CRUISE SEATTLE

Memorandum of Understanding
Cruise Operations in Washington State

April 20, 2004

Washington State Department of Ecology
Northwest CruiseShip Association
Port of Seattle

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is entered into this 20th day of April, 2004 by and between the State of Washington, the Port of Seattle, and the Northwest Cruise Ship Association, hereinafter referred to as NWCA, representing the international cruise lines identified in ***Appendix i***.

Whereas the State of Washington is charged with the responsibility of protecting and conserving Washington's environmental resources in relation to the Cruise Industry's environmental practices in Washington; and

Whereas the United States Coast Guard, herein referred to as USCG, has Federal jurisdiction over environmental matters in navigable waters in the United States; and

Whereas the Port of Seattle is charged with providing the services and facilities to accommodate the transportation of passengers, including cruise ship passengers, while protecting and enhancing the environment of the Port of Seattle; and

Whereas, the NWCA is a non-profit entity organized for the purpose of representing member cruise lines which operate in and about waters subject to this Memorandum of Understanding (MOU), whose current membership is identified in ***Appendix i***; and

Whereas, the NWCA has adopted the "**Cruise Industry Waste Management Practices and Procedures**" as promulgated by the Cruise Industry's trade association, the International Council of Cruise Lines, herein referred to as ICCL, which practices and procedures are attached hereto as ***Appendix ii***; and

Whereas, NWCA cruise vessels operate in international waters and move passengers to destinations worldwide and, consequently, those cruise vessel waste management practices must take into account environmental laws and regulations in many jurisdictions and international treaties and conventions; and

Whereas, the NWCA, the State of Washington as represented by the Washington Department of Ecology (Ecology), the USCG and the Port of Seattle have met to develop waste management practices that preserve a clean and healthy environment and demonstrate the Cruise Industry's commitment to be a steward of the environment; and

Whereas, research is ongoing to establish the impact of ships' wastewater discharges on the ocean environment, and the results of this research will be taken into account in periodic review of the wastewater discharge practices described in this Agreement; and

Whereas, the cruise industry recognizes Washington's fragile marine environment and is committed to help protect this environment;

Now therefore, based upon mutual understanding, the parties enter into this Memorandum of Understanding to implement the following environmental goals, policies and practices:

Definition of terms for the purpose of this agreement:

"blackwater" means waste from toilets, urinals, medical sinks and other similar facilities;

"cruise ship" means any vessel that is owned or operated by a member of the NWCA;

"graywater" includes drainage from dishwasher, shower, laundry, bath, galley drains and washbasin drains;

"solid waste" means all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes and recyclable materials [RCW 70.95.030 (22), Solid Waste Management: Reduction and Recycling];

"waters subject to this Memorandum of Understanding (MOU)" include the Puget Sound and the Strait of Juan de Fuca south of the international boundary with Canada; and for off the west coast, the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles as illustrated in ***Appendix iii.***

1. The State of Washington and Port of Seattle accept the ICCL Industry Standard E-01 -01, titled ***Cruise Industry Waste Management Practices and Procedures (Appendix ii)*** as ICCL member policy in the management of solid waste, hazardous wastes and wastewaters in waters subject to this MOU. In addition to the ICCL Practices, the members of NWCA operating in Washington agree to comply with the following unique practices while operating in waters subject to this MOU:

1.1 Wastewater Management

In recognition of the sensitive nature of Washington's marine environment, the NWCA agrees to the following:

1.1.1 to prohibit the discharge of untreated blackwater and untreated graywater within waters subject to this MOU (***Appendix iii***).

1.1.2 other than as set forth in section 1.1.3 below, to prohibit the discharge of treated blackwater and treated graywater in waters subject to this MOU.

1.1.3 the discharge of treated blackwater and treated graywater from ships equipped with advanced wastewater treatment systems (AWTS) which meet the higher standards and the testing regime set out in federal law, Title XIV, Certain Alaska Cruise Ship Operations, Section 1404 (c) (**Appendix vi**) is allowed under the following conditions:

- The ship is at least one nautical mile away from its berth in the Port of Seattle and is traveling at a speed of at least 6 knots.
- No later than 60 days prior to the date the line wishes to commence discharge of AWTS-treated effluent, the line shall submit the following vessel specific information to Ecology

- Documentation on the type of treatment system in use on the ship including schematic diagrams of the system.
- Documentation that the system is certified by the United States Coast Guard for continuous discharge in Alaska. If the certification has not yet been provided by the Coast Guard at the time the other documentation is submitted to Ecology, it may be submitted less than 60 days prior to commencement of discharge but in no event less than 30 days prior to the commencement of discharge.

No later than 60 days prior to the date a cruise line wishes to commence discharge of AWTS-treated effluent at or within one nautical mile of its berth, the line shall submit the following vessel specific information to Ecology:

- Documentation on the type of treatment system in use on the ship including schematic diagrams of the system.
- Documentation that the system is certified by the United States Coast Guard for continuous discharge in Alaska. If the certification has not yet been provided by the Coast Guard at the time the other documentation is submitted to Ecology, it may be submitted less than 60 days prior to commencement of discharge but in no event less than 30 days prior to commencement of discharge.
- Provision for daily twenty-four hour continuous turbidity or equivalent monitoring of the quality of the effluent generated by the AWTS.
- Documentation of system design that demonstrates the AWTS can be automatically shut down if monitoring of treated effluent indicates a system upset; or documentation that demonstrates that operational controls exist to insure system shut down if monitoring of treated effluent indicates a system upset. An example of an acceptable operational control is a system that has the continuous monitoring device alarmed as to immediately alert engineering staff on watch to shut down overboard discharges from the system in the event of high turbidity levels in the treated effluent.
- Documentation that all treated effluent will receive final polishing with ultraviolet (UV) light immediately prior to discharge.
- Copies of water quality tests results taken from the AWTS effluent during the preceding six months.
- A vessel specific plan that: identifies how effluent will be stored until the AWTS is repaired and which indicates the storage capacity of holding tanks; and includes a notification protocol for notifying Ecology of system shut down which occurs while within waters subject to this MOU.

If Ecology determines that the documentation provided is insufficient, it shall so notify the cruise line. The cruise line shall provide supplemental documentation as requested by Ecology. If Ecology and the cruise line are unable to agree on the supplemental documentation and cruise line elects to discharge from the AWTS, cruise line understands that any such discharge will not have been approved by Ecology and further that Ecology may take appropriate action, including, but not limited to, publicizing, such fact.

Any cruise line discharging from an AWTS in waters subject to this MOU agrees to:

a. sample the quality of the treated effluent using a Washington state-certified laboratory at least one time per month while at port in Seattle during each cruise season using the sampling requirements established per the United States Coast Guard, Captain of the Port, Southeast Alaska Policy for conventional pollutants continued compliance monitoring regime and as referenced in **Appendix vi.** Parameters sampled include pH, Biochemical Oxygen Demand (BOD), Fecal Coliform, Total Suspended Solids (TSS), and Residual Chlorine (RC).
b. split samples with Ecology upon Ecology's request when sampling is conducted in Washington waters.
c. Conduct Whole Effluent Toxicity (WET) Testing once every two years.
d. provide Ecology with duplicates of test results obtained for and provided to the State of Alaska to enable Ecology to monitor the quality of the effluent from such systems.
e. notify Ecology at least a week in advance of sampling and to allow Ecology staff access to the ship in order to observe sampling events.
f. allow Ecology to conduct a minimum of one vessel inspection per season to verify the operating condition of the AWTS.
g. notify Ecology if any material changes are made to the system.

1.1.4 The discharge of residual solids from either a Type 2 Marine Sanitation Device or an advanced waste water treatment system is prohibited in waters subject to this MOU, within 12 nautical miles from shore, and within the "Area To Be Avoided" off the Washington Coast as defined by the International Maritime Organization (IMO) identified in ***Appendix viii.***

1.2 Solid Waste Management:

NWCA member ships operating in Washington waters will not discharge solid waste in waters subject to this MOU.

1.3 Hazardous Waste Management

1.3.1 The ICCL in consultation with NWCA has developed, in conjunction with the Environmental Protection Agency (EPA), a national practice for the assigning of an EPA Identification Number to each cruise ship as the "generator" of hazardous wastes, which recognizes the multi-jurisdictional itineraries of a cruise vessel. EPA also proposes that the state where company offices are located may issue the national identification numbers provided the criteria and information submitted required for obtaining the number is standard for the United States. The State of Washington and NWCA agree to a uniform application procedure for the EPA national identification number in accordance with the Resource Conservation Recovery Act (RCRA) (***Appendix v***). The State of Washington shall have the right to inspect all such records upon written request to the cruise vessel operator. The State of Washington recognizes that in some cases EPA Identification Numbers may not be required under federal law for conditionally exempt small quantity generators.

1.3.2 ***Appendix ii*** includes the uniform procedure adopted by the NWCA for the application of RCRA to cruise vessels disposing of hazardous wastes in the State of Washington. The State of Washington accepts this procedure as the appropriate process for vendor selection and management of hazardous wastes in Washington. NWCA member lines agree to provide an annual report regarding the total hazardous waste offloaded in Washington by each cruise vessel.

1.3.3 The NWCA acknowledges that the state of Washington regulates some hazardous wastes differently than EPA and agrees, within the waters subject to this MOU, to comply with the guidelines for specific waste streams found in ***Appendix vii***.

1.3.4 The State of Washington and NWCA agree that all hazardous waste disposal records required by RCRA for cruise vessels entering a Washington port shall be available to the State of Washington upon written request to the cruise vessel operator.

2. The State of Washington and the NWCA understand that the U.S. Coast Guard (USCG) has Federal jurisdiction over environmental matters in navigable waterways in the United States and conducts passenger ship examinations that include review of environmental systems, Safety Management System (SMS) documentation and such MARPOL-mandated documents as the Oil Record Book and the Garbage Record Book. Additionally, NWCA member cruise vessels will integrate such industry standards into SMS documentation that ensure compliance through statutorily required internal and third party audits.

3. The USCG has developed guidelines relating to the inspection of waste management practices and procedures, which have been adopted by the cruise industry. The State of Washington accepts the USCG Navigation and Vessel Inspection Circular and Environmental Systems Checklist (***Appendix iv***), which will be incorporated into USCG 840 Guidebook as the procedure to conduct waste management inspections on board cruise vessels. To reduce administrative burden on the cruise ship industry, the State of Washington agrees to first request from the USCG any records for cruise vessels entering waters subject to this MOU to the extent that those records are covered by the Memorandum of Agreement, dated May 25th, 2001, between the State of Washington Department of Ecology and the USCG. Other USCG records will be provided to the State directly by the NWCA member lines upon request.

4. The State of Washington recognizes that waste management practices are undergoing constant assessment and evaluation by cruise industry members. It is understood by the State of Washington and the NWCA that the management of waste streams will be an on-going process, which has as its stated objectives both waste minimization and pollution prevention. Consequently, all parties agree to continue to work with each other in good faith to achieve the stated objectives. This may require additional meetings with the parties to this Agreement to discuss specific issues applicable to the cruise industry in the U.S.

5. The NWCA acknowledges that its operating practices are required to comply with the applicable provisions of the Marine Mammal Protection Act, the Invasive Species Act and the State of Washington Ballast Water Management law, RCW Ch. 77.120. The NWCA agrees to acknowledge and comply with appropriate rules and regulations related

to the Olympic Coast National Marine Sanctuary, including but not limited to the regulations for implementing the National Marine Sanctuary Program (subparts A through E and subpart O of Title 15, Chapter IX, Part 922 of the Code of Federal Regulations) and the International Maritime Organization (IMO) "Area To Be Avoided" off the Washington Coast (***Appendix viii***).

6. The State of Washington agrees that the performance required by the NWCA under the terms of this Memorandum of Understanding shall be directed only to its member cruise lines. The NWCA acknowledges that its members operate cruise vessels engaged in cruise itineraries greater than one day duration; and further that its members do not operate one-day attraction ships or casino gambling ships.

7. This agreement only applies to voyages during which the commercial passenger vessel actually calls at a port in the State of Washington.

8. This agreement does not prohibit discharges made for the purpose of securing the vessel or saving life at sea, provided that all reasonable precautions have been taken for the purpose of preventing or minimizing the discharge.

9. All parties acknowledge that ongoing discussions of environmental goals are recognized as a necessary component to the successful implementation of management practices for waste minimization and reduction.

10. Compliance, Modification and Review of MOU: NWCA members agree to immediately self-report non-compliance with any provision of this MOU to the Department of Ecology at the following 24-hour number: 425-649-7000. All parties acknowledge that this MOU is not inclusive of all issues, rules or programs that may arise in the future. The State of Washington reserves the right to enter into additional MOUs to address or refine such issues, to take enforcement action in response to violations of state law, or to pursue appropriate legislation. All parties agree to at least one annual meeting to review the effectiveness of the MOU, such meeting to be scheduled, if feasible, during October of each year. The State of Washington and NWCA reserve the right to cancel this MOU upon 90 days written notice.

IN RECOGNITION OF THE MUTUAL UNDERSTANDINGS DISCUSSED HEREIN THE PARTIES HERETO AFFIX THEIR SIGNATURES ON THIS 20th DAY OF APRIL 2004.

Linda Hoffman

Washington Department of Ecology

Port of Seattle

Northwest Cruise Ship Association

Witnessed by the Honorable Gary Locke, Governor of the State of Washington

Gary Locke

APPENDICES
MEMORANDUM OF UNDERSTANDING

Appendix i	List of NWCA Member Lines
Appendix ii	ICCL Standards
Appendix iii	Navigational Chart of the waters subject to this MOU
Appendix iv	USCG Navigation & Vessel Inspection Circular and Environmental Systems Checklist
Appendix v	Uniform application procedure for EPA National ID Number as per Resource Conservation Recovery Act.
Appendix vi	Title XIV – Certain Alaskan Cruise Ship Operations, Section 1404 Limitations on Discharge of Treated Sewage or Graywater, Subsection (c) (1), (2), (3), (4)
Appendix vii	Washington Hazardous Waste Management Best Management Practices
Appendix viii	Map of Area to be Avoided off the Washington Coast

Appendix i

List of NWCA Member Lines

Carnival Cruise Lines
Celebrity Cruises
Crystal Cruises
Holland America Line
Norwegian Cruise Lines
Princess Cruises
Radisson Seven Seas
Royal Caribbean Cruises

Appendix ii

ICCL Standards

INTERNATIONAL COUNCIL
OF CRUISE LINES

ICCL INDUSTRY STANDARD E-01-01 (Revision 2)

CRUISE INDUSTRY
WASTE MANAGEMENT
PRACTICES AND PROCEDURES

The members of the International Council of Cruise Lines are dedicated to preserving the marine environment and in particular the pristine condition of the oceans upon which our vessels sail. The environmental standards that apply to our industry are stringent and comprehensive. Through the International Maritime Organization, the United States and other maritime nations have developed consistent and uniform international standards that apply to all vessels engaged in international commerce. These standards are set forth in the International Convention for the Prevention of Pollution from Ships (MARPOL). In addition, the U.S. has jurisdiction over vessels that operate in U.S. waters where U.S. laws, such as the Federal Water Pollution Control Act, the Act to Prevent Pollution from Ships, and the Resource Conservation and Recovery Act - which applies to hazardous waste as it is landed ashore for disposal, apply to all cruise ships. The U.S. Coast Guard enforces both international conventions and domestic laws.

