VESSEL GENERAL PERMIT FOR DISCHARGES INCIDENTAL TO THE NORMAL OPERATION OF VESSELS (VGP)

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act (CWA), as amended (33 USC 1251 et seq.), any owner or operator of a vessel being operated in a capacity as a means of transportation who:

- Is eligible for permit coverage under Part 1.2; and
- If required by Part 1.5.1, submits a complete and accurate Notice of Intent (NOI) or completes a Permit Authorization and Record of Inspection (PARI) form and retains it onboard the vessel;
- Is authorized to discharge in accordance with the requirements of this permit.

General effluent limits for all eligible vessels are given in Part 2. Further vessel class or type specific requirements are given in Part 5 for select vessels and apply in addition to any general effluent limits in Part 2. Specific requirements that apply in individual states and Indian Country Lands are found in Part 6. Definitions of permit-specific terms used in this permit are provided in Appendix A.

This permit becomes effective on December 19, 2013.

This permit and the authorization to discharge expire at 11:59 pm, December 18, 2017.

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1. COVERAGE UNDER THIS PERMIT

1.1 **Permit Structure**

This permit is structured as follows:

- General requirements that apply to all eligible vessel discharges are found in Parts 1 through 4;
- Specific additional requirements that apply to particular vessel classes are found in Part 5; and
- Specific additional requirements that apply in individual states or Indian Country Lands are found in Part 6

The Appendices A through K include definitions, the NOI form, the Notice of Termination (NOT) form, a list of waters federally protected for conservation purposes, the annual report form, the Permit Authorization and Record of Inspection (PARI) form, and supplemental information.

1.2 Eligibility

You must meet the following provisions to be eligible for coverage under this permit.

1.2.1 General Scope of this Permit

This permit is applicable to discharges incidental to the normal operation of a vessel identified in Part 1.2.2 into waters subject to this permit. These waters are "waters of the United States" as defined in 40 Code of Federal Regulations (CFR) § 122.2 (extending to the outer reach of the 3 mile territorial sea as defined in section 502(8) of the CWA). This includes all navigable waters of the Great Lakes subject to the jurisdiction of the United States. Recreational vessels as defined in section 502(25) of the CWA are not subject to this permit. Such vessels are not subject to NPDES permitting under section 402 of the CWA, and are instead subject to regulation under section 312(o) of the CWA. EPA expects that most vessels seeking coverage under this permit will be greater than 79 feet in length; however, commercial fishing vessels and other nonrecreational vessels less than 79 feet are also eligible for permit coverage under this permit or those vessels may seek coverage under EPA's small Vessel General Permit (sVGP). If auxiliary vessels or craft, such as lifeboats, rescue boats, or barges onboard larger vessels require NPDES permit coverage, they are eligible for coverage under this permit and are covered by submission of the NOI for the larger vessels. For purposes of recordkeeping, inspections, and reporting, these vessels may be considered as part of the same entity as the larger vessel. Nothing in this permit shall be interpreted to apply to a vessel of the Armed Forces as defined in section 312(a)(14) of the CWA.

1.2.2 Vessel Discharges Eligible for Coverage

Unless otherwise made ineligible under Part 1.2.3, the following discharge types are eligible for coverage under this permit:

1.2.2.1 Deck Washdown and Runoff and Above Water Line Hull Cleaning

1.2.2.2	Bilgewater/Oily Water Separator Effluent
1.2.2.3	Ballast Water
1.2.2.4	Anti-fouling Hull Coatings/Hull Coating Leachate
1.2.2.5	Aqueous Film Forming Foam (AFFF)
1.2.2.6	Boiler/Economizer Blowdown
1.2.2.7	Cathodic Protection
1.2.2.8	Chain Locker Effluent
1.2.2.9	Controllable Pitch Propeller and Thruster Hydraulic Fluid and other Oil Sea Interfaces including Lubrication Discharges from Paddle Wheel Propulsion, Stern Tubes, Thruster Bearings, Stabilizers, Rudder Bearings, Azimuth Thrusters, and Propulsion Pod Lubrication, and Wire Rope and Mechanical Equipment Subject to Immersion
1.2.2.10	Distillation and Reverse Osmosis Brine
1.2.2.11	Elevator Pit Effluent
1.2.2.12	Firemain Systems
1.2.2.13	Freshwater Layup
1.2.2.14	Gas Turbine Washwater
1.2.2.15	Graywater
operating	at Graywater from commercial vessels within the meaning of CWA section 312 that are in the Great Lakes is excluded from the requirement to obtain an NPDES permit (see tion 502(6)), and thus is not within the scope of this permit.
1.2.2.16	Motor Gasoline and Compensating Discharge
1.2.2.17	Non-Oily Machinery Wastewater
1.2.2.18	Refrigeration and Air Condensate Discharge
1.2.2.19	Seawater Cooling Overboard Discharge (Including Non-Contact Engine Cooling Water; Hydraulic System Cooling Water, Refrigeration Cooling Water)
1.2.2.20	Seawater Piping Biofouling Prevention
1.2.2.21	Boat Engine Wet Exhaust

- 1.2.2.22 Sonar Dome Discharge
- 1.2.2.23 Underwater Ship Husbandry
- 1.2.2.24 Welldeck Discharges
- 1.2.2.25 Graywater Mixed with Sewage from Vessels
- 1.2.2.26 Exhaust Gas Scrubber Washwater Discharge
- 1.2.2.27 Fish Hold Effluent
 - 1.2.3 Limitations on Coverage
- 1.2.3.1 Discharges Not Subject to Former NPDES Permit Exclusion and Vessel Discharges Generated from Vessels when they are Operated in a Capacity Other than as a Means of Transportation

Discharges that are outside the scope of the exclusion from NPDES permitting for discharges incidental to the normal operation of a vessel as set out in 40 CFR § 122.3(a), as in effect on December 18, 2008, are ineligible for coverage under this permit. This permit does not apply to any vessel when it is operating in a capacity other than as a means of transportation. For any discharges identified in this permit, discharges are not eligible if they contain materials resulting from industrial or manufacturing processes onboard or other materials not derived from the normal operations of a vessel.

Vessels when they are being used as an energy or mining facility, a storage facility, a seafood processing facility, or when secured to the bed of waters subject to this permit or to a buoy for the purpose of mineral or oil exploration or development are not eligible for coverage under this permit. Furthermore, "floating" craft that are permanently moored to piers, such as "floating" casinos, hotels, restaurants, bars etc. are not covered by the former vessel exclusion and would not be covered by this vessel permit.

1.2.3.2 Sewage

Discharges of sewage from vessels, as defined in CWA section 502(6) and 40 CFR § 122.2, are not required to obtain NPDES permits. Instead, these discharges are regulated under section 312 of the CWA and 40 CFR Part 140 and 33 CFR Part 159. Under CWA section 312(a)(6), the definition of sewage includes graywater discharges from "commercial vessels" (as defined in CWA section 312(a)(10)) operating on the Great Lakes. If a vessel operating on the Great Lakes is not a "commercial vessel" as defined in CWA section 312(a)(10), the vessel's graywater discharges are eligible for coverage under this permit, and are subject to the additional permit requirements in Part 2.2.15.1.

1.2.3.3 Used or Spent Oil

Discharges of used or spent oil no longer being used for their intended purposes are not eligible for coverage under this permit.

1.2.3.4 Garbage or Trash

Discharges of rubbish, trash, garbage, or other such materials discharged overboard are not eligible for coverage under this permit. "Garbage" includes discharges of bulk dry cargo residues as defined at 33 CFR § 151.66(b) (73 Fed. Reg. 56492 (September 29, 2008)) and agricultural cargo residues. Discharges of garbage are subject to regulation under 33 CFR Part 151, Subpart A.

1.2.3.5 Photo-Processing Effluent

Discharges from photo-processing operations are not eligible for coverage under this permit.

1.2.3.6 Effluent from Dry Cleaning Operations

Discharges of spent or unused effluent from dry cleaning operations are not eligible for coverage under this permit. This includes any spent or unused tetrachloroethylene (perchloroethylene) from these operations.

1.2.3.7 Discharges of Medical Waste and Related Materials

Discharges of medical waste as defined in 33 USC 1362(20) are not eligible for coverage under this permit. Discharges of spent or unused pharmaceuticals, formaldehyde, or other biohazards no longer being used for their intended purposes are not eligible for coverage under this permit.

For purposes of this permit, the liquid produced by dialysis treatment of humans is not deemed to be "medical waste," and, like other human body waste, is subject to regulation under CWA § 312 if introduced into marine sanitation devices, or under VGP Part 2.2.25 if added to a blackwater system combined with a graywater system. The direct overboard discharge of such liquid without treatment is not eligible for coverage under this permit.

1.2.3.8 Discharges of Noxious Liquid Substance Residues

Discharges of noxious liquid substance residues subject to 33 CFR Part 151, Subpart A or 46 CFR 153.1102 are not eligible for coverage under this permit.

1.2.3.9 Tetrachloroethylene (Perchloroethylene) Degreasers

Discharges of tetrachloroethylene (perchloroethylene) degreasers or other products containing tetrachloroethylene are not eligible for coverage under this permit.

1.2.3.10 Discharges Currently or Previously Covered by an another NPDES Permit

The following discharges are not eligible for coverage under this permit:

• Vessel discharges covered, as of the effective date of this permit, under an individual or a general NPDES permit other than the VGP, unless EPA specifically allows coverage under Part 1.8.2, or otherwise provides written permission to be covered under this permit, or

• Discharges from vessels covered by any NPDES permit that has been or is in the process of being denied, terminated, or revoked by EPA or a state permitting authority (this does not apply to the routine reissuance of permits every five years).

1.3 Reserved

1.4 **Permit Compliance**

The CWA provides that any person who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under the CWA shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act similarly provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under the CWA shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both. In addition, false statements or representations, as well as alterations or false entries in documents, may be punishable by more severe criminal penalties pursuant to 18 USC §1001 or 18 USC §1519.

Any noncompliance with the requirements of this permit constitutes a violation of the CWA. Each day a violation continues is a separate violation of this permit. Where requirements and schedules for taking corrective actions are included in this permit, the time intervals provided are not grace periods, but schedules considered reasonable for making repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these corrective actions are not allowed to persist indefinitely. You must return to compliance as promptly as possible, but no later than the time period specified in this permit. For provisions specifying a time period to remedy noncompliance, the initial and continuing failure, such as a violation of numeric or non-numeric effluent limits, constitutes a violation of this permit and the CWA. As such, any time periods specified for remedying noncompliance do not relieve parties of the initial underlying noncompliance. However, EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

To provide clarity for the permittee, there are additional reminders in certain sections of this permit about what constitutes a permit violation. The absence of such a reminder in a particular section does not mean that failure to meet that requirement is not a permit violation.

1.5 Authorization under this Permit

1.5.1 How to Obtain Authorization

To obtain authorization to discharge under this permit, you must meet the Part 1.2 eligibility requirements. If your vessel meets the requirements under Part 1.5.1.1, and you were authorized to discharge under the 2008 VGP, you must submit an NOI to receive permit coverage by the

effective date of this permit to continue uninterrupted coverage. Vessels authorized to discharge under the 2008 VGP were vessels that had submitted an NOI or were not subject to the NOI requirement by Part 1.5.1.2 of the 2008 VGP. If you were not covered under the 2008 VGP and you are required to submit an NOI, you must submit that NOI to receive permit coverage at least 7 days or more than 30 days (as applicable) before discharging into waters subject to this permit (see Table 1 below). Owner/operators of vessels that meet the requirements under Part 1.5.1.2 are not required to submit NOIs. Instead these owner/operators must sign and maintain a copy of the PARI form.

1.5.1.1 Vessels Required to Submit Notices of Intent (NOIs)

If your vessel is greater than or equal to 300 gross tons or the vessel has the capacity to hold or discharge more than 8 cubic meters (2,113 gallons) of ballast water, you must submit a complete and accurate NOI in accordance with the requirements of Appendix E to receive coverage under this permit. Submission must be in accordance with the deadlines in Table 1.

If you are required to submit an NOI, you must submit your NOI using EPA's Electronic Notice of Intent (eNOI) system (www.epa.gov/npdes/vessels/eNOI) unless you meet one of the exemptions in Part 1.14 of this permit. EPA will post on the Internet, at www.epa.gov/npdes/noisearch, all NOIs received. If an active NOI is not in place before you commence discharging, you will be in violation of the permit.

Paper NOIs will only be accepted if you meet one of the exemptions found in Part 1.14 of this permit. However, even if accepted, there is an extended waiting period for authorization.

Table 1: NOI Submission Deadlines/Discharge Authorization Dates

Category	NOI Deadline	Discharge Authorization Date*
Vessels authorized to discharge under the 2008 Vessel General Permit (VGP)	No later than December, 12, 2013 or 7 days prior to discharge into waters subject to this permit, whichever is later	For eNOIs: December 19, 2013 or, if not submitted before December 12, 2013, 7 days after complete NOI processed by EPA For Paper NOIs: 30 days after complete NOI processed by EPA
New Owner/Operator of Vessel – transfer of ownership and/or operation of a vessel whose discharge is previously authorized under this permit	By date of transfer of ownership and/or operation	Date of transfer or date EPA processes NOI, whichever is later
New vessels delivered to owner or operator after December 19, 2013	For vessels submitting eNOIs: 7 days prior to discharge into waters subject to this permit For vessels submitting Paper NOIs: At least 30 days prior to discharge into waters subject to this permit	For eNOIs: 7 days after complete NOI processed by EPA For Paper NOIs: 30 days after complete NOI processed by EPA

Existing vessels delivered to owner or operator after December 19, 2013 that were not	For vessels submitting eNOIs: 7 days prior to discharge into waters subject to this permit	7 days after complete NOI processed by EPA
previously authorized under this		For Paper NOIs:
permit	For vessels submitting Paper NOIs: At least 30 days prior	30 days after complete NOI processed by EPA
	to discharge into waters subject to this permit	

^{*}Based on a review of your NOI or other information, EPA may delay the discharge authorization date for further review, or may deny coverage under this permit and require submission of an application for an individual NPDES permit, as detailed in Part 1.8 of the permit. In these instances, EPA will notify you in writing of the delay or the request for submission of an individual NPDES permit application. If EPA requires an individual permit for an existing vessel previously covered by this general permit, EPA will allow the permittee a reasonable amount of time to obtain individual permit coverage before their general permit coverage terminates.

1.5.1.2 Vessels Not Required to Submit Notices of Intent (NOIs)

If your vessel is less than 300 gross tons and your vessel does not have the capacity to hold or discharge more than 8 cubic meters (2113 gallons) of ballast water, you do not need to submit an NOI. However, you must complete the PARI form found in Appendix K, and keep a copy of that form onboard your vessel at all times.

1.5.2 Continuation of this Permit

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with section 558(c) of the Administrative Procedure Act (5 USC 558(c)) and EPA's implementing regulations at 40 CFR § 122. 6 and remain in force and effect for discharges that were covered prior to expiration. If you were granted permit coverage prior to the expiration date, you will automatically remain covered by this permit until the earliest of:

- Your authorization for coverage under a reissuance or replacement of this permit, following your timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and compliance with the requirements of the new permit; or
- Your submittal of a Notice of Termination (NOT); or
- Issuance of a new general permit that covers your vessel discharges or vessel type and provides you coverage without requiring you to submit an NOI to obtain coverage; or
- Issuance or denial of an individual permit for the vessel's discharges; or
- A formal permit decision by EPA not to reissue this general permit, at which time EPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will cease at the end of this time period.

1.6 <u>Terminating Coverage</u>

1.6.1 Terminating Coverage for Vessels Required to Submit a Notice of Intent (NOI)

1.6.1.1 Submitting a Notice of Termination (NOT)

If you wish to terminate coverage under this permit, and you were required to file a NOI, you must submit your NOT in accordance with Appendix F. Vessels holding a valid NOI are not required to terminate their NOI when they move in and out of waters subject to the VGP, or when they are engaged in industrial activity and subject to another NPDES permit while conducting those activities.

If you were required to file a NOI by Part 1.5.1, you may use the eNOI system to file your NOT, available at www.epa.gov/npdes/vessels/eNOI. Your authorization to discharge under this permit terminates at 11:59 pm on the day that a complete NOT is processed and posted on EPA's website (www.epa.gov/npdes/vessels/eNOI). If you submit a NOT without meeting at least one of the conditions identified in Part 1.6.1.2, then your NOT is not valid. You will continue to be responsible for discharges from your vessel until you have submitted a valid NOT and it is posted on EPA's website, unless permit coverage is terminated without a NOT pursuant to Part 1.6.2 or 1.8.

1.6.1.2 When to Submit a NOT

If you were required to submit a NOI pursuant to Part 1.5.1 to be released from the requirements of this permit, you must submit a NOT within 30 days after one or more of the following conditions have been met:

- A new owner or operator has taken over responsibility for the vessel; or
- You have permanently ceased operating the vessel in waters subject to this permit and there are no longer vessel discharges; or
- You have obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit, unless you were directed to obtain this coverage by EPA in accordance with Part 1.8.1.

1.6.2 Terminating Coverage for Vessels not Required to Submit a Notice of Intent (NOI)

For vessels that are not required to submit a NOI under Part 1.5.1.2, termination of coverage is automatic if any of the following conditions are met:

- A new owner or operator has taken over responsibility for the vessel; or
- You have permanently ceased operating the vessel in waters subject to this permit and there are no longer vessel discharges; or
- You have obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit.

1.7 <u>Certification</u>

The NOI, NOT, the VGP PARI Form, and any reports (including any monitoring data) submitted to EPA must include the following certification:

"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 gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than 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."

All other documentation required under this permit must be signed and dated by the person preparing the documentation.

1.8 Alternative Permits

1.8.1 EPA Requiring Coverage under an Alternative Permit

Pursuant to 40 CFR § 122.28(b)(3), EPA may require you to apply for an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition EPA to take action under this paragraph. If EPA requires you to apply for an individual NPDES permit, EPA will notify you in writing that a permit application is required. This notification will include a brief statement of the reasons for this decision and will provide application information. In addition, if you are an existing permittee authorized to discharge under this permit, the notice will set a deadline to file the permit application, and will include a statement that on the effective date of the individual NPDES permit, or the alternative general permit as it applies to you, coverage under this general permit will terminate. EPA may grant additional time to submit the application if you request it. If you are covered under this permit and fail to submit an individual NPDES permit application as required by EPA, then your coverage under this permit is terminated at midnight on the day specified by EPA as the deadline for application submittal. In addition, if EPA denies your application for an individual NPDES permit, you are also not authorized to discharge under this general permit. EPA may take enforcement action for any unpermitted discharge.

When an individual NPDES permit is issued to you or you are authorized to discharge under an alternative NPDES general permit, your coverage under this permit is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit. In this case (where EPA requires you to obtain coverage under an individual or alternative general permit), you are not required to file a NOT as discussed above.

1.8.2 Permittee Requesting Coverage under an Alternative Permit

You may request to be excluded from coverage under this general permit by applying for an individual permit per 40 CFR § 122.28(b)(3)(iii). In such a case, you must submit an individual permit application in accordance with the requirements of 40 CFR § 122.21, with reasons

supporting the request, to EPA at the appropriate EPA Regional Office(s) listed in Appendix B of this permit, no later than 90 days after December 19, 2013. The request may be granted by issuance of an individual permit or authorizing coverage under an alternative general permit if your reasons are adequate to support the request. A source excluded from this general permit solely because it already has an individual permit may request that the individual permit be revoked, and that it be covered by this general permit. Upon revocation of the individual permit, this general permit shall apply to the source.

When an individual NPDES permit is issued to you or you are authorized to discharge under an alternative NPDES general permit, your authorization to discharge under this permit is terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit.

1.9 Permit Reopener Clause

1.9.1 Modification of the VGP

Permit modification or revocation will be conducted according to 40 CFR §§ 122.62, 122.63, 122.64, and 124.5. This permit is subject to modification in accordance with 40 CFR §§ 124.5 and 122.62. Grounds for such modification include receipt of new information that was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of permit issuance. With respect to ballast water discharges, new information that will be considered in determining whether to modify this permit includes, but is not limited to, data or information from permittees, the general public, states, academia, scientific or technical articles or studies, and results of monitoring conducted under this permit indicating that:

- Treatment technology has improved such that these improved technologies would have justified the application of significantly more stringent effluent limitations or other permit conditions had they been known at the time of permit issuance;
- Treatment technologies known of at the time of permit issuance perform better than understood at the time of permit issuance such that this improved performance would have justified the application of significantly more stringent effluent limitations or other permit conditions had this been understood at the time of permit issuance;
- Scientific understanding of pollutant effects or of invasion biology has evolved such that this new information would have justified the application of significantly more stringent effluent limitations or other permit conditions had this been understood at the time of permit issuance; or
- The cumulative effects of any discharge authorized by the VGP on the environment are unacceptable.

1.9.2 Water Quality Protection

EPA may require you to obtain an individual permit in accordance with Part 1.8 of this permit for cause. This may happen, for example, if there is evidence that the discharges authorized by this permit cause or have the reasonable potential to cause or contribute to an excursion above

any applicable water quality standard. Similarly, EPA may modify this permit to include different limitations and/or requirements for cause.

1.10 **Severability**

Invalidation of a portion of this permit does not necessarily render the whole permit invalid. EPA's intent is that the permit remains in effect to the extent possible; in the event that any part of this permit is invalidated, EPA will advise the regulated community as to the effect of such invalidation.

1.11 State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the CWA.

1.12 Federal Laws

Nothing in this permit shall be construed to affect, supersede, or relieve the vessel owner or operator of any otherwise applicable requirements or prohibitions under other provisions of federal law or regulations.

1.13 Standard Permit Conditions

As provided by the introductory text of 40 CFR §122.41 and the regulation at 40 CFR § 122.43(c), all of the standard permit conditions published in federal regulations at 40 CFR § 122.41 (2008) are hereby incorporated by reference.

1.14 Electronic Reporting Requirement

All vessel owner operators must submit all NOIs, NOTs, annual reports, Discharge Monitoring Reports (DMRs), and other reporting information as appropriate electronically, unless the vessel owner/operator meets one of the following exemptions:

For purposes of the VGP, temporary waivers from electronic reporting may be granted if:

- EPA has not yet implemented such electronic reporting;
- If the owner/operator's headquarters is physically located in a geographic area (i.e., zip code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission and the vessel never travels to any areas with adequate broadband Internet access; or
- If the vessel owner/operator has issues regarding available computer access or computer capability.

If you wish to obtain waiver for submitting your reports electronically, you must submit a request to the EPA region where your vessel spends the most time. EPA regional contact information can be found in Appendix B of this permit. In that request, you must document

which exemption you believe you meet, provide evidence supporting these claims, and a copy of your completed NOI or PARI form (as applicable). A waiver may only be considered granted once you receive written confirmation from EPA or its authorized representative.

EPA will make any ballast water monitoring information transmitted to the Agency in electronic form available to the public in electronic form.

1.15 Additional Notes

- All requirements in this permit to comply with statutes and regulations, other than CWA section 402 and its implementing regulations, refer to those authorities as codified as of the date of Federal Register notice announcing availability of this final permit. Furthermore, with respect to references to class society or flag state requirements, all references to requirements are to those as of the date of Federal Register notice announcing availability of this final permit.
- All requirements to comply with specified statutes include the requirement to comply with any applicable implementing regulations.
- Provisions stating that "EPA recommends" certain actions, or that you "should" take certain actions, constitute recommendations by the Agency and thus are not mandatory requirements of this permit.
- EPA intends to implement the VGP in accordance with the CWA as well as U.S. international legal obligations, including those obligations associated with a vessel's right to innocent passage as provided for under customary international law.
- EPA notes that vessel masters have the responsibility to ensure the safety and stability of the vessel and the safety of the crew and passengers, and nothing in this permit is intended to interfere with their fulfillment of that responsibility. EPA invites comment on the sufficiency of reliance on the bypass provision to address the situation of a shipboard emergency that endangers the safety of the vessel or its crew, specifically the provisions regarding the "diversion of waste streams from any portion of the treatment facility" where unavoidable to prevent loss of life, personal injury, or severe property damage. See 40 CFR 122.41(m)(4)(A) and Part 1.13 of this permit. Additionally, EPA has provided targeted safety exemptions to VGP permit requirements in Parts 2.2.3, 2.2.5, 2.2.6, 2.2.13, and 2.2.26 of the permit and also requests on comment on their sufficiency.

2. EFFLUENT LIMITS AND RELATED REQUIREMENTS

In the limits below and throughout this permit, the term "minimize" means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best marine practice.

You may not add any constituents to any discharge that are not incidental to the normal operation of a vessel.

You may not dilute discharges eligible for coverage under this permit prior to their discharge for the purpose of meeting limits set forth in this permit.

2.1 <u>Technology-Based Effluent Limits and Related Requirements Applicable to all</u> Vessels

You are required to meet the following effluent limits, regardless of the type of vessel you own or operate.

2.1.1 Material Storage

For cargoes or onboard materials which might wash overboard or dissolve as a result of contact with precipitation or surface water spray, or which may be blown overboard by air currents, you must minimize the amount of time these items are exposed to such conditions. Locate storage areas on the vessel for such items in covered areas where feasible and consistent with any applicable regulations promulgated by the Secretary of the Department in which the Coast Guard is operating that establish specifications for safe transportation, handling, carriage, and storage of pollutants (see Part 2.1.5). If water draining from storage areas comes in contact with oily materials, you must:

- Use dry cleanup methods or absorbents to clean up the wastewater;
- Store the water for onshore disposal; or
- Run the water through an oily water separator when required by Coast Guard regulations, or if not subject to such requirement, use other effective methods to comply with Part 2.1.4 of this permit to prevent the discharge of any oils, including oily materials, into waters subject to this permit in quantities which may be harmful as defined in 40 CFR Part 110. This permit does not authorize the discharge of any oily water which might otherwise be inconsistent with requirements found in the Act to Prevent Pollution from Ships or under the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the protocol of 1978 (MARPOL 73/78).

2.1.2 Toxic and Hazardous Materials

Where consistent with vessel design and construction, you must locate toxic and hazardous materials in protected areas of the vessel unless the Master determines this would interfere with essential vessel operations or safety of the vessel or doing so would violate any applicable

regulations promulgated by the Secretary of the Department in which the Coast Guard is operating that establish specifications for safe transportation, handling, carriage, and storage of pollutants (see Part 2.1.5). Any discharge made for the foregoing reasons must be documented as part of the requirements in Part 4.2. This requirement includes ensuring that toxic and hazardous materials are in appropriate sealed containers constructed of a suitable material, labeled, and secured. Containers must not be overfilled and incompatible wastes should not be mixed. Exposure of containers to ocean spray or precipitation must be minimized. Jettisoning of containers holding toxic or hazardous material is not authorized by this permit.

2.1.3 Fuel Spills/Overflows

Fuel spills or overflows must not result in a discharge of oil in quantities that may be harmful, pursuant to 40 CFR Part 110. You must conduct all fueling operations using control measures and practices designed to minimize spills and overflows and ensure prompt containment and cleanup if they occur. Vessel operators must not overfill fuel tanks. For vessels with interconnected fuel tanks, fueling must be conducted in a manner that prevents overfilling and release from the system to the environment.

Vessels with air vents from fuel tanks must use spill containment or other methods to prevent or contain any fuel or oil spills. Large-scale fuel spills or overflows are not incidental to the normal operation of the vessel and are not authorized by this permit.

The following requirements apply to fueling of auxiliary vessels such as lifeboats, tenders or rescue boats deployed from "host" vessels subject to this permit:

- While fueling, examine the surrounding water for the presence of a visible sheen. If a visible sheen is observed, as a result of your fueling, it must be cleaned up immediately.
- It is important to know the capacity of the fuel tanks before you begin fueling in order to prevent unintentionally overfilling the tank.
- Prevent overfilling and do not top off your fuel tanks.
- When possible, fill fuel tanks while boat is on shore or recovered from the water.
- When possible, fill portable tanks on shore or on the host vessel, not on the auxiliary vessel.
- Use an oil absorbent material or other appropriate device while fueling the auxiliary vessel to catch drips from the vent overflow and fuel intake.
- Regularly inspect the fuel and hydraulic systems for any damage or leaks.

Owner/operators shall ensure that any crew responsible for conducting fueling operations are trained in methods to minimize spills caused by human error and/or the improper use of equipment.

2.1.4 Discharges of Oil Including Oily Mixtures

All discharges of oil, including oily mixtures, from ships subject to Annex I of the International Convention for the Prevention of Pollution from Ships as implemented by the Act to Prevent Pollution from Ships and U.S. Coast Guard regulations found in 33 CFR § 151.09 (hereinafter

referred to as "MARPOL vessels") must have concentrations of oil less than 15 parts per million (ppm) (as measured by EPA Method 1664 or other appropriate method for determination of oil content as accepted by the International Maritime Organization (IMO) (e.g. ISO Method 9377) or U.S. Coast Guard) before discharge. All MARPOL vessels must have a current International Oil Pollution Prevention Certificate (IOPP) issued in accordance with 33 CFR §§ 151.19 or 151.21. All other discharges of oil including oily mixtures must not contain oil in quantities that may be harmful, pursuant to 40 CFR Part 110.

2.1.5 Compliance with Other Statutes and Regulations

As required by 40 CFR §122.44(p), you must comply with any applicable regulations promulgated by the Secretary of the Department in which the Coast Guard is operating that establish specifications for safe transportation, handling, carriage, and storage of pollutants.

Any discharge from your vessel must comply with sections 311 (33 USC 1321) of the CWA, the Act to Prevent Pollution from Ships (APPS 33 USC §§ 1905-1915), the National Marine Sanctuaries Act, (16 USC 1431 et seq.) and implementing regulations found at 15 CFR Part 922 and 50 CFR Part 404, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 USC § 136 et seq.), and the Oil Pollution Act (OPA of 1990, 33 USC § 2701-2720).

The US Code of Federal Regulations containing these provisions can be found at: www.gpoaccess.gov/ecfr/.

2.1.6 General Training

All owner/operators of vessels must ensure that the master, operator, person-in-charge, and crew members who actively take part in the management of incidental discharges or who may affect those discharges are adequately trained in implementing the terms of this permit. This training need not be formal or accredited courses; however, it is the vessel owners/operators' responsibility to ensure these staff are given the necessary information to conduct shipboard activities in accordance with the terms of this permit.

Vessel owners/operators must also meet all training-related recordkeeping requirements of Part 4.2 of this permit.

2.2 Effluent Limits and Related Requirements for Specific Discharge Categories

The requirements in Part 2.2 constitute technology-based effluent limitations and related requirements except where it is specifically noted that the requirements constitute water quality based limits.

2.2.1 Deck Washdown and Runoff and Above Water Line Hull Cleaning

Vessel owner/operators must minimize the introduction of on-deck debris, garbage, residue, and spill into deck washdown and runoff discharges. Before deck washdowns occur, you must broom clean exposed decks or use comparable management measures and remove all existing debris. When required by their class societies (e.g., oil tankers), their flag Administrations, or the U.S. Coast Guard, vessels must be fitted with and use perimeter spill rails and scuppers to collect the

runoff for treatment. Where feasible, machinery on deck must have coamings or drip pans where necessary to collect any oily discharge that may leak from machinery and prevent spills. The drip pans must be drained to a waste container for proper disposal and/or periodically wiped and cleaned. The presence of floating solids, visible foam, halogenated phenol compounds, and dispersants, or surfactants in deck washdowns must be minimized. Vessel owners/operators must minimize deck washdowns while in port.

Vessel owners/operators must maintain their topside surface and other above water line portions of the vessel to minimize the discharge of rust (and other corrosion by-products), cleaning compounds, paint chips, non-skid material fragments, and other materials associated with exterior topside surface preservation. Furthermore, vessel owners/operators must minimize residual paint droplets from entering waters subject to this permit whenever they are conducting maintenance painting. Possible minimization techniques include, but are not limited to, avoiding paint spraying in windy conditions or avoiding overapplication of paint. This permit does not authorize the disposal of unused paint into waters subject to this permit.

If deck washdowns or above water line hull cleaning will result in a discharge, they must be conducted with "non-toxic" and "phosphate free" cleaners and detergents as defined in Appendix A of this permit. Furthermore, cleaners and detergents should not be caustic and must be biodegradable.

2.2.2 Bilgewater/Oily Water Separator Effluent

All bilgewater discharges must be in compliance with the regulations in 40 CFR Parts 110 (Discharge of Oil), 116 (Designation of Hazardous Substances), and 117 (Determination of Reportable Quantities for Hazardous Substances) and 33 CFR §151.10 (Control of Oil Discharges). In addition:

- Vessel operators may not use dispersants, detergents, emulsifiers, chemicals, or other substances that remove the appearance of a visible sheen in their bilgewater discharges. This requirement does not prohibit the use of these materials in machinery spaces for the purposes of maintaining or cleaning equipment.
- Except in the case of flocculants or other required additives (excluding any dispersants or surfactants) used to enhance oil/water separation during processing (after bilgewater has been removed from the bilge), vessel operators may not add substances that drain to the bilgewater that are not produced in the normal operation of a vessel. The use of oil solidifiers, flocculants, or other required additives are allowed only as part of an oil water separation system provided they do not alter the chemical make-up of the oils being discharged and any discharge of such materials into waters subject to this permit must be minimized. Routine cleaning and maintenance activities associated with vessel equipment and

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¹ 40 CFR 110.4 states that: "addition of dispersants or emulsifiers to oil to be discharged that would circumvent the provisions of this part is prohibited." 33 CFR 151.10 (g) states that: "No discharge into the sea shall contain chemicals or other substances introduced for the purpose of circumventing the conditions of discharge specified in this regulation.

structures are considered to be normal operation of a vessel if those practices fall within normal marine practice.

