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3.0 STATE LAWS

[In many cases the citations to state laws are to session laws. In other cases the state laws merely refer to various provisions of federal law. Although current versions of many of these laws are available on Westlaw, some are not.]

State environmental laws can dramatically affect ship breaking/recycling. The states administer air and water quality and hazardous waste programs that, as a rule, are at least as strict as the federal program. In some cases, the state run programs are for more stringent than the federal program, such as the California air program.

Programs that the states have created in response to local concerns can also affect ship breaking/recycling. The states' regulatory scheme can even preclude ship breaking/recycling in some states. California, for example, regulates activities in its coastal zone. The rigor of these regulations far exceeds the stringency required by the Coastal Zone Management Act.

3.1 CALIFORNIA

3.1.1 Regulatory Agencies

Regulatory responsibility in California has recently been centralized in the California Environmental Protection Agency. This new agency brings under central management the Air Resources Board (and 34 regional Air Quality Management Districts), the Water Resources Control Board (and 13 regional Water Resources Control Boards), and the Integrated Waste Management Board.

The California Resources Agency provides a central point of contact for most environmental issues involving the use of natural resources. Within the California Resources Agency are the Department of Conservation, the Department of Navigation and Ocean Development, the Bay Conservation and Development Commission, the Colorado River Board, the Department of Fish and Game, the Department of Parks and Recreation, the Department of Water Resources, the Department of Forestry and Fire Protection, the Coastal Commission, and the California Conservation Corps.

Other involved agencies include the Emergency Planning and Response Commission, the Pollution Control Financing Authority, the Business Environmental Assistance Center, the California Coastal Commission, and the Department of Toxic Substances Control.

3.1.2 Air Pollution Control

The South Coast and Bay areas are subject to strict emission controls on fossil-fueled machinery and other air pollution sources. Carbon monoxide and NO_x pollution is a significant problem in coastal areas where vessel breaking/recycling may be performed. Precursors to ozone pollution, such as VOCs, are strictly controlled.

3.1.3 Water Pollution Control

California manages a State Pollution Discharge Elimination System permit program under the Clean Water Act. The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) established additional requirements severely restricting the discharge of any chemical that could cause cancer or reproductive harm. U.S. EPA Region IX administers the industrial effluent pretreatment program for industrial effluents discharged to POTWs. Local water boards handle underground storage tank cleanup and permitting issues.

3.1.4 Hazardous Waste Management

California has authority to administer RCRA and regulates hazardous waste.

3.1.5 Coastal Zone Management

California defines the coastal zone to include land up to 1000 yards inland from the mean high tide. Coastal development is regulated by the Coastal Commission, the San Francisco Bay Conservation and Development Commission (for development in the San Francisco area) and local agencies. Permits are required for development of coastal areas.

3.1.6 Environmental Impact Assessments

An assessment of the potential environmental impact of major projects may be required. The project sponsor must pay the cost of the assessment. In California there is also a substantive requirement that the environmental impact be minimized.

3.2 LOUISIANA

3.2.1 Regulatory Agencies

The U.S. EPA manages the NPDES permit program under the Clean Water Act. State agencies regulate in other areas. State agencies include the Department of Environmental Quality, the Governors's Office of Permits (where help may be obtained with all business permits), the Department of Public Safety and Correction, the Department of Wildlife and Fisheries, and the Department of Natural Resources. Very few local agencies exercise regulatory authority on environmental issues.

3.2.2 Air Pollution Control

Louisiana has authority to administer Clean Air Act permit programs. Ozone pollution is a problem in urban areas, and regulation of ozone precursors, NO_x and VOCs, will be stringent.

3.3.4 Hazardous Waste Management

Maryland has authority to administer RCRA and regulates hazardous wastes.

3.3.5 Coastal Zone Management

Maryland has a comprehensive coastal zone management program for state lands adjacent to the Chesapeake Bay and the Atlantic Ocean. Special controls for the tidal areas of the Bay are established by local governments to conform to standards set by the Chesapeake Bay Critical Areas Commission. The primary focus of the state program is to reduce the release of plant nutrients into the Bay.

3.3.6 Environmental Impact Assessments

The state does not have this requirement.

3.4 NEW YORK

3.4.1 Regulatory Agencies

In New York, environmental regulation is decentralized. State authority resides in the Department of Environmental Conservation with nine regional offices and some satellite offices. Within the department are divisions for air, water, marine issues, and hazardous waste management, among others. There is also an Emergency Response Commission. The New York State Department of State manages coastal zone programs, with most authority delegated to municipalities.

3.4.2 Air Pollution Control

New York imposes standards for emissions of fluorides, hydrogen sulfide, and suspended and settleable particulates that are stricter than federal standards. The sulfur content of the fuel of oil-fired utility boilers is restricted. Toxic emissions are also strictly regulated. Ozone is a persistent and growing problem in most urban areas of the state; thus there are stringent limitations on NO_x and VOCs.

3.4.3 Water Pollution Control

New York has authority to administer the NPDES program but not the pretreatment program for indirect dischargers. Long Island Sound has been designated an estuary of national significance, and a comprehensive management plan is being developed.

3.2.3 Water Pollution Control

Louisiana has promulgated state water quality standards. There is an emphasis on protection of water quality in the Mississippi River to avoid degradation of public water supplies.

3.2.4 Hazardous Waste Management

Louisiana has authority to administer RCRA and regulates hazardous wastes.

3.2.5 Coastal Zone Management

Construction in the coastal zone is regulated, and construction permits are required. Only one parish, Lafourche in the Mississippi delta, has authority to grant permits; all other permit authority remains with the state.

3.2.6 Environmental Impact Assessments

The state does not have this requirement.

3.3 MARYLAND

3.3.1 Regulatory Agencies

Maryland enforcement offices within the Maryland Department of the Environment are the Air and Radiation Management Administration, the Waste Management Administration, the Water Management Administration, the Chesapeake Bay and Watershed Management Administration, and the Office of Community Assistance. Within the Department of Natural Resources are the Maryland Environmental Service, the Coastal Zone Management Program Office, and the Chesapeake Bay Critical Area Commission.