The cruise industry commitment to protecting the environment is demonstrated by the comprehensive spectrum of waste management technologies and procedures employed on its vessels.

ICCL members are committed to:

a. Designing, constructing and operating vessels, so as to minimize their impact on the environment;

b. Developing improved technologies to exceed current requirements for protection of the environment;

c. Implementing a policy goal of zero discharge of MARPOL, Annex V solid waste products (garbage) by use of more comprehensive waste minimization procedures to significantly reduce shipboard generated waste;

d. Expanding waste reduction strategies to include reuse and recycling to the maximum extent possible so as to land ashore even smaller quantities of waste products;

e. Improving processes and procedures for collection and transfer of hazardous waste; and

f. Strengthening comprehensive programs for monitoring and auditing of onboard

environmental practices and procedures in accordance with the International Safety Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code).

INDUSTRY WASTE MANAGEMENT STANDARDS: ICCL member cruise vessel operators have agreed to incorporate the following standards for waste stream management into their respective Safety Management Systems.

1. Photo Processing, Including X-Ray Development Fluid Waste: *Member lines have agreed to minimize the discharge of silver into the marine environment through the use of best available technology that will reduce the silver content of the waste stream below levels specified by prevailing regulations.*

2. Dry-cleaning waste fluids and contaminated materials: *Member lines have agreed to* prevent *the discharge of chlorinated dry-cleaning fluids, sludge, contaminated filter materials and other dry-cleaning waste byproducts into the environment*

3. Print Shop Waste Fluids: *Member lines have agreed to prevent the discharge of hazardous wastes from printing materials (inks) and cleaning chemicals into the environment.*

4. Photo Copying and Laser Printer Cartridges: *Member lines have agreed to initiate procedures so as to maximize the return of photo copying and laser printer cartridges for recycling. In any event, these cartridges will be landed ashore.*

5. Unused And Outdated Pharmaceuticals: *Member lines have agreed to ensure that unused and/or outdated pharmaceuticals are effectively and safely disposed of in accordance with legal and environmental requirements.*

6. Fluorescent And Mercury Vapor Lamp Bulbs: *Member lines have agreed to prevent the release of mercury into the environment from spent fluorescent and mercury vapor lamps by assuring proper recycling or by using other acceptable means of disposal.*

7. Batteries: *Member lines have agreed to prevent the discharge of spent batteries into the marine environment.*

8. Bilge and Oily Water Residues: *Member lines have agreed to meet or exceed the international requirements for removing oil from bilge and wastewater prior to discharge.*

9. Glass, Cardboard, Aluminum and Steel Cans: *Member lines have agreed to eliminate, to the maximum extent possible, the disposal of MARPOL Annex V wastes into the marine environment. This will be achieved through improved reuse and recycling opportunities. They have further agreed that no waste will be discharged into the marine environment unless it has been properly processed and can be discharged in accordance with MARPOL and other prevailing requirements.*

10. Incinerator Ash: *Member lines have agreed to reduce the production of incinerator ash by minimizing the generation of waste and maximizing recycling opportunities.*

11. Graywater: *Member lines have agreed that graywater will be discharged only while the ship is underway and proceeding at a speed of not less than 6 knots; that graywater will not be*

discharged in port and will not be discharged within 4 nautical miles from shore or such other distance as agreed to with authorities having jurisdiction or provided for by local law except in an emergency, or where geographically limited. Member lines have further agreed that the discharge of graywater will comply with all applicable laws and regulations.

12. Blackwater: *ICCL members have agreed that all blackwater will be processed through a Marine Sanitation Device (MSD), certified in accordance with U.S. or international regulations, prior to discharge. Discharge will take place only when the ship is more than 4 miles from shore and when the ship is traveling at a speed of not less than 6 knots.*

Some member cruise lines are field-testing wastewater treatment systems that utilize advanced technologies. These onboard wastewater treatment systems, which are currently being referred to as advanced wastewater purification (AWP) systems, are designed to result in effluent discharges that are of a high quality and purity; for example, meeting or surpassing secondary and tertiary effluents and reclaimed water. Effluents meeting these high standards would not be subjected to the strict discharge limitations previously discussed.

Each ICCL cruise vessel operator has agreed to utilize one or more of the practices and procedures contained in the attached "*Cruise Industry Waste Management Practices and Procedures*" in the management of their shipboard waste streams. Recognizing that technology is progressing at a rapid rate, any new equipment or management practices that are equivalent to or better than those described, and which are shown to meet or exceed international and federal environmental standards, will also be acceptable. Member lines have agreed to communicate to ICCL the use of equivalent or other acceptable practices and procedures. As appropriate, such practices and procedures shall be included as a revision to the attached document. As an example, when improved systems for treating blackwater and graywater are perfected and shown to meet the requirements for MSDs and accepted by appropriate authorities, the new systems and associated technology will be included in the attachment as a revision.

ICCL and its Environmental Committee will continue to work with the U.S. Coast Guard, the U.S. Environmental Protection Agency and other appropriate agencies to further implement the above commitments.

ATTACHMENT: *CRUISE INDUSTRY WASTE MANAGEMENT PRACTICES AND PROCEDURES* (Revision 2)

Revised: December 12, 2003
Effective: January 1, 2004

Attachment to ICCL Standard E-1-01 (Revision 2)

CRUISE INDUSTRY WASTE MANAGEMENT PRACTICES AND PROCEDURES

(REVISED: December 12, 2003)

The cruise industry is dedicated to preserving the marine environment and oceans upon which our ships sail. As a stated industry standard, ICCL members have adopted aggressive programs of waste minimization, waste reuse and recycling, and waste stream management set forth in the following. In addition ICCL members are working in a number of areas to identify and implement new technologies in order to improve the environmental performance of their ships. ICCL member lines currently have agreed to utilize waste management practices and procedures, which meet or exceed the stringent standards as set forth in international treaties and applicable U.S. laws.

Introduction

The cruise industry is inextricably linked to the environment. Our business is to bring people to interesting places in the world, over the water. Recognizing the future of the industry depends on a clean and healthy environment, cruise industry senior management is committed to stewardship of the environment and establishing industry practices that will make ICCL member cruise ship operators leaders in environmental performance.

This document outlining member line practices has been developed under the auspice of the industry's professional organizations, the International Council of Cruise Lines (ICCL), the Florida Caribbean Cruise Association (FCCA), and the Northwest Cruise Ship Association (NWCA). The purpose of this document is to set forth cruise industry waste management practices and procedures that ICCL member cruise vessel operators have agreed to incorporate into their respective Safety Management Systems.

In the development of industry practices and procedures for waste management, the members of the International Council of Cruise Lines have endorsed policies and practices based upon the following fundamental principles:

- Full compliance with applicable laws and regulations
- Maintaining cooperative relationships with the regulatory community
- Designing, constructing and operating vessels, so as to minimize their impact on the environment
- Embracing new technology
- Conserving resources through purchasing strategies and product management
- Minimizing waste generated and maximize reuse and recycling
- Optimizing energy efficiency through conservation and management
- Managing water discharges
- Educating staff, guests and the community.

Discussion

Just as on shore, ship operations and passengers generate waste as part of many daily activities. On ships, waste is generated while underway and in port. Because ships move, the management of these wastes becomes more complicated than for land-based activities, as the facilities and laws change with the location of the ship. Facilities on the ships and management practices must be designed to take into account environmental laws and regulations around the world. Moreover, because waste management ultimately becomes a local activity, the local port infrastructure, service providers, and local waste disposal vendors are factors in the decision-making processes.

On an international level, environmental processes are an important part of the International Maritime Organization's (IMO's) policies and procedures for the maritime industry. ICCL member lines have agreed to incorporate environmental performance into Safety Management Systems (SMS) and MARPOL mandated Waste Management Manuals. Under agreements and laws specific to many nations, these programs are routinely reviewed by Port States to ensure compliance. For example, in the United States, the US Coast Guard has jurisdiction over environmental matters in ports and waterways and conducts passenger ship examinations that include review of environmental systems, SMS documentation and such MARPOL-mandated documents as the Oil Record Book and the Garbage Record Book.

The industry effort to develop waste management practices and procedures has focused on the traditional high volume wastes (garbage, graywater, blackwater, oily residues (sludge oil) and bilge water), pollution prevention, and the small quantities of hazardous waste produced onboard. In the process, ICCL members have shared waste management strategies and technologies, while focusing on a common goal of waste reduction.

The process of waste reduction includes waste prevention, the purchasing of products that have recycled content or produce less waste (e.g. source reduction), and recycling or reuse of wastes that are generated. The ultimate goal is to have the waste management culture absorbed into every facet of cruise vessel operation. A fully integrated system beginning with the design of the vessel should address environmental issues at every step.

Management practices for waste reduction should start before a product is selected. Eco-purchasing and packaging are vital to the success of any environmental program, as are strategies to change packaging, processes and management to optimize the resources used.

The commitment of the industry to this cooperative effort has been quite successful, as companies have shared information and strategies.

Industry Standard Waste Handling Procedures

ICCL member lines have agreed that hazardous wastes and waste streams onboard cruise vessels will be identified and segregated for individual handling and management in accordance with appropriate laws and regulations. They have further agreed, hazardous wastes will not be discharged overboard, nor be commingled or mixed with other waste streams.

A. **Photo Processing, Including X-Ray Development Fluid Waste:** *ICCL member lines have agreed to minimize the discharge of silver into the marine environment through the use of best available technology that will reduce the silver content of the waste stream below levels specified by prevailing regulations or by treating all photo processing and x-ray development fluid waste*

(treated or untreated) as a hazardous waste and landing ashore in accordance with RCRA requirements.

There are several waste streams associated with photo processing operations that have the potential to be regulated under the Resource Conservation and Recovery Act (RCRA). These waste streams include spent fixer, spent cartridges, expired film and silver flake.

Photographic fixer removes the unexposed silver compounds from the film during the developing process. The spent fixer can have as much as 2000-3000 parts per million (ppm) of silver. Silver bearing waste is regulated by RCRA as a hazardous waste if the level of silver exceeds 5 ppm as determined by the Toxicity Characteristic Leaching Procedure (TCLP) test.

Silver recovery units may be used to reclaim the silver from the used fixer waste stream. There are two types of recovery units. These are active (with electricity) and passive (without electricity) units. The active unit uses electricity to plate silver onto an electrode. The passive unit uses a chemical reaction between steel wool and silver to remove most of the silver from solution. Utilizing the best available technology, the equipment currently onboard ICCL member cruise ships is conservatively estimated to reduce the silver content of this effluent below 4 mg/l (milligrams/l or ppm)

The effluent from the silver recovery process must be tested before it can be discharged as a non-hazardous waste to be further diluted by addition to the ship's gray water. After the photographic and X-ray development fluids are treated for the removal of silver, the treated, non-hazardous effluent is then blended with the ship's graywater. In general, assuming that an entire week's photographic and X-ray development treated effluent stream is introduced into a single day's accumulation of graywater, the concentration of silver in the resulting mixture would be less than one-half of one part per billion (<0.5 micrograms/liter). Such mixing is not done on a weekly basis. Even at this assumed extreme however, it is expected that the silver concentration would only be approximately one fifth (1/5) the surface water quality standard for predominately marine waters specified in one state where cruise ships operate. When mixing is done on a daily basis it is evident that the resulting immediate concentration would be almost an order of magnitude less than this (1/50 of the current surface water quality standard). Additionally, it is evident that total mass of any discharges of silver would be negligible. Member lines have agreed that this discharge would be carried out only while their vessels are underway. Also, it should be noted that these estimates were carried out considering the largest cruise ships in service, which would produce the greatest amount of waste.

<u>Handling Method 1 Employed by Member Lines:</u>

Treat used photographic and x-ray development fluids to remove silver for recycling.

Verify that the effluent from the recovery unit is less than 5 parts per million (ppm) silver, as measured by EPA-approved methodology.

After treatment, the residual waste stream fluid is non-hazardous and landed ashore or discharged in accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) and other prevailing regulations.

<u>Handling Method 2 Employed by Member Lines:</u>

Used photographic and x-ray development fluids, either treated or untreated, may be assumed to be a hazardous waste. In this event, they are landed ashore in accordance with the requirements of the Resource Conservation and Recovery Act (RCRA).

B. **Dry-cleaning waste fluids and contaminated materials**: ICCL member lines have agreed to prevent the discharge of chlorinated dry-cleaning fluids, sludge, contaminated filter materials and other dry-cleaning waste byproducts into the environment.

Shipboard dry cleaning facilities use a chlorinated solvent called perchlorethylene (also known as PERC or tetrachloroethylene) as a dry cleaning fluid. This is the approved dry cleaning solvent for these units. Operators must receive specific required training for the correct use of this chemical and its associated precautions. This solvent should be used in accordance with all safety procedures including appropriate personal protective equipment (PPE).

The dry cleaning units produce a small volume waste from condensate, the bottoms of the internal recovery stills, waste products from button and lint traps, spent perchloroethylene and filter media. This waste is comprised of dirt, oils, filter material, and spent solvent. Each ship utilizing these dry-cleaning units produces approximately two pounds of waste material weekly. However, the amounts may vary greatly by season and passenger load. This material is classified as hazardous waste under RCRA and must be disposed of accordingly.

Handling Method 1 Employed by Member Lines:

Perchloroethylene (PERC) and other chlorinated dry-cleaning fluids, contaminated sludge and filter materials are hazardous waste and landed ashore in accordance with the requirements of RCRA.

C. **Print Shop Waste Fluids:** ICCL member lines have agreed to prevent the discharge of hazardous wastes from printing materials (inks) and cleaning chemicals into the environment.

Print shop waste may contain hazardous waste. Printing solvents, inks and cleaners all may contain hydrocarbons, chlorinated hydrocarbons, and heavy metals that can be harmful to human and aquatic species. Recent advances in printing technology and substitution of chemicals that are less hazardous reduces the volume of print shop waste generated and reduces the impact of these waste products.

ICCL member lines have agreed to utilize, whenever possible, printing methods and printing process chemicals that produce both less volume of waste and less hazardous waste products, that shipboard printers will be trained in ways to minimize printing waste generated, and that alternative printing inks such as soy based, non-chlorinated hydrocarbon based ink products will be used whenever possible. The member lines have further agreed that all print shop waste including waste solvents, cleaners, and cleaning cloths will be treated as hazardous waste, if such waste contains chemical components that may be considered as hazardous by regulatory definitions, and that all other waste may be treated as non-hazardous.