- All vessels must minimize the discharge of bilgewater into waters subject to this permit. This can be done by minimizing the production of bilgewater, disposing of bilgewater on shore where adequate facilities exist, or discharging into waters not subject to this permit (i.e., more than 3 nautical miles [nm] from shore) for vessels that regularly travel into such waters. Though not regulated under this permit, EPA notes that discharges of bilgewater outside waters subject to this permit (i.e., more than 3 nm from shore) are regulated under Annex I of the International Convention for the Prevention of Pollution from Ships as implemented by the Act to Prevent Pollution from Ships and U.S. Coast Guard regulations found in 33 CFR part 151.
- Vessels greater than 400 gross tons shall not discharge untreated oily bilgewater into waters subject to this permit.
- Vessels greater than 400 gross tons that regularly sail outside the territorial sea (at least once per month) shall not discharge treated bilgewater within 1 nm of shore if technologically feasible (e.g., holding would not impact safety and stability, would not contaminate other holds or cargo, or would not interfere with essential operations of the vessel). Any discharge which is not technologically feasible to avoid must be documented as part of the requirements in Part 4.2 and reported to EPA as part of the vessel's annual report.
- Vessels greater than 400 gross tons shall not discharge treated bilgewater into waters referenced in Appendix G unless the discharge is necessary to maintain the safety and stability of the ship. Any discharge of bilgewater into these waters must be documented as part of the recordkeeping requirements in Part 4.2 and reported to EPA as part of the vessel's annual report.
- For vessels greater than 400 gross tons that regularly sail outside the territorial sea (at least once per month), if treated bilgewater is discharged into waters subject to this permit, it must be discharged when the vessel is underway (sailing at speeds greater than 6 knots), unless doing so would threaten the safety and stability of the ship. EPA notes that vessel operators may also choose to dispose of bilgewater on shore where adequate facilities exist. Any discharge which is made for safety reasons must be documented as part of the requirements in Part 4.2 and reported to EPA as part of the vessel's annual report.

Note: EPA is specifically seeking comment on whether to alter the bilgewater management regime for new build vessels and whether to provide existing vessels with additional bilgewater management options. Please see Part 4.4.2 of the Fact Sheet for details.

2.2.3 Ballast Water

All discharges of ballast water must comply with the requirements in this permit as described below. Additionally, owner/operators of all vessels subject to coverage under this permit which are equipped with Ballast Tanks must comply with any additional BMPs in this section.

In addition, as a condition of this permit, all discharges of ballast water must also comply with applicable U.S. Coast Guard regulations found in 33 CFR Part 151.

All discharges of ballast water may not contain oil, noxious liquid substances (NLSs), or hazardous substances in a manner prohibited by U.S. laws, including section 311 of the Clean Water Act

2.2.3.1 Training

All owner/operators of vessels equipped with ballast water tanks must train the master, operator, person-in-charge, and crew members who actively take part in the management of the discharge or who may affect the discharge, on the application of ballast water and sediment management and treatment procedures. As part of Ballast Water Management Plans under 2.2.3.2, a standalone training plan, or other recordkeeping documentation, owner/operators must maintain a written training plan describing the training to be provided and a record of the date of training provided to each person trained. Persons required to be trained must be trained promptly upon installation of treatment technology and in the event of a significant change in ballast water treatment practices or technology.

2.2.3.2 Ballast Water Management Plans

All owner/operators of vessels equipped with ballast water tanks must maintain a ballast water management plan that has been developed specifically for the vessel that will ensure that those responsible for the plan's implementation understand and follow the vessel's ballast water management strategy. Owner/operators must make that plan available upon request to EPA or its authorized representative. Vessel owner/operators must assure that the master and crew members who actively take part in the management of the discharge or who may affect the discharge understand and follow the management strategy laid out in the plan.

At a minimum, all vessels must have a plan which outlines how they will meet the requirements of Part 2.2.3.3 of this permit. The plan must also include how vessels will comply with training requirements of 2.2.3.1 and meet all other subparts of Part 2.2.3 as applicable. EPA notes that a Ballast Water Management Plan is also required by the United States Coast Guard by 33 CFR Part 151. Provided owner/operators meet the requirements discussed above, EPA expects that vessels will need one ballast water management plan to meet both EPA and USCG requirements.

2.2.3.3 Mandatory Ballast Water Management Practices: Management measures required of all vessel owner/operators

Masters, owners, operators, or persons-in-charge of all vessels equipped with ballast water tanks that operate in waters of the U.S. must:

- Avoid the discharge or uptake of ballast water in areas / into waters subject to this permit within, or that may directly affect, marine sanctuaries, marine preserves, marine parks, or coral reefs or other waters listed in Appendix G waters (also called Part 12 waters).
- Minimize or avoid uptake of ballast water in the following areas and situations:

- Areas known to have infestations or populations of harmful organisms and pathogens (e.g., toxic algal blooms).
- Areas near sewage outfalls.
- Areas near dredging operations.
- Areas where tidal flushing is known to be poor or times when a tidal stream is known to be turbid.
- In darkness, when bottom-dwelling organisms may rise up in the water column.
- Where propellers may stir up the sediment.
- Areas with pods of whales, convergence zones, and boundaries of major currents
- Clean ballast tanks regularly to remove sediments in mid-ocean (when not otherwise prohibited by applicable law) or under controlled arrangements in port, or at dry dock.
- No discharge of sediments from cleaning of ballast tanks is authorized in waters subject to this permit.
- When discharging ballast water in port, if the vessel is equipped with high and low suction within ballast tanks, utilize the high suction for ballast tank discharge to minimize the discharge of entrained sediment. The low suction may be used to strip sediment from tanks when suitable disposal facilities are available.
- Minimize the discharge of ballast water essential for vessel operations while in the waters subject to this permit.

Suggested control measures to minimize the discharge of ballast water include, but are not limited to, transferring ballast water between tanks within the vessel in lieu of ballast water discharge. Another option is to use public water supply for ballast.

2.2.3.4 Mandatory Ballast Water Management Practices for Existing Bulk Carrier vessels (commonly known as Lakers) built before January 1, 2009, confined exclusively to the Great Lakes upstream of the Welland Canal

Existing Bulk Carrier Vessels known as "Lakers" that operate exclusively in the Great Lakes upstream of the Welland Canal (i.e. those vessels confined to the upper Great Lakes because they are too large to exit the Great Lakes via the St. Lawrence Seaway) must meet the following additional ballast water management requirements:

- Each owner/operator must perform annual inspections on their vessel to assess sediment accumulations. Removal of sediment, if necessary, must be carried out. Each vessel owner/operator must develop sediment removal policies as part of the Ballast Water Management Plan. Records of sediment removal and disposal (including facility name and location and all invoices) shall be kept onboard the vessel. EPA notes the discharge of sediments from cleaning of ballast tanks is not authorized in waters subject to this permit (see Part 2.2.3.3 of this permit).
- When practical and safe, vessels must minimize the ballast water taken dockside. This will typically mean limiting uptake to the amount of ballast water required to safely depart the dock and then complete ballasting in deeper water.

• The vessel sea chest screen is the first line of defense in keeping large living organisms out of the vessel ballast water tanks. Owner/operators of Laker vessels must perform annual inspections of their sea chest screens to assure that they are fully intact. The inspection must assure that there is no deterioration which has resulted in wider openings or holes in the screen. If the screen has deteriorated such that there are wider openings than the screen design, the vessel owner operator must repair or replace the screen. Any repairs must be of sufficient quality that they are expected to last at least one year.

If a confined Laker meets the permit limits found in Part 2.2.3.5 of this permit, the vessel owner/operator is not required to conduct the additional management measures found in Part 2.2.3.4, but must still comply with Part 2.2.3.3.

2.2.3.5 Ballast Water Numeric Discharge Limitations

Owners/operator must meet the following discharge limits consistent with the schedule found in Part 2.2.3.5.2, unless you are excluded from these requirements by Parts 2.2.3.5.3 or 2.2.3.8 of this permit:

- 1. For organisms greater than or equal to 50 micrometers in minimum dimension: discharge must include fewer than 10 living organisms per cubic meter of ballast water.
- 2. For organisms less than 50 micrometers and greater than or equal to 10 micrometers: discharge must include fewer than 10 living organisms per milliliter (mL) of ballast water.
- 3. Indicator microorganisms must not exceed:
 - (i) For Toxicogenic *Vibrio cholerae* (serotypes O1 and O139): a concentration of less than 1 colony forming unit (cfu) per 100 mL.
 - (ii) For *Escherichia coli*: a concentration of fewer than 250 cfu per 100 mL.
 - (iii) For intestinal enterococci: a concentration of fewer than 100 cfu per 100 mL.

These limits may be met by using one of the ballast water management measures in Parts 2.2.3.5.1., 2.2.3.5.1.2, 2.2.3.5.1.3, or 2.2.3.5.1.4.

Note: EPA will continue to explore new technologies with industry and states, and when warranted, will make this numeric limit more stringent in the future (see discussion in section 4.4.3.5.1 of the fact sheet). Additionally, EPA encourages and anticipates, as part of this process, that states will continue to work with industry to test and provide opportunities for new technologies.

2.2.3.5.1 Ballast Water Management Measures

In addition to the other requirements of this permit, owner/operators of vessels with the capacity to carry greater than or equal to 8 cubic meters of ballast water may use one of the four following ballast water management methods to meet the numeric discharge limits in Part 2.2.3.5:

2.2.3.5.1.1 Ballast Water Management using a Ballast Water Treatment System

Vessel owner/operators utilizing a ballast water treatment system (BWTS) must use a system which has been shown to be effective by testing in accordance with the EPA-ETV protocol for the verification of ballast water treatment technology conducted by an independent third party laboratory, test facility or test organization. Once the effluent limits in Part 2.2.3.5 become applicable to a vessel (see part 2.2.3.5.2 for applicability timeframes for specified categories of vessels), owners/operators of vessels utilizing a ballast water treatment system to meet the requirements of Part 2.2.3.5 of this permit must meet those limits as an instantaneous maximum.

Additionally, following installation of a BWTS, the master, owner, operator, agent, or person in charge of the vessel must maintain the BWTS in accordance with all manufacturer specifications. Furthermore, all treatment must be conducted in accordance with the BWTS manufacturer's instructions. The BWTS must be used prior to any discharge of ballast water to waters of the U.S.

2.2.3.5.1.1.1 Monitoring From Vessels Using Ballast Water Treatment Systems

The monitoring requirements in Part 2.2.3.5.1.1 apply to ballast water discharges from vessels employing ballast water treatment systems that are required to achieve the effluent limitations of Part 2.2.3.5. The monitoring is divided into three components. The first, in Part 2.2.3.5.1.1.2, is required of all vessels and generally requires monitoring equipment performance to assure the system is fully functional. Vessels conducting this monitoring also must adequately calibrate their equipment as required in Part 2.2.3.5.1.1.3. The second component, in Part 2.2.3.5.1.1.4 requires monitoring from all ballast water systems for selected biological indicators. The third component, in part 2.2.3.5.1.1.5 requires monitoring of the ballast water discharge itself for biocides and residuals to assure compliance with the effluent limitations established in part 2.2.3.5 of the permit, as applicable.

2.2.3.5.1.1.2 Ballast Water System Functionality Monitoring

Ballast water treatment systems use physical and/or chemical processes, or a combination thereof, to achieve reductions in living organisms. The use of physical/chemical indicators of treatment performance verifies that the ballast water treatment system is operating according to the manufacturers' operating specifications. To assess the BWTS functionality, monitoring indicators of the BWTS functionality is required at least once per month for specific parameters that are applicable to your system. The required parameters to be monitored, with appropriate monitoring approaches are contained in Appendix J. For example, if your system uses a filter and chlorine dioxide, you must meet the requirements for systems using both filters and chlorine dioxide. If your system uses cavitation, UV, and hypochlorite generation, you must monitor conditions for all three treatment units. EPA expects that most ballast water treatment systems will make use of at least two physical and/or chemical processes.

Most ballast water treatment systems have control and self diagnostic equipment such as sensors that continuously measure treatment parameters to verify performance. The metrics to be monitored are based on common approaches used in ballast water treatment systems. As new

approaches become commonly available, EPA will develop new monitoring parameters as appropriate.

2.2.3.5.1.1.3 Ballast Water monitoring equipment calibration

At a minimum, all applicable sensors and other equipment must be calibrated annually. Additionally, all applicable sensors and other control equipment must be calibrated no less frequently than recommended by the sensor or other equipment manufacturer, or by the ballast water treatment system manufacturer or when warranted based on device drift from a standard or calibrated setting. EPA expects many sensor types (e.g., pH probes, TRO sensors, turbidity sensors) will need to be calibrated on a more frequent basis. Calibration of the sensors and equipment can be conducted on-board the vessel or they can be removed and shipped to the manufacturer or other vendor for calibration. During the period when the sensors are not installed (or otherwise inoperable thus significantly compromising the performance of the ballast water treatment system), the vessel must not discharge ballast water.

2.2.3.5.1.1.4 Effluent Biological Organism Monitoring

Once a ballast water treatment system is required to be installed onboard a vessel (see part 2.2.3.5.2 for applicability and timeframe for installation of such vessels), any ballast water discharges from such vessels will be subject to the effluent limitations in Part 2.2.3.5 of this permit. To ascertain compliance with the effluent limitation in that section, EPA is establishing the following biological indicator compliance monitoring. These samples can be taken by collecting a small volume sample from the ballast water discharge (consistent with the sampling guidance found in EPA's Generic Protocol for the Verification of Ballast Water Treatment Technology) and analyzing the sample for concentrations of certain biological indicator parameters. Analysis of concentrations of indicator organisms must include monitoring for the parameters in Table 2 below utilizing the methods in that table, or other EPA Part 136 methods as applicable.

Measurement	Instrument	EPA	Standard	ASTM	ISO	Other
	or Analysis	Method	Method			
Total	Plate counts		SM 9215	ASTM	ISO	
heterotrophic				D5465	6222:1999	
bacteria						
E. coli	Selective	EPA Method	SM 9223B	ASTM	ISO 9308-	Colilert®
	substrate	1103.1 and		D5392 – 93	1:2000	
		1603				
Enterococci	Selective	EPA Method	SM 9230C	ASTM	ISO 7899-	Enterolert®
	substrate	1106.1 and		D5259 –	2:2000	
		1600		92(2006)		

Table 2: Indicator Organism Monitoring Parameters

Biological indicator compliance monitoring sampling of ballast water effluent must be conducted 2 times per year for vessels with type approved devices for which high quality type approval data are available, and 4 times per year for non-type approved devices or type approved devices for which high quality data are not available. Each sample must be tested independently and the

individual results must be reported and not averaged. Monitoring must be conducted at least 14 days apart from different discharge events.

Type approved devices for which high quality type approval data are available means either:

- a) any ballast water treatment system type approved by the United States federal government; or
- b) any ballast water treatment system:
 - i. type approved by a foreign administration;
 - ii. for which efficacy testing was conducted by an independent 3rd party testing organization, either in accordance with the ETV protocol or in a manner consistent with the ETV protocol with respect to QA/QC procedures, the use of validated methods including appropriate volumes of representative samples, and full description and documentation of test procedures, results and analyses; and
- iii. all active substance data (e.g., the full data package submitted to the flag administration for type approval) have all been made available to the US EPA.

2.2.3.5.1.1.5 Requirements and Effluent Limitations for BWTS that use Active Substances (e.g., biocides)

2.2.3.5.1.1.5.1 <u>Authorization of Residual Biocides Associated with Ballast Water Treatment</u> Systems

Many ballast water treatment systems produce or use biocides as an agent to reduce living organisms present in the ballast water tank. In order to be eligible for coverage under this permit, any ballast water treatment system must not use any biocide that is a "pesticide" within the meaning of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C § 136 et seq.) unless that biocide has been registered for use in ballast water treatment under such Act. The requirement in the preceding sentence does not apply if such biocide is generated solely by the use of a "device" on board the same vessel as the ballast water to be treated by the biocide, as the term "device" is defined in the Federal Insecticide, Fungicide, and Rodenticide Act. In addition, if the ballast water treatment system uses or generates biocides and you will discharge ballast water treated with biocides into waters subject to this permit, you must meet one of the following conditions to be eligible for permit coverage.

The discharge of biocides or residuals may not exceed the following instantaneous maximum limits expressed as micrograms per liter ($\mu g/l$).

Table 3: Maximum Ballast Water Effluent Limits for Residual Biocides

Biocide or Residual	Limit (instantaneous maximum)
Chlorine Dioxide	200 μg/l
Chlorine (expressed as Total Residual Oxidizers (TRO as TRC))	100 μg/l
Ozone (expressed as Total Residual Oxidizers (TRO as TRC))	100 μg/l
Peracetic Acid	500 μg/l
Hydrogen Peroxide (for systems using Peracetic Acid)	1,000 μg/l

Any other biocides or derivatives may not exceed acute water quality criteria listed in EPA's 1986 Quality Criteria for Water [the Gold Book], and any subsequent revision, at the point of ballast water discharge. The Gold Book can be found at:

www.epa.gov/waterscience/criteria/library/goldbook.pdf. Tables summarizing the subsequent revisions can be found at: http://www.epa.gov/waterscience/criteria/wqctable/index.html. Discharges of biocide residuals or derivatives must also meet monitoring requirements under Part 2.2.3.5.1.1.1, and reporting and recordkeeping requirements in Part 2.2.3.5.1.1.6.

If the biocide used or produced by your system and its derivatives is not listed in the previous table or found in EPA's Gold Book, you must notify EPA at least 120 days in advance of its use and provide any associated aquatic toxicity data for that biocide or its derivatives of which you are aware. EPA may impose additional limitations on a treatment system-specific basis, or require you to obtain coverage under an individual permit, if necessary. EPA may inform the vessel owner/operator of specific requirements. You may also seek coverage under an individual NPDES permit pursuant to Part 1.8.2 of this permit. You may not discharge the biocide at issue until you receive a response from EPA to your notification.

2.2.3.5.1.1.5.2 Residual Biocide and Derivative Monitoring

For vessels subject to Part 2.2.3.5.1.1.1, you must conduct monitoring of the vessel ballast water discharge for any residual biocides or derivatives used in the treatment process, in part to demonstrate compliance with the conditions in Part 2.2.3.5.1.1.5.1. For instance, if chlorine is the biocide used in the ballast water treatment, you must test for residual chlorine in the vessel ballast water discharge to see if it complies with the standards in Part 2.2.3.5.1.1.5.1.

In order to demonstrate that residual biocides or derivatives are in compliance with this permit, that substantial quantities of harmful byproducts are not produced, and provide EPA with needed information about system functionality, the vessel operator initially must take samples according to the following:

Table 4: Monitoring Schedule for Residual Biocides or Derivatives of the Residual Biocide

	Type approved devices for which	Type approved devices for
	high quality type approval data are	which high quality data are not
	available	available
Initial	3 times in the first 10 discharge events	5 times in the first 10 discharge
Monitoring	(not to exceed a 180 day period)	events (not to exceed a 180 day
		period)
Maintenance	2 times per year	4 times per year
monitoring		

Type approved devices for which high quality type approval data are available means either:

- a) any ballast water treatment system type approved by the United States federal government; or
- b) any ballast water treatment system:
 - i. type approved by a foreign administration;
 - ii. for which efficacy testing was conducted by an independent 3rd party testing organization, either in accordance with the ETV protocol or in a manner consistent with the ETV protocol with respect to QA/QC procedures, the use of validated methods including appropriate volumes of representative samples, and full description and documentation of test procedures, results and analyses; and
 - iii. all active substance data (e.g., the full data package submitted to the flag administration for type approval) have all been made available to the US EPA

Each sample must be tested independently and the individual results must be reported and not averaged. Samples must be tested as soon as possible after sampling, and may not be held longer than recommended for each tested constituent as given in 40 CFR Part 136. Sampling and testing shall be conducted using a sufficiently sensitive method according to 40 CFR Part 136 or may use an alternate method if allowed in Table 5 below.

Table 5: Residual Biocides and Biocide Derivative Monitoring Requirements

Biocide	Analyte	Analytical Methods	Minimum Sample	Sample Holding	MDL	Effluent Limit or	Limit Type
			Volume	Time		Action	
Alkylamines	Alkylamines	EPA Method 8360B and 8270D	25 mL (8260B)	14 days (8260B)	Varies by compound (8260D); 10 µg/L (8270C)	Report	NA

Table 5: Residual Biocides and Biocide Derivative Monitoring Requirements

Biocide	Analyte	Analytical Methods	Minimum Sample Volume	Sample Holding Time	MDL	Effluent Limit or Action	Limit Type
Chlorine or Chlorine dioxide	Chlorine dioxide	EPA Method 327.0-1; SM 4500 CIO ₂ E	16 mL (327.0-1)	4 hours (327.0- 1); As soon as possible (SM)	Varies (327.0-1); 10 to 100 mg/L (SM)	200 μg/L	Instantaneous Maximum
	Total Residual Oxidizers (TRO) as Cl ₂	SM 4500- Cl G; ISO 7393/2	50 mL	15 minutes	10 μg/L, under ideal conditions	100 μg/L	Instantaneous Maximum
	Chlorite*	EPA Method 300.1	250 mL	14 days	Varies	Report	NA
	Chlorate*	EPA Method 300.1	250 mL	28 days	Varies	Report	NA
	Total trihalomethanes ^{a*}	EPA Method 8260	25 mL	14 days	Varies	Report	NA
	Haloacetic acids ^{b*}	EPA Method 552.2	40 mL	14 days	Varies by compound	Report	NA
Menadione	Menadione	NA				Report	NA
Ozone	Total Residual Oxidizers (TRO) as Cl ₂	SM 4500- Cl G; ISO 7393/2	50 mL	15 minutes	10 μg/L, under ideal conditions	100 μg/L	NA
	Bromate*	EPA Method 317; EPA Method 300.1; ASTM D 6581-00	250 mL	28 days (317; 300.1)	Varies (317; 300.1)	Report	NA
	Bromoform*	EPA Method 8260	25 mL	14 days	Varies	Report	NA
	Total trihalomethanes ^{a*}	EPA Method 8260	25 mL	14 days	Varies	Report	NA
	Haloacetic acids ^{b*}	EPA Method 552.2	40 mL	14 days	Varies by compound	Report	NA
Peracetic Acid	pН	SM 4500 H+	25 mL	As soon as possible		6.5 – 9 s.u.	Instantaneous Maximum
	Peracetic acid	Photometri c analysis (Pinkernell, 1997; EMD Chemicals, 2011; CHEMetric s 2010)	25 mL	As soon as possible	500 μg/L	Report	NA

Table 5: Residual Biocides and Biocide Derivative Monitoring Requirements

Biocide	Analyte	Analytical Methods	Minimum Sample Volume	Sample Holding Time	MDL	Effluent Limit or Action	Limit Type
	Hydrogen peroxide/	Titimetric analysis (JIS K 1463:2007; EMD Chemicals, 2011; CHEMetric s 2010))	25 mL	As soon as possible	500 μg/L	Report	NA

^{*} Potential byproduct or derivative

ISO: International Organization for Standardization

SM: Standard Methods MDL: Method detection limit

NA: Not applicable

2.2.3.5.1.1.6 Ballast Water Treatment System Recordkeeping and Reporting

Records of sampling and testing results required under Part 2.2.3.5.1.1 must be retained onboard for a period of three years in the vessel's recordkeeping documentation. Vessels must also submit the testing results to EPA using EPA's e-reporting system as part of the vessel's annual report (unless you are eligible to submit a hard copy of the annual report).

Records of monitoring information shall include:

- The ballast water treatment system used, its type approval certificate, and records of whether the system is a vessel with type approved devices for which all type approval data have been made available;
- The individual(s) who performed the sampling, measurements, and/or inspections;
- The date(s) analyses and/or inspections were performed;
- Any sensor or other control equipment calibration and functional tests conducted during the inspection as applicable;
- The techniques or methods used for any sensor or other control equipment calibration and functional tests as applicable;
- The date and time of all monitoring results (monitoring in Parts 2.2.3.5.1.1.2, 2.2.3.5.1.1.4, and 2.2.3.5.1.1.5, as applicable);
- The analytical techniques or methods used as applicable, and
- The results of such analyses.

You must submit your monitoring data as part of your annual report. For systems already in use as of the effective date of this permit, initial sampling data must be submitted with the first annual report. For systems which are not already in use as of the effective date of this permit, initial sampling data must be submitted on the annual report following the calendar year of the system's first use. Data must be submitted on the Ballast Water Treatment System Report form

a. Total trihalomethanes is the sum of the concentrations of chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

b. Haloacetic acids is the sum of the concentrations of mono-, di-, and trichloroacetic acids and mono- and dibromoacetic acids.

attached to the annual report available in Appendix H of this permit or submitted to EPA's ereporting system available at www.epa.gov/npdes/vessels/eNOI.

2.2.3.5.1.2 Onshore Treatment of Ballast Water

For those vessels whose design and construction safely allows for the transfer of ballast water to shore, if compatible onshore treatment for ballast water is available, the vessel owner/operator may use onshore treatment for any ballast water discharges to meet the requirements of 2.2.3.5. EPA notes that the lack of availability of adequate reception facilities is not an acceptable reason to discharge ballast water which does not meet the treatment requirements found in Part 2.2.3.5.1.1 into waters subject to this permit, and such discharges would therefore constitute a permit violation.

Any vessel owner/operator utilizing onshore treatment must ensure that all piping and supporting infrastructure up to the last manifold or valve immediately before the dock manifold connection of the receiving facility or similar appurtenance on a reception vessel must be fully free from any leaks or other avenues whereby untreated ballast may be discharged into waters subject to this permit.

EPA notes that transferring ballast water to a treatment barge for eventual treatment and discharge could constitute "on-shore treatment" for purposes of this subpart. The discharge of treated ballast water (transferred from other vessels) from a treatment barge is not eligible for coverage under the VGP as this is a discharge from an industrial operations, not a discharge incidental to the normal operation of a vessel. Instead, these vessels must apply for individual NPDES permit coverage from the appropriate NPDES permitting authority, generally the State in which they are operating.

2.2.3.5.1.3 Use of Public Water Supply Water

Vessels may meet the requirements of Part 2.2.3.5 by using only water from a U.S. public water system or Canadian drinking water system (both referred to as PWS in this permit), as defined in a) 40 CFR 141.2 and subject to the requirements of 40 CFR parts 141 and 143 or b) Health Canada's "Guidance For Providing Safe Drinking Water in Areas of Federal Jurisdiction," as ballast water. Vessels using water from a PWS as ballast must maintain a record of which PWS they received the water and a receipt, invoice, or other documentation from the PWS indicating that water came from that system.

Vessels using water from a PWS must use such water exclusively for all ballast water to avoid contamination of the ballast water tank. Vessels using PWS water as ballast must have either:

- Previously cleaned the ballast tanks (including removing all residual sediments) and not subsequently introduced ambient water; or
- Never introduced ambient water to those tanks and supply lines.

Vessels utilizing water from a PWS as ballast water must certify in their recordkeeping documentation that they have met all the requirements of this section, including maintaining

certification by the master or NOI certifier that one of the two above conditions are met regarding contamination.

In the event a vessel that normally uses PWS water as ballast is forced for purposes of vessel safety to take on untreated ballast water from a sea, estuary, lake or river source, such vessel may not return to using PWS water until the tanks and supply lines have been cleaned, including removal of all residual sediments.

2.2.3.5.1.4 No Discharge of Ballast Water

Vessels may meet the requirements of Part 2.2.3.5 of this permit by not discharging any ballast water into waters subject to this permit. EPA notes that any discharge of untreated ballast water, including for reasons of unscheduled voyages, loading of unexpected cargo, etc., do not qualify as an acceptable reason to discharge untreated ballast water into waters subject to this permit, and therefore constitute a permit violation. EPA notes that in the case of a shipboard emergency that endangers the safety of the vessel or its crew, ballast water may need to be pumped out quickly by bypassing the BWTS. In such cases, the provisions regarding the prohibition of bypassing treatment where unavoidable to prevent loss of life, personal injury of severe property damage may be applicable. See 40 CFR 122.41(m)(4)(A) and Part 1.13 of this permit.

2.2.3.5.2 Schedule for when Ballast Water Treatment Becomes BAT (and Therefore Required)

Table 6 describes when BWTS will become the Best Available Technology Economically Achievable (BAT) and thus when any ballast water discharges from such vessels will be subject to the Effluent limitations in Part 2.2.3.5.1 of this permit. Vessels must meet the requirements in Part 2.2.3.5.1 according to the schedule below in Table 6.

	Vessel's Ballast Water Capacity	Date Constructed	Vessel's Compliance Date
New		After January 1, 2012	On delivery
vessels			
	Less than 1500 m ³	Before January 1, 2012	First scheduled drydocking after
Existing			January 1, 2016
vessels	1500-5000 m ³	Before January 1, 2012	First scheduled drydocking after
		-	January 1, 2014
	Greater than 5000 m ³	Before January 1, 2012	First scheduled drydocking after
		-	January 1, 2016

Table 6: Ballast Water Treatment to BAT Schedule

2.2.3.5.3 Vessels Not Required to Meet Part 2.2.3.5 Treatment Standards

The following Vessel Types are not required to meet Part 2.2.3.5 ballast water management measures:

2.2.3.5.3.1 <u>Vessels Engaged in Short-Distance Voyages</u>

Vessels engaged in short distance voyages means vessels that:

- Operate exclusively in one Coast Guard Captain of the Port (COTP) Zone, or
- Vessels which do not travel more than 10 nm and cross no physical barriers or obstructions (e.g., locks), whether or not they operate within one U.S. Coast Guard COTP zone.

2.2.3.5.3.2 <u>Unmanned, Unpowered Barges</u>

Unmanned, unpowered barges such as hopper barges are not required to meet the ballast water management measures of Part 2.2.3.5.

2.2.3.5.3.3 Existing Bulk Carrier Vessels (Commonly Known as Lakers) Built Before January 1, 2009, Confined Exclusively to the Great Lakes Upstream of the Welland Canal

Existing Lakers built before January 1, 2009 confined exclusively to the Great Lakes upstream of the Welland Canal are not required to meet the requirements of Part 2.2.3.5.

2.2.3.6 Interim requirements for vessels not meeting the ballast water management measures in Part 2.2.3.5

Vessel owner/operators not meeting the requirements of Part 2.2.3.5 of the permit must meet the exchange and flushing requirements of this part as applicable. Ballast water exchange may not be used in lieu of meeting the numeric effluent limits in Part 2.2.3.5 of the permit once a vessel is required to meet these limits. Conversely, vessel owner/operators meeting the numeric effluent limits in Part 2.2.3.5 before they are required to do so by the implementation schedule in Part 2.2.3.5.2 are not required to meet the exchange and flushing requirements of this subpart.

2.2.3.6.1 Requirements for Oceangoing Voyages While Carrying Ballast Water

Any vessels that carry ballast water that was taken on in areas less than 200 nautical miles from any shore that will subsequently operate beyond the Exclusive Economic Zone (EEZ) and more than 200 nm from any shore must carry out an exchange of ballast water for any tanks that will discharge ballast water into waters subject to this permit unless the vessel meets one of the exemptions in Part 2.2.3.6.6.

This exchange must be conducted in compliance with the following standards prior to discharging ballast water into waters subject to this permit:

- The exchange must occur in waters beyond the U.S. EEZ;
- The exchange must occur in an area more than 200 nautical miles from any shore; and
- The exchange must be commenced as early in the vessel voyage as possible, as long as the vessel is more than 200 nm from any shore.

2.2.3.6.2 Vessels Carrying Ballast Water Engaged in Pacific Nearshore Voyages

Unless the vessel meets one of the exemptions in Part 2.2.3.6.6, any vessel engaged in Pacific nearshore voyages that carries ballast water that was taken on in areas less than 50 nautical miles from any shore must carry out an exchange of ballast water in accordance with this Part before discharging from any tanks that carry ballast water into waters subject to this permit if the vessel travels through more than one COTP zone as listed in 33 CFR Part 3 or the vessel crosses international boundaries.

Vessels engaged in Pacific nearshore voyages are:

- Vessels engaged in the Pacific coastwise trade and vessels transiting between Pacific ports that travel between more than one Captain of the Port Zone, and
- All other vessels that sail from foreign, non-U.S Pacific, Atlantic (including the Caribbean Sea), or Gulf of Mexico ports, which do not sail further than 200 nm from any shore, and that discharge or will discharge ballast water into the territorial sea or inland waters of Alaska or off the west coast of the continental United States.

Ballast water exchange for vessels subject to this Part must occur in waters more than 50 nautical miles from any shore (US or otherwise), and in waters more than 200 meters deep, prior to discharging ballast water into waters subject to this permit. Exchange should occur as far from the shore, major estuary and oceanic river plumes, subsurface physical features (e.g. seamounts), and known fishery habitats as practicable. Vessels engaged in voyages that take them further than 200 nm from any shore and who will remain outside 200 nm for a sufficient period to conduct exchange, are not allowed to exchange ballast water between 50 and 200 nm from shore to meet the requirements of Part 2.2.3.6.1 (unless the master determines that flushing farther than 200 nm from shore would interfere with essential vessel operations or safety of the vessel but the master determines that the vessel is able to safely flush more than 50 nm from shore) and instead, must conduct exchange more than 200 nm from shore in accordance with Part 2.2.3.6.1 of this permit. Vessels engaged in the coastwise trade who are not outside 200 nm for a sufficient period to conduct exchange may conduct exchange outside 50 nm (even if they voyage beyond 200 nm) to meet the requirements of this permit.

2.2.3.6.3 Vessels with any Ballast Water Tanks that are Empty or have Unpumpable Residual Water

For vessels that travel between more than one COTP Zone while undertaking voyages described in Part 2.2.3.6.1 and which either reported No Ballast on Board (NOBOB) in accordance with Coast Guard regulations or which have any ballast water tank that is empty or contains unpumpable residual water, you must follow the applicable requirements in Part 2.2.3.6.1 for those tanks with ballast water. EPA notes that when the term "empty" tank is used, the Agency is also referring to tanks that contain unpumpable residual water. For those tanks which are empty or contain unpumpable residual water, you must either seal the tank so that there is no discharge or uptake and subsequent discharge of ballast water within waters subject to this permit or conduct saltwater flushing of such tanks in an area 200 nm from any shore prior to the discharge or uptake and subsequent discharge of any ballast water to any U.S. waters subject to this permit,

unless you meet one of the exemptions in Part 2.2.3.6.6. For the purposes of Part 2.2.3.6.3, saltwater flushing means the addition of mid-ocean water to empty ballast water tanks; the mixing of the added water with residual ballast water and sediment through the motion of the vessel; and the discharge of the mixed water until loss of suction, such that the resulting residual water remaining in the tank has either a salinity greater than or equal to 30 parts per thousand (ppt) or a salinity concentration equal to the ambient salinity of the location where the uptake of the added water took place. In order to conduct saltwater flushing, the vessel should take on as much mid-ocean water into each tank as is safe (for the vessel and crew).

For all vessel owner/operators subject to this section that contain some empty ballast water tanks and some full ballast water tanks, if you elect to seal those empty tanks, you must not allow water that will be discharged into waters subject to this permit to commingle with waters from the empty tanks if you have not conducted saltwater flushing as specified above.

2.2.3.6.4 Vessels Engaged in Pacific Nearshore Voyages with Unpumpable Ballast Water and Residual Sediment (including NOBOBs)

Unless the vessel meets one of the exemptions in Part 2.2.3.6.6, any vessel engaged in Pacific Nearshore Voyages as defined in Part 2.2.3.6.2 which the owner/operator has reported as having No Ballast on Board in accordance with Coast Guard regulations, or which have any ballast water tank that is empty or contains unpumpable residual water, must follow the applicable requirements in Part 2.2.3.6.2 for those tanks with ballast water and Part 2.2.3.6.4.1 for those tanks which are empty or contain unpumpable residual water.