3.3.2 Air Pollution Control

Maryland has Clean Air Act authority. By state law, Maryland does not set ambient air quality standards which are more stringent than U.S. EPA standards. Thus emission standards cannot be stricter than necessary to meet federal ambient standards. However, local governments may request the state to set more stringent standards to meet local needs. There are state limitations on toxic air pollutants which are not controlled by federal rules. The state also has restrictions on the sale and combustion of waste fuel oil.

3.3.3 Water Pollution Control

Maryland has authority to administer the federal NPDES program. The state emphasizes industrial pretreatment programs.

3.4.4 Hazardous Waste Management

New York hazardous waste programs equal or exceed federal requirements. The state maintains a separate waste manifest system for transportation of wastes. Waste disposal options in the state are decreasing due to closing of facilities.

3.4.5 Coastal Zone Management

Special controls to control waterfront erosion are required.

3.4.6 Environmental Impact Assessments

Assessments may be required when applying for environmental permits. Cumulative effects must be considered.

3.5 NORTH CAROLINA

3.5.1 Regulatory Agencies

The Assistant Secretary for Environmental Protection in the North Carolina Department of Environment, Health and Natural Resources manages state environmental programs. Within the Office of the Assistant Secretary there are sections for environmental management, coastal management, solid waste management, and waste reduction. Seven regional offices perform much of the daily work. There is also a State Emergency Response Commission.

3.5.2 Air Pollution Control

North Carolina has authority to administer all Clean Air Act programs. The state has an increasing number of urban noncompliance areas, but they are all inland. Air toxics programs regulate emissions of solvents and paint removers.

3.5.3 Water Pollution Control

North Carolina has Clean Water Act authority and administers its own NPDES program.

3.5.4 Hazardous Waste Management

North Carolina's program is equivalent to the Federal Resource Conservation and Recovery Act program. State programs focus on waste minimization and recycling. Cost sharing for industrial waste reduction programs between the public and private sectors may be available.

3.5.5 Coastal Zone Management

Major development permits are required for any large project in coastal areas. For activities involving the U.S. Army Corps of Engineers, such as wetlands protection programs, both state and Corps of Engineers permits are required.

3.5.6 Environmental Impact Assessments

The state does not have this requirement.

3.6 OREGON

3.6.1 Regulatory Agencies

Oregon's environmental laws are administered by the Department of Environmental Quality, which has four divisions (Environmental Cleanup, Hazardous and Solid Waste, Air Quality, and Water Quality) and eight regional and branch offices. The Department of Land Conservation and Development regulates land use and coastal zone management. There is a State Emergency Management Division.

3.6.2 Air Pollution Control

Oregon has Clean Air Act authority. Oregon enforces air quality standards that are more stringent than federal standards. The state program focuses on plant site emissions rather than stack emissions. This focus is comparable to that of the new Title V permit under the Clean Air Act Amendments of 1990. Several areas in the state do not comply with ozone and carbon monoxide standards, triggering the nonattainment provisions applicable to preconstruction permitting.

3.6.3 Water Pollution Control

Oregon has authority to administer the NPDES program, the water toxics program, and the pretreatment program for industrial wastes discharging to POTWs.

3.6.4 Hazardous Waste Management

Oregon's hazardous waste programs equal or exceed federal requirements. The state maintains a separate waste manifest system for transportation of wastes.

3.6.5 Coastal Zone Management

The Oregon coastal zone includes all land west of the coastal range summit and all rivers. Local governments have plans conforming to state and Federal requirements that impose restrictions through zoning regulations and permit systems. There is a statewide land-use

policy that regulates the siting of any new facility. There is a preference for maintaining current use.

3.6.6 Environmental Impact Assessments

Environmental assessments are encouraged but not required before any firm purchases land or a facility, to ensure the facility does not have hidden environmental problems. There are no state requirements for separate assessments of new projects.

3.7 PENNSYLVANIA

3.7.1 Regulatory Agencies

The Air and Waste Management and Water Management Divisions are within the Department of Environmental Resources. Many environmental programs in the City of Philadelphia are managed by the Philadelphia Department of Health and those in the City of Pittsburgh are managed by the Allegheny County Health Department. There is a State Emergency Response Commission. The Land and Water Conservation Bureau within the DER Water Management Division handles coastal zone issues.

3.7.2 Air Pollution Control

Air pollution control programs are managed jointly through a memorandum of understanding between the U.S. EPA Region III, the DER and the Philadelphia and Allegheny County health departments. Several areas of the state do not comply with ozone and sulfur dioxide standards.

3.7.3 Water Pollution Control

Pennsylvania has authority to administer the NPDES program and the federal water toxics program, but not the pretreatment program for industrial wastes discharging to POTWs. Pennsylvania participates in the Delaware River Basin Compact along with New York, New Jersey and Delaware and in the Chesapeake Bay Agreement together with Maryland, Virginia, the District of Columbia and the federal government. These groups set standards to preserve and restore the Delaware and Chesapeake Bays.

3.7.4 Hazardous Waste Management

Pennsylvania's hazardous waste standards are more stringent in some respects than federal standards, particularly with respect to small generators.

3.7.5 Coastal Zone Management

Coastal zone programs are consistent with federal requirements.

3.7.6 Environmental Impact Assessments

The state does not have this requirement.

3.8 SOUTH CAROLINA

3.8.1 Regulatory Agencies

The Deputy Commissioner for Environmental Control, within the Department of Health and Environmental Control ("DHEC"), administers most state environmental programs. The department head serves at the pleasure of the Board of Health and Environmental Control, which has seven members appointed by the Governor. The Water Pollution Control, Solid and Hazardous Waste Management, and Air Quality Control Bureaus are in many respects treated as separate agencies. All construction activities in the coastal counties are overseen by the South Carolina Coastal Council.

3.8.2 Air Pollution Control

South Carolina is in compliance with all federal and state ambient air quality standards. South Carolina has authority to administer the Clean Air Act.