Handling Method 1 Employed by Member Lines:

When using traditional or non-soy based inks and chlorinated solvents, all print shop waste is treated as hazardous, and discharged ashore in accordance with RCRA.

Handling Method 2 Employed by Member Lines:

Shipboard printing processes use non-toxic based printing ink such as soy based, non-chlorinated solvents, and other non-hazardous products to eliminate hazardous waste products.

D. **Photo Copying and Laser Printer Cartridges**: ICCL member lines have agreed to initiate procedures so as to maximize the return of photocopying and laser printer cartridges for recycling, and in any event, have agreed that these cartridges will be landed ashore.

Increased use of laser and photo copying equipment on shore as well as onboard ship results in the generation of increased volumes of waste cartridges, inks, and toner materials. ICCL member lines have agreed to use only such inks, toners and printing/copying cartridges that contain non-hazardous chemical components, and that none of these cartridges or their components should be disposed of by discharge into the marine environment. In recognition of the member lines' goal of waste minimization, they have further agreed these cartridges should, whenever possible, be returned to the manufacturer for credit, recycling, or for refilling.

Handling Method Employed by Member Lines:

ICCL member lines have agreed that wherever possible, photo copying and laser printer cartridges will be collected, packaged and returned for recycling and when this is not possible, that these materials will not be discharged into the sea or other bodies of water but will be handled as other shipboard waste that is landed ashore for further disposal.

E. **Unused And Outdated Pharmaceuticals**: ICCL member lines have agreed to ensure that unused and/or outdated pharmaceuticals are effectively and safely disposed in accordance with legal and environmental requirements.

In general ships carry varying amounts of pharmaceuticals. The pharmaceuticals carried range from over-the-counter products such as anti-fungal creams to prescription drugs such as epinephrine. Each ship stocks an inventory based on its itinerary and the demographics of its passenger base. ICCL member lines have agreed that all pharmaceuticals will be managed to ensure that their efficacy is optimized and that disposal is done in an environmentally responsible manner.

ICCL member lines have further agreed that when disposing of pharmaceuticals, the method used will be consistent with established procedures, and that pharmaceuticals and medications which are off specification or which have exceeded their shelf-life, and stocks that are unused and out of date, cannot be used for patients and therefore will be removed from the ship. Further, each regulatory jurisdiction has a posting of listed pharmaceuticals that must be considered hazardous waste once the date has expired or the item is no longer considered good for patient use.

Through onboard management of the medical facility, ICCL member lines have agreed that stocks of such listed pharmaceuticals are returned to the vendor prior to date of expiration. Pharmaceuticals that are being returned and which have not reached their expiration date are shipped using ordinary practices for new products.

Safety and Health

ICCL member lines have agreed that all expired listed pharmaceuticals will be handled in accordance with established procedures and all personnel handling this waste will receive appropriate training in the handling of hazardous materials. As guidance, the US Environmental Protection Agency (EPA) has issued a report that clarifies the fact that residuals, such as epinephrine, found in syringes after injections are not considered an acutely hazardous waste by definition and may be disposed of

appropriately in sharps containers. Member lines have agreed that all Universal Precautions will be adhered to when handling sharps.

Handling Method 1 Employed by Member Lines:

Establish a reverse distribution system for returning unexpired, unopened non-narcotic pharmaceuticals to the original vendor.

Handling Method 2 Employed by Member Lines:

Appropriately destroy narcotic pharmaceuticals onboard ship in a manner that is witnessed and recorded.

Handling Method 3 Employed by Member Lines:

Land listed pharmaceuticals in accordance with local regulations. Listed pharmaceuticals are a hazardous waste having chemical compositions which prevent them from being incinerated or disposed of through the ship's sewer system. Listing of such pharmaceuticals may vary from state to state.

Handing Method 4 Employed by Member Lines:

Dispose of other non-narcotic and non-listed pharmaceuticals through onboard incineration or landing ashore.

F. **Fluorescent And Mercury Vapor Lamp Bulbs**: ICCL member lines have agreed to prevent the release of mercury into the environment from spent fluorescent and mercury vapor lamps by assuring proper recycling or by using other acceptable disposal.

The recycling of fluorescent lights and high intensity discharge (HID) lamps is a proven technology capable of reliably recovering greater that 99 percent of the mercury in the spent lights. This is done by using a crush-and-sieve method. In this process, the spent tubes are first crushed and then sieved to separate the large particles from the mercury containing phosphor powder. The phosphor powder is collected and processed under intense heat and pressure. The mercury is volatized and then recovered by condensation. The glass particles are segregated and recycled into other products such as fiberglass. Aluminum components are also recycled separately.

Storage and handling of used lights pose no compatibility problems; nevertheless, storage and shipment of the glass tubes is best done keeping the glass tubes intact. These items are classified as "Universal Waste" when they are shipped to a properly permitted recycling facility; as such, testing is not required.

Safety and Health

Fluorescent and Mercury Vapor lamps contain small amounts of mercury that could potentially be harmful to human health and the environment. To prevent human exposure and contamination of the environment, ICCL member lines have agreed that these lamps will be handled in an environmentally safe manner. Recycling of mercury from lamps and other mercury containing devices is the preferred handling method and is encouraged by various states. The recycling of fluorescent lights and HID lamps keeps potentially hazardous materials out of landfills, saves landfill space and reduces raw materials production needs.

Handling Method Employed by Member Lines:

Fluorescent and mercury vapor lamps are collected and recycled or landed for recycling or disposal in accordance with prevailing laws and regulations.

G. **Batteries**: ICCL member lines have agreed to prevent the discharge of spent batteries into the marine environment.

If not properly disposed of, spent batteries may constitute a hazardous waste stream. Most of the large batteries are on tenders and standby generators. Small batteries used in flashlights and other equipment and by passengers, account for the rest. There are four basic types of batteries used.

Lead-acid batteries – These are used in tenders and standby generators. They are wet, rechargeable, and usually six-celled. They contain a sponge lead anode, lead dioxide cathode, and sulfuric acid electrolyte. The electrolyte is corrosive. These batteries require disposal as a hazardous waste, unless recycled or reclaimed.

Lead-acid batteries use sulfuric acid as an electrolyte. Battery acid is extremely corrosive, reactive and dangerous. Damaged batteries will be drained into an acid-proof container. A damaged and leaking battery is then placed in another acid-proof container, and both the electrolyte and the damaged battery placed in secure storage for proper disposal as a hazardous waste.

Nickel-cadmium (NiCad) batteries – These are usually rechargeable, and contain wet or dry potassium hydroxide as electrolyte. The potassium hydroxide is corrosive and the cadmium is a characteristic hazardous waste. Therefore, NiCad batteries will be disposed of as hazardous waste, unless recycled or reclaimed.

Lithium batteries – These are used as a power source for flashlights and portable electronic equipment. All lithium batteries will be disposed of as hazardous waste, or sent out for reclamation.

Alkaline batteries – These are common flashlight batteries and are also used in many camera flash attachments, cassette recorders, etc. They should be recycled, properly disposed or reclaimed.

Handling Method Employed by Member Lines:

Spent batteries are collected and returned for recycling and/or disposal in accordance with prevailing regulations. Discarded batteries are isolated from the refuse waste stream to prevent potentially toxic materials from inappropriate disposal. The wet-cell battery-recycling program is kept separate from the dry battery collection process. Intact wet-cell batteries are sent back to the supplier. Dry-cell batteries are manifested to a licensed firm for recycling.

H. **Bilge and Oily Water Residues:** ICCL member lines have agreed to meet or exceed the international requirements for removing oil from bilge and wastewater prior to discharge.

The area of the ship at the very bottom of the hull is known as the bilge. The bilge is the area where water collects from various operational sources such as water lubricated shaft seals, propulsion system cooling, evaporators, and other machinery. All engine and machinery spaces also collect oil that leaks from machinery fittings and engine maintenance activities. In order to maintain ship stability and eliminate potential hazardous conditions from oil vapors in engine and machinery spaces, the bilge spaces should be periodically pumped dry. In discharging bilge and oily water residues, both international

regulations (MARPOL) and United States regulations require that the oil content of the discharged effluent be less than 15 parts per million and that it not leave a visible sheen on the surface of the water.

All ships are required to have equipment installed onboard that limits the discharge of oil into the oceans to 15 parts per million when a ship is en route and provided the ship is not in a special area where all discharge of oil is prohibited. Regulations also require that all oil or oil residues, which cannot be discharged in compliance with these regulations, be retained onboard or discharged to a reception facility. The equipment and processes implemented onboard cruise ships to comply with these requirements are complex and sophisticated.

The term "en route" as utilized in MARPOL (73/78) Regulation 9(b) is taken to mean while the vessel is underway. The U.S. Coast Guard has informed ICCL that it agrees with this meaning of "en route."

In accordance with MARPOL (73/78) Regulation 20, ICCL member lines have agreed that every ship of 400 gross tons and above shall be provided with an oil record book which shall be completed on each occasion whenever any of numerous specified operations take place in the ship and that operations include:

a. Ballasting or cleaning of fuel oil tanks,
b. Discharge of dirty ballast or cleaning water from the fuel oil tanks above,
c. Disposal of oily residues,
d. And discharge of bilge water that accumulated in machinery spaces.

Requirements regarding the keeping of an Oil Record Book as well as the form of the Oil Record Book are also found in MARPOL and in U.S. Coast Guard regulations (33CFR151).

Handling Method Employed by Member Lines:

Bilge and oily water residue are processed prior to discharge to remove oil residues, such that oil content of the effluent is less than 15 ppm as specified by MARPOL Annex 1.

I. **Glass, Cardboard, Aluminum and Steel Cans**: ICCL member lines have agreed to eliminate, to the maximum extent possible, the disposal of MARPOL Annex V wastes into the marine environment. This will be accomplished through improved reuse and recycling opportunities. They have further agreed that no waste will be discharged into the marine environment unless it has been properly processed and can be discharged in accordance with MARPOL and other prevailing requirements.

Management of shipboard generated waste is a challenging issue for all ships at sea. This is true for cruise vessels, other commercial vessels, military ships, fishing vessels and recreational boats. Waste products in earlier days were made from natural materials and were mostly biodegradable. Today's packaging of food and other products presents new challenges for waste management. A large cruise ship today can carry over three thousand passengers and crew. Each day, an average cruise passenger will generate two pounds of dry trash and dispose of two bottles and two cans.

A strategy of source reduction, waste minimization and recycling has allowed the cruise industry to significantly reduce shipboard generated waste. To attain this, ICCL member lines have agreed to adopt a multifaceted strategy that begins with waste minimization to decrease waste from provisions brought onboard. This means purchasing in bulk, encouraging suppliers to utilize more efficient packaging, reusable packaging, and packaging materials that are more environmentally friendly—those

that can be more easily disposed of or recycled. In fact, through this comprehensive strategy of source reduction, total waste on passenger vessels has been reduced by nearly half over the past ten years.

Another important component of the industry's waste reduction strategy is product or packaging recycling. Glass, aluminum, other metals, paper, wood and cardboard are, in most cases, recycled.

Handling Method Employed by Member Lines:

MARPOL Annex V ship waste is minimized through purchasing practices, reuse and recycling programs, landing ashore and onboard incineration in approved shipboard incinerators. Any Annex V waste that is discharged at sea will be done in strict accordance with MARPOL and any other prevailing requirements.

J. **Incinerator Ash**: ICCL member lines have agreed to reduce the production of incinerator ash by minimizing the generation of waste and maximizing recycling opportunities, and that the discharge of incinerator ash containing hazardous components will be prevented through a program of waste segregation and periodic ash testing.

Incinerator ash is not normally a hazardous waste. Through relatively straightforward waste management strategies, items that would cause the ash to be hazardous are separated from the waste stream and handled according to accepted hazardous waste protocols. In general, source segregation for waste streams is foundational for onboard waste management and is incorporated into the waste management manual required by MARPOL. Waste management for onboard waste streams include the following: source reduction, minimization, recycling, collection, processing and discharge ashore. This allows the incinerator to be used primarily for food waste, contaminated cardboard, some plastics, trash and wood.

Member lines have agreed that incinerator ash will be tested at least once quarterly for the first year of operation to establish a baseline and that testing may then be conducted once a year. The member lines have further agreed that a recognized test procedure will be used to demonstrate that ash is not a hazardous waste. A recognized test procedure includes the following metals as indicators for toxicity - arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Special attention is placed on the removal of batteries from the incinerator waste stream. The use of incinerators saves landfill space and prevents the build up of material onboard that could become the breeding ground for insects, rodents and other vermin.

Handling Method Employed by Member Lines:

Proper hazardous waste management procedures are to be instituted onboard each ship to assure that waste products, which will result in a hazardous ash, are not introduced into the incinerator. Non-hazardous incinerator ash may be disposed of at sea in accordance with MARPOL Annex V. Ash identified as being hazardous is disposed of ashore in accordance with RCRA.

K. **Wastewater reclamation**

Because of the amounts of fresh water involved, and its restricted availability onboard ship (all fresh water must be either purchased or generated onboard), fresh water is a valuable commodity. Therefore, water management is extremely important and takes the form of both minimizing water usage and the potential reclamation and reuse of water for non-potable purposes. Many ICCL companies are researching new technology and piloting graywater treatment systems onboard their vessels. ICCL member operators also take numerous steps in onboard water management. Water management techniques include:

a. Use of technical water (for example: air conditioning condensate) where possible.
b. Use of water recovery systems (for example: filtering and reuse of laundry water – last rinse use for first wash).
c. Reclamation and reuse as technical water (flushing toilets, laundry, open deck washing) of properly treated and filtered wastewaters.
d. Active water conservation (for example: use of reduced flow showerheads, vacuum systems for toilets, vacuum food waste transportation and laundry equipment that utilizes less water).

L. **Graywater**: ICCL member lines have agreed to discharge graywater only while the ship is underway and proceeding at a speed of not less than 6 knots; that graywater will not be discharged in port and will not be discharged within 4 nautical miles from shore or such other distance as agreed to with authorities having jurisdiction or provided for by local law except in an emergency, or where geographically limited. The member lines have further agreed that the discharge of graywater will comply with all applicable laws and regulations.

The term graywater is used on ships to refer to wastewater that is generally incidental to the operation of the ship. The International Maritime Organization (IMO) defines graywater as including drainage from dishwasher, shower, laundry, bath and washbasin drains. The US Clean Water Act (formally know as the Federal Water Pollution Control Act) includes galley, bath and shower water in its definition of graywater. The US regulations implementing this act do not include a further definition of gray water. However, the regulations do include a provision that exempts all of the wastewater included in the IMO definition and other discharges incidental to the operation of a ship from the Clean Water Act's permitting program (formally known as the National Pollution Discharge Elimination System (NPDES) program). Finally, the US Coast Guard regulations include provisions that essentially combine the two definitions from the IMO and the Clean Water Act. None of the definitions of graywater include blackwater (discussed below) or bilgewater from the machinery spaces. Recent U.S. Legislation places limits on the discharge of graywater in the Alaska Alexander Archipelago.