2.2.3.6.4.1 Nearshore Saltwater Flushing Requirements

For those tanks which are empty or contain unpumpable residual water, you must either seal the tank so that there is no discharge or uptake and subsequent discharge of ballast water within waters subject to this permit or conduct saltwater flushing of such tanks in an area 50 nm from any shore and in waters at least 200 meters deep prior to the discharge or uptake and subsequent discharge of any ballast water to or from any waters subject to this permit. For purposes of Part 2.2.3.6.4, saltwater flushing means the addition of water from the "coastal exchange zone" to empty ballast water tanks; the mixing of the flush water with residual water and sediment through the motion of the vessel; and the discharge of the mixed water, such that the resulting residual water remaining in the tank has either a salinity greater than or equal to 30 parts per thousand (ppt) or a salinity concentration equal to the ambient salinity of the location where the uptake of the added water took place. In order to conduct saltwater flushing, the vessel should take on as much coastal exchange zone water into each tank as is safe (for the vessel and crew). These requirements apply to all vessels on nearshore voyages carrying ballast water that will enter any US port in the states of Alaska, California, Oregon, or Washington and that travels through more than one US Coast Guard Sector.

Vessels engaged in voyages that take them further than 200 nm from any shore and who will remain outside 200 nm for a sufficient period to flush ballast water, are not allowed to exchange ballast water between 50 and 200 nm from shore to meet the requirements of Part 2.2.3.6.3 (unless the master determines that flushing farther than 200 nm from shore would interfere with essential vessel operations or safety of the vessel but the master determines that the vessel is able

to safely flush more than 50 nm from shore) and instead, must conduct flushing more than 200 nm from shore in accordance with Part 2.2.3.6.3 of this permit. Vessels engaged in the coastwise trade who are not outside 200 nm for a sufficient period to conduct flushing may flush outside 50 nm (even if they voyage beyond 200 nm) to meet the requirements of this permit.

For all vessel owner/operators subject to this section that contain some empty ballast water tanks and some full ballast water tanks, if you elect to seal those empty tanks, you must not allow water from the full tanks to commingle with waters from the empty tanks if it will subsequently be discharged into waters subject to this permit.

2.2.3.6.5 Discharge Prohibitions

Vessels referenced in Parts 2.2.3.6.1, 2.2.3.6.2, 2.2.3.6.3, and 2.2.3.6.4 may not discharge unexchanged or untreated ballast water or sediment in waters subject to this permit referenced in Appendix G. These waters include all National Parks and National Marine Sanctuaries.

2.2.3.6.6 *Exemptions*

The operator or master of a vessel may elect not to exchange ballast water (or not conduct saltwater flushing if applicable) if the vessel meets one of the following conditions:

- The master of the vessel determines, and justifies in writing, and documents in the log or record book, that it is unsafe to do so, in accordance with the Coast Guard Regulations at 33 CFR Part 151. If this exemption is claimed, the vessel operator must record the date, location, and reason for the claim in its recordkeeping documentation. Furthermore, the vessel owner/operator must report this information to EPA as part of its annual report.
- The master uses an alternative, environmentally sound method of ballast water management that has been approved by the Commandant of the Coast Guard prior to the vessel's voyage in accordance with 33 C.F.R. Part 151.
- The master retains all ballast water on board the vessel for the duration of the vessel's voyage in waters subject to this permit.
- The vessel is not engaged in an international voyage and does not traverse more than one U.S. Coast Guard Sector.

Additionally, except for vessels entering the Great Lakes or into Appendix G waters, a vessel is not required to deviate from its voyage, or delay the voyage to conduct ballast water exchange or saltwater flushing.

2.2.3.7 Vessels Entering the Great Lakes

In addition to complying with the requirements of this permit, all vessels that are equipped to carry ballast water and enter the Great Lakes must comply with 33 CFR Part 151, Subpart C titled: "Ballast Water Management for Control of Nonindigenous Species in the Great Lakes and Hudson River." Vessels that operate outside the EEZ and more than 200 nm from any shore and then enter the Great Lakes via the Saint Lawrence Seaway System must also comply with 33 CFR Part 401.30. Vessels that are unable, due to weather, equipment failure, or other

extraordinary condition, to effect a BWE before entering the EEZ prior to entering the Great Lakes, must employ another method of ballast water management listed in 33 CFR 151.1510 or otherwise comply with the provision of 33 CFR 151.1514.

Additionally, vessels utilizing a ballast water treatment system (see Part 2.2.3.5.1.1 of the permit) must also conduct ballast water exchange or saltwater flushing (as applicable) in addition to treating their ballast water if they meet the following requirements:

- The vessel operates outside the EEZ and more than 200 nm from any shore and then enters the Great Lakes via the Saint Lawrence Seaway System, and
- The vessel has taken on ballast water that has a salinity of less than 18 ppt from a coastal, estuarine, or freshwater ecosystem within the previous month.

If a vessel affected by these requirements has not taken on ballast water with a salinity of less than 18 ppt in the previous month, the master of the vessel must certify to this effect in their ballast water recordkeeping requirements before entering the Great Lakes.

2.2.3.8 Vessels in the U.S. Coast Guard Shipboard Technology Evaluation Program (STEP)

Owner/operators of vessels are not required to meet the requirements of Parts 2.2.3.5 (except Parts 2.2.3.5.1.1.5 2.2.3.5.1.1.6) and 2.2.3.6 of this permit if either:

- The vessel is accepted by the U.S. Coast Guard into the Shipboard Technology Evaluation Program (STEP),
- The technology is operated in accordance with requirements of that program, and
- The acceptance has not been withdrawn

Owner/operators of these vessels are required to meet the requirements of Parts 2.2.3.5.1.1.5 and 2.2.3.5.1.1.6 of this permit.

2.2.4 Anti-Fouling Hull Coatings/Hull Coating Leachate

- All anti-fouling hull coatings subject to registration under FIFRA (see 40 CFR § 152.15) must be registered, sold or distributed, applied, maintained, and removed in a manner consistent with applicable requirements on the coatings' FIFRA label.
- For anti-fouling hull coatings not subject to FIFRA registration (i.e., not produced for sale and distribution in the United States), hull coatings must not contain any biocides or toxic materials banned for use in the United States (including those on EPA's List of Banned or Severely Restricted Pesticides). This requirement applies to all vessels, including those registered and painted outside the United States.

At the time of initial application or scheduled reapplication of anti-fouling coatings, you must give consideration, as appropriate for vessel class and vessel operations, to the use of hull coatings with the lowest effective biocide release rates, rapidly biodegradable components (once separated from the hull surface), or non-biocidal alternatives, such as silicone coatings.

Some ports and harbors are impaired by copper, a biocide used commonly in anti-foulant paints. These waters include Shelter Island Yacht Basin in San Diego, California, and waters in and around the ports of Los Angeles/Long Beach. A complete list of such waters may be found at www.epa.gov/npdes/vessels. When vessels spend considerable time in these waters (defined as spending more than 30 days per year), or use these waters as their home port (i.e., house boats, ferries or rescue vessels), vessel owners/operators shall consider using anti-fouling coatings that rely on a rapidly biodegradable biocide or another alternative rather than copper-based coatings. If after consideration of alternative biocides, vessel operators continue to use copper-based antifoulant paints, they must document in their recordkeeping documentation how this decision was reached.

The discharge of Tributyltin (TBT) from any source (whether used as a biocide or not) or any other organotin compound used as a biocide is prohibited by this permit. Therefore, vessel owners/operators covered by this permit have a zero discharge standard for TBT (whether or not used as a biocide) or any other organotin compound used as a biocide. You may not use an antifoulant coating containing TBT or any other organotin compound used as a biocide. If the vessel has previously been covered with a hull coating containing TBT (whether or not used as a biocide) or any other organotin compound used as a biocide, vessels must be effectively overcoated so that no TBT or other organotin leaches from the vessel hull or the TBT or other organotin coating must have been removed from the vessel's hull.

When used as a catalyst, an organotin compound other than TBT (e.g., dibutyltin) is not to be present above 2500 mg total tin per kilogram of dry paint. Furthermore, the coating shall not be designed to slough or otherwise peel from the vessel hull. Incidental amounts of coating discharged by abrasion during cleaning or after contact with other hard surfaces (e.g., moorings) are not prohibited.

2.2.5 Aqueous Film Forming Foam (AFFF)

Discharges of AFFF are authorized for emergency purposes when needed to ensure the safety and security of the vessel and crew.

For vessels that sail outside of the territorial sea more than once per month, maintenance and training discharges of fluorinated AFFF are not authorized within waters subject to this permit (any such discharges should be collected and stored for onshore disposal or scheduled when the vessel is outside such waters). Discharge volumes associated with regulatory certification and inspection must be minimized and a substitute foaming agent (i.e., non-fluorinated) must be used if possible within waters subject to this permit.

For vessels that do not leave the territorial sea more than once per month, if vessel maintenance and training discharges are required, AFFF must be collected and stored for onshore disposal unless the vessel uses a non-fluorinated or alternative foaming agent. Training should be conducted as far from shore as is practicable. Maintenance and training discharges are not allowed in port.

For all vessels, AFFF discharges may not occur in or within 1 nm of a water referenced in Appendix G unless they are discharged:

- For emergency purposes;
- By rescue vessels such as fireboats for firefighting purposes; or
- By vessels owned or under contract to do business exclusively in or within 1 nm of those protected areas by the United States government or state or local governments.

If AFFF discharges occur in waters referenced in Appendix G for emergency purposes, a written explanation must be kept in the ship's log or other vessel recordkeeping documentation consistent with Part 4.2 of this permit.

2.2.6 Boiler/Economizer Blowdown

You must minimize the discharge of boiler/economizer blowdown in port if chemicals or other additives are used to reduce impurities or prevent scale formation. For vessels greater than 400 gross tons which leave the territorial sea at least once per week, boiler/economizer blowdown may not be discharged in waters subject to this permit, unless:

- The vessel remains within waters subject to this permit for a longer period than the necessary duration between blowdown cycles;
- The vessel needs to conduct blowdown immediately before entering drydock; or
- For safety purposes.

For all vessels, boiler/economizer blowdown may not be discharged in waters referenced in Appendix G except for safety purposes. Furthermore, boiler/economizer blowdown should be discharged as far from shore as practicable.

2.2.7 Cathodic Protection

Cathodic protection must be maintained to prevent the corrosion of the ship's hull. The discharge of zinc, magnesium, and aluminum are expected from properly functioning cathodic protection sacrificial electrodes. However, vessel operators must minimize the flaking of large, corroded portions of these anodes. Sacrificial anodes must not be used more than necessary to adequately prevent corrosion of the vessel's hull, sea chest, rudder, and other exposed areas of the vessel. Vessel operators must appropriately clean and/or replace these anodes during periods of maintenance (such as drydocking), so that release of these metals to waters is minimized. Furthermore, when feasible, sacrificial anodes should be flush-fitted to the hull, or vessel operators must fill the space between the anode and hull backing to remove the potential for hotspots for fouling organisms.

Vessel operators should note that magnesium is less toxic than aluminum and aluminum is less toxic than zinc. If vessel operators use sacrificial electrodes, they must select electrode devices with metals that are less toxic to the extent technologically feasible and economically practicable and achievable. If a vessel selects aluminum, they must document in their recordkeeping documentation why they made this selection, and why use of magnesium is not appropriate. Likewise, if a vessel selects zinc, they must document why they did not select magnesium or aluminum.

EPA recommends the use of Impressed Current Cathodic Protection (ICCP) in place of or to reduce the use of sacrificial electrodes when technologically feasible (e.g., adequate power sources, appropriate for vessel hull size and design), safe, and adequate to protect against corrosion, particularly for new vessels. If vessel operators use ICCP, they must maintain dielectric shields to prevent flaking.

2.2.8 Chain Locker Effluent

The anchor chain must be carefully and thoroughly washed down (i.e., more than a cursory rinse) as it is being hauled out of the water to remove sediment and marine organisms. In addition, chain lockers must be cleaned thoroughly during dry-docking to eliminate accumulated sediments and any potential accompanying pollutants. For vessels that regularly sail outside waters subject to this permit (at least once per month), if technically feasible, periodically clean, rinse, and/or pump out the space beneath the chain locker prior to entering waters subject to this permit (preferably mid-ocean) if the anchor has been lowered into any nearshore waters. Furthermore, for vessels that leave waters subject to this permit at least once per month, chain lockers shall not be rinsed or pumped out in waters subject to this permit, unless not emptying them would compromise safety. Such a safety claim must be documented in the vessel's recordkeeping documentation consistent with Part 4.2.

2.2.9 Controllable Pitch Propeller and Thruster Hydraulic Fluid and Other Oil-to-Sea Interfaces Including Lubrication Discharges from Paddle Wheel Propulsion, Stern Tubes, Thruster Bearings, Stabilizers, Rudder Bearings, Azimuth Thrusters, Propulsion Pod Lubrication, and Wire Rope and Mechanical Equipment Subject to Immersion

The protective seals on controllable pitch propellers, azimuth thrusters, propulsion pods, rudder bearings, or any other oil-to-sea interfaces must be maintained in good operating order to minimize the leaking of hydraulic oil or other oils. The vessel owner/operator must not discharge oil in quantities that may be harmful as defined in 40 CFR Part 110 from any oil-to-sea interface. If possible, maintenance activities on controllable pitch propellers, thrusters, and other oil-to-sea interfaces should be conducted when a vessel is in drydock.

Minimize maintenance activities on stern tube seals when a vessel is outside of drydock. If maintenance or emergency repair must occur on stern tubes or other oil-to-sea interfaces which have a potential to release oil in quantities that may be harmful as defined in 40 CFR Part 110, appropriate spill response equipment (e.g., oil booms) must be used to contain any oil leakage. Operators of the vessel must have ready access to spill response resources to clean up any oil spills.

After applying lubrication to wire rope and mechanical equipment subject to immersion, wire ropes, and other equipment must be thoroughly wiped down to remove excess lubricant.

All vessels constructed on or after December 19, 2013 must use an environmentally acceptable lubricant in all oil-to-sea interfaces. "Environmentally acceptable lubricants" means lubricants that are "biodegradable" and "non-toxic" and are not "bioaccumulative" as defined in Appendix A of this permit.

For all vessels built before December 19, 2013, unless technically infeasible, owners/operators must use an environmentally acceptable lubricant in all oil to sea interfaces. If a vessel is unable to use an environmentally acceptable lubricant, you must document in your recordkeeping documentation consistent with Part 4.2 why you are unable to do so, and must report the use of a non-environmentally acceptable lubricant to EPA in your Annual Report. Use of an environmentally acceptable lubricant does not authorize the discharge of any lubricant in a quantity that may be harmful as defined in 40 CFR Part 110.

2.2.10 Distillation and Reverse Osmosis Brine

Brine from the distillation system and reverse osmosis reject water shall not contain or come in contact with machinery or industrial equipment (other than that necessary for the production of potable water), toxic or hazardous materials, or wastes.

2.2.11 Elevator Pit Effluent

Discharges of untreated elevator pit effluent are not authorized within waters subject to this permit except in cases of emergency. Elevator pit effluent may be discharged into waters subject to this permit if it is managed with the vessel's bilgewater and meets all the requirements of Part 2.2.2 of this permit. Otherwise, it must be treated with an oily-water separator and discharged with an oil content below 15 ppm for existing vessels, as measured by EPA Method 1664 or other appropriate method for determination of oil content as accepted by the IMO (e.g., ISO Method 9377) or U.S. Coast Guard. Emergency discharges must be documented in the ship's log or other vessel recordkeeping documentation consistent with Part 4.2.

2.2.12 Firemain Systems

Discharges from firemain systems are authorized for emergency purposes to ensure the safety and security of the vessel and her crew, other emergency situations, and testing and inspections of the firemain systems in order to assure its operability in an emergency. Firemain systems may be discharged in port for certification, maintenance, and training requirements if the intake comes directly from the surrounding waters or potable water supplies and there are no additions (e.g., AFFF) to the discharge. Furthermore, firemain systems may be used for deck washdown or other secondary uses if the intake comes directly from the surrounding waters or potable water supplies and the discharge meets all relevant effluent limitation associated with that activity. When feasible, maintenance and training should be conducted outside port and/or outside waters subject to this permit.

The vessel owner/operator shall not discharge firemain systems in waters listed in Appendix G except in emergency situations or when washing down the anchor chain to comply with anchor wash down requirements in Part 2.2.8.

2.2.13 Freshwater Layup

Minimize the amount of disinfection or biocidal agents used in freshwater layup to the minimum required to prevent aquatic growth.

2.2.14 Gas Turbine Washwater

Gas turbine washwater must not be directly discharged within waters subject to this permit. Where feasible, gas turbine washwater must be prevented from commingling with bilgewater that will be discharged in waters subject to this permit, for example by collecting it separately and properly disposing of it at an onshore facility. Under no circumstances may oils, including oily mixtures, from gas turbine washwater be discharged into waters subject to this permit in quantities that may be harmful as determined in accordance with 40 CFR Part 110.

2.2.15 Graywater

All vessels must minimize the discharge of graywater while in port. For those vessels that cannot store graywater, the owner or operator and their crews must minimize the production of graywater in port. Examples of ways to minimize production of graywater include delaying laundry, scullery activities, and restricting length of showers while in port, and using high efficiency faucets and showerheads. All vessels that have the capacity to store graywater shall not discharge it in waters listed in Appendix G. For vessels that cannot store graywater, vessel operators must minimize the production of graywater while in waters listed in Appendix G.

For vessels greater than 400 gross tons that regularly travel more than 1 nm from shore that have the capacity to store graywater for a sufficient period, graywater must be discharged greater than 1 nm from shore while the vessel is underway, unless the vessel meets the treatment standards and other requirements contained under Parts 5.1.1 and 5.1.2 or 5.2.1 and 5.2.2 of this permit. Additional specific requirements for graywater apply to cruise ships (Parts 5.1 and 5.2) and large ferries (Part 5.3).

Vessels that do not travel more than 1 nm from shore shall minimize the discharge of graywater and, provided the vessel has available graywater storage capacity, must dispose of graywater onshore if appropriate facilities are available and such disposal is economically practicable and achievable unless the vessel meets the treatment standards and other requirements contained under Parts 5.1.1 and 5.1.2 or 5.2.1 and 5.2.2 of this permit. You must also minimize the discharge of graywater when the vessel is not underway.

If graywater will be discharged in waters subject to this permit, the introduction of kitchen oils to the graywater system must be minimized. When cleaning dishes, you must remove as much food and oil residue as practicable before rinsing dishes. Excess oils used in cooking, including animal fats and vegetable oils, shall not be added to the graywater system. Under no circumstances may oil from the galley and scullery be discharged in quantities that may be harmful as defined in 40 CFR Part 110.

Vessel owners/operators must use phosphate-free and non-toxic soaps and detergents, as defined in Appendix A of this permit, for any purpose if graywater will be discharged into waters subject to this permit. Soaps and detergents must be free from toxic or bioaccumulative compounds and not lead to extreme shifts in receiving water pH. For purposes of this part, extreme shifts means causing pH to fall below 6.0 or rise above 9.0 as a direct result of the discharge.

If your vessel is underway in a nutrient-impaired water, or a water that is impaired as a result of nutrient enrichment (such as waters listed as impaired for phosphorus, nitrogen, or for hypoxia or anoxia [low dissolved oxygen concentrations]), you must follow these additional requirements:

When the vessel has adequate graywater storage capacity, the vessel owner/operator shall not discharge graywater into nutrient-impaired waters subject to this permit (e.g., the Chesapeake Bay). A complete list of such waters can be found at www.epa.gov/npdes/vessels. Where the vessel does not have adequate storage capacity to eliminate such discharges, graywater production and discharge must be minimized in such waters. Any such discharge must be conducted while the vessel is underway in areas with significant circulation and depth to the extent feasible. Graywater stored while in such waters can later be disposed of onshore or discharged in accordance with the other requirements of this permit.

2.2.15.1 Additional Graywater Requirements for Certain VGP Vessels Operating in the Great Lakes

Any vessel operating on the Great Lakes that is not a "commercial vessel" as defined in CWA section 312(a)(10) must meet one of the following requirements for graywater management:

- (i) The vessel must hold all graywater for onshore discharge to an appropriate shoreside facility; or
- (ii) The graywater discharge must not exceed 200 fecal coliforms per 100 milliliters and contain no more than 150 milligrams per liter of suspended solids.

Vessels subject to this part must conduct monitoring required under Part 2.2.15.2 to demonstrate treatment equipment maintenance and compliance with the limits of this part. Records of the sampling and testing results must be retained onboard for a period of 3 years in the vessel's recordkeeping documentation consistent with Part 4.2 of this permit.

2.2.15.2 Graywater Monitoring

The following monitoring requirements are applicable to vessels which discharge graywater into waters subject to this permit and meet one of the following conditions:

- The vessel is a new build vessel constructed on or after December 19, 2013, has a maximum crew capacity greater or equal to 10, and provides overnight accommodations to those crew; or
- The vessel is subject to Part 2.2.15.1 of this permit.

Vessel owners/operators must conduct and analyze two samples per year, at least 14 days apart, and report the results of those samples as part of their Annual Report. Samples must be taken for Biochemical Oxygen Demand (BOD), fecal coliform, suspended solids, pH, and total residual chlorine. Sampling and testing shall be conducted according to 40 CFR Part 136. If the vessel is subject to Part 2.2.15.1, measured samples must meet the standards specified in that part. Records of monitoring information shall include:

- The date, exact place, and time of sampling or measurements;
- The individual(s) who performed the sampling or measurements;
- The date(s) analyses were performed;
- The individual(s) who performed the analyses;
- The analytical techniques or methods used; and
- The results of such analyses.

Vessels subject to this part must note whether the graywater effluent is treated or untreated, and also note whether the effluent is graywater alone or if it is mixed with another effluent type (e.g., graywater mixed with sewage). Records of the sampling and testing results must be retained onboard for a period of 3 years in the vessel's recordkeeping documentation consistent with Part 4.2.

Vessels which do not enter waters subject to this permit for the calendar year need not conduct monitoring for that year, but must clearly indicate on their Annual Report that they did not enter waters subject to this permit during that year.

2.2.16 Motor Gasoline and Compensating Discharge

The discharge of motor gasoline and compensating effluent must not have oil in quantities that may be harmful as defined in 40 CFR § 110.3, which includes discharges resulting in a visible sheen, or an oil concentration that exceeds 15 ppm. Determination of oil concentration may be measured by EPA Method 1664 or other appropriate method for determination of oil content as accepted by the IMO (e.g., ISO Method 9377) or U.S. Coast Guard. Compliance with the 15 ppm oil concentration limitation may be established with visual monitoring for an oily sheen. Minimize discharge of motor gasoline and compensating discharge in port. If an oily sheen is observed, the vessel operator must deploy appropriate oil containment practices. Vessels shall not discharge motor gasoline and compensating discharge in waters subject to this permit listed in Appendix G.

2.2.17 Non-Oily Machinery Wastewater

If discharged directly overboard, non-oily machinery wastewater must be free from oils (in quantities that may be harmful pursuant to 40 CFR Part 110) and any additives that are toxic or bioaccumulative in nature. Non-oily machinery wastewater may also be drained to the bilge.

2.2.18 Refrigeration and Air Condensate Discharge

You must not allow refrigeration and air condensate discharge to come into contact with oily or toxic materials if it is discharged directly overboard. Refrigeration and air conditioning condensate that is collected and plumbed for internal recycling (e.g., recycled as "technical water") is allowed to commingle with oily water; however, the commingled discharge must meet all requirements of Part 2.1.4 of this permit and Part 2.2.2 of this permit if applicable.

2.2.19 Seawater Cooling Overboard Discharge (Including Non-Contact Engine Cooling Water; Hydraulic System Cooling Water, Refrigeration Cooling Water)

When possible, non-contact engine cooling water, hydraulic system cooling water, refrigeration cooling water and other seawater cooling overboard discharges should occur when the vessel is underway to minimize any thermal impacts to the receiving water.

To reduce the production and discharge of seawater cooling overboard discharge, EPA recommends that vessel owner/operators use shore-based power when the vessel is in port if:

- Shore power is readily available for vessel owner/operators from utilities or port authorities;
- Shore-based power supply systems are capable of providing all needed electricity required for vessel operations; and
- The vessel is equipped to connect to shore-based power and such systems are compatible with the available shore power.

Maintenance of all piping and seawater cooling systems must meet the requirements of Part 2.2.20 (Seawater-Piping Biofouling Prevention).

2.2.20 Seawater Piping Biofouling Prevention

Seawater piping biofouling chemicals subject to FIFRA registration (see 40 CFR § 152.15) must be used in accordance with their FIFRA label. No pesticides or chemicals banned for use in the United States may be discharged into waters subject to this permit.

Vessel owner/operators must use the minimum amount of biofouling chemicals needed to keep fouling under control. Discharges containing active agents must contain as little chlorine as possible.

Vessel owner/operators must remove fouling organisms from seawater piping on a regular basis and dispose of removed substances in accordance with local, state, and federal regulations. Removed fouling organisms shall not be discharged into waters subject to this permit and EPA recommends that if discharged into any waters, should be discharged more than 50 nm from shore. Vessel owner/operators should remove any organisms while at sea to reduce the risk of invasive species introduction in ports.

2.2.21 Boat Engine Wet Exhaust

Vessel engines generating wet exhaust must be maintained in good operating order, well tuned, and function according to manufacturer specifications to decrease pollutant contributions to wet exhaust. Vessel owner/operators should use low sulfur or alternative fuels for their vessels to reduce the concentration of pollutants in discharges from boat engine wet exhaust.

EPA encourages vessel operators to consider four stroke engines instead of two stroke engines for vessels generating wet exhaust that are covered under this permit. Use of a four stroke engine may minimize the discharge of pollutants to waters subject to this permit. Where vessels utilize two stroke engines, environmentally acceptable lubricants (as defined in Appendix A of this

permit) must be used unless technologically infeasible. If technologically infeasible, the vessel owner/operator must document in their recordkeeping documentation why they are not using environmentally acceptable lubricants.

2.2.22 Sonar Dome Discharge

The water inside the sonar dome shall not be discharged into waters subject to this permit for maintenance purposes. Vessel operators should not use biofouling chemicals that are bioaccumulative for the exterior of sonar domes when non-bioaccumulative alternatives are available.

2.2.23 Underwater Ship Husbandry Discharges

Vessel owners/operators must minimize the transport of attached living organisms when traveling into U.S. waters from outside the U.S. economic zone or between Captain of the Port (COTP) zones.

Whenever possible, rigorous hull-cleaning activities should take place in drydock, or at a land-based facility where the removal of fouling organisms or spent antifouling coatings paint can be contained. If water-pressure-based systems are used to clean the hull and remove old paint, you must use facilities which treat the washwater prior to discharging to waters subject to this permit in order to remove the antifouling compound(s) and fouling growth from the washwater. If mechanical means (scraping, etc.) are used to clean the hull and remove old paint, the materials removed from the hull during that process must be collected and disposed of properly (e.g., onshore). These materials must not be allowed to contaminate nearby waters.

Vessel owners/operators who remove fouling organisms from hulls while the vessel is waterborne must employ methods that minimize the discharge of fouling organisms and antifouling hull coatings. These shall include:

- Use of appropriate cleaning brush or sponge rigidity to minimize removal of antifouling coatings and biocide releases into the water column;
- Limiting use of hard brushes and surfaces to the removal of hard growth; and
- When available and feasible, use of vacuum or other control technologies to minimize the release or dispersion of antifouling hull coatings and fouling organisms into the water column.

Vessel owners/operators must minimize the release of copper-based antifoulant paints during vessel cleaning operations. Cleaning of hull surfaces coated with copper-based antifoulant paint must not result in any visible cloud or plume of paint in the water; if a visible cloud or plume of paint develops, shift to a softer brush or less abrasive cleaning technique. A plume or cloud of paint can be noted by the presence of discoloration or other visible indication that is distinguishable from hull growth or sediment removal. Production of a plume or cloud of sediment or hull growth is normal in some cases during vessel hull cleaning, but this plume or cloud must be substantially paint free (e.g., paint should not be clearly identifiable in the plume or cloud). When feasible, attempts must be made to minimize the release of fouling organisms and antifouling systems (including copper-based coatings) into surrounding waters.

Vessels that use copper-based anti-fouling paint must not clean the hull in copper-impaired waters within the first 365 days after paint application unless there is a significant visible indication of hull fouling. EPA maintains a list of copper-impaired waters on its webpage at www.epa.gov/npdes/vessels. If you clean before 365 days in copper-impaired waters, you must document in your recordkeeping documentation why this early cleaning was necessary.

2.2.24 Welldeck Discharges

Welldeck discharges that contain graywater from smaller vessels should not be discharged within waters subject to this permit except in cases of emergency. Welldeck discharges from washdown of gas turbine engines may not be discharged within waters subject to this permit. Welldeck discharges from equipment and vehicle washdowns must be free from garbage and must not contain oil in quantities that may be harmful as defined in 40 CFR Part 110.

2.2.25 Graywater Mixed with Sewage from Vessels

The commingled discharge of graywater mixed with sewage from vessels must comply with the effluent limits for graywater discharge in Part 2.2.15 or Part 5 of this permit if applicable. Though not a requirement of this permit, vessel owner/operators are advised that all discharges commingled with sewage must meet the requirements set forth in section 312 of the CWA and its implementing regulations found at 40 CFR Part 140 and 33 CFR Part 159. Hence, discharges of graywater mixed with sewage must meet both standards to be in compliance with the CWA.

2.2.26 Exhaust Gas Scrubber Washwater Discharge

Exhaust gas scrubber washwater discharge must not contain oil, including oily mixtures, in quantities that may be harmful as determined in accordance with 40 CFR Part 110. Sludge or residues generated in treating exhaust gas scrubber washwater discharge must not be discharged in waters subject to this permit and must be delivered ashore to adequate reception facilities.

In addition, owner/operators of vessels with exhaust gas cleaning systems that result in washwater discharges must meet the numeric effluent limits found in Part 2.2.26.1 and the monitoring requirements found in Part 2.2.26.2 this permit. These limits are consistent with the IMO guidelines set forth in section 10 for Exhaust Gas Cleaning (EGC) Systems (resolution MEPC.184(59)). Among other things, these guidelines recommend the establishment of limits for concentrations of pollutants in the effluent.

2.2.26.1 Exhaust Gas Scrubber Treatment Standards

2.2.26.1.1 pH

The discharge washwater from the exhaust gas scrubber treatment system must have a pH of no less than 6.5 measured at the ship's overboard discharge, with the exception that during maneuvering and transit, the maximum difference between inlet and outlet of 2.0 pH units is allowed. This difference is to be measured at the ship's inlet and overboard discharge.

2.2.26.1.2 PAHs (Polycyclic Aromatic Hydrocarbons)

The maximum continuous PAH concentration in the washwater must not be greater than 50 μ g/L PAHphe (phenanthrene equivalence) above the inlet water PAH concentration for washwater flow rates normalized to 45 t/MWh. MWh refers to the maximum continuous rating (MCR) or 80 percent of the power rating of the fuel oil combustion unit. For the purposes of this criterion, the PAH concentration in the washwater must be measured downstream of the water treatment equipment, but upstream of any washwater dilution or other reactant dosing unit, if used, prior to discharge.

The 50-µg/L limit is adjusted upward for lower washwater flow rates per MWh, and vice-versa, and the applicable permit limits are contained in Table 7.

Flow Rate (t/MWh)	Discharge Concentration Limit (μg/L PAH _{phe} equivalents)	Measurement Technology
0 - 1	2,250	Ultraviolet Light
2.5	900	Ultraviolet Light
5	450	Fluorescence
11.25	200	Fluorescence
22.5	100	Fluorescence
45	50	Fluorescence
90	25	Fluorescence

Table 7: PAH Permit Limits in Exhaust Gas Scrubber Discharge

2.2.26.1.3 Turbidity

The washwater treatment system must be designed to minimize suspended particulate matter, including heavy metals and ash. The maximum turbidity (monitored continuously) in washwater must not be greater than 25 FNU (formazin nephelometric units) or 25 NTU (nephelometric turbidity units) or equivalent units, above the inlet water turbidity. However, during periods of high inlet turbidity, the precision of the measurement device and the time lapse between inlet measurement and outlet measurement are such that the use of a difference limit is unreliable. Therefore, all turbidity difference readings must be a rolling average over a 15-minute period to a maximum of 25 FNU or NTU. For the purposes of this criterion, the turbidity in the washwater must be measured downstream of the water treatment equipment but upstream of washwater dilution (or other reactant dosing) prior to discharge. For a maximum of one 15-minute period within any 12-hour period, the continuous turbidity discharge limit may be exceeded by 20 percent.

2.2.26.1.4 Nitrates +Nitrites

The washwater treatment system must prevent the discharge of nitrates, plus nitrites beyond that associated with a 12 percent removal of NO_x from the exhaust, or beyond 60 mg/l normalized for washwater discharge rate of 45 tons/MWh, whichever is greater. MWh refers to the MCR or 80 percent of the power rating of the fuel oil combustion unit. For the purposes of this criterion, the nitrate concentration in the washwater must be measured downstream of the water treatment

equipment, but upstream of any washwater dilution or other reactant dosing unit, if used, prior to discharge.

The 60-mg/L limit is adjusted upward for lower washwater flow rates per MWh, and vice-versa, and the applicable permit limits are contained in Table 8.

Table 8: Nitrates + Nitrites Permit Limits in Exhaust Gas Scrubber Discharge

Flow Rate	Discharge Concentration Limit
(t/MWH)	(mg/L nitrate + nitrite)
0 - 1	2,700
2.5	1,080
5	640
11.25	240
22.5	120
45	60
90	30

2.2.26.2 Exhaust Gas Scrubber Analytical Monitoring Requirements

2.2.26.2.1 Continuous Monitoring

The data recording system must comply with the guidelines in sections 7 and 8 of MEPC.184(59) and must continuously record pH, PAH, and turbidity.

When the EGC system is operated in waters subject to this permit, the washwater monitoring and recording must be continuous. The values monitored and recorded must include pH, PAH, turbidity, and temperature.

The pH electrode and pH meter must have a resolution of 0.1 pH units and temperature compensation. The electrode must comply with the requirements defined in BS 2586 or of equivalent or better performance and the meter should meet or exceed BS EN ISO 60746-2:2003.

