafood production, as well as human health. Of notable concern are:

- Brown kelp (*Undaria pinnatifida*) from Japan which was discovered in 1989 and is spreading along the eastern coast of Tasmania. The kelp attaches to rocks that are abalone feeding sites, and to the racks and lines of oyster and mussel farms, covering the shellfish.(2) It has recently been discovered in Victoria's Port Phillip Bay:(3)
- North Pacific Seastar (*Asterias amurensis*) which has been present in Tasmania's Derwent Estuary since the 1980s and has spread along about 200 km of Tasmanian coastline, further putting at risk Tasmania's shellfish industry,(4) and
- Giant sea worm (*Sabella spallanzanii*) which has been found in both Port Phillip Bay, where it has become a major threat to the scallop industry, and in Cockburn Sound in Western Australia.(5)

The introduction of toxic planktonic algae (in a group called dinoflagellates) in ballast water is of major concern. They cause "red tides" which kill fish and can lead to human poisoning and fatalities by contaminating seafood. A new species of toxic red algae was reported from Sydney Harbour and the Parramatta River in November 1996.(6) As well as these ballast water introductions, barnacles, worms and seaweeds have been transported to Australia on ships' hulls. The *State of the Marine Environment Report* (SOMER) identified the introduction of exotic marine organisms as one of the top concerns for marine and coastal habitats. It stressed that once the organisms arrive in Australian waters, it will be impossible to eradicate them.(7)

Management of ballast water in Australia is the responsibility of the Australian Quarantine Inspection Service (AQIS). In 1990 Australia was the first country to introduce guidelines for ballast water management which apply to ships entering Australia from overseas ports.(8) They include:

- measures at the ballasting port (wherever possible, the ballast water taken on is free of organisms; ballasting in shallow water is avoided; and water and bottom sediment in the area are certified free from toxic organisms);
- measures en-route (in-hold water treatment or exchanging the ballast water loaded in port with mid-ocean water to reduce the number of shallow water species present);

- measures on arrival, including non-discharge of ballast, on-shore ballast water treatment (subject to AQIS approval), or discharge of sediment into approved areas.

Ships' masters may use one or a combination of these measures, or the shipping company may enter into a compliance agreement with AQIS. Australia currently conducts a ballast water sampling program and monitors compliance with the guidelines. According to AQIS, 80% of ships now entering Australian waters comply with the guidelines.(9)

Additionally, the shipping industry and the states have joined AQIS in developing improved methods to minimise the spread of marine organisms from infected areas of Australia to non-infected ports and adjacent waterways. A discussion paper on *Australian Coastal Ballast Water Guidelines* has been published by AQIS.

The transfer of unwanted aquatic species and organisms is recognised internationally as an important global issue. Of current concern is the voracious jellyfish, *Mnemiopsis leidyi*, which is causing havoc in the Black Sea and which is thought to have come from the bilge water of a North American ship in 1982,(10) and the Zebra Mussel which entered the Great Lakes of North America around 1988. By 1993 the mussel had invaded almost 50% of all waterways in the USA, killing off native species and clogging the inlet pipes of ships and shore power plants. The cost of controlling (not eradicating) this mussel is estimated to be \$US 1 billion a year.(11) In 1991 the International Maritime Organisation (IMO) adopted *International Guidelines for Preventing the Introduction of Unwanted Aquatic Organisms and Pathogens via Ships Ballast Water and Sediment Discharges* which incorporate the Australian guidelines. Australia has also been active within the IMO Marine Environment Pollution Committee which is working to develop a new annex to the MARPOL Convention (the International Convention for the Prevention of Pollution from Ships) specifically for ballast water.

The Australian ballast water guidelines have been complemented by a number of recent initiatives, including the adoption in 1995 of a Ballast Water Management Strategy and the establishment of the Australian Ballast Water Management Advisory Council whose members are drawn from Federal and State government, industry, research and environmental agencies, and whose task is to oversee the administration of the Strategy. The Council has implemented a Strategic Ballast Water Research and Development Program, and set up a Research Advisory Group to co-ordinate and manage research into the scientific and technical problems associated with ballast water management. Some areas of current research interest include the treatment of ballast water with waste heat generated by the ship's engine, the development of a rapid diagnostic test for the identification of toxic dinoflagellates, and long-term biological control of exotic marine organisms already in Australia's coastal waters.