Handling Method Employed by Member Lines:

Graywater is discharged only while ships are underway and proceeding at a speed of not less than 6 knots, in recognition that dispersal of these discharges is desirable and that mixing of these waters, which are discharged approximately 10-14 feet below the surface, by the action of the propellers and the movement of the ship, provides the best dispersal available.

M. **Blackwater:** Waste from toilets, urinals, medical sinks and other similar facilities is called "blackwater." ICCL members have agreed that all blackwater will be processed through a Marine Sanitation Device (MSD), certified in accordance with U.S. or international regulations, prior to discharge. Discharge will take place only when the ship is more than 4 miles from shore and when the ship is traveling at a speed of not less than 6 knots.

N. **Advanced Wastewater Purification Systems**:

To improve environmental performance, cruise lines are testing and installing wastewater purification systems that utilize advanced technologies. These onboard wastewater treatment systems are designed to result in effluent discharges that are of a high quality and purity; for example, meeting or surpassing standards for secondary and tertiary effluents and reclaimed water. Effluents meeting these high standards would not be subjected to the strict discharge limitations previously discussed.

O. **Training and Educational Materials**

Training is an important and ongoing part of every position and tasking onboard cruise ships. Not only is training necessary for the safe and economical operation of a ship, it is required by numerous international conventions and flag state regulations. The International Convention on Standards of Training Certification and Watchkeeping (STCW) for example, sets forth requirements for knowledge, experience and demonstrated competency for licensed officers of the deck and engineering departments and for ratings forming part of a navigation or engineering watch. These detailed requirements address not only the navigation of the ship but also the proper operation of the shipboard machinery and knowledge of and ability to assure compliance with the environmental protection requirements of MARPOL and the safety regulations of The International Convention on Safety of Life at Sea (SOLAS). SOLAS also requires that the ship's training manual (which contents are prescribed by regulation) be placed in the crew messes and recreation rooms or in individual crew cabins.

ICCL member lines have developed programs that raise the level of environmental awareness on the part of both the passengers and the crew. Each ship's crew receives training regarding shipboard safety and environmental procedures. Advanced training in shipboard safety and environmental management procedures is provided for those directly involved in these areas. Those directly responsible for processing wastes are given specific instruction in their duties and responsibilities and in the operation of the various equipment and waste management systems. Specific actions that our member lines have taken to train employees and increase passenger awareness include:

a. Announcements over the public address system and notices in ship newsletters that caution against throwing any trash overboard,
b. Signage and colorful posters placed in crew and passenger areas encouraging environmental awareness and protection,
c. Safety and environmental information booklets in crew cabins and crew lounges,
d. Regular meetings of ship safety and environmental committees consisting of officers and crew from all departments to review methods of improving performance, including better and more effective environmental practices.

STCW, SOLAS and the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code) require that training be fully documented. Individual training is documented in each crewmember's file. Ship training exercises, such as fire drills and emergency response exercises, are documented in the appropriate ship's logs. All of these training documents are required to be available for oversight examination by both the ship's flag state inspectors and by port state authorities such as the United States Coast Guard.

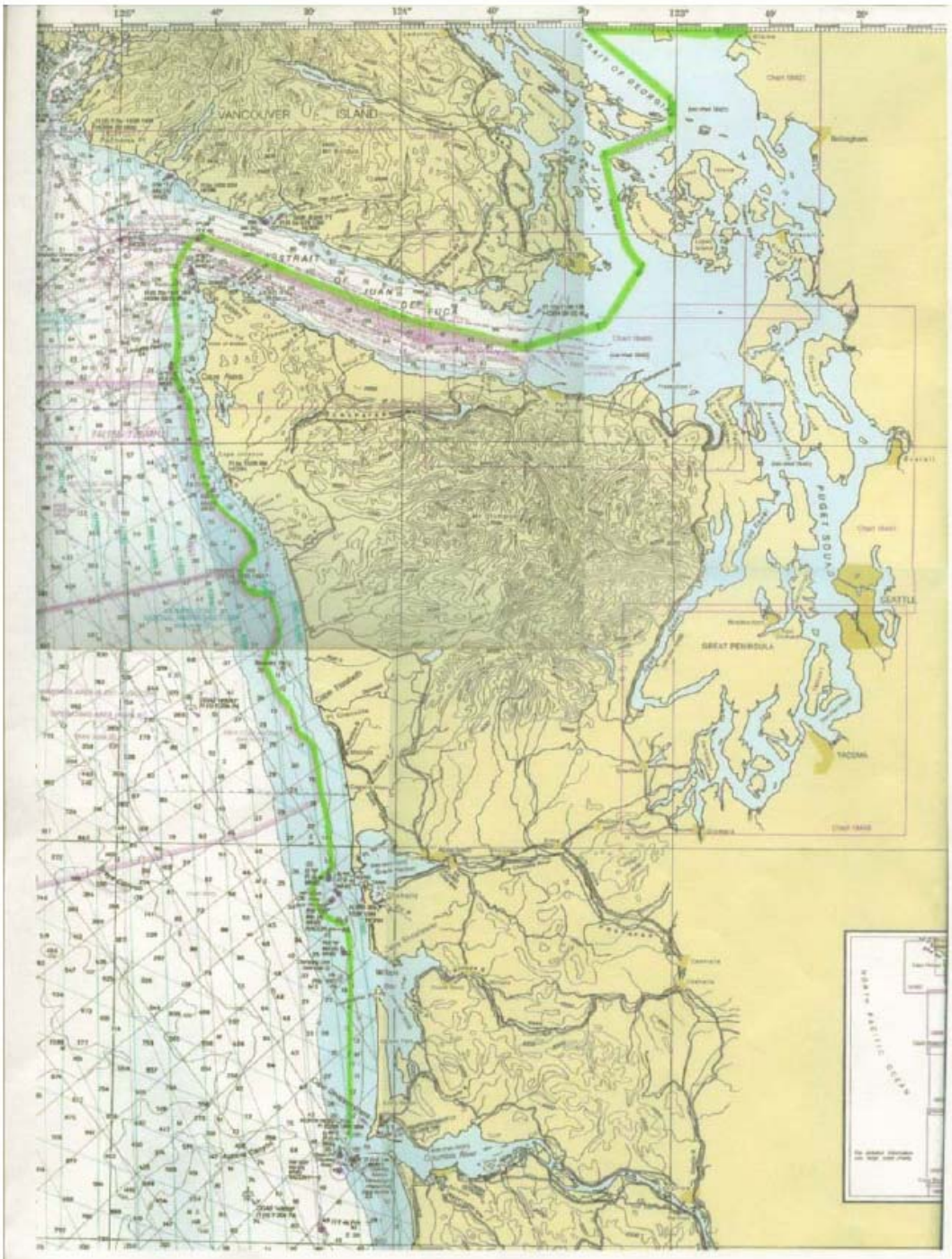
Placards warning of the prohibition of the discharge of oil are posted on all ships operating in the navigable waters of the United States as required by U.S. Coast Guard regulations (33CFR155.450). Additionally, as part of required shipboard waste management plans, both Coast Guard regulations (33CFR151.59) and MARPOL (Annex V Regulation 9) require the posting of placards that notify the passengers and the crew of the disposal requirements for garbage. These placards are to be written in the official language of the State whose flag the ship is entitled to fly and also in English or French if neither of these is the official language. Once again, oversight of compliance with these requirements is conducted by ISM audits and frequent inspections by flag states and the United States Coast Guard.

The Safety of Life at Sea Convention mandates compliance with the ISM Code. This comprehensive Code requires that each vessel operating company and each vessel participate in a_very strictly defined management program, under both internal and external audit and regulatory oversight, that sets forth detailed procedures for assuring compliance with safety, environmental protection, emergency response and training mandates.

Equivalent equipment, practices and procedures

ICCL member lines have agreed that the use of equivalent or other acceptable practices and procedures shall be communicated to ICCL. As appropriate, such practices and procedures shall be included as a revision to this document. As an example, when improved systems for treating blackwater and graywater are perfected, shown to meet the requirements for MSDs and accepted by appropriate authorities for the treatment of graywater, the new systems and associated technology will be included together with their impact on the current standard of discharging graywater only while underway.

Appendix iii:
Navigational Chart of Waters Subject to this MOU



Appendix iv

U.S. Department of Homeland Security

United States Coast Guard

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COMDTPUB P16700.4
NVIC 04-04

13 FEBRUARY 2004

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 04-04

Subj: ENVIRONMENTAL INSPECTION CHECKLIST; ADDENDUM TO FOREIGN PASSENGER VESSEL EXAMINATION BOOK, CG-840

Ref: (a) General Accounting Office (GAO) Report of February 2000 on "MARINE POLLUTION - Progress Made to Reduce Marine Pollution by Cruise Ships, but Important Issues Remain."
(b) Title XIV "Certain Alaskan Cruise Ship Operations" contained in Section 1(a)(4) of Public Law 106-554 enacted on December 21, 2000
(c) 33 CFR 159, Subpart E – Discharge of Effluents in certain Alaskan Waters by Cruise Vessel Operations
(d) Memorandum of Understanding (MOU) dated March 14, 2000 entered between Florida Department of Environmental Protection (FDEP) and the Florida-Caribbean Cruise Association (FCCA), a representative of the cruise industry in Florida
(e) International Council of Cruise Lines (ICCL) Industry Standard E-01-01, "Waste Management Practices and Procedures"

1. PURPOSE. As the result of a GAO report and Bluewater Network petition, the FCCA, FDEP, and the Coast Guard began discussing the means to improve and ensure the compliance of large passenger vessels with existing Federal and state environmental standards. These discussions have resulted in the checklist contained in Enclosure 1. This checklist is an extensive list of possible inspection items related to pollution prevention equipment, operation, plans and records. It is intended as a job aid to be used by Coast Guard personnel during certificate of compliance examinations onboard foreign-flagged passenger vessels. Additionally, this document does not change or establish new Coast Guard authorities, but is intended to provide

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	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A																										
B	*	1	1											1				1								1
C					1							1	1	1												
D	1										1															
E														1	1											
F																										
G																										
H																										

NON-STANDARD DISTRIBUTION: B:a G-MOC, G-MO-1, G-MSE (1)

a framework and focus on responsibilities currently possessed. This checklist will be incorporated into a future revision of the existing Foreign Passenger Vessel Examination Book, CG-840.

2. ACTION. Officers in Charge Marine Inspections (OCMIs) and their designated marine inspectors should:

   a. Bring this circular to the attention of appropriate individuals in the marine industry within their zones, especially those in the industry who are not members of ICCL. This circular is available on the world-wide web at: **http://www.uscg.mil/hq/g-m/nvic/index.htm**. Internet release authorized.

   b. Follow the guidance in this circular while conducting Certificate of Compliance examinations on foreign-flag passenger vessels, choosing one of the five waste streams to inspect.

   c. If any non-conformities are noted between the procedures listed in the vessel's Safety Management System (SMS) documentation and the actual procedures being followed on the ship, notify the Company immediately and follow the guidance contained in NVIC 4-98. If major non-conformities are identified, an OCMI should use risk-based decision-making and exercise discretion with regard to the level of control action utilized on the vessel.

   d. If deficiencies or discrepancies are noted in the execution of the hazardous waste management program, notify the applicable Environmental Protection Agency (EPA) office or the State Resource Conservation and Recovery Act (RCRA) program office immediately.

3. DIRECTIVES AFFECTED. The existing Foreign Passenger Vessel Examination Books CG-840, CV1, CV2 and CV3 will be revised to include the checklist contained in Enclosure (1), as soon as practicable.

4. BACKGROUND.

   a. From 1993 to 1998, nearly 2400 documented cases of pollution by foreign-flagged vessels were investigated, of which nearly four percent involved passenger vessels. As a result, Congress requested the GAO to examine the nature and extent of cruise ship involvement in these incidents; current and planned federal agency enforcement efforts; and cruise company actions to prevent future recurrences of pollution incidents. On February 1, 2000, the GAO completed a report to Congress, reference (a), recommending that the Coast Guard initiate discussions with the cruise ship industry, other federal and state agencies, and environmental groups as appropriate, on the need for improved water quality standards for gray water and black water discharged from cruise ships and other vessels. In addition, the report recommended an assessment of the need to periodically monitor the water quality of these discharges. This GAO report is available on the world-wide web for review at **http://frwebgate.access.gpo.gov/cgi-bin/useftp.cgi?IPaddress=162.140.64.21&filename=rc00048.pdf&directory=/diskb/wais/data/gao**.

b. At the time reference (a) became public, federal responsibilities were in place for various vessel waste stream control systems including effluent from the oily water separators, effluent from the sewage treatment plants, hazardous waste, and garbage. Subsequently, legislation was passed and regulations were promulgated (see references (b) and (c)) that expanded federal responsibilities to include requirements for gray water discharge and for monitoring and sampling of black water and gray water waste streams on cruise ships in Alaska[1].

c. On March 14, 2000, the Florida Caribbean Cruise Association (FCCA) signed a MOU with the Florida Department of Environmental Protection (FDEP), reference (d), that is available for review on the world-wide web at **http://www.iccl.org/resources/fdep_mou.htm**. Under this MOU, the FDEP recognized ICCL's Industry Standard E-01-01, "Waste Management Practices and Procedures," reference (e), as meeting or exceeding the standards set forth in Florida laws and applicable regulations. Though not a party to the MOU, the Coast Guard participated in discussions that resulted in the MOU. In the MOU, the FDEP recognized the Coast Guard as the primary federal agency with responsibility for examining passenger vessel waste streams. As a result, the Coast Guard worked in conjunction with FDEP and ICCL to develop a checklist related to monitoring of hazardous waste and disposal.