The PAH monitoring equipment must be capable of monitoring PAH in water in a range of at least twice the discharge concentration limit given in the table above. A demonstration must be made that the equipment operates correctly and does not deviate more than 5 percent in washwater with turbidity within the working range of the application. For those applications discharging at lower flow rates and higher PAH concentrations, ultraviolet light monitoring technology or equivalent should be used due to its reliable operating range.

The turbidity monitoring equipment must meet requirements defined in ISO 7027:1999 or USEPA 180.1.

All continuous monitoring equipment must be calibrated as recommended by probe manufacturers or Exhaust Gas scrubber manufacturers. At a minimum, all probes must be

calibrated at least annually. EPA expects many probe types (e.g., turbidity probes) will need to be calibrated on a more frequent basis.

2.2.26.2.2 Quarterly Analytical Monitoring.

In addition to the continuous monitoring found in Part 2.2.26.2.1 of this permit, vessel owner/operators must collect and analyze one sample per quarter for each of the constituents analyzed in Part 2.2.26.2.3 to demonstrate treatment equipment maintenance, probe accuracy, and compliance with this permit. Records of the sampling and testing results must be retained onboard for a period of 3 years in the vessel's recordkeeping documentation consistent with Part 4.2.

2.2.26.2.3 Analytes for Quarterly Analytical Monitoring

Vessels conducting monitoring as required by Part 2.2.26.2.2 must monitor for the following parameters, choosing either sufficiently sensitive EPA Part 136 methods or other methods if specifically allowed:

- <u>Dissolved and Particulate Metals</u>, including Aluminum, Antimony, Arsenic, Cadmium, Chromium, Copper, Lead, Manganese, Nickel, Selenium, Thallium, and Zinc (recommend using EPA Methods 200.8 or 200.9);
- <u>PAHs</u> including Acenaphthylene, Acenaphthene, Anthracene Benz[*a*]anthracene, Benzo[*ghi*]perylene, Benzo[*a*]pyrene, Benzo[*b*]fluoranthene +, benzo[k]fluoranthene, Chrysene, Dibenz[*a,h*]anthracene, Fluoranthene, Fluorene, Indeno[1,2,3,*c,d*]pyrene, Naphthalene, Phenanthrene, and Pyrene (recommend using EPA Methods 550.1, 610, 625, 8100, 8270c, 8310);
- Nitrates (recommend using EPA Method 353.2);
- pH (using Standard Methods (SM) 4500-H B);
- Turbidity (using SM 2130 B);
- Temperature (using SM 2550); and
- Dissolved Oxygen (using SM 4500-O G).

2.2.26.2.4 Monitoring Reporting

Vessel owners/operators must submit all monitoring data to EPA's e-reporting system, unless exempted from electronic reporting consistent with Part 1.14 of this permit. Monitoring data must be submitted at least once per calendar year no later than February 28 of the following year on the vessel annual report. Data must be submitted on or attached to a DMR available in Appendix I of this permit or submitted to EPA's e-reporting system available at www.epa.gov/vessels/eNOI. Data may be submitted as part of the vessel's annual report.

2.2.27 Fish Hold Effluent

You must minimize the discharge of fish hold water and/or ice while in port. All reasonable steps must be taken to prevent the discharge of excess fish hold water and ice while the vessel is stationary at the pier. If fish waste is contained in the fish hold effluent, the fish hold effluent

may not be discharged while in port, unless a physical separation method is used (e.g., filters or removal of residuals).

- The discharge of fish hold effluent (including dirty ice) is prohibited if you are unloading your catch at a land-based seafood processing facility or pier. If a shore-based discharge facility is otherwise available to receive your effluent, then discharge of fish hold effluent (including dirty ice) is prohibited if the facility meets the following:
 - Its use is economically achievable, and
 - The facility has a valid NPDES permit, or
 - That facility discharges to an NPDES-permitted sewage treatment facility.
- The discharge of unused bait overboard is prohibited, unless you caught that bait in the same water body or watershed. Unused bait purchased from a bait shop or dealer may not be discharged overboard.

2.3 Additional Water Quality-Based Effluent Limits

The requirements in Part 2.3 constitute the water quality-based effluent limitations in this permit. These water quality-based effluent limitations supplement this permit's effluent limitations in Parts 2.1, 2.2, 2.3.2 and 5 of this permit.

2.3.1 Water Quality-Based Effluent Limitations

Your discharge must be controlled as necessary to meet applicable water quality standards in the receiving water body or another water body impacted by your discharges.

EPA generally expects that compliance with the other conditions in this permit, including Parts 2.1, 2.2, and 5, will control discharges as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that your discharge causes or contributes to an exceedance of applicable water quality standards, you must take corrective actions as required in Part 3; you must also report the exceedance(s) to EPA as required in Parts 1.14 and 4.4.1.

EPA may impose additional water quality-based limitations on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI (if applicable), required reports, or from other sources indicates that, after meeting the water quality-based limitations in this part, your discharges are not controlled as necessary to meet applicable water quality standards, either in the receiving water body or another water body impacted by your discharges. EPA or an authorized representative of EPA may inform vessel owner/operators of specific requirements.

2.3.2 Discharges to Water Quality Impaired Waters

Impaired waters or "water quality limited segment[s]" are those which have been identified by a state or EPA pursuant to section 303(d) of the CWA as not meeting applicable state water quality standards. Impaired waters may include both waters with EPA-approved or EPA-established Total Maximum Daily Loads (TMDLs), and those for which EPA has not yet approved or established a TMDL.

2.3.2.1 Discharges to Impaired Waters without an EPA-Approved or Established TMDL

If you discharge to an impaired water without an EPA-approved or established TMDL, you are required to comply with the requirements in Part 2.3.1, including any additional requirements that EPA may impose pursuant to that part. Note that this provision also applies to situations where EPA determines that your discharge is not controlled as necessary to meet water quality standards in another water body, even if your discharge is to a receiving water that is not specifically identified on a section 303(d) list of impaired waters.

2.3.2.2 Discharges to Impaired Waters with an EPA-Approved or Established TMDL

If you discharge to an impaired water with an EPA-approved or established TMDL and EPA or state TMDL authorities have informed you that a Waste Load Allocation (WLA) has been established that applies specifically to your vessel's discharges, to discharges from vessels in your vessel class or type, or to discharges from vessels in general if applicable, your discharge must be consistent with the assumptions and requirements of that WLA. If such a WLA exists, EPA will inform you if any additional limits or controls are necessary for your discharge to be consistent with the assumptions of any available WLA in the TMDL, or whether an individual permit application is necessary in accordance with Part 1.8.1. Note that this provision also applies to situations where EPA determines that your discharges are covered by the WLA in an EPA-approved or established TMDL for another water body, even if your discharge is to a receiving water that is not specifically identified on a section 303(d) list.

If an applicable TMDL exists either individually or categorically for your vessel or vessel class (including disallowing discharges from your vessel), EPA and/or state TMDL agencies will inform vessel owners/operators of specific requirements.

3. CORRECTIVE ACTIONS

This corrective action Part 3 in no way impairs EPA's or an authorized representative acting on EPA's behalf to require remedies to bring a vessel owner/operator into compliance with this permit as soon as possible. On a case-by-case basis, EPA may take enforcement action to require any remedy or corrective action necessary to achieve compliance as quickly as possible, including more stringent time tables than those listed in this part.

3.1 Problems Triggering the Need for Corrective Action

If any of the following problems are identified, you must take action to ensure that the problem is eliminated and will not be repeated:

- You violate one or more effluent limits in Part 2 or Part 5 or any other requirement of this permit, or an inspection or evaluation of your vessel by an EPA official or an official agent acting on EPA's behalf determines that modifications to the control measures are necessary to meet the effluent limits;
- You become aware, or EPA determines, that your measures do not control discharges as stringently as necessary to meet applicable water quality standards;
- You find, or EPA determines, that your pollution control measures or best management practices are not being properly operated and maintained, or are not having the intended effect in minimizing pollutant discharges.

Problems might be identified through: the routine visual inspections or comprehensive annual inspections required by this permit under Part 4; any other inspection or evaluation of your operations by you, a government official, or anyone else; or through any other means.

3.2 Corrective Action Assessment

Following the identification of any of the problems listed in Part 3.1, you must conduct a corrective action assessment into the nature, cause, and potential options for eliminating these problems. The assessment must include the following:

- A description of the problem(s) discovered (e.g., the release of untreated ballast water not meeting the effluent limit, spilling oil in quantities that may be harmful as defined in 40 CFR Part 110), including the date, time, and locations on the vessel where it occurred, the types of impacts observed, and the name, title, and signature of the person who identified the problem and of the person who recorded the problem.
- An explanation of the cause of the problem(s), if known. If unknown at the time of the assessment, provide an indication of what steps will be taken to determine the cause.
- A description of the corrective actions to be taken necessary to eliminate the problem(s), and a schedule of activities for completing such actions within the timeframes established in Part 3.3.

- An indication of whether the corrective action requires the vessel to be in dry dock and, if so, the next planned date the vessel will be dry-docked.
- Once the corrective action is implemented, record the date(s) and time(s) of the action, a description of the corrective action implemented, and the name, title, and signature of the person recording this information.

You must retain the findings of your corrective action assessment in your recordkeeping documentation or in your ship's log (pursuant to Part 4.2), signed and certified in accordance with Part 1.7 of this permit.

3.3 Deadlines for Eliminating Problem

Corrective action with respect to many permit requirements can be accomplished immediately. These requirements include, but are not limited to, housekeeping and certain operation and maintenance requirements. In these situations, you must return to compliance immediately.

Restoring compliance with some permit requirements may require additional time for the vessel owner/operator to reasonably correct the problem. The following deadlines apply for eliminating the problem identified in Part 3.1 depending on the type of corrective action that must be taken:

- Corrective actions that can be accomplished with relatively simple adjustments to your control measures, using existing personnel and resources, and not requiring the vessel to be in dry dock: as soon as possible but no later than 2 weeks after the discovery of the problem, or, if leaving waters subject to this permit, before the expiration of the 2-week period or before reentering waters subject to this permit, whichever is later.
- Corrective actions that require new parts, require equipment or parts that are not onboard the vessel or readily available, or require the installation of new equipment, not requiring the vessel to be in dry dock: you must address the underlying cause of the noncompliance and return to compliance and/or complete necessary repairs no later than 3 months after the discovery of the problem, or, if leaving waters subject to this permit, before the expiration of the 3-month period or before reentering waters subject to this permit, whichever is later. However, if completing repairs within 3 months is impracticable, you must complete repairs as soon as possible after 3 months and document the reason why more time is needed as part of your corrective action assessment.
- For corrective actions that require large or comprehensive renovations, alterations, or repairs to the vessel that can only be achieved while the vessel is in dry dock: you must address the underlying cause of the noncompliance and return to compliance and/or complete necessary renovations or repairs prior to relaunching the vessel from dry dock or prior to reentering waters subject to this permit following the next dry dock, whichever is later.

3.4 Effect of Corrective Action

If the initial occurrence of the problem in Part 3.1 constitutes a violation of the permit, conducting the Part 3.2 assessment and correcting the problem according to Part 3.3 does not

absolve you of liability for this original violation. However, failure to comply with Parts 3.2 and/or 3.3 constitutes an additional permit violation. EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

EPA may impose additional requirements and schedules of compliance, including requirements to submit additional information concerning the condition(s) triggering corrective action or schedules and requirements more stringent than specified in this permit. Those requirements and schedules will supersede those of Part 3.3 if such requirements conflict. EPA may also notify you that an individual permit application is necessary in accordance with Part 1.8.1.

4. Inspections, Monitoring, Reporting, and Recordkeeping

4.1 <u>Self Inspections and Monitoring</u>

You must conduct the following inspections of your vessel. Please see the accompanying fact sheet for guidance on how these requirements apply to vessels frequently outside waters subject to this permit.

4.1.1 Routine Visual Inspections

Except as provided below, a routine visual inspection must be conducted at least once per week or per voyage, whichever is more frequent, unless the vessel meets the requirements for extended unmanned period inspections in Part 4.1.1.2 of this permit, or unless multiple voyages occur in a single day. If vessel owners/operators engage in multiple voyages per day, they need not conduct inspections on every voyage, but must conduct inspections at least once per day. The term "voyage" for purposes of the VGP is defined in Appendix A of this permit.

Routine visual inspections should be conducted on a schedule that coincides with other routine vessel inspections if feasible. Conduct routine visual inspections of all accessible areas addressed in this permit, including, but not limited to cargo holds, boiler areas, machinery storage areas, welldecks, and other deck areas. Ensure these areas are clear of garbage, exposed raw materials, oil, any visible pollutant or constituent of concern that could be discharged in any waste stream, that pollution prevention mechanisms are in proper working order, and pollution prevention procedures are in place to minimize the addition of pollutants to any waste stream. At a minimum, the routine visual inspection must verify to the extent feasible that requirements of Part 2.1 are being met and document any instances of noncompliance. Your routine visual inspection must also include a visual inspection of safely accessible deck and cargo areas and all accessible areas where chemicals, oils, dry cargo, or other materials are stored, mixed, and used, whether or not the areas have been used since the last inspection. A ship's watch must include visual monitoring of the water around and behind the vessel for visible sheens, dust, chemicals, abnormal discoloration or foaming, and other indicators of pollutants or constituents of concern originating from the vessel. Particular attention should be paid to deck runoff, ballast water, and bilgewater. If you identify or are made aware that pollutants or constituents of concern are originating from your vessel in a manner that violates the limitations in this permit, you must initiate corrective actions, as described in Part 3 of this permit. Vessel owners/operators may conduct these inspections as part of meeting their existing (or updated) international safety management code (ISM) safety management system (SMS) plan obligations, provided that those inspections meet the minimum requirements discussed above.

In situations where multiple voyages occur within a one-week period, you may choose to conduct a limited visual inspection addressing only those areas that may have been affected by activities related to the docking and cargo operations conducted during each voyage instead of conducting a full routine visual inspection per voyage (or per day, if there are multiple voyages in one day). If you employ such an approach, you must conduct a full visual inspection of the vessel at least once per week.

4.1.1.1 Documentation of the Routine Visual Inspection

You must document the findings of each routine visual inspection in the official ship logbook or as a component of other recordkeeping documentation referenced in Part 4.2. You must document the date and time of inspection, ship locations inspected, personnel conducting the inspection, location of any visual sampling and observations, note any potential problems and sources of contamination found, and it must be signed by the person conducting the inspection, if not the Master. The person conducting the inspection must be a signatory under 40 CFR § 122.22. A signatory includes the person in charge (e.g., the Master), or his or her duly authorized representative. The records of routine visual inspections must be made available to EPA or its authorized representative upon request. Vessel operators must initiate corrective actions, as required under Part 3 of this permit, for any of the conditions listed in Part 3.1 that are identified in their inspections.

4.1.1.2 Extended Unmanned Period (EUP) Inspections

If a vessel is unmanned for a period of 13 days or greater, a vessel owner/operator may elect to either continue conducting routine inspections of the vessel consistent with Part 4.1.1 of this permit, or he or she may conduct an Extended Unmanned Period (EUP) Inspection. The EUP inspection is an alternative inspection for fleeted, jacked-up, or similarly situated vessels, which routinely go into temporary periods of lay-up.

Vessel owners/operators may conduct EUP inspections in lieu of routine visual inspections if they are up-to-date with all other inspection and reporting requirements found in Part 4 of this permit (including routine and annual inspections) and the vessel owner/operator must not have received any VGP-related notices of violation or faced any VGP-related enforcement action from EPA within the previous 24 months.

The EUP inspection consists of three primary components: a pre lay-up inspection, a periodic external observation of the vessel and surrounding waters, and a post lay-up routine visual inspection. Each is explained in greater detail below.

Immediately before a vessel is placed in an EUP, the vessel operator must conduct the pre lay-up inspection, which will consist of:

- A routine visual inspection consistent with Part 4.1.1 of this permit.
- Ensuring Part 2.1.1, material storage and Part 2.1.2, toxic and hazardous material requirements are met.
- Ensuring all oils and oily machinery are properly secured, covered, and protected. Any spilled or leaked oils must be cleaned up immediately. If machinery or equipment is leaking oil, the leaks must be stopped or appropriate containment must be in place to capture any leaking oil.
- Documenting whether automatic bilge water pump(s) will be engaged on the vessel during the EUP.
- Documenting the amount of fuel on board.
- Documenting the amount of ballast water on board.
- Documenting the date the EUP began.

While a vessel is in extended lay-up, the owner/operator must examine the outside of the vessel and surrounding waters at least once every two weeks for any evidence of leaks, loss of cargo, or any other spills which might result in an unauthorized discharge. If any deficiencies are observed while the vessel is in EUP, the vessel owner/operator must document those deficiencies and the corrective actions taken to resolve those deficiencies. If a visible sheen is noted on the surface of the surrounding water, the source of the oil must be identified and corrective action must be taken immediately. Furthermore, EPA must be notified of the visible sheen in accordance with Part 4.4 of this permit. If these inspections are conducted as part of the routine operations of a fleeter or similar vessel caretaker, the vessel owner/operator does not need to keep recordkeeping documentation onboard the vessel if the owner/operator has electronic access to all records (including records of a fleeter or other caretaker kept in a central office), and those records are made immediately available to EPA or its authorized representative upon request. See Part 4.2.1 of this permit for electronic recordkeeping requirements.

Before a vessel reenters service, the vessel owner/operator must conduct a post lay-up routine visual inspection. As part of this inspection, the owner/operator must document the date the EUP ended, whether fluids (e.g., fuel, ballast water) are at their pre-EUP levels, and whether any spills or leaks of oily materials are observed. Any deficiencies noted must be corrected before the vessel reenters service.

4.1.2 Analytical Monitoring

Analytical monitoring requirements for specific discharge types are identified in Parts 2.2.3, 2.2.15, and 2.2.26 of this permit, and for specific vessel types in Part 5 of this permit.

4.1.3 Comprehensive Annual Vessel Inspections

Comprehensive vessel inspections must be conducted by qualified personnel at least once every 12 months. Qualified personnel include the Master or owner/operator of the vessel, if appropriately trained, or appropriately trained marine or environmental engineers or technicians or an appropriately trained representative of a vessel's class society acting on behalf of the owner/operator.

Comprehensive annual inspections must cover all areas of the vessel affected by the requirements in this permit that can be inspected without forcing a vessel into dry dock. Special attention should be paid to those areas most likely to result in a discharge, likely to cause or contribute to exceedances of water quality standards or violate effluent limits established in this permit. Areas that inspectors must examine include, but are not limited to:

- Vessel hull for attached living organisms, flaking anti-foulant paint, exposed TBT or other organotin surfaces;
- Ballast water tanks, as applicable;
- Bilges, pumps, and oily water separator (OWS) sensors, as applicable;
- Oil discharge monitoring system and electronic valve switching function, as applicable;
- Protective seals for lubrication and any hydraulic oil leaks;

- Oil and chemical storage areas, cargo areas, and waste storage areas; and
- All visible pollution control measures to ensure that they are functioning properly.

If any portions of the vessel are not inspectable without the vessel entering drydock, the vessel owner/operator must inspect these areas during their drydock inspection. For areas not accessible during the annual inspection, vessel owner/operators must document that these areas of the vessel were not accessible and inspectable in their recordkeeping documentation.

The annual inspections must also include a review of monitoring data collected in accordance with Part 5 if applicable, and routine maintenance records to ensure that required maintenance is being performed (e.g., annual tune-ups for small boats that have wet exhaust). Vessel owner/operators must also consider the results of the past year's visual and analytical monitoring when planning and conducting inspections. Furthermore, the inspection must verify whether all monitoring, training, and inspections are logged and documented according to permit requirements.

When a comprehensive annual vessel inspection schedule overlaps with a routine visual inspection required under Part 4.1.1 of this permit, the comprehensive annual vessel inspection may also be used to meet the requirement of conducting the routine visual inspection, provided that all conditions of both types of inspections described in this permit are met.

If any inspection reveals deficiencies that would result in a violation of the effluent limits in Parts 2 and 5, or indicates that a control measure is not functioning as anticipated or is in need of repair or upgrade, you must take corrective action to resolve such deficiencies in accordance with Part 3. You must record all results from your annual inspection in your vessel's recordkeeping documentation or logbook.

4.1.4 Dry-Dock Inspection Reports

Vessel owner/operators must make any dry-dock reports prepared by the class society or their flag administrations available to EPA or an authorized representative of EPA upon request. If you do not have a dry-dock report from either of these entities, you must prepare your own dry-dock report and it must be made available to EPA or an authorized representative of EPA upon request. The dry-dock report must note that:

- The chain locker has been cleaned for both sediment and living organisms;
- The vessel hull, propeller, rudder, thruster gratings, sea chest, and other surface areas of the vessel have been inspected for attached living organisms and those organisms have been removed or neutralized;
- Any antifoulant hull coatings have been applied, maintained, and removed consistent with the FIFRA label if applicable; any exposed existing or any new coating does not contain biocides or toxics that are banned for use in the United States;
- For all cathodic protection, anodes or dialectic coatings have been cleaned and/or replaced to reduce flaking; and
- All pollution control equipment is properly functioning.

4.2 Recordkeeping

Vessels covered by this permit must keep records on the vessel or accompanying tug that include the following information:

- 1. Owner/Vessel information:
 - a. Name,
 - b. Owner and Vessel IMO Number (official number if IMO number not issued),
 - c. Vessel type,
 - d. Owner or operator company name,
 - e. Owner or operator certifying official's name,
 - f. Address of owner/operator,
 - g. Gross tonnage,
 - h. Call sign, and
 - i. Port of Registry (Flag).
- 2. Voyage Log. Include the dates and ports of arrival, vessel agent(s), last port and country of call, and next port and country of call (when known).
- 3. If you have any violation of any effluent limit, you must document the violation. You must also record:
 - a. A description of the violation,
 - b. Date of the violation,
 - c. Name, title, and signature of the person who identified the violation,
 - d. Name, title, and signature of the person who is recording the violation (if different from person who identified the violation),
 - e. If a Corrective Action Assessment pursuant to Part 3.2 is needed, attach a copy or indicate where the corrective action assessment is stored, and
 - f. If a Corrective Action Assessment was previously conducted pursuant to Part 3.2 (and revisions are not needed for this violation of the effluent limit), a reference to that previous corrective action assessment.
- 4. Log of findings and any deficiencies and problems identified during routine visual inspections and extended unmanned inspections (if applicable) conducted under Part 4.1.1, including a discussion of any corrective actions taken as required by Part 3, if applicable. Include date, inspector's name, findings, and corrective actions planned or taken. If no deficiencies or problems are found during a routine visual inspection, the vessel owner/operator shall record that the inspection was completed with the inspector's name and date. Routine visual inspections and extended unmanned inspections (if applicable) must be recorded as completed according to Part 4.1.1.
- 5. Analytical results of all monitoring conducted under Part 4.1.2, including sample documentation, results, and laboratory quality assurance (QA) documentation.

- 6. Log of findings from comprehensive annual vessel inspections conducted under Part 4.1.3, including a discussion of any corrective actions planned or taken required by Part 3. Include date, inspector's name, findings, and a description of the corrective actions taken.
- 7. Log of findings from drydock inspections conducted under Part 4.1.4 including a discussion of any corrective actions planned or taken required by Part 3. Include date, inspector's name, findings, and a description of the corrective actions taken.
- 8. Record of any specific requirements in Part 2.3 given to your vessel by EPA or its authorized representative and how you have met those requirements.
- 9. Additional maintenance and discharge information to be recorded and kept in a log on the vessel:
 - a. Deck maintenance. Record dates, materials used, application process, etc. for any significant maintenance of the deck surface(s) (e.g., more than routine, daily cleaning activities, such as sweeping).
 - b. Bilgewater. Record dates, location, oil concentration (for MARPOL vessels) or visible sheen observation (non-MARPOL vessels), and estimated volume of bilgewater discharges. Record the same information for bilgewater disposed of at onshore locations.
 - c. Paint application. Record dates, materials used, application process, etc. for any antifouling paint applied to the vessel.
 - d. AFFF. Record dates, estimated volumes, and constituents of any discharges of AFFF.
 - e. Chain locker inspections. Record dates of inspections and any rinsing conducted within waters subject to this permit.
 - f. Controllable pitch propeller, stern tube, and other oil-to-sea interface maintenance. Record dates and locations of any maintenance of controllable pitch propellers that occurs while the vessel is in waters subject to this permit.
 - g. Any emergencies requiring discharges otherwise prohibited to waters listed in Appendix G.
 - h. Gas Turbine Water Wash. Record dates and estimated volume of any discharge of gas turbine washwater within waters subject to this permit. If hauled or disposed of onshore, record log hauler and volume.
 - i. Estimated volume and location of graywater discharged while in waters subject to this permit.
- 10. All other documentation required pursuant to this permit.
- 11. Record of training completed as required by this permit, and where applicable, strategy for passenger training. For purposes of this part, if vessel owners/operators include their training plans as part of their ISM or similar environmental management plans, and they can document that they fully implement those plans, they will meet the recordkeeping requirements of this part.

Vessel owner/operators may keep paper or electronic records on the vessel or accompanying tug. All electronic recordkeeping must meet the requirements found in Part 4.2.1 of this permit.

Owners/operators of unmanned, unpowered barges need not maintain records for subparts 2 and 10 above. However, owners/operators of unmanned, unpowered barges must provide a history of areas where the vessel has operated to EPA upon request.

It is not the intention of this permit to require separate records for the Coast Guard and EPA. Rather, vessels can harmonize their recordkeeping practices, where appropriate, so that records are not unnecessarily duplicative. For example, information can be logged with maintenance records, the ship's log, in existing ISM/SMS plans or recordkeeping, or other additional recordkeeping documentation as appropriate but must be provided to EPA or its authorized representative if requested. Operators may choose how these records will be maintained, but must retain these records on the vessel for a period of 3 years.

Certification of accurate information is required for all NOIs, NOTs, the PARI form, and any report (including any monitoring data) submitted to EPA, pursuant to Parts 1.7 of this permit and 40 CFR § 122.22. The vessel owner/operator must retain copies of all reports, certifications, records, monitoring data, and other information required by this permit, and records of all data used to complete the NOI to be covered by this permit, for a period of at least 3 years from the date that your coverage under this permit expires or is terminated.

The vessel master, owner/operator, or person in charge shall make available to EPA or an authorized representative from EPA all records kept under this part upon request.

4.2.1 Electronic Recordkeeping

For purposes of the VGP, records may be kept electronically if the records are:

- In a format that can be read in a similar manner as a paper record,
- Legally dependable with no less evidentiary value than their paper equivalent, and
- Accessible to the inspector during an inspection to the same extent as a paper copy stored on the vessel would be, if the records were stored in paper form.

4.3 Additional Recordkeeping for Vessels Equipped with Ballast Tanks

For vessels equipped with ballast tanks that are bound for a port or place in the United States, you must meet the recordkeeping requirements of 33 CFR Part 151.

The master, owner, operator, or person in charge of a vessel bound for a port or place in the United States must keep written records that include the following information:

1. Total ballast water information. Include the total ballast water capacity, total volume of ballast water on board, total number of ballast water tanks, and total number of ballast water tanks in ballast. Use units of measurements such as metric tons (MT), cubic meters (m³), long tons (LT), and short tons (ST).

- 2. Ballast water management. Include the total number of ballast tanks/holds that are to be discharged into the waters of the United States or to a reception facility. Indicate whether the vessel has a ballast water management plan and IMO guidelines on board, and whether the ballast water management plan is used.
- 3. Information on ballast water tanks that are to be discharged into waters subject to this permit or to a reception facility. Include the following:
 - a. The origin of ballast water. This includes date(s), locations(s) (including latitude and longitude and port [if relevant]), volume(s), and temperatures(s). If a tank has been exchanged, list the loading port of the ballast water that was discharged during the exchange.
 - b. The date(s), location(s) (including latitude and longitude), volume(s), method, thoroughness (percentage exchanged if exchange conducted), sea height at time of exchange if exchange conducted, of any ballast water exchanged or otherwise managed.
 - c. Specific records pertaining to treated ballast water (see Part 2.2.3.5 of the permit).
 - d. The expected date, location, volume, and salinity of any ballast water to be discharged into the waters of the United States or a reception facility.
- 4. Discharge of sediment. If sediment is to be discharged into a facility within the jurisdiction of the United States, include the location of the facility where the disposal will take place.

The ballast water reporting forms must be kept on board the vessel and must be submitted to the National Ballast Information Clearinghouse before arriving to U.S. ports if required by the U.S. Coast Guard. In addition, all vessels which conduct saltwater flushing as required by Part 2.2.3.6.3 and Part 2.2.3.6.4 of the permit, but do not report saltwater flushing to the NBIC, must instead keep a record of saltwater flushing to meet the requirements of this permit.

4.4 Reporting

4.4.1 Annual Report

For each vessel, owners/operators are required to submit an Annual Report for each year that they have active permit coverage. For vessels which must file NOIs, this means for as long as they have an active NOI. For vessels which need not file an NOI, they maintain active coverage as long as they are operating in waters subject to this permit, provided they have signed and maintain a copy of the PARI form. Annual Reports must be completed each calendar year and submitted by February 28 of the following year (e.g., the 2014 annual report will be due by February 28, 2015). A separate 2013 annual report will not be required; instead, any relevant information from December 19, 2013 – December 31, 2013 (if applicable) must be included in the annual report for the 2014 calendar year. Permittees covered under the 2008 VGP must submit reports of all instances of noncompliance which occur before December 18, 2013 to EPA consistent with the terms of that permit.

All analytical monitoring results must be submitted to EPA as part of the Annual Report.

The vessel owner/operator shall complete the Annual Report form provided in Appendix H of this permit and submit it to EPA using EPA's e-reporting system. It can be completed online by accessing EPA's e-reporting system (available via www.epa.gov/npdes/vessels or through EPA's eNOI system (www.epa.gov/npdes/vessels/eNOI).

The vessel owner/operator shall respond to all questions accurately and completely, and provide the necessary information and/or data to support each response. Unless one of the exceptions in Part 1.14 is met, the vessel owner/operator must submit each Annual Report electronically in accordance with the procedures described in Part 1.14 of this permit.

If you are eligible to submit a hard copy of the Annual Report, you must send your completed annual report to EPA HQ (Attn: Annual Report, Mail Code 4203M, 1200 Pennsylvania Ave. NW, Washington, DC 20460). Hard copy reports must be postmarked by February 21 of the following calendar year (i.e., the 2014 annual report must be postmarked by February 21, 2015).

The Annual Report replaces the annual noncompliance report and one-time report requirements found in the 2008 VGP. All instances of noncompliance must be reported as part of the Annual Report.

4.4.2 Combined Annual Reports for Unmanned, Unpowered Barges

Operators of unmanned, unpowered barges may submit a single annual report (referred to as the Combined Annual Report) for multiple barges, provided all of the following conditions are met:

- The answers for each barge for which the report is to be submitted are the same;
- Each barge was not required to conduct any analytical monitoring;
- The Combined Annual Report is submitted electronically;
- There were no instances of noncompliance for any barge and no instances of identified deficiencies by EPA or its authorized representatives during any inspections during the previous 12 months; and
- Each barge has an NOI permit number or, if not required to submit an NOI, a commonly used unique identifier (e.g., registration number) so EPA can identify the vessel.

Vessel owners/operators of unmanned, unpowered barges may submit a Combined Annual Report for some or most of their fleet, or submit individual Annual Reports if they prefer. Individual Annual Reports are required for any barges which are not eligible for the Combined Annual Report, as specified above.

4.4.3 Reportable Quantities of Hazardous Substances or Oil

Although not a requirement of this permit, if a discharge contains oil or a hazardous substance in an amount equal to or in excess of a harmful or reportable quantity established under 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, during a 24-hour period, the National Response Center (NRC) must be notified (dial 800-424-8802 or 202-426-2675 in the Washington, DC area). Also, within 14 calendar days of knowledge of the release, the date and description of the release, the circumstances leading to the release, responses to be employed for such releases, and

measures to prevent recurrences of such releases must be recorded in your recordkeeping documentation consistent with Part 4.2 of this permit.

Where a discharge of hazardous substances or oil in excess of reportable or harmful quantities occurs, such discharge is not authorized by this permit and may also be a violation of section 311 of the CWA, 33 USC § 1321. Note that these spills must be reported as described above. Also applicable are section 311 of the CWA and certain provisions of sections 301 and 402 of the CWA.

4.4.4 Additional Reporting

In addition to the reporting requirements stipulated in Part 4 of this permit, you are also subject to the standard permit reporting provisions referenced in Part 1.13.

Where applicable, you must submit the following information to the appropriate EPA Regional Office listed in Appendix B for the location in which the instance(s) of noncompliance occurred:

- 24-hour reporting You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances.
- 5-day follow-up reporting to the 24-hour reporting A written submission must also be provided within five days of the time you become aware of the circumstances.

If you report to the NRC as referenced in Part 4.4.3 of the permit, you do not need to complete reporting under this part.

5. VESSEL-CLASS-SPECIFIC REQUIREMENTS

You must comply with the requirements of Part 5 of this permit, Vessel-Class-Specific Requirements, associated with your vessel class in addition to any applicable requirements that apply to all vessels specified elsewhere in this permit.

5.1 <u>Large Cruise Ships (authorized to carry 500 people or more for hire)</u>

The requirements in Part 5.1 apply to vessel discharges from cruise ships providing overnight accommodations (i.e., cruise ships with onboard sleeping facilities) to passengers and authorized to carry 500 people or more for hire.

5.1.1 Additional Effluent Limits

5.1.1.1 Graywater Management

5.1.1.1.1 Graywater Discharge Location and Rate

<u>Pierside Limits</u> – While pierside, appropriate onshore reception facilities for graywater must be used unless the vessel treats graywater with a device to meet the standards in Part 5.1.1.1.2. If such facilities are not reasonably available and you do not have the capacity to treat graywater to meet the standards in Part 5.1.1.1.2, you must hold the graywater until the vessel is underway and not in waters subject to this permit. Appropriate reception facilities are those authorized for use by the port authority or local municipality and that treat the discharge in accordance with its NPDES permit.

Operational Limits – You must meet the following restriction:

• While operating within 3 nm from shore, discharges of graywater are prohibited unless they meet the effluent standards in Part 5.1.1.1.2.

<u>Limits Applicable to Operation in Nutrient Impaired Waters</u> – If you operate in nutrient-impaired waters including, but not limited to, the Chesapeake Bay or the territorial sea surrounding the mouth of the Mississippi River in the Gulf of Mexico, you must:

- Not discharge any graywater in nutrient-impaired waters subject to this permit unless the length of voyage in that water exceeds the vessel's holding capacity for graywater; and
- Minimize the discharge of any graywater into nutrient-impaired waters subject to this permit, which may require minimizing the production of graywater; and
- If your vessel's holding capacity for graywater is exceeded, treat such excess graywater (above the vessel holding capacity) by a device meeting the standards in Part 5.1.1.1.2 prior to discharge into nutrient-impaired waters subject to this permit; or
- Dispose of the graywater at an onshore facility which will discharge the effluent under a valid NPDES permit.

