

Administrative Appeals Tribunal decision allows scuttling of the Ex-HMAS Adelaide to proceed

Background

In 2000 the Central Coast Artificial Reef Project (CCARP) began lobbying the Australian Government to secure a navy vessel to be sunk as an artificial reef and dive site on the NSW Central Coast. They achieved success when the Australian Government announced in 2007 that the Ex-HMAS Adelaide would be gifted to the NSW Government for this purpose. The project would benefit the Central Coast economy through increased tourism, while also providing important scientific research and educational opportunities.

The ship was handed over to the NSW Government in June 2009, and the Land and Property Management Authority (LPMA) engaged an experienced contractor to carry out a comprehensive cleaning process to ensure the ship met the stringent environmental and health requirements set by the Department of Environment Water Heritage and the Arts (DEWHA). After the clean-up process was completed, DEWHA issued an Artificial Reef Permit under the *Environment Protection (Sea Dumping) Act 1981* and the ship was scheduled to be scuttled near Avoca Beach on 27 March 2010.

The scuttling was halted after the No Ship Action Group (NSAG) applied to the Tribunal to review the decision by DEWHA to issue the Artificial Reef Permit. The Tribunal's role was to consider whether DEWHA's decision to grant the permit was the 'correct and preferable' decision.

The Administrative Appeals Tribunal handed down its decision on 15 September 2010, allowing the scuttling of Ex-Adelaide as an artificial reef to proceed with some extra conditions relating to the preparation of the ship and environmental monitoring.

What were the key issues before the Tribunal?

The NSAG originally had a long list of environmental concerns, principally claiming that the marine environment would be polluted by the scuttling of Ex-Adelaide due to leaching into the marine environment of polychlorinated biphenyls (PCBs) and a range of heavy metals.

On the second day of the hearing, the NSAG dropped their claims regarding PCBs and most of the heavy metals. The case proceeded principally upon their concerns relating to potential harmful effects from lead-based paint and the copper-based anti-fouling system.

The NSAG also argued that the proposal was contrary to the international convention known as the London Protocol¹. The NSAG wanted the ship to be recycled for scrap metal.

Evidence before the Tribunal

The Tribunal heard evidence from a number of experts on these issues, including DEWHA's consultant who has assessed many vessels sunk as artificial reefs, as well as independent Australian and American experts in environmental monitoring and risk assessment. Evidence was also presented on environmental monitoring results from case studies of other vessels placed as artificial reefs in Australian and American waters for similar purposes to the Ex-Adelaide Project.

¹ also called the *1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972*

The Ex-Adelaide had been prepared to meet DEWHA's standards which were defined and specified during the months of preparing the ship for scuttling. DEWHA had conducted a series of inspections to confirm that its detailed requirements were achieved.

In summary, the NSW Government presented expert evidence that:

- the risk of leaching of PCBs was negligible and the risk of contaminating the marine environment was negligible;
- the likelihood of harmful effects on the marine environment from copper leaching was low;
- due to the type of lead that was present - lead tetroxide, which is a particularly inert and insoluble type of lead - the likelihood of harmful effects on the marine environment was low; and
- the proposed scuttling was consistent with the London Protocol as it entailed the deliberate placement of the ship for the purpose of creating an artificial reef that will attract marine life, and hence was not 'dumping'.

The Tribunal's findings

Following is a summary of the key findings of the Tribunal, together with some background on the ship preparation process. The full decision is available from the Tribunal's website www.aat.gov.au².

1. PCBs

Known potential sources of PCBs were identified and removed from the ship during the original clean-up process by the Department of Defence (prior to handing over the ship to the NSW Government) and LPMA's contractor. These included a limited number of components in electrical cabinets and transformers. In addition, over 73 tonnes of copper cabling were removed from the ship and recycled.

A comprehensive testing program was undertaken to analyse 83 representative samples using NATA³ accredited laboratories. The outcomes of these tests were that:

- Only three samples had any measurable amount of PCB, and all were less than the nominated threshold level for classification as a scheduled PCB material of 50mg/kg of Total PCBs.
- Even though the results were well below the nominated threshold level, the materials at these locations were removed from the ship.
- The worst-case mass of PCB remaining on the ship was estimated at less than 100 grams (less than the amount contained in the capacitors of four older-style fluorescent lights). The NSAG's expert calculated an even lower estimate of less than 60 grams.
- The amount of PCB remaining on the ship now would be negligible. Reports by environmental risk experts concluded that the risks to the environment are negligible.

Although the NSAG withdrew its claims regarding PCBs, the Tribunal considered the evidence on PCBs and concluded:

'We note that cabling and related equipment likely to contain PCBs has largely been removed from the ship... Although remaining quantities of PCBs are very likely below the level of significant concern, it is ...our view... that the process of removal should be completed before the ship is scuttled.' [53]⁴

² No Ship Action Group Inc. and Minister for Sustainability, Environment, Water, Population and Communities, and State of New South Wales (Joined Party); 15/09/2010; Justice Downes, President, Mr P Wulf, Member, Mr M Hyman, Member

³ National Association of Testing Authorities

⁴ References in square brackets indicate the source by the paragraph number in the Tribunal's report.