3.8.3 Water Pollution Control

South Carolina has authority to administer the NPDES program, the federal water toxics program and the pretreatment program for industrial wastes discharging to POTWs.

3.8.4 Hazardous Waste Management

South Carolina's hazardous waste program is in compliance with federal RCRA requirements. The state uses the federal uniform manifest and requires quarterly reports from all permit holders. The state classifies waste oil as a hazardous waste. South Carolina cooperates with Kentucky, Alabama, North Carolina and Tennessee in a compact to ensure adequate hazardous waste treatment and disposal capacity for the region.

3.8.5 Coastal Zone Management

The Coastal Council maintains a management plan for coastal areas of the state and reserves the right to review and approve all local and federal permits issued for construction in the coastal region.

3.8.6 Environmental Impact Assessments

The state does not have this requirement.

3.9 TEXAS

3.9.1 Regulatory Agencies

Environmental programs in Texas are administered by the Texas Natural Resource Conservation Commission and its 15 regional field offices. There is a State Emergency Response Commission in the Department of Emergency Management. The School Land Board of the Texas General Land Office manages coastal zone issues.

3.9.2 Air Pollution Control

Texas has authority to administer all Clean Air Act permit programs except for final approval authority for PSD applications. State standards conform to federal standards. Many urban areas are not in compliance with ozone requirements, and so there are correspondingly strict requirements on VOCs and NO_x, which are ozone precursors.

3.9.3 Water Pollution Control

According to the Acting Director of the Water Quality Division, Texas Natural Resources Conservation Commission (TNRCC), Texas has not received authorization to issue NPDES permits under the Clean Water Act (CWA).

3.9.4 Hazardous Waste Management

Texas regulations are equal to or more stringent than federal requirements. Industries within Texas generate more hazardous and toxic waste than those of any other state, and therefore Texas' programs emphasize waste reduction.

3.9.5 Coastal Zone Management

Construction permits from the School Land Board are required for any construction in coastal zones.

3.9.6 Environmental Impact Assessments

The state does not have this requirement.

3.10 WASHINGTON

3.10.1 Regulatory Agencies

Authority for administering environmental requirements in Washington is spread among many agencies. These include the Department of Ecology, the Department of Social and Health Services, the Department of Natural Resources, the Department of Fisheries, the Department of Wildlife, the Utilities and Transportation Commission, the Department of Motor Vehicles, and the Office of Labor and Industries. The Department of Ecology and its seven regional offices are the lead agency for most issues. There is also a Washington Emergency Response Commission.

3.10.2 Air Pollution Control

Washington has Clean Air Act authority. State standards are often more strict than federal standards. More than one state agency may have responsibility for administering air programs.

3.10.3 Water Pollution Control

Washington has the authority to administer the NPDES program and the pretreatment program for industrial dischargers to POTWs. Control of the toxics abatement program remains with the U.S. EPA Region X. Nearly all state waters are required to meet the most stringent water quality standards (Class AA, Extraordinary). As with air programs, more than one state agency may be involved.

3.10.4 Hazardous Waste Management

State rules are more stringent than federal rules. An added category of hazardous waste—"extremely hazardous waste"—includes certain carcinogens, polynuclear aromatic hydrocarbons and PCBs. Generators of extremely hazardous wastes are subject to regulation if more than 1 kilogram per month is generated.

3.10.5 Coastal Zone Management

Permits are required for development in the coastal zone.

3.10.6 Environmental Impact Assessments

An assessment of the potential environmental impact of major projects may be required. The project sponsor must pay the cost of the assessment.

4.0 INTERNATIONAL AGREEMENTS

The Basel Convention may signal the end of the export of vessels from the United States for recycling. At the September 1995 conference of parties to the Basel Convention the conference president announced, "We have now entered an era in which hazardous wastes will not be able to move legally across national boundaries without the application of regulations or controls whose specific purpose is the protection of human health and the environment." This view is also reflected in a developing domestic consensus against the export of pollution. Scrap metal destined for recycling could well be banned from export to developing countries.

Even the North American Free Trade Agreement (NAFTA), which was not motivated by environmental concerns, may affect ship breaking/recycling. Each party to this agreement has an incentive to enforce its environmental laws, since failure to do so can result in a loss of NAFTA benefits. This has special significance, because Mexican law, if enforced, would require hazardous waste from U.S. ships to be exported back to the United States.

4.1 BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES AND THEIR DISPOSAL

The Basel Convention allows all states that have ratified it to prohibit the importation of hazardous wastes. It also establishes procedures whereby states may agree among themselves for the importation and exportation of hazardous wastes. Any state through which hazardous waste is to be moved must agree to its movement.

The Convention defines "hazardous waste" to include wastes listed in Annex I, II or III to the Convention or defined as hazardous by the state of origin.[1] Some of the waste materials listed in the annexes are paint, solvents, asbestos, and PCBs.

The United States has not ratified the Convention; however, all other states currently involved in the importation of vessels for scrapping have. The status of signature and ratification of the Convention is shown for each country in the Attachment at the end of this report.

Containers of waste oil are often left aboard vessels being prepared for export.[2] Material such as this may be classified as Y8 or Y9 hazardous waste by Annex I of the Convention. Residues of paint and asbestos insulation are sometimes adrift aboard vessels being prepared for recycling. These materials may be classified as Y12 and Y36 hazardous wastes by Annex I. PCBs, which are ubiquitous on older ships, are a hazardous waste under Annex I. Plastic, rubber, and paints may be hazardous waste as well.

4.2 NORTH AMERICAN FREE TRADE AGREEMENT

Article 104.1 of NAFTA specifies that the Basel Convention, upon its entry into force for Canada, Mexico and the United States, is to take precedence over any inconsistency with NAFTA. The Basel Convention, however, is not yet in force for the United States.

Most of the environmental provisions of NAFTA deal with avoiding the use of environmental rules to create obstacles to free trade.[3] Instead of an international commission to enforce environmental laws, the North American Agreement on Environmental Cooperation (NAAEC) was negotiated as a supplement to NAFTA. This agreement provides a mechanism to encourage signatories to enforce their domestic environmental laws or risk losing the benefits of NAFTA.

