



U.S. Environmental Protection Agency



U.S. Maritime Administration

This document is one section from the “National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs,” published in May 2006. The reference number is EPA 842-B-06-002. You can find the entire document at <http://www.epa.gov/owow/oceans/habitat/artificialreefs/index.html>.

National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs

Appendix D

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Developing Workplans for Vessel Preparation Prior to Reefing

Determining the type and location of the potential sources of contamination from a vessel intended for use as an artificial reef should be conducted as part of a workplan for vessel clean up and preparation. The purpose of such a workplan is to assure that materials of concern potentially contributing to pollution of the marine environment are addressed prior to reefing. The development of a workplan also can allow for more effective clean-up efforts during vessel preparation by considering activities such as recycling and reuse operations and possibly diver safety preparations. Any such salvage operations should occur in a manner that will minimize debris and contamination with oils or other products that have to be cleaned up at a later date. This activity may allow for improved access for subsequent clean-up efforts.

Information which may be useful in the preparation of a workplan could include:

- Asbestos documentation for the vessel;
- PCB documentation for the vessel;
- Documentation that naval vessels have been previously demilitarized and certified to be radiologically decontaminated;
- Documentation that refrigerants and halons have been removed from shipboard systems;
- Information on hazardous materials onboard the vessel;
- Information on exterior hull paint which could include paint type and date of last application;
- General drawings of machinery, compartments, and tank layouts;
- Description of vessel dimensions including size, weight, and superstructure materials;
- Tank soundings describing the volume and contents of fuel oil tanks prior to preparation for reefing;
- List of items with beneficial reuse potential to be salvaged prior to sinking;
- Assessment of applicable laws and regulations, including permit requirements; and
- Reef site surveys and proposed site preparation.

An assessment of the above mentioned information could then direct the actions needed for preparation of the reef project workplan. Some general workplan preparation actions include:

- Assess vessel drawings and dimensions;
- Identify which items will remain on the vessel;
- Identify items to be salvaged prior to sinking;
- Estimate economic viability of the reef project (including permit costs and timeframes);
- Determine if the vessel is a good candidate (i.e., does the workplan fall within reasonable time and financial commitments);
- Coordinate with all regulatory agencies, local, regional, State and federal, as well as stakeholders, during all project phases;
- Apply for and receive the appropriate permits for the project;

- Remove hazardous materials and clean vessel;
- Inspect vessel to clear all findings (that the workplan for removal of materials as well as the vessel clean-up is met);
- Conduct vessel stability analysis;
- Develop strategy for vessel sinking;
- Notify NOAA to update nautical charts once the ship has settled on the ocean floor;
and
- Deploy relevant aids to navigation and mooring/marker buoys at the site.