A list of nutrient impaired waters is available at www.epa.gov/npdes/vessels.

5.1.1.1.2 Graywater Treatment Standards

The discharge of treated graywater must meet the following standards:

- 1. The discharge must satisfy the minimum level of effluent quality specified in 40 CFR § 133.102;
- 2. The geometric mean of the samples from the discharge during any 30-day period may not exceed 20 fecal coliform/100 milliliters (ml) and not more than 10 percent of the samples may exceed 40 fecal coliform/100 ml; and
- 3. Concentrations of total residual chlorine may not exceed 10.0 micrograms per liter (µg/l).

5.1.1.1.3 Sculleries and Galleys

Cruise ship owners/operators must use soaps and detergents that are phosphate-free, non-toxic, and biodegradable. Degreasers must be non-toxic if they will be discharged as part of any waste stream.

5.1.1.1.4 Other Materials

Waste from mercury-containing products, dry cleaners or dry cleaner condensate, photo processing labs, medical sinks or floor drains, chemical storage areas, and print shops using traditional or non-soy-based inks and chlorinated solvents must be prevented from entering the ship's graywater, blackwater, or bilgewater systems if water from these systems will be discharged into waters subject to this permit. Preventing these wastes from entering these systems can be accomplished by plugging all drains that flow to the graywater, blackwater, or bilge systems in areas where these wastes are produced and creating alternate waste receptacles or replumbing drains to appropriate holding tanks.

Vessel owners/operators must not discharge any toxic materials, including products containing acetone, benzene, or formaldehyde into salon and day spa sinks or floor drains if those sinks or floor drains lead to any system which will be discharged into waters subject to this permit. This includes using these materials on passengers (or crew) and rinsing residuals into these sinks. Alternate waste receptacles or holding tanks must be used for these materials. Addition of these materials to any systems which will discharge into waters subject to this permit is a permit violation.

5.1.1.2 Pool and Spa Discharges

Discharges of pool or spa water to waters listed in Appendix G are not authorized under this permit. Discharges from pools and spas are authorized into non-Appendix G waters subject to this permit, provided pool and spa water to be discharged is dechlorinated and/or debrominated, and discharge occurs while the vessel is underway. To be considered dechlorinated, the total residual chlorine in the pool or spa effluent must be less than 100 µg/l if the pool or spa water is

discharged without going through an Advanced Wastewater Treatment System (AWTS). To be considered debrominated, the total residual oxidant in the pool or spa effluent must be below 25 μ g/l if the pool or spa water is discharged without going through an AWTS. Pool and spa water may be added to the graywater treatment systems; however, any resultant discharge must meet all standards and requirements found in Part 5.1.1.1 and must be dechlorinated and/or debrominated as applicable.

5.1.2 Monitoring Requirements

5.1.2.1 Untreated Graywater

The discharge of untreated graywater by large cruise ships is not authorized in waters subject to this permit. Any discharge of untreated graywater within waters subject to this permit must be reported to EPA as an incidence of noncompliance on the vessel's Annual Report.

5.1.2.2 Treated Graywater

Prior to entering waters of the United States, vessel operators must demonstrate that they have an effective treatment system that complies with the standards in Part 5.1.1.1.2 if they will discharge graywater within 3 nm of shore.

5.1.2.2.1 Initial Monitoring

In order to demonstrate the effectiveness of the treatment system, the vessel operator must take at least five (5) samples from the vessel on different days over a 30-day period that are representative of the treated effluent to be discharged. A vessel owner/operator that submitted data to EPA for a vessel's discharge from an AWTS under the 2008 VGP requirements or submitted such data to the U.S. Coast Guard to meet the requirements of Section 1411(b) of Title XIV, Pub. L. 106-554 (Dec. 31, 2000, 114 Stat. 2763) [Certain Alaska Cruise Ship Operations] (codified at 33 USC 1901 note) does not need to conduct initial monitoring, and may instead immediately commence maintenance monitoring consistent with Part 5.1.2.2.2 of this permit.

Initial monitoring must be done within the first 90 days of permit coverage, within 90 days of AWTS installation onboard the vessel, or before vessels discharge into waters subject to this permit, whichever is later. Samples must be taken for BOD, fecal coliform, suspended solids, pH, and total residual chlorine. Furthermore, samples must be taken for *E. coli*, total phosphorus (TP), ammonia, nitrate/nitrite, and Total Kjeldahl Nitrogen (TKN). Sampling and testing shall be conducted according to 40 CFR Part 136. If the measured samples meet the standards specified in Part 5.1.1.1.2, then the owner/operator has demonstrated the effectiveness of their treatment system for controlling their graywater discharge. Records of the sampling and testing results must be retained onboard for a period of 3 years in the vessel's recordkeeping documentation. Records of monitoring information shall include:

- The date, exact place, and time of sampling or measurements;
- The individual(s) who performed the sampling or measurements;
- The date(s) analyses were performed;
- The individual(s) who performed the analyses;

- The analytical techniques or methods used; and
- The results of such analyses.

Analytical results for total residual chlorine below the method detection limit shall be deemed compliant with the effluent limits, provided the permittee uses a testing method with a detection limit no higher than 10.0 μ g/L under ideal conditions. EPA recommends Method SM4500-CL G (DPD Colorimetric Method) for these purposes as it is able to reach 10 μ g/L under ideal conditions and so meets these requirements. SM4500-Cl G is typically the method that Alaska Department of Environmental Conservation (ADEC)/U.S. Coast Guard uses for compliance monitoring.

Testing and reporting for total residual chlorine is not required if chlorine is not used as disinfectant in the wastewater treatment works process and no water is drained to the graywater system from water with onboard chlorine additions (e.g., swimming pools, spas).

If a permittee has already received certification for continuous discharges from an AWTS by the U.S. Coast Guard to meet the requirements of Title XIV, Pub. L. 106-554 (Dec. 31, 2000, 114 Stat. 2763) [Certain Alaska Cruise Ship Operations] (codified at 33 USC 1901 note), the vessel need not conduct initial monitoring and may commence conducting maintenance monitoring.

5.1.2.2.2 Maintenance Monitoring

After demonstrating the effectiveness of their system, vessel owners/operators must collect and analyze one sample per quarter for each of the constituents listed in Part 5.1.2.2.1 to demonstrate treatment equipment maintenance and compliance with this permit. Furthermore, samples must be taken for *E. coli*, total phosphorus (TP), ammonia, nitrate/nitrite, and Total Kjeldahl Nitrogen (TKN). Records of the sampling and testing results must be retained onboard for a period of 3 years in the vessel's recordkeeping documentation.

5.1.2.2.3 Monitoring Reporting

The owner/operator must submit data showing that the graywater standards are achieved by their treatment system to EPA's e-reporting system or to EPA, ATTN: VGP Cruise Ship Monitoring Results, 1200 Pennsylvania Ave., MC 4203M, Washington, DC 20460. Initial sampling data must be submitted at least 7 days before entering waters subject to this permit, within 90 days of obtaining permit coverage, or within 90 days of AWTS installation onboard the vessel, whichever is later. Maintenance monitoring data must be submitted at least once per calendar year no later than February 28 of the following year (e.g., 2014 data must be submitted by February 28, 2015). Data must be submitted on DMRs available in Appendix I of this permit or submitted to EPA's e-reporting system available at www.epa.gov/vessels/eNOI. Data may be submitted as part of the vessel's annual report.

5.1.2.2.4 Reserved Authority

Even if owners/operators have demonstrated their systems meet the standards in Part 5.1.1.1.2, if EPA, its authorized representative, or the U.S. Coast Guard sample their graywater effluent and

find that they are not meeting these standards, the cruise ship owners/operators are liable for violating their effluent limits.

5.1.2.2.5 Treated Graywater Records

The owner/operator must maintain records estimating the quantity and quality of all discharges of treated graywater into waters subject to this permit, including date, location and volume discharged, and pollutant concentrations monitored in their recordkeeping documentation. These records shall be maintained as part of or in combination with the vessel's sewage and graywater discharge record book required under 33 CFR § 159.315.

5.1.2.3 Treated Pool and Spa Discharges

Vessel owners/operators must monitor chlorine or bromine concentrations (as applicable) in pool or spa water before every discharge event using sufficiently sensitive 40 CFR Part 136 methods if they will discharge these streams directly into waters subject to this permit to ensure that the dechlorination/debromination process is complete. If vessel owners/operators are monitoring bromine concentrations, they may use a field test kit which uses the colorimetric method in lieu of 40 CFR Part 136 methods to ensure waters have been debrominated, provided that test kit has a method detection limit no higher than 50 µg/l. You must record the location of the discharge, the estimated volume of the discharge, and the concentration of chlorine or bromine (as applicable). Records of this monitoring must be kept with other graywater monitoring records.

For chlorine, analytical results below the method detection limit shall be deemed compliant with the effluent limits, provided the permittee uses a testing method with a detection limit no higher than 10.0 μ g/L under ideal conditions. EPA recommends Method SM4500-CL G (DPD Colorimetric Method) for these purposes as it is able to reach 10 μ g/L under ideal conditions and so meets these requirements. SM4500-Cl G is typically the method that ADEC/USCG uses for compliance monitoring. For bromine, analytical results below the method detection limit shall be deemed compliant with the effluent limits, provided the permittee uses a testing method with a detection limit no higher than 50.0 μ g/l.

5.1.3 Educational and Training Requirements

The crews of cruise ships play a key role in minimizing the discharge of pollutants from cruise ship operations and passengers. Therefore, cruise ship operators must provide the following educational and training requirements to ship personnel:

- The ship's crew members who actively take part in the management of a discharge or who may affect any discharge must receive training regarding shipboard environmental procedures and must be able to demonstrate proficiency in implementing these procedures;
- Advanced training in shipboard environmental management procedures must be provided for those directly involved in managing specific discharge types or areas of the ship and these crew members must be able to demonstrate proficiency in implementing these procedures; and

Appropriate reprimand procedures must be developed for crew whose actions lead
to violations of any effluent limit set forth in this permit or procedures established
by the cruise ship operator to minimize the discharge of pollutants.

Cruise ships must also educate passengers on their potential environmental impacts. The goals of these education efforts must include preventing trash from entering any waste stream, eliminating the addition of unused soaps, detergents, and pharmaceuticals to the graywater or blackwater systems, and minimizing production of graywater. This can be accomplished in a variety of ways including, but not limited to, posting signage and informational material in guestrooms and common areas, incorporating environmental information passenger orientation presentations or packages at the start of cruises, incorporating this information into additional lectures and seminars, or broadcasting information via loudspeakers.

Vessel owners/operators must also meet all training-related recordkeeping requirements of Part 4.2 of this permit.

5.2 Medium Cruise Ships (authorized to carry 100 to 499 people for hire)

The requirements in Part 5.2 apply to vessel discharges from cruise ships providing overnight accommodations (i.e., cruise ships with onboard sleeping facilities) to passengers and authorized to carry between 100 and 499 people for hire.

5.2.1 Additional Effluent Limits

5.2.1.1 Graywater Management

All medium cruise ships must meet all requirements of this part, including the requirements of Parts 5.2.1.1.1, unless they are a vessel unable to voyage more than 1 nm from shore and were constructed before December 19, 2008. Medium cruise ships unable to voyage 1 nm from shore and constructed before December 19, 2008 must meet the requirements in Parts 5.2.1.1.3, 5.2.1.1.4, 5.2.1.1.5, 5.2.1.2, 5.2.2.1, 5.2.2.3, and 5.2.3.

5.2.1.1.1 Graywater Discharge Location and Rate

<u>Pierside Limits</u> – While pierside, appropriate onshore reception facilities for graywater must be used, unless the vessel treats graywater with a device to meet the standards in Part 5.2.1.1.2. If such facilities are not reasonably available and you do not have the capacity to treat graywater to meet the standards in Part 5.2.1.1.2, you must hold the graywater until the vessel is underway and not in waters subject to this permit. Appropriate reception facilities are those authorized for use by the port authority or local municipality and that treat graywater in accordance with its NPDES permit.

<u>Operational Limits</u> – You must meet the following restrictions: while operating within 3 nm from shore, discharges of graywater are prohibited unless they meet the effluent standards in Part 5.2.1.1.2.

<u>Limits Applicable to Operation in Nutrient Impaired Waters</u> – If you operate in nutrient-impaired waters including, but not limited to, the Chesapeake Bay or the territorial sea surrounding the mouth of the Mississippi River in the Gulf of Mexico, you must:

- Not discharge any graywater in nutrient-impaired waters subject to this permit unless the length of voyage in that water exceeds the vessel's holding capacity for graywater; and
- Minimize the discharge of any graywater into nutrient-impaired waters subject to this permit, which may require minimizing the production of graywater; and
- If your vessel's holding capacity for graywater is exceeded, treat such excess graywater (above the vessel-holding capacity) by a device meeting the standards in Part 5.2.1.1.2 prior to discharge into nutrient-impaired waters subject to this permit; or
- Dispose of the graywater properly onshore; or
- Discharge the graywater while the cruise ship is sailing at a speed of at least 6 knots

A list of nutrient-impaired waters is available at www.epa.gov/npdes/vessels.

5.2.1.1.2 Graywater Treatment Standards

The discharge of treated graywater must meet the following standards:

- 1. The discharge must satisfy the minimum level of effluent quality specified in 40 CFR § 133.102;
- 2. The geometric mean of the samples from the discharge during any 30-day period may not exceed 20 fecal coliform/100 milliliters (ml) and not more than 10 percent of the samples exceed 40 fecal coliform/100 ml; and
- 3. Concentrations of total residual chlorine may not exceed 10.0 micrograms per liter (μ g/l).

5.2.1.1.3 Sculleries and Galleys

Cruise ship owners/operators must use soaps and detergents that are non-toxic, phosphate free, and biodegradable. Degreasers must be non-toxic if they will be discharged as part of any waste stream.

5.2.1.1.4 Other Materials

Waste from mercury-containing products, dry cleaners or dry cleaner condensate, photo processing labs, medical sinks or floor drains, chemical storage areas, and print shops using traditional or non-soy based inks and chlorinated solvents must be prevented from entering the ship's graywater, blackwater, or bilgewater systems if water from these systems will ever be discharged into waters subject to this permit. Preventing these wastes from entering these systems can be accomplished by plugging all drains that flow to the graywater, blackwater, or

bilge systems in areas where these wastes are produced and creating alternate waste receptacles or replumbing drains to appropriate holding tanks.

Vessel owners/operators must not discharge any toxic materials, including products containing acetone, benzene, or formaldehyde into salon and day spa sinks or floor drains if those sinks or floor drains lead to any system which will be discharged into waters subject to this permit. This includes using these materials on passengers (or crew) and rinsing residuals into these sinks. Alternate waste receptacles or holding tanks must be used for these materials. Addition of these materials to any systems which will discharge into waters subject to this permit is a permit violation.

5.2.1.1.5 Graywater Discharge Location and Rate for Vessels Built before December 19, 2008

While pierside, appropriate onshore reception facilities for graywater must be used if available and their use is economically achievable (unless the vessel treats graywater with a device to meet the standards in Part 5.2.1.1.2). Appropriate reception facilities are those authorized for use by the port authority or local municipality and that treat the discharge in accordance with its NPDES permit.

If such facilities are not available and you do not have the capacity to treat graywater to meet the standards in Part 5.2.1.1.2, you must hold the graywater unless the vessel is underway and sailing at a speed of at least 6 knots in a water that is not a water listed in Appendix G.

5.2.1.2 Pool and Spa Discharges

Discharges of pool or spa water to waters listed in Appendix G are not authorized under this permit. Discharges from pools and spas are authorized into non-Appendix G waters subject to this permit, provided pool and spa water to be discharged is dechlorinated and/or debrominated, and discharge occurs while the vessel is underway. To be considered dechlorinated, the total residual chlorine in the pool or spa effluent must be less than $100~\mu g/l$ if the pool or spa water is discharged without treatment through an AWTS. To be considered debrominated, the total residual oxidant in the pool or spa effluent must be below $25~\mu g/l$ if the pool or spa water is discharged without going through an AWTS. Pool and spa water may be added to the graywater treatment systems; however, any resultant discharge must meet all standards and requirements found in Part 5.2.1.1 and must be dechlorinated and/or debrominated as applicable.

5.2.2 Monitoring Requirements

5.2.2.1 Untreated Graywater

The owner/operator must maintain records estimating all discharges of untreated graywater into waters subject to this permit, including date, location, and volume discharged in their recordkeeping documentation. These records can be maintained as part of the vessel's sewage and graywater discharge record book required under 33 CFR § 159.315.

5.2.2.2 Treated Graywater

Prior to entering waters of the United States, vessel operators must demonstrate that they have an effective treatment system that complies with the standards in Part 5.2.1.1.2 if they will discharge graywater within 3 nm of shore.

5.2.2.2.1 Initial Monitoring

In order to demonstrate the effectiveness of the treatment system, the vessel operator must take at least five (5) samples taken from the vessel on different days over a 30-day period that are representative of the treated effluent to be discharged. A vessel owner/operator that submitted data to EPA for a vessel's discharge from an AWTS under the 2008 VGP requirements or submitted such data to the U.S. Coast Guard to meet the requirements of Section 1411(b) of Title XIV, Pub. L. 106-554 (Dec. 31, 2000, 114 Stat. 2763) [Certain Alaska Cruise Ship Operations] (codified at 33 USC 1901 note) does not need to conduct initial monitoring, and may instead immediately commence maintenance monitoring consistent with Part 5.2.2.2.2 of this permit.

Initial monitoring must be done within the first 90 days of permit coverage, within 90 days of AWTS installation onboard the vessel, or before vessels discharge into waters subject to this permit, whichever is later. Samples must be taken for BOD, fecal coliform, suspended solids, pH, and total residual chlorine. Furthermore, samples must be taken for *E. coli*, TP, ammonia, nitrate/nitrite, and TKN. Sampling and testing shall be conducted according to 40 CFR Part 136. If the measured samples meet the standards specified in Part 5.2.1.1.2, then the owner/operator has demonstrated the effectiveness of their treatment system for controlling their graywater discharge. Records of the sampling and testing results must be retained onboard for a period of 3 years in the vessel's recordkeeping documentation.

Records of monitoring information shall include:

- The date, exact place, and time of sampling or measurements;
- The individual(s) who performed the sampling or measurements;
- The date(s) analyses were performed;
- The individual(s) who performed the analyses:
- The analytical techniques or methods used; and
- The results of such analyses.

Analytical results for total residual chlorine below the method detection limit shall be deemed compliant with the effluent limits, provided the permittee uses a testing method with a detection limit no higher than 10.0 μ g/L under ideal conditions. EPA recommends Method SM4500-CL G (DPD Colorimetric Method) for these purposes as it is able to reach 10 μ g/L under ideal conditions and so meets these requirements. SM4500-Cl G is typically the method that ADEC/U.S. Coast Guard uses for compliance monitoring.

Testing and reporting for total residual chlorine is not required if chlorine is not used as disinfectant in the wastewater treatment works process and no water is drained to the graywater system from water with onboard chlorine additions (e.g., swimming pools, spas).

5.2.2.2.2 Maintenance Monitoring

After demonstrating the effectiveness of their system, vessel owners/operators must collect and analyze one sample per quarter for each of the constituents listed in Part 5.2.2.2.1 to demonstrate treatment equipment maintenance and compliance with this permit. Records of the sampling and testing results must be retained onboard for a period of 3 years in the vessel's recordkeeping documentation.

5.2.2.2.3 Monitoring Reporting

The owner/operator must submit data showing that the graywater standards are achieved by their treatment system to EPA's e-reporting system or to EPA, ATTN: VGP Cruise Ship Monitoring Results, 1200 Pennsylvania Ave., MC 4203M, Washington, DC 20460. Initial sampling data must be submitted at least 7 days before entering waters subject to this permit, within 90 days of obtaining permit coverage, or within 90 days of AWTS installation onboard the vessel, whichever is later. Maintenance monitoring data must be submitted at least once per calendar year no later than February 28 of the following year (e.g., 2014 data must be submitted by February 28, 2015). Data must be submitted on DMRs available in Appendix I of this permit or submitted to EPA's e-reporting system available at www.epa.gov/vessels/eNOI, which will be available within two years of finalization of this permit. Data may be submitted as part of the vessel's Annual Report.

5.2.2.2.4 Reserved Authority

Even if owners/operators have demonstrated their system meets the standards in Part 5.2.1.1.2, if EPA, its authorized representative, or the U.S. Coast Guard sample their graywater effluent and find that they are not meeting these standards, the cruise ship owners/operators are liable for violating their effluent limits.

5.2.2.2.5 Treated Graywater Records

The owner/operator shall maintain records estimating the quantity and quality of all discharges of treated graywater into waters subject to this permit, including date, location, and volume discharged, and pollutant concentrations monitored in their recordkeeping documentation. These records shall be maintained as part of or in combination with the vessel's sewage and graywater discharge record book required under 33 CFR § 159.315.

5.2.2.3 Treated Pool and Spa Discharges

Vessel owners/operators must monitor chlorine or bromine concentrations (as applicable) in pool or spa water before every discharge event using sufficiently sensitive 40 CFR Part 136 methods if they will discharge these streams directly into waters subject to this permit to ensure that the dechlorination/debromination process is complete. If vessel owners/operators are monitoring bromine concentrations, they may use a field test kit which uses the colorimetric method in lieu of 40 CFR Part 136 methods to ensure waters have been debrominated, provided that test kit has a method detection limit no higher than 50 μ g/l. You must record the location of the discharge, the estimated volume of the discharge, and the concentration of chlorine or bromine (as applicable). Records of this monitoring must be kept with other graywater monitoring records.

For chlorine, analytical results below the method detection limit shall be deemed compliant with the effluent limits, provided the permittee uses a testing method with a detection limit no higher than $10.0~\mu g/L$ under ideal conditions. EPA recommends Method SM4500-CL G (DPD Colorimetric Method) for these purposes as it is able to reach $10~\mu g/l$ under ideal conditions and so meets these requirements. SM4500-Cl G is typically the method that ADEC/U.S. Coast Guard uses for compliance monitoring. For bromine, analytical results below the method detection limit shall be deemed compliant with the effluent limits, provided the permittee uses a testing method with a detection limit no higher than $50.0~\mu g/l$.

5.2.3 Educational and Training Requirements

The crews of cruise ships play a key role in minimizing the discharge of pollutants from cruise ship operations and passengers. Therefore, cruise ship operators are responsible for providing the following educational and training requirements to ship personnel:

- The ship's crew members who actively take part in the management of the discharge or who may affect the discharge must receive training regarding shipboard environmental procedures and must be able to demonstrate proficiency in implementing these procedures;
- Advanced training in shipboard environmental management procedures must be provided for those directly involved in managing specific discharge types or areas of the ship and these crew members must be able to demonstrate proficiency in implementing these procedures; and
- Appropriate reprimand procedures must be developed for crew whose actions lead to violations of any effluent limit set forth in this permit or procedures established by the cruise ship operator to minimize the discharge of pollutants.

Cruise ships must also educate passengers on their potential environmental impacts. The goals of these education efforts must include preventing trash from entering any waste stream, eliminating the addition of unused soaps, detergents, and pharmaceuticals to the graywater or blackwater systems, and minimizing production of graywater. This can be accomplished in a variety of ways including, but not limited to, posting signage and informational material in guestrooms and common areas, incorporating environmental information passenger orientation presentations or packages at the start of cruises, incorporating this information into additional lectures and seminars, or broadcasting information via loudspeakers.

Vessel owner/operators must also meet all training-related recordkeeping requirements of Part 4.2 of this permit.

5.3 Large Ferries

Ferries are vessels for hire that are designed to carry passengers and/or vehicles between two ports, usually in inland, coastal, or near-shore waters. "Large Ferry" means a "ferry" that: a) has a capacity greater than or equal to 100 tons of cargo (e.g., for cars, trucks, trains, or other land-based transportation); or b) is authorized by the U.S. Coast Guard to carry 250 or more people. All large ferries authorized to carry 100 or more tons of cars, trucks, trains, or other land-based transportation must meet the requirements in Part 5.3.1.1 (Deck Water) and Part 5.3.2 (Education

and Training). Large ferries authorized by the Coast Guard to carry 250 or more people must meet the requirements of Part 5.3.1.2 (Graywater Management) and Part 5.3.2 (Education and Training Requirements).

5.3.1 Additional Effluent Limits

5.3.1.1 Deck Water

Large ferries may not discharge untreated below deck water from parking areas or other storage areas for motor vehicles or other motorized equipment into waters subject to this permit without first treating the effluent with an oily water separator or other appropriate wastewater treatment system. Large ferry operators must use oil absorbent cloths or other appropriate spill response resources to clean oily spills or substances from deck surfaces. Any effluent created by washing the decks may not be discharged into the waters subject to this permit listed in Appendix G.

5.3.1.2 Graywater Management

5.3.1.2.1 Graywater Discharge Location and Rate

<u>Pierside Limits</u>—While pierside, appropriate onshore reception facilities for graywater must be used, if available and their use is economically achievable, unless the vessel treats graywater to the limits found in Part 5.1.1.1.2 of the permit. If such facilities are not available, you must hold the graywater if the vessel has the holding capacity and discharge the effluent while the vessel is underway. Appropriate reception facilities are those authorized for use by the port authority or municipality and that treat the discharge in accordance with its NPDES permit.

Operational Limits – You must also meet the following restriction: if you operate within 3 nm from shore, discharges of graywater may only be released while the ferry is sailing at a speed of at least 6 knots if feasible. If not feasible, you must document why in your recordkeeping documentation.

5.3.2 Educational and Training Requirements

The crews of ferries play a key role in minimizing the discharge of pollutants from ferry operations and its passengers. Therefore, ferry operators are subject to the following requirements:

- The ship's crew members who actively take part in the management of the discharge or who may affect the discharge must receive training regarding shipboard environmental procedures and must be able to demonstrate proficiency in implementing these procedures;
- Advanced training in shipboard environmental management procedures must be provided for those directly involved in managing specific discharge types or areas of the ship and these crew must be able to demonstrate proficiency in implementing these procedures; and
- Appropriate reprimand procedures must be developed for crew whose actions lead to violations of any effluent limit set forth in this permit or procedures established by the ferry operator to minimize the discharge of pollutants.

Ferry operators must also educate passengers on their potential environmental impacts. The goals of these education efforts should include eliminating the discharge of trash overboard, minimizing the production of trash from parking areas or other storage areas, eliminating the addition of unused soaps, detergents, and pharmaceuticals to the graywater or blackwater systems, and minimizing production of graywater. This can be accomplished in a variety of ways including, but not limited to, posting signage and informational material in common areas, incorporating environmental information into orientation presentations, or broadcasting information via loudspeakers.

Vessel owners/operators of large ferries must also meet all training-related recordkeeping requirements of Part 4.2 of this permit.

5.4 <u>Barges (such as Hopper Barges, Chemical Barges, Tank Barges, Fuel Barges, Crane Barges, Dry Bulk Cargo Barges)</u>

The requirements in Part 5.4 apply to vessel discharges from barges. Barges engaged in the transportation of oil or other petroleum products must also comply with Part 5.5 of this permit.

5.4.1 Additional Effluent Limits

Barges must minimize the contact of below deck condensation with oily or toxic materials and any materials containing hydrocarbon. Whenever barges are pumping water from below deck, the discharge shall not contain oil in quantities that may be harmful as defined in 40 CFR Part 110. If a visible sheen, as defined in Appendix A of this permit, is noted, vessel operators must initiate corrective action in accordance with Part 3 and meet recordkeeping requirements in Part 4.2 of this permit.

All tank barges must have spill rails and must mechanically plug their scuppers before any cargo operations if required by vessel class society and/or 33 CFR Parts 155 and/or 156. Additionally, scuppers, when available, must be mechanically plugged during fueling of ancillary equipment (e.g., generators and compressors) located on the deck of the barge. If scuppers are unavailable, other types of secondary containment should be employed. If any spills result during loading or unloading of cargo, or other ancillary equipment fueling operations, vessel owners/operators must completely clean up spills or residue before scuppers are unplugged.

Vessel owners/operators must clean out cargo residues (i.e., broom clean) such that any remaining residue is minimized before washing the cargo compartment or tank and discharging washwater overboard.

5.4.2 Supplemental Inspection Requirements

After every instance of pumping water from areas below decks, or immediately following washing down the decks, you must conduct a visual sheen test. The visual sheen test is used to detect free oil by observing the surface of the receiving water for the presence of an oily sheen. The operator should focus the inspection on the area surrounding the vessel where discharges from below deck or deck washings are discharges into the receiving water. A visible sheen is defined in Appendix A of this permit. If a visible sheen is observed, you must initiate corrective

actions required in Part 3 of this permit and meet recordkeeping and notification (reporting) requirements in Part 4.2 of this permit.

5.5 Oil Tankers, Petroleum Tankers, and Bulk Chemical Carriers

The requirements in Part 5.5 apply to vessel discharges from oil tankers, petroleum tankers, and bulk chemical carriers, as well as barges engaged in transportation of oil or petroleum products.

5.5.1 Additional Authorized Discharges

For vessels which have an inert gas system, the effluent produced from inert gas scrubbers (IGS) may be discharged into waters subject to this permit.

The discharges of water from deck seals are authorized when such seals are installed as an integral part of an IGS system.

5.5.2 Additional Effluent Limits

Owners/operators of oil tankers must plug scuppers during cargo loading and unloading operations to prevent the discharge of oil into waters subject to this permit. Any oil spilled must be cleaned with oil absorbent cloths or another appropriate approach. Additionally, owners/operators of oil tankers must comply with applicable requirements of 33 CFR § 155.310 and 33 CFR Part 156, Subpart A.

Vessel owners/operators must minimize the discharge of effluent produced from inert gas scrubbers if feasible for their vessel design.

5.5.3 Supplemental Inspection Requirements

After every instance of loading or unloading operations or immediately following washing down the decks, you must conduct a visual sheen test. The visual sheen test is used to detect free oil by observing the surface of the receiving water for the presence of an oily sheen. The owner/operator should focus the inspection on the area surrounding the vessel where effluent from loading operations or deck washings discharge into the receiving water. A visible sheen is defined in Appendix A of this permit. If a visible sheen is observed, you must comply with all requirements contained in Part 4.4 of this permit, initiate corrective actions required in Part 3 of this permit, and meet recordkeeping and notification (reporting) requirements in Part 4.2 of this permit.

5.5.4 Educational and Training Requirements

The crews of oil tankers play a key role in minimizing the discharge of pollutants from vessel operations. Therefore, oil tanker operators are subject to the following requirements:

• The ship's crew members who actively take part in the management of the discharge or who may affect the discharge must receive training regarding shipboard environmental procedures and must be able to demonstrate proficiency in implementing these procedures;

- Advanced training in shipboard environmental management procedures must be
 provided for those directly involved in managing specific discharge types or areas
 of the ship and these crew must be able to demonstrate proficiency in
 implementing these procedures; and
- Appropriate reprimand procedures must be developed for crew actions that lead to violations of any effluent limit set forth in this permit or procedures established by the vessel operator to minimize the discharge of pollutants.

Vessel owners/operators of tankers must also meet all training-related recordkeeping requirements of Part 4.2 of this permit.

5.6 Research Vessels

The requirements in Part 5.6 apply to vessel discharges from research vessels. Research vessels are those that are engaged in investigation or experimentation aimed at discovery and interpretation of facts, revision of accepted theories or laws in the light of new facts, or practical application of such new or revised theories or laws.

5.6.1 Supplemental Authorized Discharges

In addition to the discharges incidental to the normal operation of a vessel authorized elsewhere in this permit, owners/operators of research vessels are authorized to discharge tracers (dyes, fluorescent beads, SF6), drifters, tracking devices and the like, and expendable bathythermograph (XBT) probes, into waters subject to this permit, provided such discharges are for the sole purpose of conducting research on the aquatic environment or its natural resources in accordance with generally recognized scientific methods, principles, or techniques.

5.6.2 Additional Effluent Limits

Owners/operators of research vessels must discharge only the minimal amount of materials referenced in Part 5.6.1 necessary to conduct research on the aquatic environment or its natural resources in accordance with generally recognized scientific methods, principles, or techniques.

5.7 Emergency and Rescue Vessels (Fire Boats, Police Boats)

The requirements in Part 5.7 apply to vessel discharges from emergency and rescue boats.

5.7.1 Supplemental Authorized Discharges

In addition to the discharges incidental to the normal operation of a vessel authorized elsewhere in this permit, owners/operators of emergency and rescue vessels are authorized to discharge waste streams in conjunction with training, testing, and maintenance operations, provided that they comply with all additional requirements of the CWA (e.g., section 311) and the National Contingency Plan (40 CFR Part 300). This part does not relieve vessel operators of any additional responsibilities under the CWA and the National Contingency Plan which prohibits the discharge of oil for research or demonstration purposes without Administrator approval. The use of foaming agents for oil or chemical fire response must be implemented in accordance with the National Contingency Plan (40 CFR Part 300).

5.7.2 Additional Effluent Limits

Owners/operators are strongly encouraged to seek alternative formulations of AFFF that are less harmful to the aquatic environment, such as non-fluorinated foam, while maintaining their effectiveness in emergency operations. Furthermore, operators are encouraged to not use AFFF or discharge toxic substances in areas near active commercial or recreational fisheries, near swimmable waters, or in high traffic areas for maintenance or training purposes. Emergency vessel owners/operators are also encouraged to perform training, testing, and maintenance operations outside of port and as far from shore as possible. The use of foaming agents for oil or chemical fire response, and the control of their discharge from a vessel, must be implemented in accordance with the National Contingency Plan (40 CFR Part 300).

6. SPECIFIC REQUIREMENTS FOR INDIVIDUAL STATES OR INDIAN COUNTRY LANDS

Section 401(d) of the CWA provides that any certification under the Act "shall set forth any effluent limitations and other limitations, and monitoring requirements" necessary to assure that any applicant for a federal license or permit will comply with any applicable CWA-based effluent limitations and other limitations, standards of performance, prohibitions, effluent standards, or pretreatment standards, and with any other appropriate requirements of State and Tribal law. Section 401(d) further provides that such additional limitations and monitoring requirements "shall become a condition on any Federal license or permit subject to the provisions of this section." Pursuant to section 401(d), EPA has attached provisions provided by states and tribes in their CWA section 401 certifications; those that constitute effluent or other limitations or monitoring requirements are enforceable conditions of this permit for that state's or tribe's waters. State CWA section 401 certification conditions or conditions provided by states as a result of their Coastal Zone Management Act (CZMA) section 307 consistency review that address the discharge of sewage from vessels within the meaning of CWA section 312(a)(6) or the design, manufacture, or installation or use of any marine sanitation device (as defined in CWA section 312(a)(5)), will be interpreted and applied by EPA in a manner consistent with the provisions of CWA sections 312(f)(1) and 502(6)(A).