Vessels intended for recycling may contain PCBs in amounts prohibited by EPA for export. NAFTA encourages the use of international standards for regulating its exports and imports,[4] but U.S. restrictions on the export of PCBs do not arise from international standards. Nonetheless, the NAAEC might require continued restrictions on PCB exports.

Additionally, the U.S. Congress now has before it bills that would strengthen environmental and safety regulation of trade subject to NAFTA. If Congress were to enact such legislation, Mexico might reciprocate in a manner that would prevent the export of ships to Mexico for recycling.

5.0 FOREIGN LAWS

India, China, and Mexico have been the major scrapping locations since 1989 for MARAD ships sold for breaking, with India disposing of the majority of them. Buyers obtaining ships for scrapping in those countries in the past have offered significantly higher bids than American scrappers because of the availability of cheap labor and less demanding environmental and labor regulations.

In India, most ships are broken in Alang, where the government owns a long strip of beach and leases shipbreaking "lots" to scrapping companies. At high tide, the ship is driven as close to the beach as the ship's draft will allow. Workers dismantle the ship using oxyacetylene torches, hand tools, and cranes. The workers begin at the top deck of the ship and work down to the hull. Occasionally, a ship's draft is too large to allow the ship to be beached. When this happens, large pieces are cut from the ship using oxyacetylene torches, placed in the water, and pulled toward shore where workers break them into smaller units. The smaller pieces of the ship are loaded onto pontoon rafts and pulled toward shore. As the ship becomes lighter, the ship's draft decreases and the workers are able to pull it still closer toward shore. This process continues until the ship is finally beached and completely dismantled.

Ships sold for scrapping in the People's Republic of China are taken to locations along the east coast, generally between the cities of Beijing, Shanghai, and Guangzhou. There are over 150 scrapping sites in China. All scrapping companies are owned by the government.

The method used in China for breaking a ship varies according to location and size. Ships may be scrapped on a beach, alongside a pier, or in a dry dock. Due to their smaller size, most MARAD ships are broken alongside a pier.

In Mexico, ships are broken in Tuxpan, where more sophisticated methods of breaking ships are used than, for example, in Alang. Vessels are directed into a man-made canal parallel to the Tuxpan River specifically created to service the scrapping operation. The ships are dismantled mechanically, one at a time, using cranes while the vessels remain afloat in the canal. Large pieces of the vessels are transferred to a workyard abutting the canal, where they are manually broken into smaller units and loaded onto trucks for transport to a nearby mill.

5.1 INDIA

5.1.1 Regulatory Agencies

The India Ministry of Environment and Forests is the primary federal agency responsible for enforcement of Indian environmental laws. Authority is delegated to State Boards for most issues. Essentially, Indian environmental laws seek a balance between environmental protection and the developmental needs.

5.1.2 Air Pollution Control

Both air quality standards and industrial emission standards are set. All industries must comply with the standards. Within designated air pollution, prevention and control areas, permits are required. State Boards have the authority to restrict the use of fuels, machinery, or processes to meet the standards.

5.1.3 Water Pollution Control

Both water quality standards and industrial and sewage effluent standards are set. Reuse of sewage sludge in agriculture is emphasized. The standards apply to industries within geographically designated water pollution prevention and control areas. Permits for the operation of any industry within the designated areas are required.

5.1.4 Hazardous Waste Management

The Environmental Protection Act was passed after the Bhopal incident. Under this Act, the Hazardous Waste (Management and Handling) Rules were established. Importation of hazardous wastes to India for disposal is prohibited unless the waste is to be processed as a raw material. If hazardous waste is generated during the dismantling of ships, an approval of the Ministry of Environment and Forests is required prior to the import of the ships. Most of the waste considered hazardous under the Basel Convention would trigger this requirement.

5.1.5 Coastal Zone Management

Water pollution control standards forbid impeding the proper flow of any stream in a manner that increases pollution.

5.1.6 Environmental Impact Assessments

The Environmental Protection Act requires industries specified by the Minister of Environment and Forests to conduct Environmental Impact Assessments. Any industry, large or small, can be required to perform an assessment. Failure to conform to pollution prevention requirements can lead to closure of the industry.

5.2 CHINA

5.2.1 Regulatory Agencies

The National Environmental Protection Agency (NEPA) and the State Environmental Protection Commission (SEPC) were established by the Environmental Protection Law and its amendments. NEPA represents environmental interests before production ministries and serves as the secretariat to the SEPC, which consists of the heads of all relevant ministries and meets quarterly to establish environment policy.

NEPA shares responsibility for marine environmental issues with the State Oceanographic Administration and Ministry of Agriculture and Fisheries, and for terrestrial environmental issues with the ministries of Forestry, Agriculture, Water Resources, Energy, Light Industry and Chemical Industry. Several environmental research institutes report to NEPA. Some 30 provincial, 366 municipal and 2,084 county governments, employing a total of approximately 60,000 people, assist the central government in executing environmental responsibilities.

5.2.2 Air Pollution Control

The Environmental Protection Law Amendments requires that new facilities spend not less than 7% of their capital budget on systems to conform to environmental protection, with emphasis on prevention of air pollution. The law on air pollution sets national air emission standards for some pollutants and authorizes provincial, municipal and local government agencies to set standards where no national ones exist. Industries have a duty to comply with the standards, monitor and report their emissions, and control any abnormal emissions.

5.2.3 Water Pollution Control

Under the Water Pollution Law, ambient water quality standards and effluent standards have been set. As with air pollution standards, local governments may set water pollution standards where there are no national ones. Requirements on the duty to comply and on monitoring, reporting and controlling emissions parallel those of the air pollution control requirements.

5.2.4 Hazardous Waste Management

Hazardous waste is not regulated in China.

5.2.5 Coastal Zone Management

The coastal zone is not regulated as such.

5.2.6 Environmental Impact Assessments

Environmental Impact Assessments ("EIAs") can be required before a new industry is permitted to begin construction. This requirement is selectively applied by the government. For example, of the 3000 new industries begun in Nanhai County of Guangdong Province in 1991, 130 were required to prepare EIAs.