5. DISCUSSION. The enclosed checklist reflects the collective work of the USCG, FCCA and FDEP and has been tested for use by several Coast Guard Marine Safety Offices. The checklist is not a listing of all items to be inspected; rather the marine inspector should use it as a reminder of the various items that may be examined during a certificate of compliance examination of a foreign passenger vessel. As always, the marine inspector's experience, knowledge, and judgment will determine the depth and scope of each examination. However, each marine inspector should select at least one waste stream for a thorough and detailed inspection during every annual or periodic foreign passenger vessel examination. The stream selection will be based on the marine inspector's discretion, taking into account the inspector's impression about the condition of the various waste stream systems on board the vessel. The selection will also be based on the need to inspect all systems over a reasonable period of time, whether a particular waste stream is applicable for examination (e.g. there may be no requirement applicable to gray water at the port of examination or the vessel does not discharge/offload hazardous waste), and maintaining randomness so that the operator has no advance knowledge of the waste stream that may be selected. During the examination, the operator should be able to present to the marine inspector a clear description of the practices and procedures for handling each waste stream and also to produce such records, as the inspector might need to verify compliance with these guidelines. In performing pollution prevention examinations, inspectors should be especially familiar with the contents of the Marine Safety Manual (MSM), Volume II, Material Inspection, Section B, Chapter 6, "Pollution Prevention," and Section C, Chapter 2, Paragraph K, "Marine Sanitation Devices" and this NVIC. Marine inspectors should also be familiar with ICCL's Industry Standard E-01-01 "Waste Management Practices and Procedures", reference (e), and the vessel's Safety Management System (SMS) documentation, which should address all the elements discussed in

1 Presently, there are no other federal requirements applicable to the control or filtering of gray water discharge from foreign-flagged passenger ships.

this standard. Note reference (e) is available at the ICCL website at **http://www.iccl.org/resources/exhibit_a.pdf**. If any elements are not addressed there should be a rationale for its omission. The different waste streams may be categorized as follows:

a. Oil pollution prevention systems: include the oily water separator, the fuel/lubricating oil transfer, and sludge containment system. The marine inspector should verify that the oily water separator is operating within the desired range; that the alarms are working; that crew is knowledgeable and operating instructions are posted; and that maintenance is carried out at regular intervals. Actual piping may be verified against the approved piping diagram if the marine inspector notices modifications made to the system.

b. Black water system: includes marine sanitation devices (MSDs) and other systems to treat, store, and discharge sewage. The checklist is designed to guide the marine inspector through some basic questions to ascertain whether the system is working as designed and that the crew is properly trained in its operation. For example, does the MSD appear to be properly installed? Is the MSD approved for use on this particular vessel (USCG Approved, IMO or Administration Approved to MARPOL Annex IV)? Is there adequate capacity or throughput for the number of persons on board? Are maintenance procedures being followed, including procedures outlined in the vessel's SMS? Are there records of expendables being ordered: filters, chemicals, et cetera? Are the units operating within the manufacturer's design specifications? Are there clear and simple operating instructions? Is the crew knowledgeable in the use of the equipment/system?

c. Hazardous waste: includes dry cleaning (containing Perchloroethylene, or commonly-called "PERC") waste, used paints and thinners that contain hazardous substances, silver-bearing photo-processing waste, cleaning solutions and other items that contain hazardous substances. Each vessel may vary in both the type and volumes of hazardous waste generated depending on the technology and processes used aboard. This checklist is designed to evaluate onboard management of hazardous waste streams, to ensure that hazardous constituents are not released into the environment, and that accountability is demonstrated via adequate waste disposal records.

d. Non-hazardous waste: includes shipboard garbage including plastics and synthetic material, medical waste, food wastes and recyclables such as glass, cardboard, aluminum and metal cans. Items to be checked should include: disposal and incineration records; waste sorted to prevent hazardous waste from entering the non-hazardous waste stream; no plastics or synthetics discharge overboard; separate and proper disposal of hazardous and non-hazardous incinerator ash; and proper disposal of cooking grease from grease traps.

e. Gray water system: includes discharges from galley, sinks, washbasin drains, showers, and baths, excluding drains and sinks from medical spaces. These may be held in large tanks before being pumped overboard. The handling and discharge of gray water will vary from ship to ship and the inspector should ensure the procedures followed by the ship correspond to those described in its SMS documentation. If gray water is directed to MSD systems, the marine inspector shall ensure that combined gray water/black water throughput does not exceed the throughput of the MSD systems. Other waste streams such as hazardous waste

or medical waste must also not be mixed with gray water. Drains from hospitals, photo labs (if hazardous substances are used and stored therein), and slops, must be separate from the gray water system.

T. H. GILMOUR
Rear Admiral, U. S. Coast Guard
Assistant Commandant for Marine Safety,
Security, and Environmental Protection

Encl: (1) Foreign Passenger Vessel Pollution Survey Exam Book (CG-840 PSEB)

United States Coast Guard

FOREIGN PASSENGER VESSEL POLLUTION SURVEY EXAM BOOK

(FOR ALL PASSENGER VESSELS)

Name of Vessel	**Flag** ☐ No Change
IMO Number	**Case Number**
Date Completed	
Location	
Senior Marine Inspectors / Port State Control Officers 1. _____ 2. _____ 3. _____ 4. _____	5. _____ 6. _____ 7. _____ 8. _____

CG-840 PSEB
Pollution Survey Exam Book
Rev. 12JAN2004

Use of Foreign Passenger Vessel Pollution Survey Exam Book

This Checklist is an extensive list of possible examination items related to pollution prevention equipment, operation, plans and records. It is intended as a job aid to be used by Coast Guard senior marine inspectors during boardings of foreign-flagged passenger vessels. It is not the Coast Guard's intention to inspect all the items listed in the checklist at every exam; rather the inspector should use it as a reminder of the various items that may be examined during a foreign passenger vessel certificate of compliance examination. As always, the inspector's experience, knowledge, and judgment will determine the depth and scope of each examination; however, the inspector should select at least one waste stream for a thorough and detailed inspection. The stream selection will be based on the marine inspector's discretion, taking into account the inspectors impression about the condition of the various waste stream systems on board the vessel, weighing the need to inspect all systems over a reasonable period of time, and maintaining randomness so that the operator has no advance knowledge of the waste stream that may be selected.

It is incumbent on the vessel operator to be familiar with this checklist. The individuals responsible for different segments of the various waste streams should be able to present to the inspector a clear description of the practices and procedures for handling each waste stream and also to produce such records, as the marine inspector might need, to verify compliance with these guidelines. Inspectors should obtain a clear picture about the selected waste stream(s) and associated environmental processes by observing onboard practices and through questioning of the individuals that perform these practices. Inspectors should avoid circumstances in which a shore-side representative is the sole company liaison during the environmental inspection.

As a port state responsibility, marine inspectors and port state control officers must verify that the vessels and their crews are in substantial compliance with international conventions and applicable U.S. laws. The marine inspectors and port state control officers, based on their observations, must determine the depth and scope of the examination.
This document does not establish or change Federal laws or regulations. References given are only general guides. Refer to IMO publications, United States Code, Code of Federal Regulations, the Port State Control Job Aid, NVIC's, and any locally produced guidance for specific regulatory references. Marine inspectors should be especially familiar with all equipment standards and the contents of the Marine Safety Manual (MSM), Volume II, Material Inspection, Section B, Chapter 6, "Pollution Prevention," Section C, Chapter 2, Paragraph K, "Marine Sanitation Devices," and Volume IV, Technical, Chapter 3, Section K, "Special Engineering Applications for Pollution Prevention".

NOTE: *Guidance on how to examine foreign passenger vessels for compliance with pollution prevention equipment standards, can be found in NVIC __-04.*

Conducting the exam

- ☐ Complete Certificates/Equipment Data/Records information (Section A).
- ☐ Review SMS Environmental Procedures (Section B).
- ☐ Examine MSD, OWS, Garbage logs, Oil Record Book as per CG-840 Exam books.
- ☐ Determine if gray water requirements apply in the vessel's AOR and in inspection zone (If not, do not select C2)
- ☐ Make waste stream selection for a detailed exam (Section C)

  Section
  - C1 Oil Pollution Handling Waste Stream (Bilge, Sludge, Fuel, Lube Oil etc)
  - C2 Gray Water Waste Stream
  - C3 Black Water/Sewage Waste Stream
  - C4 Hazardous Waste Stream
  - C5 Non-hazardous Waste Stream

NOTE: Many items listed are not mandatory requirements, but fall under the umbrella of "Management Policy". Marine inspectors should be familiar with ICCL's Industry Standard E-01-01 "Waste Management Practices and Procedures," and SMS documentation on all cruise ships should address all the elements discussed in this standard. If any elements are not addressed there should be a rationale for its omission. If the areas listed are corporate policy as set out in the company's SMS documentation, then the vessel should be held accountable for the actions as required in 33 CFR 96 and SOLAS Chapter IX. If state or local laws exist that are more stringent than U.S. or international law, then the local or state laws must be followed. These vessels are not exempt simply because they are a foreign-flagged vessel.

Pre-inspection Items

- Review MISLE records
- Deficiency History
- Critical Profile
- Review Court-ordered requirements and environmental audit reports, if applicable
- CG Activity History
- Print Center for Disease Control Green Sheet http://www2.cdc.gov/nceh/vsp/vspmain.asp

Post-inspection Items

- Issue letters/certificates to vessel
- Issue Port State Control Report of Inspection-Form A
- Issue Port State Control Report of Inspection-Form B (if needed)
- Complete COC endorsement (include "Waste Stream" area inspected)
- MISLE activity case

Certificates / Reports (complete at annual exam or to update MISLE Certificate data)

Name of Certificate	Issuing Agency	ID #	Port Issued	Issued Date	Expiration Date	No Change	Endorsement Date
International Oil Pollution Prevention (leave blank if completed in the CVE 840 book							
International Sewage Pollution Prevention Certificate (if issued)							
International Anti-Fouling System Certificate (if issued)							
State Certificates of Emission (only if applicable)							
State Certificates of Ballast Water (only if applicable)							

Equipment Data

Equipment Name	Capacity		US or MEPC Approval Nr	Authority/Agency	No Change	Date of approval/acceptance
Oily Water Separator	Throughput					
Oily Water Separator	Throughput					
Oily Water Separator	Throughput					
Waste Oil Holding Tank(s) Capacity(ies)						
Marine Sanitation Device Certificate of Type Test	Volume/day					
Marine Sanitation Device Certificate of Type Test	Volume/day					
Marine Sanitation Device Certificate of Type Test	Volume/day					
Black Water Tank Capacity						
Gray Water Tank Capacity						

Pollution Records

	Date	Location	Amount
Last time bunkers were taken on			
Next time bunkers will be taken on			
Last time sludge/oily bilge water pumped ashore			
Last operation of OWS or overboard discharge			
Garbage incinerated			
Garbage discharged overboard at sea			
Garbage discharged ashore			
Required U.S. Ballast Water Report			

SECTION A
Certificates/Equipment Data/Records
Information

Section B
Environmental Procedures

Environmental Procedures can be found in the ship's Safety Management System (SMS) documentation or in company polices and maintenance manuals, inspection logs, oil record books, etc. Marine inspectors should question the ship staff on procedures and normal operations, and compare the answer to what is written in procedures and manuals. For each waste stream, persons with specific responsibilities should be questioned at each step in the waste handling process. Inspectors should require being shown specific process step by the person responsible for that step. Inspectors should ask extensive questions regarding availability of documents and supporting material relevant to the individual performing the specific activity in the waste handling process. Other questions should focus upon training provided and reporting procedures when problems with waste management processes are identified.

☐ Current pollution prevention records • Person-in-charge designated and qualified(certificated/licensed) • Transfer equipment tests and inspections • Declaration of Inspection (available and retained for at least one month) • Ship to provide PMS logs and required PMS activities for the selected waste stream for verification. • Verify SMS incorporates PMS activities and logs for all Waste Streams. • Court required logs to track oil usage in systems having oil to sea interfaces (if applicable) • Recent environmental audit reports when available	33 CFR 155.700 33 CFR 156.150 33 CFR 156.170 ISM Code/SMS 33 CFR 96
☐ Oil Record book (Part 1) (spot-check) • Each operation signed by person-in-charge • Each complete page signed by master • Book maintained for 3 years • Use of proper codes and version for vessel • Transfer receipts/manifest match oil record book entries • OWS rates not exceeding design criteria • Incinerator rates not exceeding design criteria • Consistent bilge water management patterns • Comparison of oil record book entries to vessel's daily tank sounding book	MARPOL Annex. I/20 33 CFR 151.25
☐ Shipboard Oil Pollution Emergency Plan • Approved by Administration (class society) • Updated and current • In English and working language of crew • Correct contact numbers for National and Local Authorities (Port Authorities for ports visited not every COTP) • Immediate Actions List • Non Mandatory Provisions (if listed in SOPEP). Spill kits located and inspected	MARPOL Annex. I/26.1 33 CFR 151.26
☐ MARPOL Annex V • Placard posted • Record book • Garbage management plan	MARPOL Annex V/9
☐ Non-Hazardous Waste Disposal Documentation (if applicable) • EPA Generator ID# _____ (if applicable) • Records • Non-Hazardous Waste Manifests	U.S. Local Regulations as applicable
☐ Recycling policy being followed (requires a detailed assessment)	Shipboard policy SMS
☐ Hazardous Waste Disposal Documentation (if applicable) • EPA Generator ID# _____ (if applicable) • Records • Uniform Hazardous Waste Manifests • Land Disposal Restriction Notification Certification Forms (LDR) • Shipping Document for Regulated Medical Waste • Interview Person(s) responsible for landing of wastes • Specialized training for Responsible person(s) and related documentation • Evidence of disposal in other countries to bona fide receivers documented	40 CFR 262 Shipboard policy SMS

Oil pollution prevention systems include, but are not limited to, the oily water separator, other filtering or flocculation devices, bilge water management, fuel/lubricating/waste oil transfer, purifier and lantern space sludge collection, transfer and containment systems. Marine inspectors should verify that the oily water separator is operating within the required range; that the alarms are working and sound at appropriate levels; that crew is knowledgeable and operating instructions are posted; that maintenance is carried out at regular intervals and repairs are documented; and that system operation and maintenance are in accordance with the vessel's SMS. Marine inspectors should verify the actual pollution prevention system piping against vessel's approved piping diagrams, if modifications such as blanked off tees, connections points, hoses, or temporary piping segments associated with these systems are observed.