The following states or tribes included additional permit requirements in their CWA section 401 certification:

Placeholder for conditions to be added after receipt from states and tribes

Appendix A – Definitions

The following definitions apply to this permit. Terms not defined in this Appendix have the meaning given by 40 CFR § 122.2. When a defined term appears in a definition, the defined term is placed in quotation marks as an aid to readers.

- "Appropriate Regional Office" means the regional office listed in Appendix B of the Permit responsible for the waters where the vessel spends the most time or is based in a home port.
- "Aqueous Film-Forming Foam" means the firefighting foam and seawater mixture discharged during training, testing, or maintenance operations. [source: 40 C.F.R 1700.4]
- "Atlantic or Gulf Coastwise Trade" means vessels engaged in coastwise trade along the Atlantic coast or Gulf of Mexico coast of the United States, or in between those coasts, operating in and between ports on these coasts.
- "Atlantic or Gulf Nearshore Voyages" means voyages by any vessels engaged in the Atlantic or Gulf Coastwise trade and vessels transiting between Atlantic ports (including those in the Caribbean Sea) or Gulf of Mexico ports that travel between more than one Captain of the Port Zone, and all other vessels that sail from foreign, Atlantic, or Gulf of Mexico ports, which do not sail further than 200 nm from any shore, and that discharge or will discharge ballast water into ports on the Atlantic or Gulf coasts.
- "Ballast Tank" means any tank or hold on a vessel used for carrying "ballast water," whether or not the tank or hold was designed for that purpose [source: 33 CFR § 151.2025]
- "Ballast Water Exchange" see "Exchange."
- "Ballast Water" means any water and suspended matter taken on board a vessel to control or maintain, trim, draught, stability, or stresses of the vessel, regardless of how it is carried. [source: 33 C.F.R 151.1504]
- "Ballast Water Capacity" means the total volumetric capacity of any tanks, spaces, or compartments for carrying, loading, or discharging "ballast water," including any multi-use tanks, space or compartment designed to allow carriage of "ballast water."
- "Bilgewater" means the wastewater from a variety of sources that accumulates in the lowest part of the vessel (the bilge).
- "Bioaccumulative" means the partition coefficients in the marine environmental are $\log K_{ow} > 3$ using test Methods OECD 117 and 107.
- "Biocide" means a substance or organism, including a virus or a fungus, that is introduced or produced to kill or eliminate organisms to prevent biofouling, to prevent the transfer of invasive species, or to eliminate organisms as part of the ballast water treatment process.

"Biodegradable" means, the following for purposes of the VGP:

- Regarding cleaning products and environmentally acceptable lubricants, biodegradable
 means products and lubricants that demonstrate either the removal of at least 70 percent
 of dissolved organic carbon, production of at least 60 percent of the theoretical carbon
 dioxide, or consumption of at least 60 percent of the theoretical oxygen demand within
 28 days. Acceptable test methods include: Organization for Economic Co-operation and
 Development Test Guidelines 301 A-F, 306, and 310, and International Organization for
 Standardization 14593:1999.
- Regarding biocidal substances, biodegradable means a compound or mixture that yields 60 percent of theoretical maximum carbon dioxide and demonstrate a removal of at least 70 percent of dissolved organic carbon within 28 days as described in EPA 712-C-98-075 (OPPTS 835.3100 Aerobic Aquatic Biodegradation).

"Boat Engine Wet Exhaust" means the seawater that is mixed and discharged with small boat propulsion engine exhaust to cool the exhaust and quiet the engine. [source: 40 C.F.R 1700.4]

"Captain of the Port" (COTP) means the Coast Guard officer designated as the COTP, or a person designated by that officer, for the COTP zone covering the U.S. port of destination. These COTP zones are listed in 33 CFR Part 3. [source: 33 CFR § 151.2025]

"Chain Locker Effluent" means the accumulated precipitation and seawater that is emptied from the compartment used to store the vessel's anchor chain. [source: 40 CFR § 1700.4]

"Coastal Exchange Zone" means an area greater than 50 nm from shore and greater than 200 meters in depth.

"Commercial fishing vessel" means any vessel which is documented under the laws of the United States or, if under five net tons, registered under the laws of any state, and used for commercial fishing or activities directly related to commercial fishing. (source: modified from 50 CFR § 296.2)

"Commercial vessel" means any "vessel" other than a "recreational vessel" or a vessel of the U.S. armed forces.

"Constructed' means a state of construction of a vessel at which—

- "the keel is laid:
- "construction identifiable with the specific vessel begins;
- "assembly of the vessel has begun comprising at least 50 tons or 1 percent of the estimated mass of all structural material of the vessel, whichever is less; or
- "the vessel undergoes a major conversion;" [patterned after the <u>International</u> <u>Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004,</u> regulation A-1(4)]

"Control measure" means any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

"Controllable Pitch Propeller Hydraulic Fluid" means the hydraulic fluid that discharges into the surrounding seawater from propeller seals as part of normal operation, and the hydraulic fluid released during routine maintenance of the propellers. [source: 40 CFR § 1700.4]

"Cruise ship" means a passenger ship used commercially for pleasure cruises that provides overnight accommodations to passengers.

"Darkness" means sunset to sunrise.

"Deck" means a horizontal surface or part thereof serving as a floor or structural support over the upper section of the hull and which is exposed to weather and sea such as freeboard and superstructure decks from which runoff may originate.

"Deck Runoff" means the precipitation, washdowns, and seawater falling on the weather deck of a vessel and discharged overboard through deck openings. [source: 40 CFR § 1700.4]

"Delivered" means the date of the owner's/operator's formal acceptance of the ship from the builder or another seller or the point in time when custody or ownership of the vessel officially transfers from the shipbuilder or other seller to the owner/operator.

"Discharge incidental to the normal operation of a vessel" means those discharges that were excluded from the NPDES permitting program by operation of 40 CFR § 122.3(a) as in effect on September 29, 2008.

"Distillation and Reverse Osmosis Brine" means the concentrated seawater (brine) produced as a by-product of the processes used to generate freshwater from seawater. [source: 40 CFR § 1700.4]

"Elevator Pit Effluent" means the liquid that accumulates in, and is discharged from, the sumps of elevator wells on vessels. [source: 40 CFR § 1700.4]

"Environmentally acceptable lubricants" means lubricants that are "biodegradable" and "non-toxic," and are not "bioaccumulative" as defined in this permit. Products meeting the permit's definitions of being an "environmentally acceptable lubricant" include those labeled by the following labeling programs: Blue Angel, European Ecolabel, Nordic Swan, the Swedish Standard SS 155470.

"Exchange" means to replace the water in a ballast tank using one of the following methods:

- "Empty/refill exchange" means to pump out the "ballast water" taken on in ports, estuarine, or territorial waters until the tank is empty, then refilling it with water from the "mid-ocean" or "coastal exchange zone" (as applicable); masters/operators should pump out as close to 100 percent of the "ballast water" as is safe to do so. . [modified from: 33 CFR § 151.2025]
- "Flow through exchange" means to flush out "ballast water" by pumping in water from the "mid-ocean" or "coastal exchange zone" (as applicable) into the bottom of the tank and continuously overflowing the tank from the top until three full volumes of water has been changed to minimize the number of original organisms remaining in the tank.

- "Exclusive Economic Zone" (EEZ) means the area established by Presidential Proclamation Number 5030, dated March 10, 1983 (48 FR 10605) which extends from the base line of the territorial sea of the United States seaward 200 miles, and the equivalent zone of Canada. [source: 33 CFR § 151.2025]
- "Ferry" means a vessel having provisions for deck passengers and/or vehicles operating between two points over the most direct water route, operating on a frequent schedule, and offering a public service of a type normally attributed to a bridge or tunnel. [modified from: 46 CFR § 70.10-1]
- "Firemain Systems" means the seawater pumped through the firemain system for firemain testing, maintenance, and training, and to supply water for the operation of certain vessel systems. [source: 40 CFR § 1700.4]
- "Fouling organisms" means any aquatic flora and/or fauna which attach to, associate with, and/or grow on or in the vessel.
- "Freshwater Layup" means the potable water or freshwater taken from surrounding waters that is discharged from the water cooling system while the vessel is in port, and the cooling system is in lay-up mode (a standby mode where seawater in the system is replaced with potable water for corrosion protection). [modified from: 40 CFR § 1700.5(d)]
- "Gas Turbine Water Wash" means the water released from washing gas turbine components. [source: 40 CFR § 1700.4]
- "Graywater" means galley, bath, and shower water, as well as wastewater from lavatory sinks, laundry, and water fountains. [modified from 40 CFR § 1700.4 but removed shop sinks]
- "Gross Ton" means the size of the vessel as calculated using the formula set by the International Convention on Tonnage Measurement of Ships, 1969. GT = K * V where V = total volume in m³ and K = a figure from 0.22 up to 0.32, depending on the ship's size (calculated by : $K = 0.2 + .02 * \log_{10}V$).
- "Hazardous materials" means, for purposes of the VGP, any hazardous material as defined in 49 CFR § 171.8.
- "Hull Coating Leachate" means the constituents that leach, dissolve, ablate, or erode from the paint on the hull into the surrounding seawater. [source: 40 CFR § 1700.4]
- "IMO Guidelines" mean the Guidelines for the Control and Management of Ships' Ballast Water to Minimize the Transfer of Harmful Aquatic Organisms and Pathogens (IMO Resolution A.868 (20), adopted November 1997). [source: 33 CFR § 151.2025]
- "In Port" means, for the purposes of this permit, anchored, moored, or otherwise secured while located in waters subject to this permit which are inside the baseline of the U.S. territorial sea.
- "Large cruise ship" means a passenger ship, used commercially for pleasure cruises, that provides overnight accommodations to passengers, and is authorized by the U.S. Coast Guard to carry 500 or more passengers.

"Large Ferry" means a "ferry" that: a) has a capacity greater than or equal to 100 tons of cargo (e.g., for cars, trucks, trains, or other land-based transportation) or b) is authorized by the U.S. Coast Guard to carry 250 or more people.

"Major conversion" means a conversion of a vessel, that—

- substantially alters the dimensions or carrying capacity of the vessel;
- changes the type of the vessel; or
- the intent of which, in the opinion of the director, is substantially to prolong its life [modified from 33 CFR § 151.05 with the exception language specific to MARPOL removed].

"MARPOL 73/78" means the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto. [[source: modified from 40 CFR § 110.1]

"MARPOL vessel" means a ship subject to Annex I of the International Convention for the Prevention of Pollution from Ships as implemented by the Act to Prevent Pollution from Ships and the oil pollution provisions of U.S. Coast Guard regulations in 33 CFR Part 151, Subpart A.

"Master" means captain, person-in-charge, or other party responsible for operation of the vessel.

"Medium Cruise Ship" means a passenger ship, used commercially for pleasure cruises, that provides overnight accommodations to passengers, and is authorized by the U.S. Coast Guard to carry 100 to 499 passengers.

"Mid-Ocean" means waters greater than 200 nm from any shore.

"Mile" means nautical mile as used in this permit, or 6076.1 feet or 1.852 kilometers.

"Minimize" means to reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best marine practice.

"Motor Gasoline and Compensating Discharge" means the seawater taken into, and discharged from, motor gasoline tanks to eliminate free space where vapors could accumulate. [source: 40 C.F.R 1700.4]

"NANPCA" means the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990. [source: 33 CFR § 151.2025]

"NBIC" means the National Ballast Water Information Clearinghouse operated by the Coast Guard and the Smithsonian Environmental Research Center as mandated under NISA. [source: 33 CFR § 151.2025]

"NISA" means the National Invasive Species Act of 1996, which reauthorized and amended NANPCA. [source: 33 CFR § 151.2025]

"Non-Oily machinery wastewater" means the combined wastewater from the operation of distilling plants, water chillers, valve packings, water piping, low- and high-pressure air compressors, propulsion engine jacket coolers, fire pumps, and seawater and potable water pumps. [modified from: 40 CFR § 1700.4]

"Non-toxic" means a substance must pass both OECD 201 , 202, and 203 for acute toxicity testing, and OECD 210 and 211 for chronic toxicity testing. If a substance is evaluated for the formulation and main constituents, the LC_{50} of hydraulic fluids must be at least 100 mg/L and the LC_{50} of greases, two-stroke oils, and all other total loss lubricants must be at least 1000 mg/L. If a substance is evaluated for each constituent substance, rather than the complete formulation and main compounds, then constituents comprising less than 20 percent of hydraulic fluids can have an LC_{50} between 10-100 mg/L or a no observed effect concentration (NOEC) between 1-10 mg/L, constituents comprising less than 5 percent of hydraulic fluids can have an LC_{50} between 1-10 mg/L or a NOEC between 0.1-1 mg/L, and constituents comprising less than 1 percent of hydraulic fluids can have an LC_{50} less than 1 mg/L or a NOEC between 0-0.1 mg/L.

"Non-toxic soaps, cleaners, and detergents" means any substance or mixture of substances which has an acute aquatic toxicity value (LE50) corresponding to a concentration greater than 10 ppm and does not produce "byproducts" with an acute aquatic toxicity value (LE50) less than 10 ppm.

"Noxious Liquid Substance" ("NLS") has the same meaning given that term by 33 CFR Part 151, Subpart A.

"Oil" means oil of any kind or in any form, including but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. [modified from: 33 CFR § 154.105]

"Oil in quantities that may be harmful" means any discharge of oil having the effects identified in 40 CFR 110.3, provided that this term does not include those discharges specified in 40 CFR \S 110.5(a) – (c).

"Oily mixture" means a mixture, in any form, with any oil content, including, but not limited to: (1) slops from bilges; (2) slops from oil cargoes (such as cargo tank washings, oily waste, and oily refuse; (3) oil residue; and (4) oily ballast water from cargo or fuel oil tanks. [source: 33 CFR § 151.05]

"Owner or operator" and "Owner/Operator" mean the owner or operator of any facility or activity subject to regulation under the NPDES program. For purposes of this permit, an "operator" means a party, including a charterer by demise, who:

- has operational control over vessel activities, including the ability to modify those activities; or
- has day-to-day operational control of those activities that are necessary to ensure compliance with the permit or to direct workers to carry out activities required to comply with the permit.

"Pacific Coastwise Trade" means vessels engaged in coastwise trade along the Pacific Coast of the United States, operating in and between ports in Alaska, California, Oregon, and Washington.

"Pacific Nearshore Voyages" means voyages by any vessels engaged in the Pacific Coastwise trade and vessels transiting between Pacific Ports that travel between more than one Captain of the Port Zone, and all other vessels that sail from foreign, non U.S. Pacific, Atlantic, or Gulf of Mexico ports, which do not sail further than 200 nm from any shore, and that discharge or will discharge ballast water into the territorial sea or inland waters of Alaska or of the West Coast of the continental United States.

"Permittee" means the owner or operator of a permitted vessel.

"Person" means an individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof. [source – 40 CFR § 122.2]

"Phosphate Free" soaps, cleaners, and detergents means these materials which contain, by weight, 0.5 percent or less of phosphates or derivatives of phosphates.

"Photographic Laboratory Drains" means the drains containing laboratory wastewater resulting from processing of photographic film. [adapted from: 40 CFR § 1700.4]

"Port" see "In Port."

"Port or place of departure" means any port or place in which a vessel is anchored or moored. [source: 33 CFR § 151.2025]

"Port or place of destination" means any port or place to which a vessel is bound to anchor or moor. [source: 33 CFR § 151.2025]

"Recreational vessel" means any "vessel" that is manufactured or operated primarily for pleasure or leased, rented, or chartered to another for the pleasure of that person. This term does not include a vessel that is subject to Coast Guard inspection and that is engaged in commercial use or carries paying passengers. [source: 33 U.S.C. 1362(25)]

"Saltwater flushing" means the addition of "mid-ocean" (in the case of 2.2.3.7) or "coastal exchange zone" (in Part 2.2.3.8) water to empty ballast water tanks; the mixing of the added water with residual ballast water and sediment through the motion of the vessel; and the discharge of the mixed water until loss of suction, such that the resulting residual water remaining in the tank has either a salinity greater than or equal to 30 parts per thousand (ppt) or a salinity concentration equal to the ambient salinity of the location where the uptake of the added water took place.

"Seawater Cooling Overboard Discharge" means the discharge of seawater from a dedicated system that provides noncontact cooling water for other vessel systems. [source: 40 CFR § 1700.4]

"Seawater Piping Biofouling Prevention" means the discharge of seawater containing additives used to prevent the growth and attachment of biofouling organisms in dedicated seawater cooling systems on selected vessels. [source: 40 CFR § 1700.4]

- "Sewage" means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels, except that with respect to commercial vessels on the Great Lakes, this term includes galley, bath, and shower water.
- "Sonar Dome Discharge" means the leaching of antifoulant materials into the surrounding seawater and the release of seawater or freshwater retained within the sonar dome. [source: 40 CFR § 1700.4]
- "Surface Vessel Bilgewater/Oily Water Separator Effluent" means the wastewater from a variety of sources that accumulates in the lowest part of the vessel (the bilge), and the effluent produced when the wastewater is processed by an oil water separator. [source: 40 CFR § 1700.4]
- "Technical Water" means water that is collected, generated or managed on board for uses other than potable water.
- "Territorial sea" has the meaning assigned by section 502(8) of the Federal Water Pollution Control Act (33 USC 1362(8)).
- "Treated Bilgewater" means bilgewater treated with an oily water separator and having oil concentrations less than 15 ppm and that does not result in a discharge of oil in quantities that may be harmful, pursuant to 40 CFR Part 110.
- "Toxic materials" means, for purposes of the VGP: any toxic pollutant identified in 40 CFR 401.15.
- "United States" means the States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands. [modified from CWA section 502(3)]
- "Underwater Ship Husbandry Discharges" means the materials discharged during the inspection, maintenance, cleaning, and repair of hulls or hull appendages performed while the vessel is waterborne. [modified from: 40 CFR § 1700.4]
- "Untreated Bilgewater" means bilgewater that is not treated.
- "Vessel" means every description of watercraft or other artificial contrivance being used as a means of transportation on "waters subject to this permit." [modified from CWA section 312(a)]
- "Vessels unable to voyage more than 1 mile from shore" means vessels operating in waters which do not physically allow them to voyage more than 1 nm from shore (e.g., underway on inland river systems) or vessels which do not possess required certifications from the U.S. Coast Guard to operate more than 1 nm from shore.
- "Visible Sheen" means a "silvery" or "metallic" sheen, gloss, or increased reflectivity; visual color; iridescence, or oil slick on the surface. [Source: 58 FR 12507].
- "Voyage" means, for the purposes of VGP Part 4.1.1 (including its routine visual inspection provisions), that a voyage begins when the vessel departs a dock or other location at which it has

loaded or unloaded (in whole or in part) cargo or passengers, and ends after it has tied-up at another dock or location in order to again conduct such activities. For example, for a barge on the Mississippi River, such voyage would begin when it departs a location at which it has cargo loaded onto it and end when cargo is unloaded at another location.

- For vessels such as mobile oil and gas rigs, which are in a mode of transportation only when relocating between drill sites, a voyage for purposes of VGP Part 4.1.1 begins when the rig departs one site and ends when it arrives at the new site to commence operations which are not transportation-oriented, such as drilling.
- For vessels such as harbor tugs, which may be in semi-continuous operation for up to a week within the same harbor and do not carry passengers or cargo, for purposes of VGP Part 4.1.1 a voyage begins when the crew or master takes charge of the vessel and ends when that crew or master are replaced by another crew or master, at which point a new voyage would begin due to the arrival of the new crew or master. For example, if crew changes occur every seven days on a harbor tug, the voyage begins with crew arrival, ends on day seven with departure of that crew, and a new voyage begins on day seven with arrival of the new crew.

"Waters subject to this permit" means "waters of the U.S." as defined in as 40 CFR 122.2 and extends to the outer reach of the 3-mile territorial sea as defined in section 502(8) of the CWA, unless otherwise excluded from coverage by Part 6 of the permit.

"Welldeck Discharges" means the water that accumulates from seawater flooding of the docking well (welldeck) of a vessel used to transport, load, and unload amphibious vessels, and from maintenance and freshwater washings of the welldeck and equipment and vessels stored in the welldeck. [source: 40 CFR § 1700.4]

"You" means the "owner" or "operator" of a permitted vessel.

Appendix B – EPA Regional Contacts

An updated EPA regional contact list is maintained at www.epa.gov/npdes/vessels

Region 1 – CT, ME, MA, NH, RI, VT, and 10 Tribal Nations

5 Post Office Square - Suite 100 Boston, MA 02109-3912

New England States: (888) 372-7341 Outside New England: (617) 918-1111

Region 2 – NJ, NY, PR, VI, and 7 Tribal Nations

290 Broadway, 24th Floor New York, NY 10007-1866 Phone: (212) 637-3660

Region 3 – DE, DC, MD, PA, VA, WV

1650 Arch St

Philadelphia, PA 19103 Phone: 215-814-5000

Toll Free w/in Region 3: (800) 438-2474

Region 4 – AL, FL, GA, KY, MS, NC, SC, TN, and 2 Tribes

Atlanta Federal Center 61 Forsyth St SW Atlanta, GA 30303-3104 Phone: (404) 562-9390

Phone: (404) 562-9900 Toll Free: 1-800-241-1754

Region 5 – IL, IN, MI, MN, OH, WI, and 35 Tribes

Ralph Metcalfe Federal Building 77 W Jackson Blvd Chicago, IL 60604-3507 Phone: (312) 353-2000

Region 6 – LA, AR, OK, NM, TX, and 65 Tribes

1445 Ross Ave

Dallas, TX 75202-2733

Phone: (214) 665-6444

Region 7 – IA, KS, MO, NE, and 9 Tribes

901 N 5th St

Kansas City, KS 66101 Phone: (913) 551-7003

Toll-Free: 1-800-223-0425

Region 8 - CO, MT, ND, SD, UT, WY, and 27 Tribal Nations

1595 Wynkoop St

Denver, CO 80202-1129

Phone: (303) 312-6312

Toll Free w/in Region 8: (800) 227-8917

Region 9 – AZ, CA, HI, NV, and Pacific Islands

75 Hawthorne St

San Francisco, CA 94105-3901

Phone: (415) 947-8000

Toll Free: (866) EPA-WEST

Region 10 – AK, ID, OR, WA, and Native Tribes

1200 6th Ave, Suite 900

Seattle, WA 98101-1128

Phone: (206) 553-1200 Toll Free: (800) 424-4EPA

Appendix C – Areas Covered

This permit is effective in Waters of the United States for any state, territory, Indian Country, or the District of Columbia listed as covered under Part 6 of this permit. If states or tribes determine to seek authorization to issue vessel permits pursuant to the CWA, areas covered by this permit could change.

Appendix D – Reserved

Reserved.

Appendix E – Notice of Intent (NOI)

Draft NOI Instructions

Who Must File an NOI Form

Under the provisions of the CWA, as amended (33 USC 1251 et. seq.), federal law prohibits discharges incidental to the normal operation of a vessel unless that discharge is covered under an NPDES Permit. To obtain authorization under this permit, operators must meet the eligibility requirements found in Part 1.2 of the Permit and, if required by Part 1.5.1.1 of the Permit, submit a complete and accurate NOI according to the requirements in Appendix E. NOIs must be signed in accordance with 40 CFR § 122.22.

An owner/operator is required to submit an NOI if the vessel meets either of the following two criteria:

• The vessel is greater or equal to 300 gross tons,

Or

• The vessel has the capacity to hold or discharge more than 8 cubic meters (2113 gallons) of Ballast Water.

Owner/Operators Required to Submit NOIs

Owners/operators required to submit an NOI for their vessel must submit an NOI in accordance with deadlines provided in the following table.

Table 1: NOI Submission Deadlines/Discharge Authorization Dates

Category	NOI Deadline	Discharge Authorization Date*
Vessels authorized to discharge under the 2008 Vessel General Permit (VGP)	No later than December, 12, 2013 or 7 days prior to discharge into waters subject to this permit, whichever is later	For eNOIs: December 19, 2013 or, if not submitted before December 12, 2013, 7 days after complete NOI processed by EPA.
		For Paper NOIs: 30 days after complete NOI processed by EPA.
New Owner/Operator of Vessel – transfer of ownership and/or operation of a vessel whose discharge is previously authorized under this permit	By date of transfer of ownership and/or operation	Date of transfer or date EPA processes NOI, whichever is later

Table 1: NOI Submission Deadlines/Discharge Authorization Dates

Category	NOI Deadline	Discharge Authorization Date*
New vessels delivered to owner	For vessels submitting eNOIs:	For eNOIs:
or operator after December 19, 2013	7 days prior to discharge into waters subject to this permit	7 days after complete NOI processed by EPA
2013	For vessels submitting Paper	For Paper NOIs:
	NOIs: At least 30 days prior to discharge into waters subject to this permit	30 days after complete NOI processed by EPA
Existing vessels delivered to	For vessels submitting eNOIs:	For eNOIs:
owner or operator after December 19, 2013 that were	7 days prior to discharge into waters subject to this permit	7 days after complete NOI processed by EPA
not previously authorized under	For vessels submitting Paper	For Paper NOIs:
this permit	NOIs: At least 30 days prior to	30 days after complete NOI processed by EPA
	discharge into waters subject to this permit	

^{*} Based on a review of your NOI or other information, EPA may delay the discharge authorization date for further review, or may deny coverage under this permit and require submission of an application for an individual NPDES permit, as detailed in Part 1.8 of the permit. In these instances, EPA will notify you in writing of the delay or the request for submission of an individual NPDES permit application. If EPA requires an individual permit for an existing vessel previously covered by this general permit, EPA will allow the permittee a reasonable amount of time to obtain individual permit coverage before their general permit coverage terminates.

Owner/Operators Not Required to Submit NOIs

An operator of a vessel is not required to submit an NOI pursuant to Part 1.5.1.2 of the permit if the vessel is less than 300 gross tons and does not have the capacity to hold or discharge more than 8 cubic meters (2113 gallons) of ballast water. Owner/operators that are not required to submit an NOI must sign and maintain a copy of the PARI form onboard their vessel.

Where to File NOI Form

All NOIs must be completed and filed using the eNOI system at www.epa.gov/vessels/enoi. Alternatively, if you meet one of the exemptions from electronic reporting found in Part 1.14 of the VGP, you may send your completed NOI to the Notice Processing Center at EPA Headquarters, EPA Vessel Notice Processing Center, Mail Code 4203M, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. If you have questions about whether you need to file an NOI or questions about completing the form, refer to www.epa.gov/vessels/enoi or contact the NOI center at 1-866-352-7755. Updated contact information will be maintained at www.epa.gov/npdes/vessels.

Completing the Form

Section A: Owner/Operator Information

Provide the full legal name of the person, firm, public organization, or other entity that is the owner/operator of the vessel, as well as the name of the certifying official. Include the complete contact information for the owner/operator. The mailing address, city, state/province and country, as well as zip code and phone number are required. The email address is required if the

NOI is submitted electronically. The fax number is optional. Please do not use abbreviations for cities, and when using abbreviations for US states, please use only the official postal abbreviations which may be found at www.usps.com/ncsc/lookups/abbr_state.txt. Enter the NAICS code: a listing of NAICS codes can be found at http://www.census.gov/eos/www/naics/.

Section B: Vessel Information

Provide the vessel name, previous VGP tracking number (if applicable), registered identification number (if applicable), vessel International Maritime Organization (IMO) number (if applicable), call sign, and port of registry. You must complete all of these fields if those data are available (failure to submit available information is a permit violation). Provide port of registry by spelling out entire name of location (e.g., New Orleans, Louisiana, United States). Select the type of vessel by checking the appropriate box. Enter the vessel tonnage in gross tons, the length in feet, and the ballast water capacity in gallons or m³. Enter the year in which the vessel was built, as well as the date of last dry-dock and the date of the next scheduled or anticipated dry-dock. If the vessel is not required to have measurements in gross tons, gross registered tons may be used instead; however, you must indicate that the measurements are in gross registered tons. Indicate whether the vessel currently holds or has ever held an NPDES permit other than the VGP. Include the Permit number, dates of permit coverage, and discharges covered. If the vessel is covered under this General Permit and this NOI is being submitted for a transfer of ownership to continue coverage, check the appropriate box, and include the date of transfer.

Section C: General Voyage Information

Enter the vessel home port, or if it does not have a home port, enter the U.S. port it most frequently visits. Provide the name of each US port the vessel may visit during the Permit term. Do not use abbreviations for cities, and when using abbreviations for US states, please use only the official postal abbreviations which may be found at:

www.usps.com/ncsc/lookups/abbr_state.txt. This list does not need to be exhaustive, but should be based on ports visited in the past and should be representative of the geographic area in which the vessel travels. Indicate the number of overnight berths for passengers and crew separately for each vessel, as well as maximum passenger and crew capacity typical of normal operation of the vessel. Also, select the appropriate box to indicate if the vessel will travel in ocean waters seaward of the US exclusive economic zone (EEZ) and more than 200 nautical miles from any shore during the period of permit coverage. Indicate whether the vessel engages in nearshore voyages.

Section D: Discharge Information

From the list provided, select each applicable discharge type that your vessel may create. All discharges incidental to the normal operation of a vessel are included in permit coverage; you do not have to select each discharge type for your vessel to receive coverage for all discharges you may have; however, when completing the NOI, vessel owner/operators should list all discharge types they expect from their vessels. Select the appropriate box to indicate whether the vessel ever engages or has the capacity to engage in industrial operations, such as seafood processing, energy exploration, or mining. If the vessel will be using a ballast water treatment system, check the appropriate box and answer the questions related to the discharge of residual biocides. The

requirements for vessels using a ballast water treatment system can be found in Part 2.2.3 of the Permit. Indicate whether the vessel currently has any onboard treatment systems for any waste stream listed in the permit, such as an Advanced Wastewater Treatment System (AWTS) used for graywater, an exhaust gas washwater treatment system, or an Oily Water Separator (OWS) used for bilgewater. Describe the treatment system, including what waste stream it treats, the type and design of the system, and treatment capacity. Provide information on the frequency and method of ballast tank sediment disposal and whether the vessel currently has a ballast water management plan. Indicate whether the vessel has an anti-foulant coating applied to the hull, what type of coating, when it was last applied, and briefly describe the vessel hull husbandry practices, including frequency of hull cleaning and method usually used. Indicate if your vessel is required to collect samples for analytical monitoring and for which of the discharges you are required to sample.

Section E: Certification

Carefully read the certification language. For eNOIs, to indicate your acceptance of these terms, check the "accept" box. Checking this box acts as a virtual signature on the NOI and indicates the operators consent to adhere to all the applicable terms of the Permit. By completing and submitting the NOI, the owner/operator certifies that every applicable General permit requirement will be met. Include the name and title of the person completing the eNOI. The person completing the eNOI will have a box to check for "accept" which will act as virtual signature.

NOI Form

NPDES EPA United States Environmental Protection Ag	geney			
Form Washington, DC 20460 Form Approved OMB No.				
Notice of Intent (NOI) for Discharges Incidental to the Normal Operation of a Vessel under the NPDES Vessel General Permit				
Submission of this completed Notice of Intent (NOI) constitutes notice that the entity in Section A intends to be authorized to discharge pollutants to waters of the United States, from the vessel identified in Section B, under EPA's Vessel General Permit (VGP). Submission of the NOI also constitutes notice that the party identified in Section B of this form has read, understands,				
	es to comply with all applicable terms and conditions of the VGP; contingent on maintaining eligibility for coverage. In order to be e completed. Please read and make sure you comply with all			
A. Vessel Owner/Operator Information 1. Name:				
2a. IRS Employer Information Number: (if a	pplicable)			
2b. Company IMO number(if ap	plicable)			
3. Name of Certifying Official				
4. Mailing Address: a. Street:				
b. City: _	c. State/Province: d. Zip code:			
d. Country:				
e. Phone (include country code):	f. Fax (Optional):			
g. E-mail: 5. Identify the 2, 4, or 6 digit North American Industry Classific service for which you are seeking coverage (if applicable): B. Vessel Information				
1. Vessel Name:				
2. Did your vessel previously have permit coverage under the 2				
	CC malinally			
_	(if applicable			
	(if applicable			
4. Vessel Call Sign				
	ort city names required)			
6. Type of Vessel (select one primary vessel type, and secondar ☐ Commercial Fishing Vessel	ry vessel type where appropriate) Emergency and Rescue Vessel			
□ Medium Cruise Ship (100 to 499 passengers)				
□ Large Cruise Ship (500+ passengers)	□ Container Ship			
□ Large Ferry (250+ passengers or more than 100 tons of cargo, e.g., cars, trucks, trains, or other land- based	☐ General Cargo Ship ☐ Roll-on Roll-Off			
transportation.)	☐ Utility Vessel, including Tug boats and Offshore supply			
□ Barge (□ Hopper Barge, □ Tank Barge, □ Other Barge)	vessels (□ Tug, □ Offshore supply vessel, □ Other			
□ Oil or Gas Tanker	Utility))□ Other:			
□ Research/Survey Vessel				
7. Vessel Dimensions: a. Tonnage:				
b. Length:				
8. Ballast Water Capacity:				
9. Year Vessel Built:				
10. a. Date of last dry-dock: b. Date of next scheduled/anticipated dry-dock:				
11. Does vessel currently have, or has vessel ever held, an NPD operation of the vessel?	DES permit, other than the VGP, for any part, discharge, or			

☐ Yes ☐ No a. If yes, please provide the following:	
Permit Number:	
Dates of coverage:	
Discharges permitted:	
b. Is this a transfer of ownership? □ Yes □ No	
If Yes, provide date of transfer: If yes, provide previous vessel permit tracking number(s):	
C. Vessel Voyage Information 1. Home Port/Most Frequented US Port:	
2. US Ports Vessel Anticipates Visiting During Permit Term:	
3. Number of overnight berths: a. Passengers	
a. Maximum passenger capacity	
4. Does vessel travel beyond the US EEZ and more than 200 nm fi	
5. Is the vessel engaged in Nearshore Voyages? □ Yes □ No	
D. Discharge Information:	
1. Select all applicable discharges vessel may generate:	
□ Deck Washdown and Runoff	□ Gas Turbine Washwater
□ Bilgewater/Oily Water Separator Effluent	□ Graywater
□ Ballast Water	□ Motor Gasoline and Compensating Discharge
□ Anti-fouling hull coatings	□ Non-Oily Machinery Wastewater
□ Aqueous Film Forming Foams (AFFF) □ Boiler/Economizer Blowdown	 □ Refrigeration and Air Condensate Discharge □ Seawater Cooling Overboard Discharge
□ Cathodic Protection	□ Seawater Cooling Overload Discharge □ Seawater Piping Biofouling Prevention
□ Chain Locker Effluent	□ Small Boat Engine Wet Exhaust
☐ Controllable Pitch Propeller Hydraulic Fluid and other	□ Sonar Dome Discharge
Oil-to-Sea Interfaces	□ Underwater Ship Husbandry
□ Distillation or Reverse Osmosis Brine	□ Welldeck Discharges
□ Elevator Pit Effluent	□ Graywater Mixed with Sewage
□ Firemain Systems □ Freshwater layup	 □ Exhaust Gas Scrubber Washwater Discharge □ Fish Hold/ Fish Hold Cleaning Effluent
 Does Vessel ever engage in or have capacity to engage in indust 	
a. If yes, please select appropriate box:	nai operations? 🗆 res 🗆 No
□ Seafood processing	□ Mining
□ Energy Exploration	□ Other:
3. Will the vessel be using an experimental ballast water treatment	system which discharges residual biocides?
\Box Yes \Box No b. If yes, are residual biocide concentrations expected to be below to	those listed in Part 2.2.3.5.1.1.5 of the Permit? Ves. No.
c. List the biocide residuals or derivatives that may be discharged by	
c. List the blocide residuals of derivatives that may be discharged t	y the banast water treatment system.
4. Is your vessel required to collect analytical monitoring? If so, for monitoring:	or which of the following discharges must you conduct
□ Ballast Water	
□ Bilgewater	
$\hfill\Box$ Exhaust Gas Scrubber Effluent $\hfill\Box$ Graywater \hfill If yes, please check the appropriate answer: $\hfill\Box$ I use o	r □ I do not us a treatment system for Graywater
5. Does the vessel have onboard treatment systems for any waste st \square Yes \square No	ream(s) covered by this permit?
If yes, check all that apply and complete the following information Exhaust Gas Scrubber Effluent, \Box Graywater, \Box Graywater mixed was a scrubber Effluent.	