5.3 MEXICO

5.3.1 Regulatory Agencies

Primary responsibility for administering environmental law in Mexico rests with the Secretaría de Desarrollo Urbano y Ecología (Secretariat for Urban Development and Ecology, or SEDUE). Mexican state and local governments have been delegated much of the authority.

5.3.2 Air Pollution Control

Air quality and effluent standards are set. Permits must be obtained by any industry emitting air pollutants. An emissions inventory is required to secure a permit, and reinventories must be taken annually to maintain it.

5.3.3 Water Pollution Control

Water quality and effluent regulations issued in 1973 remain in force, as new regulations under the General Law of Mexico have not yet been established. Discharge standards are established for entire industries. There are no standards for the vessel recycling industry; however, existing standards for the iron and steel industry might be applied.

5.3.4 Hazardous Waste Management

Mexican requirements are comparable to those of the U.S. Resource Conservation and Recovery Act. There are detailed requirements for hazardous waste generation, handling, transportation, storage and treatment. The regulations provide specific direction for PCBs disposal. Only incineration or chemical catalysis destruction is permitted. Importation of hazardous wastes into Mexico is allowed but only with a permit issued by SEDUE. Generally, hazardous wastes (which would include PCBs, asbestos, and lead) generated by the processing of materials imported into Mexico must be exported back to the country of origin. This requirement may apply to wastes generated by the recycling of imported vessels.

5.3.5 Coastal Zone Management

There are no coastal zone requirements as such.

5.3.6 Environmental Impact Assessments

There are no requirements for preparation of environmental impact assessments.

2. FEDERAL LAWS

1. A point source is defined in the Act to be "any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animals feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. . . ." 33 U.S.C. § 1362(14). This has been found to embrace "the broadest possible definition of any identifiable conveyance from which pollutants might enter the waters of the United States." *United States v. Earth Sciences, Inc.*, 599 F.2d 368, 373 (10th Cir. 1979).

2. 233 CFR § 320.4.

3. In exercising its veto power, EPA is not always required to consider the "needs of the public" in the face of unacceptable adverse effects on the environment. See *James City County v. EPA*, 12 F.3d 1330(4th Cir. 1993), cert. denied, 115 S. Ct. 87 (1994).

4. 40 CFR Part 230.

5. 40 CFR § 230.10(a).

6. "Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR § 122.26(b)(13).

7. A single NPDES permit may be issued for storm water discharges associated with industrial activity from point sources that discharge through a non-municipal or non-publicly owned separate storm sewer system. Each discharger must be a co-permittee to a permit issued to the operator of the portion of the system that discharges into "waters of the United States."

8. Instead of an individual application, a group application may be filed by an entity representing a group of applicants (except facilities that have existing individual NPDES permits for storm water) that are part of the same subcategory (see 40 CFR parts 405-471). A general permit under 40 CFR § 122.28 may also be available. Facilities with existing NPDES permits for "storm water discharges associated with industrial activity," however, must maintain those permits.

9. 940 CFR § 122.26(b)(14). The term specifically includes: storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas, including tank farms, for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.

10. 40 CFR § 122.26(b)(14)(vi).

11. These are: fossil-fuel fired steam electric plants of more than 250 million British thermal units per hour heat input; coal cleaning plants (thermal dryers); Kraft pulp mills; Portland Cement plants; primary zinc smelters; iron and steel mill plants; primary aluminum ore reduction plants; primary copper smelters; municipal incinerators capable of charging more than 50 tons of refuse per day; hydrofluoric, sulfuric, and nitric acid plants; petroleum refineries; lime plants; phosphate rock processing plants; coke oven batteries; sulfur recovery plants; carbon black plants (furnace process); primary lead smelters; fuel conversion plants; sintering plants; secondary metal production facilities; chemical process plants; fossil-fuel boilers of more than 250 million British thermal units per hour heat

input; petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels; taconite ore processing facilities; glass fiber processing plants; and charcoal production facilities. 42 U.S.C. § 7479.

12. 40 CFR § 61.145.

13. 40 CFR § 61.150.

14. As amended by the Oil Pollution Act, 46 U.S.C. § 3703a now provides as follows:

Tank vessel construction standards.

(a) Except as otherwise provided in this section, a vessel to which this chapter applies shall be equipped with a double hull--

(1) if it is constructed or adapted to carry, or carries, oil in bulk as cargo or cargo residue; and

(2) when operating on the waters subject to the jurisdiction of the United States, including the Exclusive Economic Zone.

(b) This section does not apply to--

(1) a vessel used only to respond to a discharge of oil or a hazardous substance;

(2) a vessel of less than 5,000 gross tons equipped with a double containment system determined by the Secretary to be as effective as a double hull for the prevention of a discharge of oil; or

(3) before January 1, 2015--

(A) a vessel unloading oil in bulk at a deepwater port licensed under the Deepwater Port Act of 1974 (33 U.S.C. 1501 et seq.); or

(B) a delivering vessel that is offloading in lightering activities--

(i) within a lightering zone established under § 3715(b)(5) of this title; and

(ii) more than 60 miles from the baseline from which the territorial sea of the United States is measured.

(c)(1) In this subsection, the age of a vessel is determined from the later of the date on which the vessel--

(A) is delivered after original construction;

(B) is delivered after completion of a major conversion; or

(C) had its appraised salvage value determined by the Coast Guard and is qualified for documentation under § 4136 of the Revised Statutes of the United States (46 App. U.S.C. 14).

(2) A vessel of less than 5,000 gross tons for which a building contract or contract for major conversion was placed before June 30, 1990, and that is delivered under that contract before January 1, 1994, and a vessel of less than 5,000 gross tons that had its appraised salvage value determined by the Coast Guard before June 30, 1990, and that qualifies for documentation under § 4136 of the Revised Statutes of the United States (46 App. U.S.C. 14) before January 1, 1994, may not operate in the navigable waters or the Exclusive Economic Zone of the United States after January 1, 2015, unless the vessel is equipped with a double hull or with a double containment system determined by the Secretary to be as effective as a double hull for the prevention of a discharge of oil.

