Appendix B:

Summary of Environmental Regulations Affecting Shipyards

Water Pollution Regulations

Shipyards are regulated by the Clean Water Act and in Washington by the State Water Pollution Control Act, both of which are carried out by the state Department of Ecology. The department operates a waste discharge permit program for discharges to surface and groundwater, sewers and storm drains, and issues both state permits and National Pollutant Discharge Elimination System (NPDES) permits. Facilities that discharge directly to surface water are called direct dischargers, and must obtain NPDES permits.

Facilities that discharge to a Publicly Owned Treatment Works (POTW) are called indirect dischargers, and their discharge permits come from the POTW to which they discharge. Indirect dischargers must meet the following requirements:

The discharge cannot:

- ❑ Create fire or explosion
- ❑ Have a pH less than 5.0 or greater than 12.0
- ❑ Obstruct the flow of wastewater through the system
- ❑ Interfere with the sewage plant operations
- ❑ Contain excessive heat
- ❑ Contain excessive petroleum, mineral, or non-biodegradable oils

Indirect dischargers also must comply with metals and toxic organics concentration limits that are the same as or more strict than those prescribed for direct dischargers.

Submission of Plans and Reports for Construction of Wastewater Facilities

Chapter 173-240 of the Washington Administrative Code provides direction to shipyards for submission of plans and reports for the construction of wastewater facilities as determined from the facility-specific AKART process. Shipyards may submit engineering reports, plans and specifications, and an operation and maintenance manual to the Department of Ecology either in stages or all at once for review. The department will approve, conditionally approve, comment on, or disapprove the documents.

The purpose of this process is to ensure that the proposed facilities will: 1) be designed, constructed, operated and maintained to meet effluent limitations and other requirements of an NPDES or state waste discharge permit, 2) meet policies and requirements of regulations pertaining to preventing and controlling water pollution, and 3) be consistent with good

engineering practices. All documents must be prepared under supervision of a professional engineer, and bear the engineer's seal.

Guidelines for submitting the engineering report are included in Section 173-240-130. The list should be treated as a checklist to ensure that the report fulfills all department requirements. The checklist includes: specific business information, industrial processes, wastewater generation, wastewater treatment options, construction/installation plans, and cost analysis. Two copies of the engineering report must be submitted to the department.

Section 173-240-140 provides the guidelines for submitting plans and specifications as noted in the engineering report. The plans and specifications section must include drawings of major components such as the treatment units, pump stations, flow measuring devices, sludge handling equipment, and influent and effluent piping. Two copies of plans and specifications also must be submitted to the department for approval.

The final requirement involves the submission of operation and maintenance manuals, as detailed in Section 173-240-150. The purpose of the manual is to present technical guidance and regulatory requirements to the operator for both normal and emergency conditions.

Air Pollution Regulations

The 1990 Clean Air Act directs the U.S. Environmental Protection Agency (EPA) to regulate airborne emissions of 189 toxic chemicals. To control emissions of these chemicals, the EPA issues National Emission Standards for Hazardous Air Pollutants (NESHAPs).

On Dec. 15, 1995, EPA finalized a rule covering air emissions of Hazardous Air Pollutants (HAPs) from shipbuilding and ship repair surface coating operations. If a facility has the potential to emit 10 tons of any one hazardous air pollutant or 25 tons of any combination of such pollutants, then it is considered a major source, and is responsible for controlling emissions under this standard.

Reducing emissions below these levels can eliminate the need to comply with this standard. However, if compliance with this emissions standard is unavoidable, then all affected shipyards were required to submit an implementation plan by Dec. 16, 1996 and must use coatings that meet the emissions limits by Dec. 16, 1997.

This emissions standard has other requirements covering implementation plans, work practices, record-keeping and reporting. More information on these requirements is available through state Small Business Assistance Program representatives or local air quality authorities.

Hazardous and Toxic Materials Regulations

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, put in place a national hazardous waste management system that tracks waste from "cradle to grave." Amendments

enacted in 1984 brought small generators into the system and put into place other requirements, including restrictions on land disposal of hazardous waste, guidelines for underground storage tanks, and waste minimization requirements for hazardous waste generators. Examples of regulated waste streams include copper, zinc, cadmium and other heavy metals.

Wastes are determined to be hazardous if they contain any of the items listed on the U.S. EPA's list of hazardous wastes or if they have any one of four hazardous properties: ignitability, corrosivity, reactivity or toxicity.

Certain other wastes are automatically defined as hazardous unless they are proved not to be. Wastes in this category that pertain to the ship building and repair industry include wastewater treatment sludges, spent grit from dry sandblasting operations, waste paint chips and dust from hull stripping processes, and spent stripping and cleaning solutions.

Each facility that generates or accumulates hazardous waste is designated as a large quantity generator (LQG), a small quantity generator (SQG) or a conditionally exempt small quantity generator (CEG) based on the monthly quantity of generation and accumulation. (In Washington, different terms are used: the corresponding category names are large quantity generator [LQG], medium quantity generator [MQG], and small quantity generator [SQG].) The greater the quantity generated, the more requirements a facility must adhere to.

Superfund and Emergency Planning, Community Right-to-Know Regulations

Regulations related to cleanup of contaminated sites, emergency planning, and community right-to-know come from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, and the subsequent Superfund Amendments and Reauthorization Act of 1986 (SARA). SARA includes the Emergency Planning and Community Right-to-Know Act (EPCRA). These laws require reporting of spills that exceed a specified amount, which varies depending on the substance, and reporting on the use, storage and disposal of hazardous materials. Reporting requirements include submitting Material Safety Data Sheets for chemicals used, inventories of chemicals stored on-site, and filing a toxics release inventory report for facilities that meet certain criteria.

The toxics release inventory (TRI) is a compilation of information contained in the reports submitted to EPA by companies which are in SIC codes 20-39, have 10 or more full-time employees, and use or process any of the more than 650 chemicals on the toxics chemicals list above specified threshold levels. Large federal shipyards have been among the facilities required to file TRI reports.

Pollution Prevention Planning Regulations

In Washington, the Hazardous Waste Reduction Act of 1989 requires pollution prevention plans from facilities that file TRI reports or whose hazardous waste generation exceeds a

specified threshold. In Oregon, the Toxics Use Reduction and Hazardous Waste Reduction Act of 1990 requires pollution prevention plans from facilities that are large toxics users as defined in the state law, or are LQGs or SQGs as defined in federal hazardous waste regulations.

While facilities covered by the laws are required to write a plan and report progress toward reaching plan goals, there is no regulatory requirement for implementing identified pollution prevention opportunities or for reducing chemical usage or releases by a specified amount.

Other Regulatory Requirements

In addition to the environmental regulations described above, shipyards are affected by a number of occupational safety and health regulations. These include requirements for hazards communication in the workplace, emergency response planning, electrical safety, respiratory protection, flammables storage, and noise protection.