☐ Oily Water Separator (OWS) — MARPOL Annex I/16, 33 CFR 155.360/370

- Verify bilge piping, no modifications & matches approved diagram (direct to OWS, to holding tank, etc.)
- No blanked flanges, pipe caps, or dead-ended valves, or tees on inlet or outlet piping
- Evidence of bolting/unbolting of associated piping segments
- Recent paint on pipe segments
- Observe general housekeeping and cleanliness
- Witness operational test of OWS, evaluate operator competency. System operating in published ranges
- Verify unit is processing contaminated source. Operate system for sufficient time (15 minute minimum) to identify reduction in contaminated source
- Test 15 ppm Oil Content Meter and alarm
- On units with multiple Oil Content Meters, compare readings
- Ensure sample analyzed by Meter is OWS output (Trace sample line for presence of unacceptable clean water connection)
- Verify no electrical bypasses, jumpers, extra switches on or within unit or Meter control panel
- Verify system automatically re-circulates (3-way valve) or shuts down when >15ppm. Verify proper operation of valve
- Verify proper operation of system backflush or oil purge cycle
- Visually sample processed water for gross contamination (sheen or visible oil)
- Compare ship's operational maintenance routine with actual Preventative Maintenance conducted. Request proof/documentation of maintenance completed (used consumables from OWS, receipts of service, technician reports, contractor disposal records)
- Review meter calibration records
- Review strip charts if fitted
- Examine other machinery space overboard piping for unusual connections
- Review records pertaining to system repairs

☐ Oil Pollution placard posted — 33 CFR 155.450

☐ Oil Transfer Procedures — 33 CFR 154.340, 33 CFR 155.720, 33 CFR 155.750, 33 CFR 154.310

- Posted / available in crew's language
- Person in Charge (PIC) fluent in English or language mutually agreed upon w/ shoreside PIC
- Format in CFR order or cross reference index page
- List/description of products carried by vessel
- Description of transfer system including a line diagram of piping system (pumps, vents, valves, alarms, shutoffs, etc.)
- Number of persons required on duty
- Duties by title of each person
- Means of communication (two-way voice)
- Procedures to top off tanks and disconnect
- Procedures to report oil discharges
- Emergency response procedures (fire, spill, human exposure)

☐ Standard discharge connection — MARPOL Annex I/19, 33 CFR 155.430, 33 CFR 155.320

☐ Fuel/lube/sludge oil fill, vent & overflow discharge containment

- Size (<1600GT ½ bbl, >1600GT 1 bbl)
- Fixed (Built after 30Jun74) or Portable (before 30Jun74)
- Drains
- Scupper closures

☐ Prohibited oil spaces (no oil/hazardous substances carried fwd of collision bulkhead) — 33 CFR 155.470

☐ Lighting at each Transfer Operations Work Area — 33 CFR 155.790

- Adequate
- Located/Shielded to not interfere with navigation

☐ Oil transfer hose (if vessel uses to transfer in U.S. waters) including Lifeboat/Tender Hoses — 33 CFR 155.800/805, 33 CFR 154.500, 33 CFR 156.170

- Condition
- Markings (MAWP, Mfg. Date, Test date)
- Hose assembly requirements (blanked off if not new, gas free or in use)
- Tests and inspections

☐ Bilge Water Management — MARPOL Annex I

- Examine machinery space bilges (stem to stern)
- Contamination / oily residues in bilges on bulkheads, piping, structures, within roseboxes
- Leakage from systems and engines into machinery spaces (may not be seen during port ops)
- Engine oil usage, quantities, where lost, consumed or in bilges
- Evidence of recent cleaning of systems, equipment and components
- Status of oily bilge water tanks, last cleaned, at capacity
- Adequate capacity all tanks
- Levels of tanks during inspection – high or low?
- If tanks near full – what are the vessel's processing plans?
- Evidence of detergent usage (Note- emulsions cannot separate in gravity separator and are likely to result in discharges over 15 PPM)
- Other methods to discharge bilge water
- Evidence of excess water ingress, pump glands, seals, valve glands
- Portable (diaphragm /other) pumps present
- Hoses, fittings, and connections in areas – usage unknown
- Unlocked overboard valves on bilge, bilge & ballast, salt water service
- Seal management program-used
- Designated clean or exempted areas – oil free status
- Lifeboat / Security / Tender vessel engineering systems leak free
- Lifeboat / Security / Tender vessel bilges clean
- Lifeboat / Security / Tender vessel- oily bilge handling when leakages present (when in use off vessel or once reloaded)

☐ Waste/Sludge oil incineration

- Tests and inspections
- Record keeping
- Incinerator operates with sludge / waste oils
- Clean / dirty furnace, evidence of use
- Operators capable & prove operation
- Purifier sludge tanks full / empty
- Connections to bilge main or other areas
- Transfer pump operable
- Transfer pump to sludge system, ashore, incinerator settler only
- Estimated quantities of sludge produced – normal or excessive (fuel sludge production can exceed 2% of total fuel used)

☐ Systems with Oil to Sea Interfaces

- Oil lubricated stern tubes, bow and stern thruster seals, fin stabilizer seals, etc.
- Exterior examination in way of systems for evidence of leaking seals
- Presence of barrels, drums, hoses, pumps, and other equipment/supplies/arrangements necessary to refill systems at equipment.
- Check consumption records if SMS or environmental compliance programs require such records.

Section C2
Gray Water Waste Stream

Gray water system includes discharges from galley, sinks, washbasin drains, showers, and baths. These may be held in large tanks before being pumped overboard. The handling and discharge of gray water will vary from ship to ship and the marine inspector should ensure the procedures followed by the ship correspond to those described in its SMS documentation. If gray water is pumped through a/the Marine Sanitation Device(s) (MSD), ensure that the total volume does not exceed the MSD's capacity. Other waste streams such as hazardous waste or medical waste (RCRA biomedical wastes) must not be mixed with gray water. Drains from hospitals (U.S. restriction), photo labs (if commingled with hazardous wastes), slops, must be separate from the gray water system.

(Clean Water Act)
33 USC 1251 et seq.
33 CFR 159.300
Subpart E for (D17)
Local Regulations
ISM Code
33 CFR 96

- ☐ Sources
  - Galley (ex. Dishwashers, floor drains, sinks)
  - Showers/Baths & washbasin drains
  - Laundry
  - Deck drains throughout vessel
- ☐ Prohibited Sources (hazardous materials, bilges, photo shop & print shop if hazardous wastes are commingled, hospital spaces (U.S. only), etc.)
- ☐ Evidence of other drained fluids into scuppers or other entry points (photo lab, hospital, specialty spaces)
- ☐ Drains from spaces containing machinery (fan rooms, hotel equipment, etc.) oil free or segregated
- ☐ Connections to the Black Water System (if permitted in MSD Operation Manual, if so, is MSD capacity sufficient?)
- ☐ Connections to Ballast Water System
- ☐ Number of tanks _____
- ☐ Total tank capacity _____ m3
- ☐ Volume Produced _____ (m3 per day)
- ☐ Maximum number of days in port without discharging._____
- ☐ Current capacity sufficient for persons on board and time in port?
- ☐ Review vessel's gray water handling procedures (SMS).
- ☐ Ensure that Quality Assurance / Quality Control Plan is vessel specific.
- ☐ Is Gray water processed and discharged?
- ☐ What are Gray water disposal procedures: Shore and at Sea. (company policy)
- ☐ Does vessel have sampling procedures? (if so, review)
- ☐ Types of tests performed, equipment and useable testing supplies readily available?
- ☐ Sampling equipment/supplies useable and available?
- ☐ How often do they take samples? Review samples record book.
- ☐ What are the state, federal and local regulations for gray water discharge?
- ☐ Responsible crew interviewed
- ☐ Disposal and Records
  - Shore (receipts available)
  - At sea (logs maintained)
  - Sampling/Testing (logs maintained)
  - Note some gray water treatment employs advanced ultra-filtration systems, these systems claim to reduce gray water waste by 85% - 90%, or more.
  - Alaska - Effective July 2001, Operators of cruise vessels carrying 500 or more passengers & transiting applicable waters of Alaska are restricted in where they may discharge effluents & will be required to perform testing of sewage & gray water discharges. The Coast Guard will inspect, monitor, & oversee this process to ensure compliance with applicable water quality laws & regulations. (33 CFR 159)

Black water system includes MSDs and other systems to collect, treat, store, and discharge sewage. This checklist is designed to guide the marine inspector through some basic questions to ascertain whether the system is working as designed and that the crew is properly trained in its operation. For example, does the MSD appear to be properly installed? Is there adequate capacity for the number of persons on board? Are maintenance procedures, including SMS procedures, being followed? Are there records of expendables being ordered: filters, chemicals, et cetera? Are the units operating within the manufacturer's design specifications? Are there clear and simple operating instructions? Is the crew knowledgeable in the use of the equipment/system?

☐ Sources	MARPOL Annex IV* 40 CFR 140.3 & .4 33 CFR 159.57 33 CFR 159.7 33 CFR 159.55 33 CFR 159.59 MARPOL Annex IV/9* 40 CFR 140.3 MARPOL Annex IV/11* Resolution MEPC.2(VI) 33 CFR 159.65 NVIC 9-82 ISM Code 33 CFR 96
• Toilets, Urinals, scuppers	
• All Drainage from Medical Premises (U.S. restriction)	
• System installed, maintained and operated in accordance with approved plans and manufacturers specifications.	
• Tank Capacity and Volume Produced	
• Current volume in tanks	
• Modifications documented	
☐ Operations and Treatment (new section)	
• Chemical/Biological treatment & protective equipment	
• Chemical Treatment Level	
• Sufficient chemicals, additives, approved cleaning materials onboard. (enzymes, "Gamazyme", chlorine)	
• Compressors operating, inlet filters maintained	33 CFR 159
• Vacuum system operable, if applicable	
• Flow indicators clear – indicating flow	
• Last system cleaning	
• Macerator operating maintenance	
• Methods to dilute discharge?	
• Operating instructions/SMS procedures	
☐ U.S. Marine Sanitation Device Requirements	
• Type (II, III)	
• Nameplate (Should be designed to resist efforts of removal or efforts to alter the information)	
• Placard	
• Proper operation (macerators, treatment chemicals) and structural integrity, no leaks	
• Certificate of Type Test. <u>For Foreign Flag Vessels in U. S. Waters</u> A foreign flag vessel that has a "Certificate of Type Test" under MARPOL Annex IV indicating that its sewage treatment plant meets the test requirements of Resolution MEPC.2 (VI) of the International Maritime Organization (IMO) will be accepted by the Coast Guard as being in compliance with 33 CFR 159.7(b) or (c). The Certificate of Type Test must be issued by or on behalf of a government that is a party to the MARPOL convention. Such a plant will be considered as fully equivalent to a Coast Guard certified Type II MSD as long as the unit is in operable condition. However, the unit may not be labeled as USCG certified. U.S. registered vessels will continue to be required to have Coast Guard certified MSDs per 33 CFR 159.	MARPOL Annex IV/2* MARPOL Annex IV/10* MARPOL Annex IV* 33 CFR 159.7 40 CFR 140.4 40 CFR 136
☐ Standard Discharge Connection (NLT 27 Sep 03)	
• New ships 200 gross tons and above	
• New ships less than 200 gross tons and carry more than 10 persons.	
• Existing ships 200 gross tons and above and exiting ship less than 200 gross tons and carry more than 10 persons after 27 Sep 13 (10 years after the date entry into force of Annex IV)	
☐ Disposal	
• Shore (last done, reasons?)	
• Overboard valves secured	
• MSD bypass piping noted? (Condition of valves, pipe tees and caps, evidence of frequent usage)	
• At sea (provide proof of discharge location)	
• Logged position, speed (if required by management)	MARPOL Annex IV* 33 CFR 159
◦ When comminuted and disinfected greater than 3 miles.	
◦ Company policy followed?	
◦ When not comminuted or disinfected greater than 12 miles.	
◦ Both to be discharged while ship is underway at greater than 4 knots.	
◦ Locations of discharges compared to deck logs.	
• Not in EPA "No Discharge Zones"	
• Connections to the gray water system (effluent routed to gray water system to dilute effluent?)	

- Alaskan Waters:
  Effective July 2001, Operators of cruise vessels carrying 500 or more passengers and transiting applicable waters of Alaska are restricted in where they may discharge effluents and will be required to perform testing of sewage and gray water discharges. The Coast Guard will inspect, monitor, and oversee this process to ensure compliance with applicable water quality laws and regulations. (33 CFR 159).

☐ Sampling/Testing

- Lab analysis of fecal coliform/total suspended solids in effluent (recorded on ISPP if issued)
- Results of residual chlorine content in effluent testing
- Calibration records for dosing pump/proportioner

* Although the United States is not signatory to MARPOL Annex IV, the requirements of Annex IV may be enforced for those vessels that have committed to comply with Annex IV requirements in addition to 33 CFR Part 159 requirements as part of the vessels' SMS. This commitment is typical for ICCL Member vessels and many other cruise ships.

Hazardous waste must be handled in accordance with the ship's SMS. If such waste is disposed of in U. S. waters, the SMS hazardous waste handling procedures must meet or exceed 40 CFR Part 262 requirements. Hazardous waste includes dry cleaning (PERC) waste, used paints and thinners that contain hazardous substances, silver-bearing photo-processing waste, cleaning solutions and other similar items. Each vessel may vary in both the type and volumes of hazardous waste generated depending on the technology and processes aboard ship. This checklist is designed to evaluate on-board management of hazardous waste streams and to ensure that hazardous constituents are not released into the environment, disposed of properly and that accountability is demonstrated via adequate waste disposal records.

☐ Hazardous Waste

40 CFR 262
49 CFR 173
RCRA
SARA Title III
42 USC 11002(a)(3)
40 CFR 355 App A / B
ISM Code
33 CFR 96

- Has the company conducted a waste determination? Through Process Knowledge or Waste Analysis (circle one)? If not, hazardous waste may not be landed.
- Have responsible personnel received initial and refresher training? Has the training been documented?
- Is there any evidence that hazardous wastes are being incinerated, diluted, neutralized, or evaporated as a means of disposal.
- Is there any evidence (e.g. lack of disposal records) of hazardous material being discharged overboard?
- Are hazardous wastes being properly stored, maintained, labeled, and placarded? Note any observations made of deficiencies, dates and nature of repairs.
- Are proper storage devices available?
- Waste not commingled
- Quantities on board consistent with receipt/disposal documentation?
- Does the crew have ready access to spill control and decontamination equipment?
- Are records maintained and manifests completed for potential hazardous waste streams, for example:
  - Silver Bearing Photo Processing Waste (developers, wash water, Silver Recovery Units)
  - X-Ray equipment
  - Print Shop Waste (inks, dyes, cleaning solvents)
  - Used Solvents, Paints & Thinners
  - Fluorescent/Mercury Vapor Bulbs
  - Batteries (universal wastes): Nickel Cadmium (Nicad); Lead Acid; Lithium; Alkaline
  - Certain Pharmaceuticals/Narcotics
  - Dry Cleaning Waste (PERC, lint, sludge, filters, condensate water)
  - Aerosol Cans
  - Cleaning Solutions (de-scalers, acids, bases, other corrosives)
  - Expired pyrotechnics (from safety equipment and entertainment use)
  - Rags contaminated with hazardous wastes (also - in approved storage containers?)
  - Incinerator ash if contaminated with toxic/hazardous substances (plastics containing heavy metals)
- Do records reflect reasonable accumulations of waste with respect to the capacity of the vessel, its age, technologies onboard, and amounts of repair/maintenance?
- Used lead acid batteries not mixed and kept dry?

☐ Records of hazardous consumables kept updated
Used and unused

Shipboard Records
ISM Code
33 CFR 96

The following excerpt from 40 CFR 262 regarding Resource Conservation and Recovery Act (RCRA) requirements is provided for background information only. The Federal or State RCRA program office must be consulted if any clarifications are needed for a particular situation.

HAZARDOUS WASTE HANDLING REQUIREMENTS

§ 262.11 Hazardous waste determination.
A person who generates a solid waste, as defined in 40 CFR 261.2, must determine if that waste is a hazardous waste using the following method:
(a) Determine if the waste is listed as a hazardous waste in subpart D of 40 CFR part 261.
(c) Or if not listed in subpart D of 40 CFR part 261, generator must determine if the waste is identified in subpart C of 40 CFR part 261 by either:
(1) Testing the waste according to the methods set forth in subpart C of 40 CFR part 261
(2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

262.12 EPA identification numbers.
(a) A generator must not treat, store, dispose of, transport, **or offer for transportation**, hazardous waste without having received an EPA identification number from the Administrator.