Specify Discharge stream(s) treated:
Treatment system type/design and manufacturer:
Treatment System Capacity:
Normal Treatment System Flow Rate: gallons/day _ liters/day
Residuals (wastes) generated by this treatment system:
How they are disposed:
6. Ballast Water and Invasive Species Management—
a. How often is the ballast tank cleaned and sediment disposed of?
b. How and where do you typically dispose of ballast tank sediment?
c. Does vessel have an existing ballast water management plan? □ Yes □ No
7. a. Type of anti-fouling hull coating on the vessel and list specific product:
□ Copper Based □ Non-Copper Based
b. When was anti-fouling hull coating last applied:
c. Describe hull husbandry practices, such as frequency of hull cleaning, method used, how niches and propellers are cleaned, etc:
d. Date of last hull cleaning:
e. Date of next scheduled/anticipated hull cleaning:
E. Certifier Name and Title
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 gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering
the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no
personal knowledge that the information submitted is other than 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.
Print Name:
Title:
Signature:
Email: Date:
NOI Preparer (Complete if NOI was prepared by someone other than the certifier)
Prepared By:
Organization:
Phone:
Email:

Appendix F – Notice of Termination (NOT)

NOT Instructions

Who Must File a NOT Form

Any owner/operator who was required to submit an NOI under Part 1.5.1.1 and meets the conditions of Part 1.6.1.2 of the General Permit is required to submit a NOT to end coverage under this permit.

If you have questions about whether you need to file a NOT or questions about completing the form, refer to (website will be inserted after finalization of this permit) or contact the NOI center at 1-866-352-7755.

Where to File NOT Form

All NOIs must be completed and filed using the eNOI system at www.epa.gov/vessels/enoi or send your completed NOI to the Notice Processing Center at EPA Headquarters, EPA Vessel Notice Processing Center, Mail Code 4203M, U.S. EPA, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.

Completing the Form

Section A: Owner/Operator Information

Provide the full legal name of the person, firm, public organization, or other entity that is the owner/operator of the vessel, as well as the name of the certifying official. Include the complete contact information for the owner/operator. The mailing address, city, state, and zip code, as well as phone number are required. The fax number and email address are optional. Provide the date permit coverage began under the applicable NOI. Select the appropriate box to indicate why you are submitting a NOT to end permit coverage. There are three options to choose from: because you have sold or transferred the vessel and are no longer the owner or operator, because the vessel is no longer traveling in or discharging to waters subject to this permit, or because you have obtained individual or alternative permit coverage. If you have sold or transferred the vessel, please provide the date of transfer as well as the name and contact information of the new owner. If you have obtained an individual or alternative permit, please provide the permit number and date permit coverage begins in the space given.

Section B: Vessel Information

Provide the vessel name, registered identification number, IMO number, call sign, and port of registry.

Section C: Certification

Carefully read the certification language. To indicate your acceptance of these terms, check the "accept" box. Checking this box acts as a virtual signature on the NOT and indicates that you

understand these vessel discharges will longer be authorized under the general permit, and that any discharge of these effluent streams without a permit is a violation of the CWA. Include the name and title of the person completing the NOI. The person completing the NOI will have a box to check for "accept" which will act as virtual signature.

NOT Form

NPDES FORM

Form Approved. OMB No 2040-0004 Please See Instructions Before Completing This Form

EPA Notice of Termination (NOT) of Coverage under NPDES General Permit for **Discharges Incidental to Normal Vessel Operation**

Submission of this Notice of Termination constitutes notice that the party identified in Section B of this form is no longer

authorized to discharge any discharge incidental to the normal of identified in Section III of this form. All necessary information of this form.			
A. Permit Information 1. NPDES Permit Tracking Number:	4. Mailing Address: a. Street: _		
2. Reason for Termination (check one only):	b. City: _		
a. □ You transferred operational control to another operator.		d. Zip code:	
Date of transfer:	e. Phone: f. Fax (Optional):		
b. □ You terminated vessel operations in waters subject to			
the General Permit. c. □ You obtained coverage under an individual or	g. E-mail:		
alternative NPDES permit. Permit Number:	C. Vessel Information 1. Vessel Name:		
Effective Date:	2. Vessel ID/Registered Number		
B. Vessel Owner/Operator Information	3. Vessel Call Sign		
1. Name:	4. Port of Registry		
3. Name of Certifying Official: D. Certifier Name and Title: I certify under penalty of law that the information contained in a and complete. I understand that by submitting this Notice of Terassociated with normal vessel operation under this general perm of a vessel in to waters of the United States is unlawful under the permit. I also understand that the submittal of this Notice of Terviolations of this permit or the CWA. Furthermore, I certify under penalty of law that this document a supervision in accordance with a system designed to assure that information contained therein. Based on my inquiry of the person responsible for gathering the information, the information contained that the contained therein.	rmination, I am no longer a nit, and that discharging pol the CWA where the discharg mination does not release a and all attachments were pro- qualified personnel proper on or persons who manage to	uthorized to discharge any effluent lutants related to the normal operation se is not authorized by a NPDES on operator from liability for any epared under my direction or ly gathered and evaluated the the system, or those persons directly	
and complete. I have no personal knowledge that the information that there are significant penalties for submitting false information knowing violations. Print Name:	n submitted is other than tr	ue, accurate, and complete. I am aware	
Title:			
Signature:		Date:	

Appendix G – Waters Federally Protected Wholly or in Part for Conservation Purposes

The list provided in Appendix G is a complete list of marine sanctuaries, units of the National Park System, units of the National Wildlife Refuge System, National Wilderness areas, and national wild and scenic rivers system components. EPA notes that this list is gathered from sources maintained by the administrative agency and the EPA only removed areas that are clearly terrestrial and do not contain waters suitable for permitted vessels or are unlikely to be impacted by permitted vessel discharges (e.g. The Washington Monument). Inclusion in this list does not mean the area is suitable for operation for vessels greater than 79 feet.

You must comply with the specific effluent limits in Parts 2.2.2, 2.1.3, 2.2.6, , 2.2.15, 2.2.16 and 5.1.1.1.1 [etc.] affecting the following federally protected waters to the extent located in waters subject to this permit:

- Marine Sanctuaries designated under the National Marine Sanctuaries Act (16 USC 1431 et seq.) and implementing regulations found at 15 CFR Part 922 and 50 CFR Part 404 or Marine national monuments designated under the Antiquities Act of 1906 (see Part G.1 for a list of such areas);
- A unit of the National Park System, including National Preserves and National Monuments (see Part G.2 for a list of such areas);
- A unit of the National Wildlife Refuge System, including Wetland Management Districts, Waterfowl Production Areas, National Game Preserves, Wildlife Management Area, and National Fish and Wildlife Refuges (see Part G.3 for a list of such areas);
- National Wilderness Areas (see Part G.4 for a list of such areas); and
- Any component designated under the National Wild and Scenic Rivers System (see Part G.5 for a list of such areas).
- Any waterbody designated as an Outstanding National Resource Water (ONRW) by a State or Tribe (see Part G.6 for a description of such areas)

G.1 <u>Marine Sanctuaries under the National Marine Sanctuaries Act (16 USC 1431 et seq.) and National Marine Monuments Designated under the Antiquities Act of 1906</u>

- Channel Islands (California)
- Cordell Bank (California)
- Fagatele Bay (American Samoa)(U.S.)
- Florida Keys (Florida)
- Flower Garden Banks (Texas)
- Grays Reef (Georgia)
- Gulf of the Farallones (California)
- Hawaiian Islands Humpback Whales (Hawaii)
- Monitor (North Carolina)
- Monterey Bay (California)
- Olympic Coast (Washington)
- Papahanaumokuakea Marine National Monument (Hawaii)

- Stellwagen Bank (Massachusetts)
- Thunder Bay (Michigan)

G.2 National Parks and Refuges: National Park Service, Department of the Interior

Alabama

Horseshoe Bend National Military Park Little River Canyon National Preserve Russell Cave National Monument Trail Of Tears National Historic Trail Tuskegee Airmen National Historic Site

Alaska

Alagnak Wild River Alaska Public Lands

Aleutian World War II National Historic Area Aniakchak National Monument and Preserve Bering Land Bridge National Preserve Cape Krusenstern National Monument Denali National Park and Preserve

Gates Of The Arctic National Park and Preserve

Glacier Bay National Park and Preserve Katmai National Park and Preserve Kenai Fjords National Park Kobuk Valley National Park

Lake Clark National Park and Preserve

Noatak National Preserve Sitka National historical Park

Wrangell - St Elias National Park and Preserve Yukon - Charley Rivers National Preserve

American Samoa

National Park of American Samoa

Arizona

Casa Grande Ruins National Monument Glen Canyon National Recreation Area

Grand Canyon National Park Hohokam Pima National Monument Lake Mead National Recreation Area Montezuma Castle National Monument

Navajo National Monument

Organ Pipe Cactus National Monument

Parashant National Monument Pipe Spring National Monument

Sunset Crater Volcano National Monument

Tonto National Monument Tuzigoot National Monument Walnut Canyon National Monument Wupatki National Monument Yuma Crossing National Heritage Area

Arkansas

Buffalo National River

Trail Of Tears National Historic Trail

California
Alcatraz Island

Cabrillo National Monument Channel Islands National Park Devils Postpile National Monument Fort Point National Historic Site Golden Gate National Recreation Area John Muir National Historic Site Joshua Tree National Park Lava Beds National Monument Muir Woods National Monument

Pinnacles National Monument

Point Reves National Seashore

Rosie the Riveter WWII Home Front National

Historical Park

Santa Monica Mountains National Recreation

Area

Whiskeytown National Recreation Area

Yosemite National Park

Colorado

Bent's Old Fort National Historical Site Black Canyon Of The Gunnison National Park

Colorado National Monument Curecanti National Recreation Area

Dinosaur National Park

Rocky Mountain National Park Santa Fe National Historic Trail Yucca House National Monument

Connecticut

Quinebaug & Shetucket Rivers Valley National

Heritage Corridor

Delaware

Captain John Smith Chesapeake National

Historic Trail

District of Columbia

Anacostia Park Capitol Hill Parks

Captain John Smith Chesapeake National

Historic Trail

Chesapeake & Ohio Canal National Historical

Park

Chesapeake Bay Gateways Network Kenilworth Park & Aquatic Gardens

Meridian Hill Park

National Capital Parks-East
National Mall & Memorial Parks
Potomac Heritage National Scenic Trail

Florida

Big Cypress National Preserve Biscayne National Park Canaveral National Seashore

Castillo De San Marcos National Monument

De Soto National Memorial Dry Tortugas National Park

Everglades National Park

Fort Caroline National Memorial

Fort Matanzas National Monument

Gulf Islands National Seashore

Timucuan Ecological and Historical Preserve

Georgia

Augusta Canal national Heritage Area

Chattahoochee River National Recreation Area

Chickamauga & Chattanooga National Military

Seashore

Cumberland Island National Seashore

Fort Frederica National Monument

Fort Pulaski National Monument

Jimmy Carter National Historic Site

Ocmulgee National Monument

Guam

War In The Pacific National Historical Park

Hawaii

Haleakala National Park

Kalaupapa National Historical Park

Kaloko-Honokohau National Historical Park

Pu'uhonua O Honaunau National Historical Park

Puukohola Heiau National Historical Site

Idaho

Craters Of The Moon National Monument and

Preserve

Hagerman Fossil Beds National Monument

Lewis & Clark National Historic Trail

Minidoka Internment National Monument

Nez Perce National Historical Park

Yellowstone National Park

Illinois

Lewis & Clark National Historic Trail

Trail Of Tears National Historic Trail

Indiana

George Rogers Clark National Historical Park

Indiana Dunes National Lakeshore

Lincoln Boyhood National Memorial

lowa

Effigy Mounds National Monument

Lewis & Clark National Historic Trail

Kansas

Lewis & Clark National Historic Trail

Kentucky

Big South Fork National River and Recreation

Area

Cumberland Gap National Historical Park

Mammoth Cave National Park

Trail Of Tears National Historic Trail

Louisiana

Cane River National Heritage Area

Cane River Creole National Historical Park

Jean Lafitte National Historical Park and

Preserve

New Orleans Jazz National Historical Park

Poverty Point National Monument

Maine

Acadia National Park

Maine Acadian Culture

Saint Croix Island International Historic Site

Maryland

Antietam National Battlefield

Assateague Island National Seashore

Captain John Smith Chesapeake National

Historic Trail

Catoctin Mountain Park

Chesapeake & Ohio Canal National Historical

Park

Chesapeake Bay Gateways Network

Clara Barton National Historic Site

Fort McHenry National Monument and Historic

Shrine

Fort Washington Park

Glen Echo Park

Harmony Hall

Monocacy National Battlefield

Oxon Cove Park & Oxon Hill Farm

Piscataway Park

Potomac Heritage National Scenic Trail

Thomas Stone National Historic Site

Massachusetts

Blackstone River Valley National Heritage

Corridor

Boston National Historical Park

Boston African American National Historic Site

Boston Harbor Islands National Recreation Area

Cape Cod National Seashore

Essex National Heritage Area

Lowell National Historical Park

Minute Man National Historic Site

New Bedford Whaling National Historical Park

Salem Maritime National Historic Site

Saugus Iron Works National Historic Site

Springfield Armory National Historic Site

Michigan

Isle Royale National Park

Pictured Rocks National Lakeshore

Sleeping Bear Dunes National Lakeshore

Minnesota

Grand Portage National Monument

Mississippi National River and Recreation Area

Pipestone National Monument

Voyageurs National Park

Mississippi

Gulf Islands National Seashore

Natchez National Historical Park

Natchez Trace National Scenic Trail

Missouri

Jefferson National Expansion Memorial Lewis & Clark National Historic Trail

Ozark National Scenic Riverways

Trail Of Tears National Historic Trail

Wilson's Creek National Battlefield

Montana

Bighorn Canyon National Recreation Area

Glacier National Park

Lewis & Clark National Historic Trail

Little Bighorn Battlefield National Monument

Yellowstone National Park

Nebraska

Agate Fossil Beds National Monument Homestead National Monument of America

Lewis & Clark National Historic Trail

Niobrara National Scenic River

Scotts Bluff National Monument

Lake Mead National Recreation Area

New Hampshire

New Jersey

Appalachian National Scenic River Delaware National Scenic River

Delaware Water Gap National Recreation Area

Ellis Island National Monument Gateway National Recreation Area

Great Egg Harbor River

Lower Delaware National Wild and Scenic River

New Jersey Pinelands National Reserve

New Mexico

Aztec Ruins National Monument

Capulin Volcano National Monument

El Malpais National Monument

El Morro National Monument

Fort Union National Monument

Gila Cliff Dwellings National Monument

Petroglyph National Monument

Salinas Pueblo Missions National Monument

White Sands National Monument

New York

Castle Clinton National Monument

Chesapeake Bay Gateways Network

Ellis Island National Monument

Erie Canalway National Heritage Corridor

Fire Island National Seashore

Fort Stanwix National Monument

Gateway National Recreation Area

Governors Island National Monument

Hudson River Valley National Heritage Area

Manhattan Sites

National Parks of New York Harbor Saratoga National Historical Park

Statue Of Liberty National Monument

Upper Delaware Scenic and Recreational River

North Carolina

Blue Ridge National Heritage Area Cape Hatteras National Seashore

Cape Lookout National Seashore

Great Smoky Mountains National Park

Wright Brothers National Monument

North Dakota

Fort Union Trading Post National Historic Site

Lewis & Clark National Historic Trail

Theodore Roosevelt National Park

Northern Mariana Islands

American Memorial Park

Perry's Victory & International Peace Memorial

Oklahoma

Chickasaw National Recreation Area

Trail Of Tears National Historic Trail

Oregon

Crater Lake National Park

Fort Vancouver National Historic Site

John Day Fossil Beds National Monument

Lewis & Clark National Historic Trail

Lewis and Clark National Historical Park

Oregon Caves National Monument

Pennsylvania

Chesapeake Bay Gateways Network

Delaware National Scenic River

Delaware & Lehigh National Heritage Corridor

Delaware Water Gap National Recreation Area

Johnstown Flood National Monument

Lackawanna Heritage Valley

Lower Delaware National Wild and Scenic River

Potomac Heritage National Scenic Trail

Rivers Of Steel National Heritage Area

Schuylkill River Valley National Heritage Area Upper Delaware Scenic and Recreational River

Puerto Rico

Rhode Island

Blackstone River Valley National Heritage

Corridor

South Carolina

Congaree National Park

Fort Moultrie National Monument

Fort Sumter National Monument

South Dakota

Jewel Cave National Monument

Lewis & Clark National Historic Trail

Missouri Recreational River

Tennessee

Big South Fork National River and Recreation

Great Smoky Mountains National Park

Obed Wild and Scenic River

Texas

Alibates Flint Ouarries National Monument

Amistad National Recreation Area

Big Bend National Park

Big Thicket National Preserve

Chamizal National Memorial

Lake Meredith National Recreation Area

Padre Island National Seashore

Rio Grande Wild and Scenic River

<u>Utah</u>

Arches National Park
Bryce Canyon National Park
Canyonlands National Park
Capitol Reef National Park

Cedar Breaks National Monument Dinosaur National Monument

Glen Canyon National Recreation Area Hovenweep National Monument Natural Bridges National Monument Timpanogos Cave National Monument

Vermont

Virgin Islands

Buck Island Reef National Monument

Virgin Islands National Park

Virgin Islands Coral Reef National Monument

Virginia

Assateague Island National Seashore Booker T Washington National Monument

Cape Henry Memorial

Captain John Smith Chesapeake National

Historic Trail

Chesapeake Bay Gateways Network Colonial National Historical Park

Fredericksburg & Spotsylvania National Military

Park

Great Falls Park

Lyndon Baines Johnson Memorial Grove on the Potomac

Potomac Heritage National Scenic Trail Theodore Roosevelt Island Park

Washington

Fort Vancouver National Historic Site Lake Chelan National Recreation Area Lake Roosevelt National Recreation Area Lewis & Clark National Historic Trail

Mount Rainier National Park North Cascades National Park

Olympic National Park

Ross Lake National Recreation Area San Juan Island National Historical Park

West Virginia

Bluestone National Scenic River Chesapeake Bay Gateways Network Gauley River National Recreation Area New River Gorge National River

Wisconsin

Apostle Islands National Lakeshore Saint Croix National Scenic River

Wyoming

Bighorn Canyon National Recreation Area Devils Tower National Monument

Fossil Butte National Monument Grand Teton National Park

John D Rockefeller Jr. Memorial Parkway

Yellowstone National Park

G.3 National Wildlife Refuges (Including, but Not Limited to Wetlands Management Districts, Waterfowl Production Areas, National Game Preserves, Wildlife Management Areas, and National Fish and Wildlife Refuges)

As of 9/30/06, there were 547 national wildlife refuges in all 50 states. Neches River NWR in Texas and the Rocky Mountain Front Conservation Area in Montana were the 546th and 547th national wildlife refuges. There were 37 Wetland Management Districts in the Prairie Pothole region of the northern Great Plains.

The acreage for the NWRS as of 9/30/06 was 96,369,969.43 acres. The system encompasses 547 national wildlife refuges, 37 Wetland Management Districts (which include Waterfowl Production Areas in 204 counties), and 50 Coordination Areas which are managed by the states.

Refuges that have boundaries in multiple states are listed only in the state where the main visitor entrance is located. Maps of each area can be found by accessing the National Fish and Wildlife Services website at: http://www.fws.gov/refuges/refugeLocatorMaps/index.html.

Alamosa National Wildlife Refuge	CO	Browns Park National Wildlife Refuge	CO
Alaska Maritime National Wildlife Refuge	AK	Buck Island National Wildlife Refuge	VI
Alaska Peninsula National Wildlife Refuge	AK	Cabo Rojo National Wildlife Refuge	PR
Alligator River National Wildlife Refuge	NC	Cache River National Wildlife Refuge	AR
Amagansett National Wildlife Refuge	NY	Cahaba River National Wildlife Refuge	AL
Anahuac National Wildlife Refuge	TX	Caloosahatchee National Wildlife Refuge	FL
Ankeny National Wildlife Refuge	OR	Cameron Prairie National Wildlife Refuge	LA
Antioch Dunes National Wildlife Refuge	CA	Canaan Valley National Wildlife Refuge	WV
Aransas National Wildlife Refuge	TX	Cape May National Wildlife Refuge	NJ
Arapaho National Wildlife Refuge	CO	Cape Meares National Wildlife Refuge	OR
Archie Carr National Wildlife Refuge	FL	Cape Romain National Wildlife Refuge	SC
Arctic National Wildlife Refuge	AK	Carlton Pond Waterfowl Production Area	ME
Arrowwood National Wildlife Refuge	ND	Carolina Sandhills National Wildlife Refuge	SC
Arrowwood Wetland Management District	ND	Castle Rock National Wildlife Refuge	CA
Arthur R. Marshall Loxahatchee National		Cat Island National Wildlife Refuge	LA
Wildlife Refuge	FL	Catahoula National Wildlife Refuge	LA
Ash Meadows National Wildlife Refuge	NV	Cedar Island National Wildlife Refuge	NC
Assabet River National Wildlife Refuge	MA	Cedar Keys National Wildlife Refuge	FL
Atchafalaya National Wildlife Refuge	LA	Cedar Point National Wildlife Refuge	ОН
Audubon National Wildlife Refuge	ND	Charles M. Russell National Wildlife Refuge	MT
Back Bay National Wildlife Refuge	VA	Chase Lake National Wildlife Refuge	ND
Baker Island National Wildlife Refuge	HI	Chassahowitzka National Wildlife Refuge	FL
Bald Knob National Wildlife Refuge	AR	Chautauqua National Wildlife Refuge	IL
Bamforth National Wildlife Refuge	WY	Chickasaw National Wildlife Refuge	TN
Bandon Marsh National Wildlife Refuge	OR	Chincoteague National Wildlife Refuge	VA
Banks Lake National Wildlife Refuge	GA	Choctaw National Wildlife Refuge	AL
Baskett Slough National Wildlife Refuge	OR	Cibola National Wildlife Refuge	AZ
Bayou Cocodrie National Wildlife Refuge	LA	Clarence Cannon National Wildlife Refuge	MO
Bayou Sauvage National Wildlife Refuge	LA	Clarks River National Wildlife Refuge	KY CA
Bayou Teche National Wildlife Refuge	LA	Clear Lake National Wildlife Refuge	WY
Bear Lake National Wildlife Refuge	ID UT	Cokeville Meadows National Wildlife Refuge Cold Springs National Wildlife Refuge	OR
Bear River Migratory Bird Refuge Becharof National Wildlife Refuge	AK	Coldwater River National Wildlife Refuge	MS
Benton Lake National Wildlife Refuge	MT	Columbia National Wildlife Refuge	WA
Benton Lake Wetland Management District	MT	Colusa National Wildlife Refuge	CA
Big Branch Marsh National Wildlife Refuge	LA	Conboy Lake National Wildlife Refuge	WA
Big Lake National Wildlife Refuge	AR	Crab Orchard National Wildlife Refuge	IL
Big Muddy National Fish & Wildlife Refuge	MO	Crane Meadows National Wildlife Refuge	MN
Big Oaks National Wildlife Refuge	IN	Crescent Lake National Wildlife Refuge	NE
Big Stone National Wildlife Refuge	MN	Cross Creeks National Wildlife Refuge	TN
Big Stone Wetland Management District	MN	Cross Island National Wildlife Refuge	ME
Bill Williams River National Wildlife Refuge	AZ	Crystal River National Wildlife Refuge	FL
Bitter Lake National Wildlife Refuge	NM	Currituck National Wildlife Refuge	NC
Black Bayou Lake National Wildlife Refuge	LA	Cypress Creek National Wildlife Refuge	IL
Blackbeard Island National Wildlife Refuge	GA	Dahomey National Wildlife Refuge	MS
Blackwater National Wildlife Refuge	MD	D'Arbonne National Wildlife Refuge	LA
Block Island National Wildlife Refuge	RI	Deep Fork National Wildlife Refuge	OK
Bogue Chitto National Wildlife Refuge	LA	Deer Flat National Wildlife Refuge	ID
Bombay Hook National Wildlife Refuge	DE	Delta National Wildlife Refuge	LA
Bon Secour National Wildlife Refuge	AL	Des Lacs National Wildlife Refuge	ND
Bond Swamp National Wildlife Refuge	GA	Desecheo National Wildlife Refuge	PR
Bosque del Apache National Wildlife Refuge	NM	Desert National Wildlife Range	NV
Bowdoin National Wildlife Refuge	MT	DeSoto National Wildlife Refuge	IA
Boyer Chute National Wildlife Refuge	NE	Detroit Lakes Wetland Management District	MN
Brazoria National Wildlife Refuge	TX	Detroit River International Wildlife Refuge	MI
Breton National Wildlife Refuge	LA	Devils Lake Wetland Management District	ND

Don Edwards San Francisco Bay National		Hawaiian Islands National Wildlife Refuge	HI
Wildlife Refuge	CA	Hillside National Wildlife Refuge	MS
Driftless Area National Wildlife Refuge	IA	Hobe Sound National Wildlife Refuge	FL
Dungeness National Wildlife Refuge	WA	Holla Bend National Wildlife Refuge	AR
Eastern Neck National Wildlife Refuge	MD	Horicon National Wildlife Refuge	WI
Eastern Shore Of Virginia National Wildlife		Howland Island National Wildlife Refuge	HI
Refuge	VA	Humboldt Bay National Wildlife Refuge	CA
Edwin B. Forsythe National Wildlife Refuge	NJ	Huron National Wildlife Refuge	MI
Egmont Key National Wildlife Refuge	FL	Huron Wetland Management District	SD
Elizabeth A. Morton National Wildlife Refuge	NY	Hutton Lake National Wildlife Refuge	WY
Elizabeth Hartwell Mason Neck National Wildlife Refuge	VA	Imperial National Wildlife Refuge Innoko National Wildlife Refuge	AZ AK
Emiquon National Wildlife Refuge	IL	Iowa Wetland Management District	IA
Erie National Wildlife Refuge	PA	Iroquois National Wildlife Refuge	NY
Ernest F. Hollings ACE Basin National Wildlife	171	Island Bay National Wildlife Refuge	FL
Refuge	SC	Izembek National Wildlife Refuge	AK
Eufaula National Wildlife Refuge	AL	J. Clark Salyer National Wildlife Refuge	ND
Fallon National Wildlife Refuge	NV	J. Clark Salyer Wetland Management District	ND
Felsenthal National Wildlife Refuge	AR	J.N. Ding Darling National Wildlife Refuge	FL
Fergus Falls Wetland Management District	MN	James Campbell National Wildlife Refuge	HI
Fish Springs National Wildlife Refuge	UT	James River National Wildlife Refuge	VA
Fisherman Island National Wildlife Refuge	VA	Jarvis Island National Wildlife Refuge	HI
Flattery Rocks National Wildlife Refuge	WA	John H. Chafee National Wildlife Refuge	RI
Flint Hills National Wildlife Refuge	KS	John Hay National Wildlife Refuge	NH
Florence Lake National Wildlife Refuge	ND	John Heinz at Tinicum National Wildlife Refuge	
Fort Niobrara National Wildlife Refuge	NE	Johnston Island National Wildlife Refuge	HI
Fox River National Wildlife Refuge	WI	Julia Butler Hansen Refuge for the Columbian	TT 7 A
Franklin Island National Wildlife Refuge	ME	White-Tailed Deer	WA
Franz Lake National Wildlife Refuge	WA	Kakahaia National Wildlife Refuge	HI
Glacial Ridge National Wildlife Refuge	MN MS	Kanuti National Wildlife Refuge	AK AK
Grand Bay National Wildlife Refuge Grand Cote National Wildlife Refuge	LA	Kenai National Wildlife Refuge Kern National Wildlife Refuge	CA
Gravel Island National Wildlife Refuge	WI	Key West National Wildlife Refuge	FL
Grays Lake National Wildlife Refuge	ID	Kilauea Point National Wildlife Refuge	HI
Great Bay National Wildlife Refuge	NH	Kirtlands Warbler Wildlife Management Area	MI
Great Dismal Swamp National Wildlife Refuge	VA	Kirwin National Wildlife Refuge	KS
Great Meadows National Wildlife Refuge	MA	Kodiak National Wildlife Refuge	AK
Great River National Wildlife Refuge	MO	Kootenai National Wildlife Refuge	ID
Great Swamp National Wildlife Refuge	NJ	Koyukuk National Wildlife Refuge	AK
Great White Heron National Wildlife Refuge	FL	Kulm Wetland Management District	ND
Green Cay National Wildlife Refuge	VI	Lacassine National Wildlife Refuge	LA
Grulla National Wildlife Refuge	TX	Lacreek National Wildlife Refuge	SD
Guadalupe-Nipomo Dunes National Wildlife		Laguna Atascosa National Wildlife Refuge	TX
Refuge	CA	Laguna Cartagena National Wildlife Refuge	PR
Guam National Wildlife Refuge	GU	Lake Alice National Wildlife Refuge	ND
Hagerman National Wildlife Refuge	TX	Lake Andes National Wildlife Refuge	SD
Hakalau Forest National Wildlife Refuge	HI	Lake Ilo National Wildlife Refuge	ND
Halfbreed Lake National Wildlife Refuge	MT	Lake Isom National Wildlife Refuge Lake Mason National Wildlife Refuge	TN
Hamden Slough National Wildlife Refuge Hanalei National Wildlife Refuge	MN HI	Lake Ophelia National Wildlife Refuge	MT LA
Handy Brake National Wildlife Refuge	LA	Lake Umbagog National Wildlife Refuge	NH
Harbor Island National Wildlife Refuge	MI	Lake Wales Ridge National Wildlife Refuge	FL
Harris Neck National Wildlife Refuge	GA	Lake Woodruff National Wildlife Refuge	FL
Hart Mountain National Antelope Range	OR	Lake Zahl National Wildlife Refuge	ND
Hatchie National Wildlife Refuge	TN	Las Vegas National Wildlife Refuge	NM
Havasu National Wildlife Refuge	CA	Lee Metcalf National Wildlife Refuge	MT