2. Lead

The original clean-up process by LPMA's contractor included removing loose or flaking paint in accordance with DEWHA's requirements.

The NSAG temporarily dropped the lead issue but raised it again during the course of the hearings. A total of 110 paint locations were then tested from representative locations across the ship, confirming the presence of lead primer at some locations on the steel lower decks of the ship. The paint at other locations tested had yellow primer, red oxide, white topcoat and grey topcoat which did not contain lead. The use of lead-based primer is only relevant to the internal steel hull and lower decks of the ship where it was used for corrosion protection, as the superstructure is constructed of aluminium.

The United States and Canadian guidelines for creation of artificial reefs do not require the removal of lead paint prior to scuttling. These guidelines are used by the Australian authorities in their assessment process for artificial reef permits. The only requirement is to remove 'loose or flaking paint', defined as paint that can be removed with a wire brush using reasonable force.

The likely mass of lead remaining on the ship was estimated at approximately 750 kg, with a worst-case estimate of 2.3 tonnes, compared to the original estimate by the NSAG's expert of 28 tonnes. Reports by environmental risk experts concluded that the risks to the environment and human health from the presence of lead-based primer are negligible because:

- the lead primer used is in the form of lead tetroxide, which is very insoluble so there would be minimal leaching; and
- the lead is in a form that has low bioavailability, little potential for bioaccumulation, and does not biomagnify.

The Tribunal concluded that a critical issue in the assessment of lead is its bioavailability, and that *'all the information available to us points to a conclusion that there is no risk of harm to human health or the environment'*. [72]

The Tribunal concluded that there was no risk from lead and no locations with loose or flaking paint were identified. However, the Tribunal took a precautionary approach and added a new condition to the Permit requiring the canvas covering and insulation to be removed to enable the paint surfaces underneath to be examined and for any loose or flaking lead paint found underneath to be removed.

3. Copper

Reports by environmental experts concluded that the risks to the environment from the presence of copper in the anti-fouling paint are not a significant concern because:

- the coating is designed to leach as part of its protective process, and the leaching rate declines after the first six months;
- because of this declining rate, the Navy's standard practice is to apply a new coating every five years; and
- the last coating was applied to the Adelaide seven years ago, so it is near the end of its useful life, thus reducing the amount of copper remaining that could be released into the marine environment.

The Tribunal noted that copper is a known biocide in the marine environment, which is why it is used in anti-fouling paints. The Tribunal concluded that the scuttling of the ship will lead to a limited increase in the concentration of copper in the vicinity of the wreck and that copper will be dispersed in the active ocean environment around the wreck.

The Tribunal finding was *'that the antifouling is seven years old, that the majority of the anti-fouling coating is already depleted and that the risks to the environment from the remaining anti-fouling coating into the active environment surrounding the sunken ship are not significant.'* [89]

4. The London Protocol

In preparing the ship for placement as a reef, a significant portion of the material removed from the ship has already been recycled. This includes over 500 tonnes of copper, aluminium, stainless steel, and lead ballast.

The Tribunal concluded that, in the context of recycling, the scuttling of the Adelaide as an artificial reef is a reuse of the ship. The Tribunal also concluded that the purpose of the scuttling – to create an artificial reef – is recognised by the *Environment Protection (Sea Dumping) Act* as a proper purpose.

The Tribunal's conclusions

The Tribunal concluded that:

- *'There are benefits to the environment from the resulting marine habitats generated, as well as more general benefits to the community. The level of pollutants now aboard the ship is low, and those that remain are either in very low quantities or inert and unlikely to cause any environmental problem...'* [97];
- given the low levels of environmental risk, the re-use of Ex-Adelaide through scuttling as a dive wreck is consistent with the aims of the London Protocol; and
- the preferable decision was to grant a permit to allow the placement of Ex-Adelaide as an artificial reef, agreeing with the original conditions imposed by DEWHA plus some additional conditions.

The Tribunal's additional conditions related to:

- completion of the process of removing any remaining wiring which might be associated with PCBs;
- the removal of canvas and insulation from the ship;
- removal of any loose or flaking lead-based paint that might be found behind the insulation; and
- an extra two sites to be tested for lead in the existing environmental monitoring program set out in the Long Term Monitoring and Management Plan.

What are the next steps in the project to scuttle the Ex-Adelaide?

LPMA is assessing the additional work required by these conditions in consultation with the contractor engaged to prepare and scuttle the ship. Once this assessment is completed, a timetable for completing this exciting project will be established.

This will allow the Central Coast to reap the recreational, tourism and economic benefits of this project as well as the educational and scientific research opportunities.