(3) A vessel for which a building contract or contract for major conversion was placed before June 30, 1990, and that is delivered under the contract before January 1, 1994, and a vessel that had its appraised salvage value determined by the Coast Guard before June 30, 1990, and that qualifies for documentation under § 4136 of the Revised Statues of the United States (46 App. U.S.C. 14) before January 1, 1994, may not operate in the navigable waters or Exclusive Economic Zone of the United States unless equipped with a double hull--

(A) in the case of a vessel of at least 5,000 gross tons but less than 15,000 gross tons--

(i) after January 1, 1995, if the vessel is 40 years old or older and has a single hull, or is 45 years old or older and has a double bottom or double sides;

(ii) after January 1, 1996, if the vessel is 39 years old or older and has a single hull, or is 44 years old or older and has a double bottom or double sides;

(iii) after January 1, 1997, if the vessel is 38 years old or older and has a single hull, or is 43 years old or older and has a double bottom or double sides;

(iv) after January 1, 1998, if the vessel is 37 years old or older and has a single hull, or is 42 years old or older and has a double bottom or double sides;

(v) after January 1, 1999, if the vessel is 36 years old or older and has a single hull, or is 41 years old or older and has a double bottom or double sides;

(vi) after January 1, 2000, if the vessel is 35 years old or older and has a single hull, or is 40 years old or older and has a double bottom or double sides; and

(vii) after January 1, 2005, if the vessel is 25 years old or older and has a single hull, or is 30 years old or older and has a double bottom or double sides;

(B) in the case of a vessel of at least 15,000 gross tons but less than 30,000 gross tons--

(i) after January 1, 1995, if the vessel is 40 years old or older and has a single hull, or is 45 years old or older and has a double bottom or double sides;

(ii) after January 1, 1996, if the vessel is 38 years old or older and has a single hull, or is 43 years old or older and has a double bottom or double sides;

(iii) after January 1, 1997, if the vessel is 36 years old or older and has a single hull, or is 41 years old or older and has a double bottom or double sides;

(iv) after January 1, 1998, if the vessel is 34 years old or older and has a single hull, or is 39 years old or older and has a double bottom or double sides;

(v) after January 1, 1999, if the vessel is 32 years old or older and has a single hull, or is 37 years old or older and has a double bottom or double sides;

(vi) after January 1, 2000, if the vessel is 30 years old or older and has a single hull, or is 35 years old or older and has a double bottom or double sides;

(vii) after January 1, 2001, of the vessel is 29 years old or older and has a single hull, or is 34 years old or older and has a double bottom or double sides;

(viii) after January 1, 2002, if the vessel is 28 years old or older and has a single hull, or is 33 years old or older and has a double bottom or double sides;

(ix) after January 1, 2003, if the vessel is 27 years old or older and has a single hull, or is 32 years old or older and has a double bottom or double sides;

(x) after January 1, 2004, if the vessel is 26 years old or older and has a single hull, or is 31 years old or older and has a double bottom or double sides; and

(xi) after January 1, 2005, if the vessel is 25 years old or older and has a single hull, or is 30 years old or older an has a double bottom or double sides; and

(C) in the case of a vessel of at least 30,000 gross tons--

(i) after January 1, 1995, if the vessel is 28 years old or older and has a single hull, or 33 years old or older and has a double bottom or double sides;

(ii) after January 1, 1996, if the vessel is 27 years old or older and has a single hull, or is 32 years old or older and has a double bottom or double sides;

(iii) after January 1, 1997, if the vessel is 26 years old or older and has a single hull, or is 31 years old or older and has a double bottom or double sides;

(iv) after January 1, 1998, if the vessel is 25 years old or older and has a single hull, or is 30 years old or older and has a double bottom or double sides;

(v) after January 1, 1999, if the vessel is 24 years old or older and has a single hull, or 29 years old or older and has a double bottom or double sides; and

(vi) after January 1, 2000, if the vessel is 23 years old or older and has a single hull, or is 28 years old or older and has a double bottom or double sides.

(4) Except as provided in subsection (b) of this section--

(A) a vessel that has a single hull may not operate after January 1, 2010; and

(B) a vessel that has a double bottom or double sides may not operate after January 1, 2015.

Provisions are made for oil spill planning and response, including strike teams, Coast Guard district response groups, area committees and contingency plans, and vessel and facility response plans. Moreover, only for very minor spills can the federal government rely entirely on private response efforts.

15. "Responsible parties" include: (1) the owner and operator of a vessel or a facility, (2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of, (3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and (4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance. . . . 42 U.S.C. § 9607(a).

16. A "facility" is defined as: any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel. 42 U.S.C. § 9601(a).

17. "Respond" and "response" mean remove, removal, remedy, and remedial action. All these terms include related enforcement actions. 42 U.S.C. § 9601. Typically, a "removal" action is an action intended to remove the hazardous waste from the area, whereas a "remedial" action is a long-term effort to remedy the damaged environment.

18. 42 U.S.C. § 4332(2)(C). The Council on Environmental Quality (CEQ) has issued regulations implementing this requirement. 40 CFR part 1500. At the same time Congress has enacted other laws limiting, very slightly, NEPA's requirement for an EIS. See, e.g., 33 U.S.C. § 1371(c)(1) (many of the actions taken by EPA under the Clean Water Act), and 15 U.S.C. § 793(c)(1) (EPA actions taken under the Clean Air Act). There also are many cases in which courts have found that the analysis conducted by EPA in carrying out its mission is the "functional equivalent" of an EIS. See *Amoco Oil Company v. EPA*, 501 F.2d 722, 749-50 (D.C. Cir. 1974).

19. *Hanly v. Kleindienst*, 471 F.2d 823, 830 (2d Cir.1972), cert. denied, 412 U.S. 908 (1973).

20. *Sierra Club v. United States Army Corps of Engineers*, 701 F.2d 1011, 1029 (2d Cir. 1983).

21. *Kleppe v. Sierra Club*, 427 U.S. 390 (1976).