262.20 General requirements.
(a) A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage, or disposal must prepare a Manifest OMB control number 2050-0039 on EPA form 8700-22, and, if necessary, EPA form 8700-22A, according to the appendix to part 262.
(b) Generator must designate on manifest one facility that is permitted to handle the waste described on the manifest.

262.23 Use of the manifest.
(a) The generator must:
(1) Sign the manifest certification by hand; and
(2) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and
(3) Retain one copy, in accordance with § 262.40(a) and give the transporter the remaining copies of the manifest.

262.30, .31, .32 & .33 Packaging, Labeling, Marking and Placarding.
Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package, label, mark and placard the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR parts 172, 173, 178, and 179. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304: **HAZARDOUS WASTE -- Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency. Generator's Name and Address -- -- -- -- -- . Manifest Document Number -- -- -- -- -- -- .**

262.34 Accumulation time.
A generator may accumulate hazardous waste on-site for 90 days or less for large quantity generator and 180 days or less for small quantity generator, without a permit or without having interim status.
The date upon which each period of accumulation begins must be clearly marked and visible for inspection on each container and while being accumulated on-site, each container and tank is labeled or marked clearly with the words, "Hazardous Waste."

§ 262.40 Recordkeeping.
(a) A generator must keep a copy of each manifest signed in accordance with § 262.23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.
(b) A generator must keep a copy of each Biennial Report and Exception Report for a period of at least three years from the date of the report.
(c) A generator must keep records of any test results, waste analyses, or other determinations made in accordance with § 262.11 for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

Non-hazardous wastes include shipboard garbage containing plastics and synthetic material, certain medical wastes, food wastes and recyclables such as glass, cardboard, aluminum and metal cans. Items to be checked should include waste sorted to prevent hazardous waste from entering the non-hazardous waste stream; no plastics or synthetics are to be discharged overboard, separate; proper disposal of hazardous (i.e. containing residual plastics or un-burnt food waste) and non-hazardous incinerator ash; and proper disposal of cooking grease from grease traps.

☐ Shipboard Garbage Management Plan — 33 CFR 151.63, MARPOL Annex V, MARPOL Annex V/9, MARPOL Annex V/3, 7 CFR 330.400

- Shipboard garbage properly handled in accordance with Garbage Management Plan
- Garbage Record Book entries
  - Type, amount, location, date/time
  - Receipts
  - Each entry signed by Officer-in-Charge and each page by Master
  - Any reports of alleged inadequacy of port reception facilities for garbage on file
- Person-in-Charge Designated
- No plastics or synthetics discharged overboard
- Waste sorted to prevent hazardous waste entering non-hazardous waste stream or incinerated. Separate defined storage areas for hazardous/non-hazardous – no commingled waste.
- Signage in working language of crew and in English, French or Spanish
- Incinerator ash if discharged overboard free of plastic residue (clinkers) or free of unburned food wastes if landed ashore.
- Trash chutes clean, free from oil residue (No oil stains on decks, side of hull adjacent to trash chutes)
- Foreign Food Wastes handled per APHIS regulations
- Medical Wastes-incinerated or manifested as Bio-Hazardous Waste.
- Discharged outside of special areas only (when special area restrictions are in effect)
- Incinerator operation observed (if in operation) — MARPOL Annex V/ 33 CFR 151

☐ Garbage Pollution Placards posted

☐ Procedures to minimize amount of potential garbage

- Is vessel encouraging ship suppliers to consider alternate means of packing, use of other than plastics? Examine stores being loaded.
- Is vessel using reusable packing? Examine stockpiles for use
- Is waste generated while in port disposed to shore reception facility prior to sailing? Examine waste being offloaded.

☐ Recycling

- Is ships crew following policy for recycling. Interview crewpersons in varied work areas, casino, galley, housekeeping, etc. with recycling responsibilities for procedures used.

☐ Maintenance and repair conducted on equipment

- Incinerator
- Grinders
- Valves and flappers on chutes

☐ Human factors

- Warning signs posted around equipment.
- Master and crew familiar with essential shipboard garbage handling procedures.
- Personal protective equipment available, functioning and in place (ILO 134).
- Sanitation, from a health standpoint, being maintained (ILO 147).

AGENT
Vessel representative hired by the ship's owners. Ship's agent may be tasked with various jobs such as: ensuring proper vessel documentation and compliance.

AUTOMATIC STOPPING DEVICE
Is a control mechanism that ensures discharge of an oily water separator is stopped when the oil content of the effluent exceeds 15 parts per million (PPM). The automatic stopping device may be initiated by the operation of the oil content meter.

BALLAST
Used to improve the stability and control the draft of a ship. (In Ballast - having only ballast for a load)

BLACK OIL
A viscous and black or very dark brown colored oil. Depending on the quantity spilled, oil tends to quickly spread out over the water surface to a thickness of about one-millimeter.

BLACK WATER (sewage)
Examples - possible sources toilets, urinals and drainage from medical facilities (U.S. restriction).

COC

Certificate of Compliance, CG Form 3585.

COTP
Captain of the Port.

CWA
Clean Water Act.

CVE
Control Verification Examination is the examination of vessel for compliance with SOLAS requirements and applicable U. S. regulations. More properly referred to as the Passenger Vessel Certificate of Compliance Examination.

DISPERSION
The breaking up of an oil slick into small droplets which are mixed into the water column as a result of breaking waves and other sea surface turbulence.

EFFLUENT
To flow out. (Waste material, refuse, and sewage)

EMULSIFICATION
The formation of a water - in - oil mixture. In the environment, the tendency for emulsification to occur varies with different oils and is much more likely to occur under high-energy conditions (wind and waves). Emulsions may also be formed by surfactants, including detergents, which cause the oil and water to mix, or by mechanical means such as pressure washing or pump action.

EPA
Environmental Protection Agency

EQUIPMENT HAVING AN OIL TO SEA INTERFACE
Equipment that uses a seal to prevent leakage of oil into the sea. Examples, oil-lubricated stern tube seals, hydraulically-driven stabilizer fin seals, bow and stern thruster seals. An indicator that system seals are leaking to the sea may be evidence of frequent filling of system reservoirs, presence of barrels, drums, hoses, pumps, and other equipment/supplies/arrangements necessary to refill systems. Some ships' SMS or environmental compliance programs may require that records of refilling such systems are kept. If so, these records should be checked.

15 PPM ALARM
An alarm that activates when the effluent passing though oil-filtering equipment exceeds 15 parts per million (ppm) of oil.

GRAY WATER
Includes discharges from galley, sinks, washbasins, drains, showers and baths. These may be held in large tanks prior to being discharged overboard (State, Fed, regulation permitting).

HSSC
International Convention to Harmonized System of Survey and Certification.

ICCL
International Council of Cruise Lines, a cruise ship industry association which participates in industry standards and policy development process to promote all measures that foster a safe, secure, healthy cruise ship environment.

ICLL
International Convention for Load Lines.

IMO
International Maritime Organization; a specialized agency of the United Nations concerned solely with maritime affairs. IMO is responsible for international treaties, conventions, resolutions and codes to improve maritime safety.

ISM Code
International Safety Management Code. (Chapter IX of SOLAS)

MARPOL
The International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978.

MSC
Maritime Safety Committee. One of five technical committees of the IMO which deals with issues such as aids to navigation, vessel equipment and construction, manning requirements, handling dangerous cargoes, hydrostatic and marine casualty information.

MSD
Marine Sanitation Device.

OIL CONTENT METER
An instrument used to measure continuously the oil content of the effluent in the OWS output line, in parts per million, to ensure that the operation does not contravene the convention.

OIL FILTERING EQUIPMENT
Equipment that uses any combination of a separator, filter or coalescer, and also a single unit designed to produce an effluent with oil content less than 15 parts per million (ppm). (MARPOL Annex I, Reg 16)

OILY WATER SEPARATOR (OWS)
The basic principle of oil / water separation is their difference in specific gravity. The specific gravity of most oils is less than water; therefore, it will naturally float to the top of an oil and water solution. Small droplets of oil float to the top much slower than large droplets. This is due to the large surface area to mass ratio. To speed up the process of separation, OWS units form larger oil droplets out of smaller ones, thus decreasing the surface area to mass ratio. The increased mass of the oil droplet increases its buoyancy, thus causing it to rise more quickly. Gravitational-based systems are not effective processors of oil-water emulsions formed by detergents or mixtures containing high specific gravity oils.

PASSENGER SHIP
A ship which carries more than 12 passengers.

PMS
Preventative Maintenance System

QUALIFIED INDIVIDUAL (QI)
The person authorized by the responsible party to act on their behalf, authorize expenditures and obligate organization's resources.

RCRA

Resource Conservation and Recovery Act (RCRA), was enacted by the U.S. in 1976 to address the issue of how to safely manage and dispose of the huge volumes of municipal and industrial hazardous waste generated nationwide.

RECOVERABLE OIL

Oil that is in a thick enough layer on the water to be recovered by conventional techniques and equipment. Only black or dark brown oil, mousse, and heavy sheens (dull brown) are generally considered thick enough to be effectively recovered by skimmers.

SEPARATION EQUIPMENT

A device designed to remove enough oil from an oil-water mixture to provide a resulting mixture with an oil content of less than 100ppm, or 15ppm, such as an Oily Water Separator (OWS).

SLICK

Oil spilled on the water, which absorbs energy and dampens out the surface waves making the oil appear smoother or slicker than the surrounding water.

SHEEN

A sheen is a very thin layer of oil (less than 0.0001 inches or 0.003mm) floating on the water surface and is the most common form of oil seen in the later stages of a spill. According to their thickness, sheens vary in color ranging from dull brown for the thicker layers to rainbows, grays silvers and almost transparent for the thinnest layers.

SLUDGE TANKS

Tanks used to contain sludge formed by fuel and lube oil purifiers and from other sources or cleaning activities. Sludge is not readily processed by many oily water separators and frequently requires treatment ashore or incineration. Every ship of 400 GT or more must be provided with a tank or tanks of adequate capacity, in regard to type of machinery and length of voyage, to receive the oil residues (sludge) that cannot be dealt with otherwise in accordance with MARPOL Annex I.

SMS

Safety Management System (sometimes referred to as an SQM). Required by the ISM Code and Chapter IX of SOLAS.

SOLAS

Safety of Life at Sea. The International Convention for the Safety of Life at Sea.

SOPEP

Shipboard Oil Pollution Emergency Plan. (MARPOL Annex I, Reg. 26)

STCW

The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers.

TANKER

Is a self-propelled vessel constructed or adapted for the carriage of bulk liquid cargoes of oil or hazardous materials.

TRANSFER

Any movement of oil or hazardous material to, from or within a vessel by means of pumping, gravitation, or displacement.

Appendix v

MEMORANDUM SUBJECT: Cruise Ship Identification Numbers and State Required Annual Reporting Components

FROM: Elizabeth Cotsworth, Director Office of Solid Waste
TO: RCRA Senior Policy Managers

Regions 1-10

Over the last several months, the Environmental Protection Agency (EPA), Office of Solid Waste has been working with Region 4, Region 9, Region 10, and ten states having cruise ship traffic to facilitate national acceptance of one EPA hazardous waste identification (ID) number per individual cruise ship. This came about because the ships were receiving different numbers from each state in which hazardous waste was off-loaded. Having multiple identification numbers causes the ships to create and maintain duplicate copies of hazardous waste management records, leading to an increased paperwork burden.

Through meetings and conference calls, the participants on this project reached an agreement on the issue. Today, we are asking that individual cruise ships be assigned only one EPA hazardous waste identification number as a generator of hazardous waste for purposes of the Resource Conservation and Recovery Act. The following procedures would apply:
a) A cruise ship would determine its American-based home port state (the state in which it has corporate offices or its main port of call).
b) After determining the home port state, the cruise line will notify the selected state or corresponding EPA regional office of its hazardous waste activities. c) The cruise ship will identify its hazardous waste generator size in accordance with 40 CFR 261.5(c).
d) The home port state or EPA regional office will issue an EPA hazardous waste identification number for each individual cruise ship using the current established procedure. The number will reflect the home port state initials and ten alphanumeric characters.

We are recommending that the state or region consider using a ship = s registry number, which is known as the International Maritime Organization (IMO) number, as part of the EPA hazardous waste identification number. The IMO number is generally a five to seven digit number; zeros can be added before or after the number to reach the ten characters required for the EPA hazardous waste identification number. Using the IMO number will allow for coordination with the Coast Guard, as this is the number they use most often.

After the identification number is assigned, it will remain with that ship and be used on all hazardous waste manifests regardless of where the waste is off-loaded in the U.S. The assignment of the EPA ID number will not impact the applicability of state-specific RCRA requirements. For example, when waste is off-loaded in a state, the cruise ship will comply with that particular state = s RCRA requirements whether or not that state assigned the ID number. The ship will be required to provide records to the individual state as required by state law.

Many of the states who will not be issuing the ID number expressed an interest in obtaining

information provided by the cruise ship in either an annual or biennial report to its home port state. This request for annual report information can be addressed through the existing Biennial Reporting System (BRS). The attachment to this memo provides more specific information on how the ID numbers and annual reports will be incorporated into the EPA = s BRS databases.

If you have any questions, please contact Teena Wooten at (703) 308-8751.