In March 1997 the Prime Minister, Hon John Howard announced that, as part of the Government's Coasts and Clean Seas Initiative, \$1 million would be allocated from the National Heritage Trust to fund the Strategic Ballast Water Research and Development Program for the 1997/98 financial year. The purpose of this legislation is to raise an additional \$2 million to fund ongoing research. A charge of \$210 for bulk carriers and \$140 for all other ships with a length of 50 metres or longer, including tankers, will be levied on all vessels entering Australian waters from 1 July 1998. Once the \$2 million has been raised, the levy will be ceased.(12) The levy is fully supported by the shipping industry and the amount is expected to have a relatively low impact on the industry compared with costs of up to \$20,000 per day for a ship lying idle in port.(13)

Main Provisions

The Levy

Clause 6 provides that levy is payable in respect of a ship, other than an exempt ship. 'Ship' is defined very widely to mean a vessel of any kind that is used in navigation, other than a vessel that is ordinarily propelled by oars.

An exempt ship is one which is declared by regulation to be an exempt ship.

Digest Comment: The Minister's Second Reading speech in respect of the *Ballast Water Research and Development Funding Levy Bill 1997* and the Explanatory Memorandum to this Bill both provide that the levy will only apply to ships which are at least 50 metres long.

That qualification is not set out in the Bill. Presumably ships of less than 50 metres in length will be declared as exempt ships by the regulations.

The ship's owner, its master and any agent or consignee of the ship who has paid, or is liable to pay, any charge on account of the ship are jointly and separately liable for pay the levy in respect of the ship.

Clause 7 sets out the frequency with which the levy is payable. The overriding provision is that levy is payable, in respect of a ship, no more than once in any quarter.

An agent or consignee of a ship who has paid an amount of levy in respect of the ship may retain the amount of the levy paid from any money received on account of the ship or belonging to its owner (**clause 10**).

The Fund

Clause 11 establishes the Strategic Ballast Water Research and Development Fund.

Miscellaneous

Clause 15 provides that the Act ceases operation on a date to be fixed by proclamation.

Digest Comment: The Minister's Second Reading speech in respect of the *Ballast Water Research and Development Funding Levy Bill 1997* states that the levy will operate for a period of 2 years, ceasing once an amount of \$2 million has been collected. The Explanatory Memorandum to this Bill reinforces this by stating that the levy will be ceased by proclamation once the \$2 million has been raised.

Concluding Comments

The Department of Primary Industries and Energy has advised that an amount of approximately \$1 million is spent on ballast water research each year. The \$1 million appropriated from the National Heritage Trust combined with the \$2 million raised by this levy will fund research until 30 June 2000. Funding arrangements for research beyond that date are presently being considered.

The Department has also commented that any continuation of the levy beyond the two year period would require renegotiation of the agreement with the industry.

As mentioned in the background to this Digest, the potential problems created by ballast water appear to be significant. The amount of the levy, \$210 or \$140 per quarter, appears quite small when compared to the amount charged by vessel owners for carriage of cargo or the amount paid by vessel owners in port fees. In this regard, it may be open for environmentalists to argue that ship-owners are

getting off lightly in that they are only having to pay a relatively small amount for research into a potentially significant problem caused directly by them.

Endnotes

1. Megan Bonny, 'Ballast water: the scourge of the oceans', *Search*, v.25(3), April 1994: 72.
2. *ibid*: 73.
3. 'Discovery of Japanese kelp raises fears of Port Phillip invasion', *The Age*, 17 August 1996: A5.
4. Richard McLoughlin & Ronald Thresher, 'The North Pacific Seastar: Australian most damaging marine pest?', *Search*, v.25(3), April 1994: 69-70.
5. Megan Bonny, 'Preventing the invasion of marine immigrants', *Search*, v.26(3), April 1995: 81.
6. 'Red tide of toxic algae threatens harbour's fish', *Sydney Morning Herald*, 14 December 1996: 5.
7. *The State of the Marine Environment Report for Australia*, compiled by Leon P. Zann, Great Barrier Reef Marine Park Authority, Townsville, 1995: 64-5.
8. *Voluntary Controls on the Discharge of Ballast Water and Sediment from Entering Australia from Overseas*, AQIS, Notice (General Quarantine) 90/1. Updated in July 1992 as Notice 92/2.
9. 'Ballast water goes under microscope', *Australian Environment Review*, v.11(4), May 1996: 8.
10. 'Scientists all at sea on how to handle voracious jellyfish', *Sydney Morning Herald*, 30 September 1997: 8.
11. Russell Reichelt & John Chapman, 'Marine organisms in ballast water: scientific aspects and operational methods for minimising them', *Maritime Studies*, no.86, Jan./Feb. 1996: 9.
12. Second Reading Speech, House of Representatives, *Hansard*, 24 September 1997: P8194.
13. Explanatory memorandum, Ballast Water Research and Development Funding Levy Bill 1997: 5.

Contact Officer and Copyright Details

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Bills Digest Service

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