22. *Stryker's Bay Neighborhood v. Karlen*, 444 U.S. 223, 227 (1980).

23. *Breckinridge v. Rumsfield*, 537 F.2d 864 (6th Cir. 1976).

24. 29 CFR Part 1910.

25. 29 CFR Part 1915.

26. The responsibility for compliance with the regulations is placed upon "employers." Although owners, operators, agents and masters of vessels are not relieved of their customary duties, they are not subject to the regulations unless they are acting as employers. 29 CFR §§ 1915.3, 1915.4.

27. 29 U.S.C. § 654.

28. *Pratt & Whitney Aircraft*, 8 OSHC 1329 (1980) vacated on other grounds, 649 F.2d 96 (2d Cir. 1981).

29. *Magma Copper Co. v. Marshall*, 608 F.2d 373 (9th Cir. 1979); *Brennan v. OSHRC*, 494 F.2d 460 (8th Cir. 1974).

4. INTERNATIONAL AGREEMENTS

1. Basel Convention, Annex I, Categories of Waste To Be Controlled, Annex II, Categories of Wastes Requiring Special Consideration and Annex III, List of Hazardous Characteristics.

2. Halliburton NUS, *Environmental Analysis of the Maritime Administration Ship Disposal Program*, August 1994.

3. NAFTA, Article 904.4.

4. NAFTA, Article 905.

ATTACHMENT 1

STATUS OF SIGNATURES AND RATIFICATIONS (AS OF 7 NOVEMBER 1995)

BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES AND THEIR DISPOSAL

COUNTRIES	SIGNATURE FINAL ACT	SIGNATURE CONVENTION	RATIFICATION ACCESSION ACCEPTANCE APPROVAL	(r) (a) (A) (AA)	ENTRY INTO FORCE
Afghanistan	22.03.89	22.03.89			
Albania	22.03.89				
Algeria	22.03.89				
Angola	22.03.89				
Antigua and Barbuda			05.04.93	(a)	04.07.93
Argentina	22.03.89	28.06.89	27.06.91	(r)	05.05.92
Australia	22.03.89		05.02.92	(a)	05.05.92
Austria	22.03.89	19.03.90	12.01.93	(r)	12.04.93
Bahamas			12.08.92	(a)	10.11.92
Bahrain	22.03.89	22.03.89	15.10.92	(r)	13.01.93
Bangladesh	22.03.89		01.04.93	(a)	30.06.93
Barbados			24.08.95	(a)	22.11.95
Belgium	22.03.89	22.03.89	01.11.93	(r)	30.01.94
Benin	22.03.89				
Bolivia	22.03.89	22.03.89			
Brazil	22.03.89		01.10.92	(a)	30.12.92
Brunei Darussalam					
Bulgaria	22.03.89				
Burkina Faso	22.03.89				
Burundi	22.03.89				
Cameroon	22.03.89				
Canada	22.03.89	22.03.89	28.08.92	(r)	26.11.92
Cape Verde	22.03.89				
Centr. African Republic	22.03.89				
Chile	22.03.89	31.01.90	11.08.92	(r)	09.11.92
China	22.03.89	22.03.90	17.12.91	(r)	05.05.92
Colombia	22.03.89	22.03.89			
Comoros	22.03.89		31.10.94	(a)	29.01.95
Congo					
Costa Rica			07.03.95	(a)	05.06.95
Cote D'Ivoire	22.03.89		01.12.94	(a)	01.03.95
Croatia			09.05.94	(a)	07.08.94

BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES AND THEIR DISPOSAL

STATUS OF SIGNATURES AND RATIFICATIONS (AS OF 7 NOVEMBER 1995)

COUNTRIES	SIGNATURE FINAL ACT	SIGNATURE CONVENTION	RATIFICATION ACCESSION ACCEPTANCE APPROVAL	(r) (a) (A) (AA)	ENTRY INTO FORCE
Cuba	22.03.89		03.10.94	(a)	01.01.95
Cyprus	22.03.89	22.03.89	17.09.92	(r)	16.12.92
Czech Republic	22.03.89		24.07.91	(a)	01.01.93
Dem. People's Rep. of Korea	22.03.89				
Democratic Yemen	22.03.89				
Denmark	22.03.89	22.03.89	06.02.94	(AA)	
Djibouti	22.03.89				
Ecuador	22.03.89	22.03.89	23.02.93	(r)	24.05.93
Egypt	22.03.89		08.01.93	(a)	08.04.93
El Salvador		22.03.90	13.12.91	(r)	05.05.92
Estonia			21.07.92	(a)	19.10.92
Ethiopia					
Finland	22.03.89	22.03.89	19.11.91	(A)	05.05.92
France	22.03.89	22.03.89	07.01.91	(AA)	05.05.92
Gabon					
Gambia	22.03.89				
Germany	22.03.89	23.10.89	21.04.95	(r)	20.07.95
Ghana	22.03.89				
Greece	22.03.89	22.03.89	04.08.94	(r)	02.11.94
Guatamala	22.03.89	22.03.89	15.05.95	(r)	13.08.95
Guinea	22.03.89		26.04.95	(r)	25.07.95
Haiti	22.03.89	22.03.89			
Hungary	22.03.89	22.03.89	21.05.90	(AA)	05.05.92
Iceland			28.06.95	(a)	26.09.95
India	22.03.89	15.03.90	24.06.92	(r)	22.09.92
Indonesia	22.03.89		20.09.93	(a)	19.12.93
Islamic Rep. of Iran			05.01.93	(a)	05.04.93
Iraq	22.03.89				
Ireland	22.03.89	19.01.90	07.02.94	(r)	08.05.94
Israel	22.03.89	22.03.89	14.12.94	(r)	14.03.95
Italy	22.03.89	22.03.89	07.02.94	(r)	08.05.94
Japan	22.03.89		17.09.93	(r)	16.12.93

BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES AND THEIR DISPOSAL

STATUS OF SIGNATURES AND RATIFICATIONS (AS OF 7 NOVEMBER 1995)