Attachment (1)

cc: Key RCRA Contacts, Regions 1 - 10
RCRA Enforcement Contacts, Regions 1 - 10
RCRA Data Management Contacts, Regions 1-10
Tom Kennedy, Association of State and Territorial Solid Waste Management Officials (ASTSWMO)
Anne Dobbs, Texas Natural Resource Conservation Commission (TNRCC)

Dangerous Waste Site Identification Form

Site ID

Washington State Department of Ecology
Hazardous Waste Information
P.O. Box 47658
Olympia, WA 98504-7658
(800) 874-2022 (within state)
(360) 407-6170

Web site: www.ecy.wa.gov/programs/hwtr

For Ecology Use Only		Date Received:	
Form	Reviewed	Entered	Verified
Site ID			
GM			
WR			
OI			

1. Reason for Submittal

☒ To provide **New** Notification of Regulated Waste Activity (complete entire form)

☐ To provide **Revised** Site Identification information (complete entire form)

☐ To **Withdraw** Site Identification Number (skip sections 10 and 11)

☐ To **Reactivate** Site Identification Number (complete entire form) Effective Date: _____ (mm/dd/yyyy)

☐ A component of the **Dangerous Waste Annual Report** (skip section 11) Reporting Year: _____ (yyyy)

2. RCRA Site ID Number:

3. Site Location Information

Company Name: _____

Site Address: _____

City/State/Zip: _____

County: _____

Tax Registration Number: _____

NAICS Code: _____

Type of Business: _____

4. Company Mailing Address

Name: _____

Mail Address: _____

City/State/Zip: _____

Country: _____

5. Legal Owner

Name: _____

Mail Address: _____

City/State/Zip: _____

Phone Number (Ext): (_____) _____

Owner Since: _____ (mm/dd/yyyy)

Owner Type: ☐ Federal ☐ State ☐ County ☐ Municipal
☐ District ☐ Private ☐ Tribal ☐ Other

6. Land Owner

Name: _____

Mail Address: _____

City/State/Zip: _____

Phone Number (Ext): (_____) _____

Owner Type: ☐ Federal ☐ State ☐ County ☐ Municipal
☐ District ☐ Private ☐ Tribal Land
☐ Puyallup Trust ☐ Other

Dangerous Waste Site Identification Form (continued)

Site ID

RCRA Site ID Number:

7. Site Operator

Name: _____

Mail Address: _____

City/State/Zip: _____

Phone Number (Ext): (____) _____

Operator Since: _____ (mm/dd/yyyy)

Operator Type: ☐ Federal ☐ State ☐ County ☐ Municipal
☐ District ☐ Private ☐ Tribal ☐ Other

8. Site Contact

Name: _____

Mail Address: _____

City/State/Zip: _____

Phone Number (Ext): (____) _____

Email Address: _____

9. Form Contact

Name: _____

Mail Address: _____

City/State/Zip: _____

Phone Number (Ext): (____) _____

Email Address: _____

10. Type of Regulated Waste Activity (Mark the appropriate boxes for activities that apply to your site)

A. Hazardous Waste Activities

1. **Generator of Hazardous Waste**
   (Choose only one of the following four categories)
   - ☐ a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo)
   - ☐ b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo)
   - ☐ c. SQG: Small Quantity Generator (Less than 220 lbs/mo)
   - ☐ d. XQG: No Regulated Waste Generated
2. **Frequency of Generation**
   (Choose only one of the following three types)
   - ☐ a. Monthly
   - ☐ b. Batch
   - ☐ c. One-time only
3. **Transporter of Hazardous Waste**
   - ☐ a. Transport own waste
   - ☐ b. Transport for commercial purposes

☐ **4. Recycler of On-Site Waste**
(i.e., on-site use, reuse or reclamation of a waste after it has been generated)

☐ **5. Transfer Facility of Hazardous Waste**

☐ **6. Permit-by-Rule (PBR)**

☐ **7. Treatment-by-Generator (TBG)**

☐ **8. Generator of Mixed Radioactive Waste**

☐ **9. Importer of Hazardous Waste**

☐ **10. Treatment, Storage, Disposal or Recycling (TSDR) Facility**
(Note: A RCRA Permit is required for this activity)

☐ **11. 24-Hour Recycler of Off-Site Waste**
(i.e., Immediate Recycler)

12. **Dangerous Waste Fuel Activity**
   - ☐ a. Generator of dangerous waste fuel
   - ☐ b. Generator marketing to burner
   - ☐ c. Other marketers (i.e., blender, distributor, etc.)
   - d. Burner (indicate type of combustion unit)
     - ☐ 1. Utility boiler
     - ☐ 2. Industrial boiler
     - ☐ 3. Industrial furnace
   - e. Deferrals/Exemptions (in federal registry only)
     - ☐ 1. Smelter deferral
     - ☐ 2. Small quantity exemption
     - ☐ 3. Other (specify):

Dangerous Waste Site Identification Form (continued)

Site ID

RCRA Site ID Number:

B. Universal Waste Activities

1. Large Quantity Handler of Universal Waste

(Mark all boxes that apply)

	Generate	Accumulate
a. Batteries	☐	☐
b. Mercury containing thermostats	☐	☐
c. Lamps	☐	☐

☐ **2. Destination Facility for Universal Waste**

(Note: A RCRA Permit is required for this activity)

C. Used Oil Activities

1. Off-specification used oil burner Indicate type(s) of combustion devices

☐ 1. Utility boiler

☐ 2. Industrial boiler

☐ 3. Industrial furnace

2. Used oil transporter Indicate type(s) of activity(s)

☐ a. Transporter

☐ b. Transfer facility

3. Used oil processor/re-refiner Indicate type(s) of activity(s)

☐ a. Process

☐ b. Re-refine

4. Used Oil Fuel Marketer

☐ a. Directs shipment of used oil to used oil burner

☐ b. First claims the used oil meets the specifications

11. Description of Hazardous Wastes

A. Waste Codes for Federally Regulated Hazardous Wastes: Identify those codes that best describe your waste. (e.g., D001 – Ignitable, D002 – Corrosive, D003 – Reactive, etc.)

B. Waste Codes for State Regulated (i.e., non-Federal) Hazardous Wastes: Identify those codes that best describe your waste. (e.g., WT02 – Toxic, WP02 – Persistent, WL02 – Labpack, WSC2 – Solid Corrosive, etc.)

12. Comments

Additional sheets may be attached for comments if needed.

13. Certification

This form cannot be processed without a signature

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____ **Date** _____

Name (print or type) _____ **Title** _____

If you have special accommodation needs or require this document in an alternative format, please contact the Hazardous Waste and Toxics Reduction Program at 1-800-833-6388 (TTY) or quick dial 711-833-6388 (TTY).

14. Electronic Submittals

☐ I am interested in the electronic filing of my Dangerous Waste Annual Reporting and Site Identification information to Ecology over the Internet. Ecology will issue a PIN number, along with electronic filing instructions, in a letter addressed to the Form Contact in Section 9 on this form.

Appendix vi

Title XIV – Certain Alaskan Cruise Ship Operations

SEC. 1404. LIMITATIONS ON DISCHARGE OF TREATED SEWAGE OR GRAYWATER.

.....

(c) Until such time as the Administrator promulgates regulations under paragraph (b) of this section, treated sewage and graywater may be discharged from vessels subject to this Title in circumstances otherwise prohibited under paragraphs (a)(1) and (a)(2) of this section, provided that—

(1) the discharge satisfies the minimum level of effluent quality specified in 40 CFR 133.102, as in effect on the date of enactment of this Section;

(2) the geometric mean of the samples from the discharge during any 30-day period does not exceed 20 fecal coliform/100 ml and not more than 10% of the samples exceed 40 fecal coliform/100 ml;

(3) concentrations of total residual chlorine may not exceed 10.0 μg/l; and,

(4) prior to any such discharge occurring, the owner, operator or master, or other person in charge of a cruise vessel, can demonstrate test results from at least five samples representative of the effluent to be discharged, taken from the vessel on different days over a 30-day period, conducted in accordance with the guidelines promulgated by the Administrator in 40 CFR Part 136, which confirm that the water quality of the effluents proposed for discharge is in compliance with paragraphs (1), (2) and (3) of this subsection. To the extent not otherwise being done by the owner, operator, master or other person in charge of a cruise vessel pursuant to section 1406, the owner, operator, master or other person in charge of a cruise vessel shall demonstrate continued compliance through periodic sampling. Such sampling and test results shall be considered environmental compliance records that must be made available for inspection pursuant to section 1406 (d) of this Title.

Appendix vii

Hazardous Waste Management

This Appendix is to be used as guidance for hazardous waste discharged in Washington State waters or landed ashore in Washington. The following is a list of Resource Conservation Recovery Act (RCRA) and Washington State Criteria hazardous waste that may be found on cruise ships, and appropriate guidance for its discharge or offloading from the ship.

Terms

Hazardous Waste – Includes all hazardous waste as defined by RCRA and Chapter 173-303 of the Washington Administrative Code (WAC), where Washington State Criteria hazardous waste is defined.

Publicly Owned Treatment Works (POTW) - Ecology's Hazardous Waste Toxics Reduction (HWTR) Program will acknowledge Advanced Wastewater Treatment Systems (AWTS) as a substitute for a POTW. Type 2 Marine Sanitation Devices (MSDs) are not considered a POTW for purposes of this MOU.

WASTE STREAMS

Antifreeze- Excluded as a hazardous waste if recycled. (WAC 173-303-522)

Aqueous Degreasing - If the resulting waste is hazardous it can be treated to remove the hazard and the resulting effluent can be sent to the AWTS or Oily Water Separator. If no treatment is performed it can be landed ashore for proper disposal.

Batteries & Mercury Containing Thermostats - These are universal waste if sent for recycling. (Ecology Publication Number 98-407, Universal Waste Rule for Batteries and Mercury Containing Thermostats)

Spent Lead Acid Batteries - Spent lead-acid batteries are conditionally excluded if recycled. (WAC 173-303-520)

Cathode Ray Tubes (CRTs) - Excluded if recycled, otherwise are to be managed as a hazardous waste. (Ecology Publication Number 02-04-017, Interim Enforcement Policy Conditional Exclusion for Cathode Ray Tubes* and Related Electronic Wastes)

Dry Cleaner – Perchloroethylene (PERC) and other chlorinated dry cleaning fluids, contaminated sludge and filter materials are hazardous waste and must be landed ashore in accordance with RCRA requirements.

Florescent Tubes - Handling procedures for fluorescent tubes do not allow for crushing of the bulbs. (WAC 173-303-573 and Ecology Focus Sheet, Publication # 00-04-020, Universal Waste Rule for Dangerous Waste Lamps)

HVAC - CFC's or HCFC's are excluded as a hazardous waste if recycled. (WAC 173-303-506)

Filters from HVAC units that use Halogenated Organic Compounds (HOC's) as fire retardants would be a State Criteria hazardous waste and must be managed as such.

Mercury Switches - Are a hazardous waste and must be managed as such.

Painting - Discarded Paints & Cleanup Solvents. All spent paints and solvents must be properly designated and if hazardous waste, managed as such.

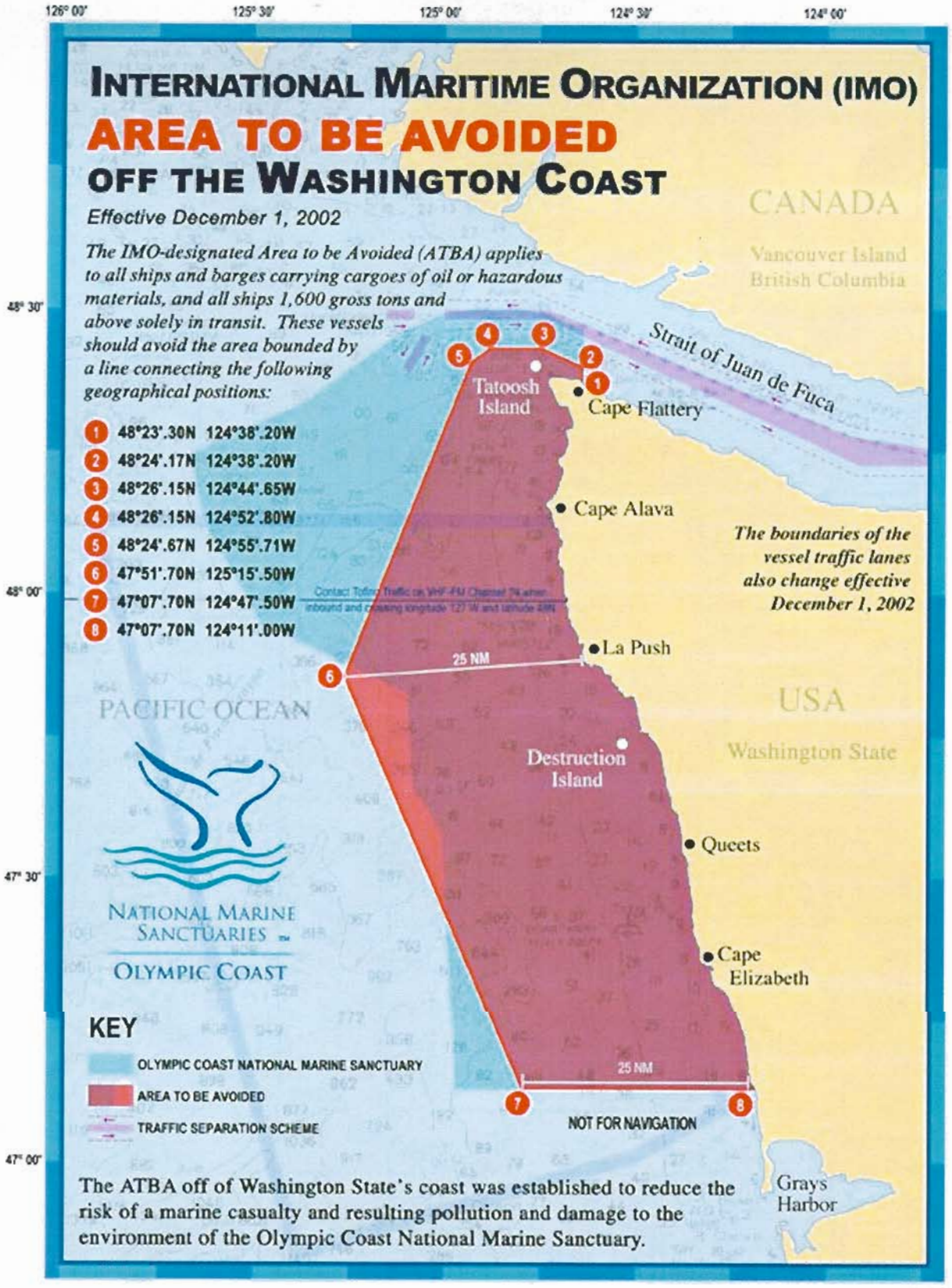
PCB's - Regulated as a state hazardous waste if they come from transformers, capacitors and bushings if PCB's are from 2ppm to 50ppm. If PCB's are above 50 ppm they must be managed as a TSCA waste. (WAC 173-303-9940)

Pharmaceuticals - Drugs that designate as RCRA waste, but that are not controlled substances must be sent ashore as hazardous waste. If the drug is a RCRA waste <u>and</u> a controlled substance, contact the US Drug Enforcement Agency (DEA) about suitable destruction methods and then manage the residue from destruction as a hazardous waste (disposal to water, regular garbage or incineration would be illegal). If the drug is <u>not</u> a RCRA waste, regardless whether it is a controlled substance or not, it can be incinerated on board or sent ashore for incineration at a facility permitted to incinerate municipal solid waste. (WAC 173-303-071(nn))

Photo Waste - Silver can be removed from fixer and the resulting effluent would be allowed to go to an advanced wastewater treatment system (AWTS), but not to graywater or to a Type 2 MSD. If the fluids can not go to the AWTS, they must be landed ashore in accordance with RCRA requirements. (Ecology Publication 94-138R, <u>A Guide For Photo Processors)</u>

Printer Wastes - Inks, solvents and rags, used for cleaning, will need to be properly designated, and if hazardous waste, managed as such.

Spray Cans – Cans that are not empty must be properly designated, and if hazardous waste, managed as such.

Solvent Degreasing - Solvents, when used, must be properly designated, and if hazardous waste, managed as such.

Appendix viii