COUNTRIES	SIGNATURE FINAL ACT	SIGNATURE CONVENTION	RATIFICATION ACCESSION ACCEPTANCE APPROVAL	(r) (a) (A) (AA)	ENTRY INTO FORCE
Jordan	22.03.89	22.03.89	22.06.89	(AA)	05.05.92
Kenya	22.03.89				
Kuwait	22.03.89	22.03.89	11.10.93	(a)	09.01.94
Latvia			14.04.92	(a)	13.07.92
Lebanon	22.03.89	22.03.89	21.12.94	(r)	21.03.95
Libyan Arab Jamahiriya	22.03.89				
Liechtenstein	22.03.89	22.03.89	27.01.92	(r)	05.05.92
Luxembourg	22.03.89	22.03.89	07.02.94	(r)	08.05.94
Madagascar	22.03.89				
Malawi	22.03.89		21.04.94	(a)	20.07.94
Malaysia	22.03.89		08.10.93	(a)	06.01.94
Maldives	22.03.89		28.04.92	(a)	27.07.92
Mali	22.03.89				
Malta	22.03.89				
Mauritania	22.03.89				
Mauritius			24.11.92	(a)	22.02.93
Mexico	22.03.89	22.03.89	22.02.91	(r)	05.05.92
Monaco			31.08.92	(a)	29.11.92
Mongolia	22.03.89				
Morocco	22.03.89				
Mozambique	22.03.89				
Namibia			15.05.95	(a)	13.08.95
Netherlands	22.03.89	22.03.89	16.04.93	(A)	15.07.93
New Zealand		18.12.89	20.12.94	(r)	20.03.95
Niger	22.03.89				
Nigeria		15.03.90	13.03.91	(r)	05.05.92
Norway	22.03.89	22.03.89	02.07.90	(r)	05.05.92
Oman			08.02.95	(a)	09.05.95
Pakistan	22.03.89		26.07.94	(a)	24.10.94
Panama	22.03.89	22.03.89	22.02.91	(r)	05.05.92
Papua New Guinea			01.09.95	(a)	30.11.95
Paraguay			28.09.95	(a)	27.12.95
Peru	22.03.89		23.11.93	(r)	20.02.94

BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES AND THEIR DISPOSAL

STATUS OF SIGNATURES AND RATIFICATIONS (AS OF 7 NOVEMBER 1995)

COUNTRIES	SIGNATURE FINAL ACT	SIGNATURE CONVENTION	RATIFICATION ACCESSION ACCEPTANCE APPROVAL	(r) (a) (A) (AA)	ENTRY INTO FORCE
Philippines	22.03.89	22.03.89	21.10.93	(r)	19.01.93
Poland		26.03.90	20.03.92	(r)	18.06.92
Portugal	22.03.89	26.06.89	26.01.94	(r)	26.04.94
Qatar			09.08.95	(a)	07.11.95
Rep. of Korea	22.03.89		28.02.94	(a)	29.05.94
Romania	22.03.89		27.02.91	(a)	05.05.92
Russian Fed.	22.03.89	22.03.90	31.01.95	(r)	01.05.95
Rwanda	22.03.89				
Samoa	22.03.89				
Saint Kitts and Nevis			07.09.94	(a)	06.12.94
Saint Lucia			09.12.93	(a)	09.03.94
Saudi Arabia	22.03.89	22.03.89	07.03.90	(r)	05.05.92
Senegal	22.03.89		10.11.92	(a)	08.02.93
Seychelles	22.03.89		11.05.93	(a)	09.08.93
Sierra Leone	22.03.89				
Slovak Republic	22.03.89		24.07.91	(a)	05.05.92
Slovenia			07.10.93	(a)	05.01.94
Somalia					
South Africa			05.05.94	(a)	03.08.94
Spain	22.03.89	22.03.89	07.02.94	(r)	08.05.94
Sri Lanka	22.03.89		28.08.92	(a)	26.11.92
Swaziland	22.03.89				
Sweden	22.03.89	22.03.89	02.08.91	(r)	05.05.92
Switzerland	22.03.89	22.03.89	31.01.90	(r)	05.05.92
Syrian Arab Republic	22.03.89	11.10.89	22.01.92	(r)	05.05.92
Thailand		22.03.90			
Togo					
Tunisia	22.03.89		11.10.95	(a)	09.01.96
Turkey	22.03.89	22.03.89	22.06.94	(r)	20.09.94
Trinidad and Tobago			18.02.94	(a)	19.05.94
Uganda					

BASEL CONVENTION ON THE CONTROL OF TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTES AND THEIR DISPOSAL

STATUS OF SIGNATURES AND RATIFICATIONS (AS OF 7 NOVEMBER 1995)

COUNTRIES	SIGNATURE FINAL ACT	SIGNATURE CONVENTION	RATIFICATION ACCESSION ACCEPTANCE APPROVAL	(r) (a) (A) (AA)	ENTRY INTO FORCE
United Arab Emirates	22.03.89	22.03.89	17.11.92	(r)	15.02.93
United Kingdom	22.03.89	06.10.89	07.02.94	(r)	08.05.94
United Rep. of Tanzania			07.04.93	(a)	06.07.93
United States of America	22.03.89	22.03.90			
Uruguay	22.03.89	22.03.89	22.10.91	(r)	05.05.92
Venezuela	22.03.89	22.03.89			
Vietnam	22.03.89		13.03.95	(a)	11.06.95
Rep. of Yemen					
Yugoslavia	22.03.89				
Zaire	22.03.89		06.10.94	(a)	04.01.95
Zambia	22.03.89		15.11.94	(a)	13.02.95
Zimbabwe	22.03.89				
Total	105	52	93		92
POLITICAL AND/OR ECONOMIC INTEGRATION ORGANIZATIONS	SIGNATURE FINAL ACT	SIGNATURE CONVENTION	RATIFICATION ACCESSION ACCEPTANCE APPROVAL	(r) (a) (A) (AA)	ENTRY INTO FORCE
European Economic Community	22.03.89	22.03.89	07.02.94	(AA)	08.05.94
Total	1	1	1		1