Leopold Wetland Management District	WI	Ohio River Islands National Wildlife Refuge	WV
Leslie Canyon National Wildlife Refuge	ΑZ	Okefenokee National Wildlife Refuge	GA
Lewis and Clark National Wildlife Refuge	WA	Oregon Islands National Wildlife Refuge	OR
Litchfield Wetland Management District	MN	Ouray National Wildlife Refuge	UT
Little Pend Oreille National Wildlife Refuge	WA	Oxbow National Wildlife Refuge	MA
	OK		ID
Little River National Wildlife Refuge		Oxford Slough Waterfowl Production Area	
Long Lake National Wildlife Refuge	ND	Oyster Bay National Wildlife Refuge	NY
Lostwood National Wildlife Refuge	ND	Panther Swamp National Wildlife Refuge	MS
Louisiana Wetland Management District	LA	Parker River National Wildlife Refuge	MA
Lower Hatchie National Wildlife Refuge	TN	Pathfinder National Wildlife Refuge	WY
Lower Rio Grande Valley National Wildlife	(DX7	Patoka River National Wildlife Refuge and	т. т
Refuge	TX	Wildlife Management Area	IN
Lower Suwannee National Wildlife Refuge	FL	Pea Island National Wildlife Refuge	NC
Mackay Island National Wildlife Refuge	NC	Pee Dee National Wildlife Refuge	NC
Madison Wetland Management District	SD	Pelican Island National Wildlife Refuge	FL
Maine Coastal Islands National Wildlife Refuge	ME	Piedmont National Wildlife Refuge	GA
Mandalay National Wildlife Refuge	LA	Pinckney Island National Wildlife Refuge	GA
Marin Islands National Wildlife Refuge	CA	Pine Island National Wildlife Refuge	FL
Martin National Wildlife Refuge	MD	Pocosin Lakes National Wildlife Refuge	NC
Mashpee National Wildlife Refuge	MA	Pond Creek National Wildlife Refuge	AR
Mathews Brake National Wildlife Refuge	MS	Port Louisa National Wildlife Refuge	IA
Matlacha Pass National Wildlife Refuge	FL	Prime Hook National Wildlife Refuge	DE
Mattamuskeet National Wildlife Refuge	NC	Rachel Carson National Wildlife Refuge	ME
Maxwell National Wildlife Refuge	NM	Rainwater Basin Wetland Management District	NE
McFaddin National Wildlife Refuge	TX	Rappahannock River Valley National Wildlife	
McKay Creek National Wildlife Refuge	OR	Refuge	VA
McNary National Wildlife Refuge	WA	Red River National Wildlife Refuge	LA
Medicine Lake National Wildlife Refuge	MT	Reelfoot National Wildlife Refuge	TN
Meredosia National Wildlife Refuge	IL	Rice Lake National Wildlife Refuge	MN
Merritt Island National Wildlife Refuge	FL	Roanoke River National Wildlife Refuge	NC
Michigan Wetland Management District	MI	Ruby Lake National Wildlife Refuge	NV
Michigan Islands National Wildlife Refuge	MI	Rydell National Wildlife Refuge	MN
Middle Mississippi River National Wildlife		Sabine National Wildlife Refuge	LA
Refuge	IL	Sachuest Point National Wildlife Refuge	RI
Midway Atoll National Wildlife Refuge	HI	Sacramento River National Wildlife Refuge	CA
Mille Lacs National Wildlife Refuge	MN	Salinas River National Wildlife Refuge	CA
Mingo National Wildlife Refuge	MO	Salt Plains National Wildlife Refuge	OK
Minidoka National Wildlife Refuge	ID	San Bernard National Wildlife Refuge	TX
Missisquoi National Wildlife Refuge	VT	San Diego Bay National Wildlife Refuge	CA
Modoc National Wildlife Refuge	CA	San Joaquin River National Wildlife Refuge	CA
Monomoy National Wildlife Refuge	MA	San Pablo Bay National Wildlife Refuge	CA
Montezuma National Wildlife Refuge	NY	Sandy Point National Wildlife Refuge	VI
Morgan Brake National Wildlife Refuge	MS	Santee National Wildlife Refuge	SC
Mountain Longleaf National Wildlife Refuge	AL	Savannah National Wildlife Refuge	SC
Muscatatuck National Wildlife Refuge	IN	Seal Island National Wildlife Refuge	ME
Nantucket National Wildlife Refuge	MA	Selawik National Wildlife Refuge	AK
National Key Deer Refuge	FL	Seney National Wildlife Refuge	MI
Navassa Island National Wildlife Refuge	PR	Sequoyah National Wildlife Refuge	OK
Necedah National Wildlife Refuge	WI	Shell Keys National Wildlife Refuge	LA
Nestucca Bay National Wildlife Refuge	OR	Sherburne National Wildlife Refuge	MN
Ninigret National Wildlife Refuge	RI	Shiawassee National Wildlife Refuge	MI
Nisqually National Wildlife Refuge	WA	Siletz Bay National Wildlife Refuge	OR
North Platte National Wildlife Refuge	NE	Silvio O. Conte National Fish & Wildlife Refuge	MA
Nowitna National Wildlife Refuge	AK	Sonny Bono Salton Sea National Wildlife	
Noxubee National Wildlife Refuge	MS	Refuge	CA
Occoquan Bay National Wildlife Refuge	VA	St. Catherine Creek National Wildlife Refuge	MS

St. Croix Wetland Management District	WI	Two Rivers National Wildlife Refuge	IL
St. Johns National Wildlife Refuge	FL	UL Bend National Wildlife Refuge	MT
St. Marks National Wildlife Refuge	FL	Umatilla National Wildlife Refuge	OR
St. Vincent National Wildlife Refuge	FL	Union Slough National Wildlife Refuge	IA
Steigerwald Lake National Wildlife Refuge	WA	Upper Klamath National Wildlife Refuge	OR
Stewart B. McKinney National Wildlife Refuge	CT	Upper Mississippi River National Wildlife &	
Stillwater National Wildlife Refuge	NV	Fish Refuge	MN
Sunkhaze Meadows National Wildlife Refuge	ME	Upper Ouachita National Wildlife Refuge	LA
Supawna Meadows National Wildlife Refuge	NJ	Upper Souris National Wildlife Refuge	ND
Susquehanna River National Wildlife Refuge	MD	Valentine National Wildlife Refuge	NE
Swan Lake National Wildlife Refuge	MO	Valley City Wetland Management District	ND
Swanquarter National Wildlife Refuge	NC	Wallkill River National Wildlife Refuge	NJ
Tallahatchie National Wildlife Refuge	MS	Wapanocca National Wildlife Refuge	AR
Tamarac National Wildlife Refuge	MN	Washita National Wildlife Refuge	OK
Target Rock National Wildlife Refuge	NY	Wassaw National Wildlife Refuge	GA
Ten Thousand Islands National Wildlife Refuge	FL	Wertheim National Wildlife Refuge	NY
Tennessee National Wildlife Refuge	TN	Wheeler National Wildlife Refuge	AL
Tensas River National Wildlife Refuge	LA	White River National Wildlife Refuge	AR
Tetlin National Wildlife Refuge	AK	Wichita Mountains Wildlife Refuge	OK
Tewaukon National Wildlife Refuge	ND	Willapa National Wildlife Refuge	WA
Texas Point National Wildlife Refuge	TX	Willow Creek-Lurline Wildlife Management	
Tijuana Slough National Wildlife Refuge	CA	Area	CA
Tishomingo National Wildlife Refuge	OK	Wolf Island National Wildlife Refuge	GA
Togiak National Wildlife Refuge	AK	Yazoo National Wildlife Refuge	MS
Trempealeau National Wildlife Refuge	WI	Yukon Delta National Wildlife Refuge	AK
Trinity River National Wildlife Refuge	TX	Yukon Flats National Wildlife Refuge	AK
Trustom Pond National Wildlife Refuge	RI		
Tualatin River National Wildlife Refuge	OR		
Tule Lake National Wildlife Refuge	CA		

G.4 National Wilderness Areas

As of 7/22/2009, there were 776 national wilderness areas in the United States. Section 4(c) of the Wilderness Act of 1964 (16 U.S. C. 1131-1136) strictly prohibits motorized vehicles, vessels, aircrafts or equipment for the purposes of transport of any kind within the boundaries of all wilderness areas. Exceptions to this Act include motorized vehicle use for the purposes of gathering information on minerals or other resources; for the purposes of controlling fire, insects, or disease; and in wilderness areas where aircraft or motorized boat use have already been established prior to 1964.

The following is a list of all National Wilderness Areas within the United States. GIS shape files for each area can be found by accessing the following website: www.wilderness.net/index.cfm?fuse=NWPS&sec=geography#tabs-4.

<u>Alabama</u>

Dugger Mountain Wilderness	Sipsey Wilderness		
Karta River Wilderness	Saint Lazaria Wilderness		
Katmai Wilderness	Selawik Wilderness		
Kenai Wilderness	Semidi Wilderness		
Kobuk Valley Wilderness	Simeonof Wilderness		
	Karta River Wilderness Katmai Wilderness Kenai Wilderness		

Bogoslof Wilderness Chamisso Wilderness Chuck River Wilderness Coronation Island Wilderness Denali Wilderness Endicott River Wilderness Forrester Island Wilderness Gates of the Arctic Wilderness Glacier Bay Wilderness Hazy Islands Wilderness Innoko Wilderness Izembek Wilderness Kootznoowoo Wilderness
Koyukuk Wilderness
Kuiu Wilderness
Lake Clark Wilderness
Maurille Islands Wilderness
Misty Fjords National Monument
Wilderness
Mollie Beattie Wilderness
Noatak Wilderness
Nunivak Wilderness
Petersburg Creek-Duncan Salt
Chuck Wilderness
Pleasant/Lemusurier/Inian Islands

Wilderness

Russell Fjord Wilderness

South Baranof Wilderness
South Etolin Wilderness
South Prince of Wales Wilderness
Stikine-LeConte Wilderness
Tebenkof Bay Wilderness
Togiak Wilderness
Tracy Arm-Fords Terror
Wilderness
Tuxedni Wilderness
Unimak Wilderness
Warren Island Wilderness
West Chichagof-Yakobi
Wilderness
Wrangell-Saint Elias Wilderness

Arizona

Apache Creek Wilderness Aravaipa Canyon Wilderness Arrastra Mountain Wilderness Aubrey Peak Wilderness Baboquivari Peak Wilderness Bear Wallow Wilderness Beaver Dam Mountains Wilderness Big Horn Mountains Wilderness Cabeza Prieta Wilderness Castle Creek Wilderness Cedar Bench Wilderness Chiricahua National Monument Wilderness Chiricahua Wilderness Cottonwood Point Wilderness Coyote Mountains Wilderness Dos Cabezas Mountains Wilderness Eagletail Mountains Wilderness East Cactus Plain Wilderness Escudilla Wilderness Fishhooks Wilderness Fossil Springs Wilderness Four Peaks Wilderness Galiuro Wilderness Gibraltar Mountain Wilderness Grand Wash Cliffs Wilderness Granite Mountain Wilderness Harcuvar Mountains Wilderness Harquahala Mountains Wilderness Hassayampa River Canyon Wilderness Havasu Wilderness

Hells Canyon Wilderness Hellsgate Wilderness **Hummingbird Springs Wilderness** Imperial Refuge Wilderness Juniper Mesa Wilderness Kachina Peaks Wilderness Kanab Creek Wilderness Kendrick Mountain Wilderness Kofa Wilderness Mazatzal Wilderness Miller Peak Wilderness Mount Baldy Wilderness Mount Logan Wilderness Mount Nutt Wilderness Mount Tipton Wilderness Mount Trumbull Wilderness Mount Wilson Wilderness Mt. Wrightson Wilderness Muggins Mountain Wilderness Munds Mountain Wilderness Needle's Eye Wilderness New Water Mountains Wilderness North Maricopa Mountains Wilderness North Santa Teresa Wilderness Organ Pipe Cactus Wilderness Paiute Wilderness Pajarita Wilderness Paria Canyon-Vermilion Cliffs Wilderness Peloncillo Mountains Wilderness Petrified Forest National Wilderness Area

Pine Mountain Wilderness Pusch Ridge Wilderness Rawhide Mountains Wilderness Red Rock-Secret Mountain Wilderness Redfield Canyon Wilderness Rincon Mountain Wilderness Saddle Mountain Wilderness Saguaro Wilderness Salome Wilderness Salt River Canyon Wilderness Santa Teresa Wilderness Sierra Ancha Wilderness Sierra Estrella Wilderness Signal Mountain Wilderness South Maricopa Mountains Wilderness Strawberry Crater Wilderness Superstition Wilderness Swansea Wilderness Sycamore Canyon Wilderness **Table Top Wilderness** Tres Alamos Wilderness Trigo Mountain Wilderness Upper Burro Creek Wilderness Wabayuma Peak Wilderness Warm Springs Wilderness West Clear Creek Wilderness Wet Beaver Wilderness White Canvon Wilderness Woodchute Wilderness Woolsey Peak Wilderness

Arkansas

Big Lake Wilderness Black Fork Mountain Wilderness Buffalo National River Wilderness Caney Creek Wilderness Dry Creek Wilderness
East Fork Wilderness
Flatside Wilderness
Hurricane Creek Wilderness

Leatherwood Wilderness Poteau Mountain Wilderness Richland Creek Wilderness Upper Buffalo Wilderness

California

Agua Tibia Wilderness Ansel Adams Wilderness Argus Range Wilderness Beauty Mountain Wilderness Big Maria Mountains Wilderness Bigelow Cholla Garden Wilderness Bighorn Mountain Wilderness Black Mountain Wilderness **Bright Star Wilderness Bristol Mountains Wilderness Bucks Lake Wilderness** Cache Creek Wilderness Cadiz Dunes Wilderness Cahuilla Mountain Wilderness Caribou Wilderness Carrizo Gorge Wilderness Carson-Iceberg Wilderness Castle Crags Wilderness Cedar Roughs Wilderness Chanchelulla Wilderness Chemehuevi Mountains Wilderness Chimney Peak Wilderness Chuckwalla Mountains Wilderness Chumash Wilderness Cleghorn Lakes Wilderness Clipper Mountain Wilderness Coso Range Wilderness Coyote Mountains Wilderness Cucamonga Wilderness Darwin Falls Wilderness Dead Mountains Wilderness Death Valley Wilderness **Desolation Wilderness** Dick Smith Wilderness Dinkey Lakes Wilderness Domeland Wilderness El Paso Mountains Wilderness Elkhorn Ridge Wilderness **Emigrant Wilderness** Farallon Wilderness Fish Creek Mountains Wilderness Funeral Mountains Wilderness Garcia Wilderness

Golden Trout Wilderness

Hollow Hills Wilderness Hoover Wilderness **Ibex Wilderness** Imperial Refuge Wilderness Indian Pass Wilderness Invo Mountains Wilderness Ishi Wilderness Jacumba Wilderness Jennie Lakes Wilderness John Krebs Wilderness John Muir Wilderness Joshua Tree Wilderness Kaiser Wilderness Kelso Dunes Wilderness Kiavah Wilderness King Range Wilderness Kingston Range Wilderness Lassen Volcanic Wilderness Lava Beds Wilderness Little Chuckwalla Mountains Wilderness Little Picacho Wilderness Machesna Mountain Wilderness Magic Mountain Wilderness Malpais Mesa Wilderness Manly Peak Wilderness Marble Mountain Wilderness Matiliia Wilderness Mecca Hills Wilderness Mesquite Wilderness Mojave Wilderness Mokelumne Wilderness Monarch Wilderness Mount Lassic Wilderness Mt. Shasta Wilderness Newberry Mountains Wilderness Nopah Range Wilderness North Algodones Dunes Wilderness North Fork Wilderness North Mesquite Mountains Wilderness Old Woman Mountains Wilderness Orocopia Mountains Wilderness Otay Mountain Wilderness

Pine Creek Wilderness Pinnacles Wilderness Pinto Mountains Wilderness Piper Mountain Wilderness Piute Mountains Wilderness Pleasant View Ridge Wilderness Red Buttes Wilderness Resting Spring Range Wilderness Rice Valley Wilderness Riverside Mountains Wilderness Rocks and Islands Wilderness Rodman Mountains Wilderness Russian Wilderness Sacatar Trail Wilderness Saddle Peak Hills Wilderness San Gabriel Wilderness San Gorgonio Wilderness San Jacinto Wilderness San Mateo Canyon Wilderness San Rafael Wilderness Sanhedrin Wilderness Santa Lucia Wilderness Santa Rosa Wilderness Sawtooth Mountains Wilderness Sequoia-Kings Canyon Wilderness Sespe Wilderness Sheep Mountain Wilderness Sheephole Valley Wilderness Silver Peak Wilderness Siskiyou Wilderness Snow Mountain Wilderness South Fork Eel River Wilderness South Fork San Jacinto Wilderness South Nopah Range Wilderness South Sierra Wilderness South Warner Wilderness Stateline Wilderness Stepladder Mountains Wilderness Surprise Canyon Wilderness Sylvania Mountains Wilderness Thousand Lakes Wilderness Trilobite Wilderness Trinity Alps Wilderness Turtle Mountains Wilderness Ventana Wilderness

Owens Peak Wilderness

Golden Valley Wilderness Granite Chief Wilderness Granite Mountain Wilderness Grass Valley Wilderness Hauser Wilderness Havasu Wilderness Owens River Headwaters
Wilderness
Pahrump Valley Wilderness
Palen/McCoy Wilderness
Palo Verde Mountains Wilderness
Phillip Burton Wilderness
Picacho Peak Wilderness

Whipple Mountains Wilderness White Mountains Wilderness Yolla Bolly-Middle Eel Wilderness Yosemite Wilderness Yuki Wilderness

Colorado

Black Canyon of the Gunnison Wilderness Black Ridge Canyons Wilderness Buffalo Peaks Wilderness Byers Peak Wilderness Cache La Poudre Wilderness Collegiate Peaks Wilderness Comanche Peak Wilderness Dominguez Canyon Wilderness Eagles Nest Wilderness Flat Tops Wilderness Fossil Ridge Wilderness Great Sand Dunes Wilderness Greenhorn Mountain Wilderness Gunnison Gorge Wilderness Holy Cross Wilderness

Hunter-Fryingpan Wilderness
Indian Peaks Wilderness
James Peak Wilderness
La Garita Wilderness
Lizard Head Wilderness
Lost Creek Wilderness
Maroon Bells-Snowmass
Wilderness
Mesa Verde Wilderness
Mount Evans Wilderness
Mount Massive Wilderness
Mount Sneffels Wilderness
Mount Zirkel Wilderness
Neota Wilderness
Never Summer Wilderness

Platte River Wilderness
Powderhorn Wilderness
Ptarmigan Peak Wilderness
Raggeds Wilderness
Rawah Wilderness
Rocky Mountain National Park
Wilderness
Sangre de Cristo Wilderness
Sarvis Creek Wilderness
South San Juan Wilderness
Spanish Peaks Wilderness
Uncompahgre Wilderness
Vasquez Peak Wilderness
Weminuche Wilderness
West Elk Wilderness

Florida

Alexander Springs Wilderness Big Gum Swamp Wilderness Billies Bay Wilderness Bradwell Bay Wilderness Cedar Keys Wilderness Chassahowitzka Wilderness

Florida Keys Wilderness Island Bay Wilderness J.N. "Ding" Darling Wilderness Juniper Prairie Wilderness Lake Woodruff Wilderness Little Lake George Wilderness Marjory Stoneman Douglas Wilderness Mud Swamp/New River Wilderness Passage Key Wilderness Pelican Island Wilderness St. Marks Wilderness

Georgia

Big Frog Wilderness Blackbeard Island Wilderness Blood Mountain Wilderness Brasstown Wilderness Cohutta Wilderness Cumberland Island Wilderness Ellicott Rock Wilderness Mark Trail Wilderness Okefenokee Wilderness Rayen Cliffs Wilderness Rich Mountain Wilderness Southern Nantahala Wilderness Tray Mountain Wilderness Wolf Island Wilderness

Hawaii

Haleakala Wilderness

Hawaii Volcanoes Wilderness

<u>Idaho</u>

Big Jacks Creek Wilderness Bruneau-Jarbidge Rivers Wilderness Craters of the Moon National Wilderness Area Frank Church-River of No Return Wilderness Gospel-Hump Wilderness Hells Canyon Wilderness Little Jacks Creek Wilderness North Fork Owyhee Wilderness Owyhee River Wilderness Pole Creek Wilderness

Sawtooth Wilderness Selway-Bitterroot Wilderness

Illinois

Bald Knob Wilderness Bay Creek Wilderness Burden Falls Wilderness Clear Springs Wilderness Crab Orchard Wilderness Garden of the Gods Wilderness Lusk Creek Wilderness Panther Den Wilderness

<u>Indiana</u>

Charles C. Deam Wilderness

Kentucky

Beaver Creek Wilderness Clifty Wilderness

Louisiana

Breton Wilderness Kisatchie Hills Wilderness Lacassine Wilderness

Moosehorn (Baring Unit)

Maine

Caribou-Speckled Mountain

Wilderness Wilderness

Moosehorn Wilderness

Massachusetts

Monomoy Wilderness

Michigan

Beaver Basin Wilderness Big Island Lake Wilderness Delirium Wilderness Horseshoe Bay Wilderness Huron Islands Wilderness Isle Royale Wilderness Mackinac Wilderness McCormick Wilderness Michigan Islands Wilderness Nordhouse Dunes Wilderness Rock River Canyon Wilderness Round Island Wilderness Seney Wilderness Sturgeon River Gorge Wilderness Sylvania Wilderness

Minnesota

Agassiz Wilderness Boundary Waters Canoe Area

Wilderness

Tamarac Wilderness

Mississippi

Black Creek Wilderness Gulf Islands Wilderness Leaf Wilderness

Missouri

Bell Mountain Wilderness Devils Backbone Wilderness Hercules-Glades Wilderness Irish Wilderness Mingo Wilderness Paddy Creek Wilderness

Piney Creek Wilderness Rockpile Mountain Wilderness

Montana

Absaroka-Beartooth Wilderness Anaconda Pintler Wilderness Bob Marshall Wilderness Cabinet Mountains Wilderness Gates of the Mountains Wilderness Great Bear Wilderness Lee Metcalf Wilderness Medicine Lake Wilderness Mission Mountains Wilderness Rattlesnake Wilderness

Red Rock Lakes Wilderness Scapegoat Wilderness Selway-Bitterroot Wilderness UL Bend Wilderness Welcome Creek Wilderness

Nebraska

Fort Niobrara Wilderness Soldier Creek Wilderness

Nevada

Alta Toquima Wilderness Arc Dome Wilderness Arrow Canyon Wilderness Bald Mountain Wilderness Becky Peak Wilderness Big Rocks Wilderness Black Canvon Wilderness Black Rock Desert Wilderness **Boundary Peak Wilderness** Bridge Canyon Wilderness Bristlecone Wilderness Calico Mountains Wilderness Clover Mountains Wilderness Currant Mountain Wilderness Death Valley Wilderness Delamar Mountains Wilderness East Fork High Rock Canyon Wilderness East Humboldts Wilderness Eldorado Wilderness Far South Egans Wilderness Fortification Range Wilderness Goshute Canvon Wilderness Government Peak Wilderness Grant Range Wilderness

High Rock Canyon Wilderness High Rock Lake Wilderness High Schells Wilderness Highland Ridge Wilderness Ireteba Peaks Wilderness Jarbidge Wilderness Jimbilnan Wilderness Jumbo Springs Wilderness La Madre Mountain Wilderness Lime Canyon Wilderness Little High Rock Canyon Wilderness Meadow Valley Range Wilderness Mormon Mountains Wilderness Mount Grafton Wilderness Mt. Charleston Wilderness Mt. Irish Wilderness Mt. Moriah Wilderness Mt. Rose Wilderness Muddy Mountains Wilderness Nellis Wash Wilderness North Black Rock Range Wilderness North Jackson Mountains

North McCullough Wilderness Pahute Peak Wilderness Parsnip Peak Wilderness Pinto Valley Wilderness Quinn Canyon Wilderness Rainbow Mountain Wilderness Red Mountain Wilderness **Ruby Mountains Wilderness** Santa Rosa-Paradise Peak Wilderness Shellback Wilderness South Egan Range Wilderness South Jackson Mountains Wilderness South McCullough Wilderness South Pahroc Range Wilderness Spirit Mountain Wilderness Table Mountain Wilderness Tunnel Spring Wilderness Wee Thump Joshua Tree Wilderness Weepah Spring Wilderness White Pine Range Wilderness White Rock Range Wilderness Worthington Mountains Wilderness

New Hampshire

Great Gulf Wilderness Pemigewasset Wilderness Presidential Range-Dry River Wilderness Sandwich Range Wilderness

Wilderness

Wild River Wilderness

New Jersey

Brigantine Wilderness

Great Swamp National Wildlife Refuge Wilderness

New Mexico

Aldo Leopold Wilderness Apache Kid Wilderness Bandelier Wilderness Bisti/De-Na-Zin Wilderness Blue Range Wilderness Bosque del Apache Wilderness Capitan Mountains Wilderness Carlsbad Caverns Wilderness Cebolla Wilderness Chama River Canyon Wilderness Cruces Basin Wilderness Dome Wilderness Gila Wilderness Latir Peak Wilderness Manzano Mountain Wilderness Ojito Wilderness Pecos Wilderness Sabinoso Wilderness Salt Creek Wilderness San Pedro Parks Wilderness Sandia Mountain Wilderness West Malpais Wilderness Wheeler Peak Wilderness White Mountain Wilderness Withington Wilderness

New York

Otis Pike Fire Island High Dune Wilderness

North Carolina

Birkhead Mountains Wilderness Catfish Lake South Wilderness Linville Gorge Wilderness Middle Prong Wilderness Sheep Ridge Wilderness Shining Rock Wilderness

Ellicott Rock Wilderness Joyce Kilmer-Slickrock Wilderness Pocosin Wilderness Pond Pine Wilderness Southern Nantahala Wilderness Swanguarter Wilderness

North Dakota

Chase Lake Wilderness

Lostwood Wilderness Theodore Roosevelt Wilderness

<u>Ohio</u>

West Sister Island Wilderness

Oklahoma

Black Fork Mountain Wilderness Upper Kiamichi River Wilderness Wichita Mountains Wilderness

Oregon

Badger Creek Wilderness Black Canvon Wilderness **Boulder Creek Wilderness** Bridge Creek Wilderness Bull of the Woods Wilderness Clackamas Wilderness Copper Salmon Wilderness **Cummins Creek Wilderness** Diamond Peak Wilderness Drift Creek Wilderness Eagle Cap Wilderness Gearhart Mountain Wilderness Grassy Knob Wilderness Hells Canyon Wilderness Kalmiopsis Wilderness Lower White River Wilderness Mark O. Hatfield Wilderness

Menagerie Wilderness Middle Santiam Wilderness Mill Creek Wilderness Monument Rock Wilderness Mount Hood Wilderness Mount Jefferson Wilderness Mount Thielsen Wilderness Mount Washington Wilderness Mountain Lakes Wilderness North Fork John Day Wilderness North Fork Umatilla Wilderness Opal Creek Wilderness Oregon Badlands Wilderness Oregon Islands Wilderness Red Buttes Wilderness Roaring River Wilderness

Rock Creek Wilderness
Rogue-Umpqua Divide
Wilderness
Salmon-Huckleberry Wilderness
Sky Lakes Wilderness
Soda Mountain Wilderness
Spring Basin Wilderness
Steens Mountain Wilderness
Strawberry Mountain Wilderness
Table Rock Wilderness
Three Arch Rocks Wilderness
Three Sisters Wilderness
Waldo Lake Wilderness
Wenaha-Tucannon Wilderness
Wild Rogue Wilderness

Pennsylvania

Allegheny Islands Wilderness Hickory Creek Wilderness

Puerto Rico

El Toro Wilderness

South Carolina

Cape Romain Wilderness Congaree National Park Wilderness

Ellicott Rock Wilderness

Hell Hole Bay Wilderness Little Wambaw Swamp Wilderness

Wambaw Creek Wilderness

Wambaw Swamp Wilderness

South Dakota

Badlands Wilderness Black Elk Wilderness

Tennessee

Bald River Gorge Wilderness Big Frog Wilderness Big Laurel Branch Wilderness Citico Creek Wilderness Cohutta Wilderness Gee Creek Wilderness Joyce Kilmer-Slickrock Wilderness

Little Frog Mountain Wilderness

Pond Mountain Wilderness Sampson Mountain Wilderness Unaka Mountain Wilderness

Texas

Big Slough Wilderness Guadalupe Mountains Wilderness Indian Mounds Wilderness Little Lake Creek Wilderness Turkey Hill Wilderness Upland Island Wilderness

<u>Utah</u>

Ashdown Gorge Wilderness
Beartrap Canyon Wilderness
Beaver Dam Mountains
Wilderness
Blackridge Wilderness
Black Ridge Canyons Wilderness
Box-Death Hollow Wilderness
Canaan Mountain Wilderness
Cedar Mountain Wilderness
Cedar Mountain Wilderness
Cottonwood Canyon Wilderness
Cottonwood Forest Wilderness
Cougar Canyon Wilderness
Dark Canyon Wilderness
Deep Creek North Wilderness
Deep Creek Wilderness

Deseret Peak Wilderness Doc's Pass Wilderness Goose Creek Wilderness High Uintas Wilderness LaVerkin Creek Wilderness Lone Peak Wilderness Mount Naomi Wilderness Mount Nebo Wilderness Mount Olympus Wilderness Mount Timpanogos Wilderness Paria Canyon-Vermilion Cliffs Wilderness Pine Valley Mountain Wilderness Red Butte Wilderness Red Mountain Wilderness Slaughter Creek Wilderness Taylor Creek Wilderness Twin Peaks Wilderness Wellsville Mountain Wilderness Zion Wilderness

Vermont

Big Branch Wilderness Breadloaf Wilderness Bristol Cliffs Wilderness George D. Aiken Wilderness Glastenbury Wilderness Joseph Battell Wilderness Lye Brook Wilderness Peru Peak Wilderness

Virginia

Barbours Creek Wilderness
Beartown Wilderness
Brush Mountain East Wilderness
Brush Mountain Wilderness
Garden Mountain Wilderness
Hunting Camp Creek Wilderness
James River Face Wilderness
Kimberling Creek Wilderness
Lewis Fork Wilderness
Little Dry Run Wilderness

Little Wilson Creek Wilderness Mountain Lake Wilderness Peters Mountain Wilderness Priest Wilderness Raccoon Branch Wilderness Ramseys Draft Wilderness Rich Hole Wilderness Rough Mountain Wilderness Saint Mary's Wilderness Shawvers Run Wilderness Shenandoah Wilderness Stone Mountain Wilderness Three Ridges Wilderness Thunder Ridge Wilderness

Washington

Alpine Lakes Wilderness
Boulder River Wilderness
Buckhorn Wilderness
Clearwater Wilderness
Colonel Bob Wilderness
Glacier Peak Wilderness
Glacier View Wilderness
Goat Rocks Wilderness
Henry M. Jackson Wilderness
Indian Heaven Wilderness

Juniper Dunes Wilderness
Lake Chelan-Sawtooth
Wilderness
Mount Adams Wilderness
Mount Baker Wilderness
Mount Rainier Wilderness
Mount Skokomish Wilderness
Noisy-Diobsud Wilderness
Norse Peak Wilderness
Olympic Wilderness
Pasayten Wilderness

Salmo-Priest Wilderness
San Juan Wilderness
Stephen Mather Wilderness
Tatoosh Wilderness
The Brothers Wilderness
Trapper Creek Wilderness
Washington Islands Wilderness
Wenaha-Tucannon Wilderness
Wild Sky Wilderness
William O. Douglas Wilderness
Wonder Mountain Wilderness

West Virginia

Big Draft Wilderness Cranberry Wilderness Laurel Fork North Wilderness Laurel Fork South Wilderness Mountain Lake Wilderness Roaring Plains West Wilderness

Dolly Sods Wilderness
Otter Creek Wilderness
Spice Run Wilderness

Wisconsin

Blackjack Springs Wilderness
Gaylord A. Nelson Wilderness
Rainbow Lake Wilderness
Wisconsin Islands Wilderness

Headwaters Wilderness Whisker Lake Wilderness

Wyoming

Absaroka-Beartooth Wilderness
Bridger Wilderness
Bridger Wilderness
Cloud Peak Wilderness
Encampment River Wilderness
Fitzpatrick Wilderness
Propo Agie Wilderness
Savage Run Wilderness
Teton Wilderness
Washakie Wilderness
Washakie Wilderness
Winegar Hole Wilderness

G.5 National Wild and Scenic Rivers

Alagnak, Alaska Donner und Blitzen, Oregon Alatna, Alaska Eagle Creek, Oregon

Allagash Wilderness Waterway, Maine East Branch Tahquamenon, Michigan

Allegheny, Pennsylvania East Fork Jemez, New Mexico

American (Lower), California Eel, California
Andreafsky, Alaska Eleven Point, Missouri

Andreafsky, Alaska Eleven Point, Missouri Aniakchak, Alaska Elk, Oregon

Au Sable, Michigan Elkhorn Creek, Oregon

Bear Creek, Michigan Farmington (West Branch), Connecticut

Beaver Creek, Alaska

Feather, California

Big and Little Darby Creeks, Ohio

Big Marsh Creek, Oregon

Fortymile, Alaska

Big Piney Creek, Arkansas

Grande Ronde, Oregon

Big Sur, California Great Egg Harbor, New Jersey Birch Creek, Alaska Gulkana, Alaska

Black Butte, California

Black Butte, California

Horsepasture, North Carolina

Black Creek, Mississippi Hurricane Creek, Arkansas
Black, Michigan Illinois, Oregon

Bluestone, West Virginia Imnaha, Oregon
Buffalo, Arkansas Indian, Michigan
Cooke la Roudre, Colorado Iviabele, Alaska

Cache la Poudre, Colorado Ivishak, Alaska
Carp, Michigan John Day, Oregon
Charley, Alaska John, Alaska

Chattooga, Georgia, North and South Carolina

Joseph Creek, Oregon

Chetco, Oregon

Chilikadrotna, Alaska

Clackamas, Oregon

Clarion, Pennsylvania

Kern, California

Kings, California

Klamath, California

Klickitat, Washington

Clarks Fork Yellowstone, Wyoming Kobuk, Alaska

Cossatot, Arkansas

Crescent Creek, Oregon

Crooked, Oregon

Delaware (Lower), New Jersey & Pennsylvania

Lamprey, New Hampshire

Little Beaver, Ohio

Little Deschutes, Oregon

Little Miami, Ohio

Delaware (Lower), New Jersey & Pennsylvania

Delaware (Middle), New Jersey & Pennsylvania

Delaware (Upper), New York & Pennsylvania

Little Miami, Onio

Little Miami, Onio

Little Missouri, Arkansas

Lostine, Oregon

Delaware (Upper), New York & Pennsylvania Lostine, Oregon
Delta, Alaska Loxahatchee, Florida
Deschutes, Oregon Lumber, North Carolina

Malheur, Oregon Manistee, Michigan Maurice, New Jersey McKenzie, Oregon Merced, California Metolius, Oregon

Middle Fork Clearwater, Idaho Middle Fork Salmon, Idaho Middle Fork Vermilion, Illinois

Minam, Oregon Missouri, Montana Mulberry, Arkansas Mulchatna, Alaska

Musconetcong, New Jersey New, North Carolina Niobrara, Nebraska Noatak, Alaska

North Fork American, California North Fork Crooked, Oregon North Fork John Day, Oregon North Fork Koyukuk, Alaska North Fork Malheur, Oregon

North Fork Middle Fork Willamette, Oregon

North Fork Owyhee, Oregon North Fork Smith, Oregon North Fork Sprague, Oregon North Powder, Oregon

North Sylamore Creek, Arkansas

North Umpqua, Oregon Nowitna, Alaska Obed, Tennessee Ontonagon, Michigan Owyhee, Oregon Paint, Michigan Pecos, New Mexico Pere Marquette, Michigan

Pine, Michigan Powder, Oregon Presque Isle, Michigan Quartzville Creek, Oregon

Rapid, Idaho Red. Kentucky

Richland Creek, Arkansas Rio Chama, New Mexico Rio de la Mina, Puerto Rico Rio Grande, New Mexico Rio Grande, Texas Rio Icacos. Puerto Rico Rio Mameyes, Puerto Rico

Roaring, Oregon Rogue, Oregon Saint Joe, Idaho

Saline Bayou, Louisiana

Salmon, Alaska Salmon, Idaho Salmon, Oregon Sandy, Oregon Selawik, Alaska Sespe Creek, California Sheenjek, Alaska

Sipsey Fork West Fork, Alabama

Sisquoc, California Skagit, Washington Smith, California Snake, Idaho & Oregon South Fork John Day, Oregon Squaw Creek, Oregon

St. Croix (Lower) Minnesota & Wisconsin St. Croix (Lower), Minnesota & Wisconsin St. Croix, Minnesota & Wisconsin

Sturgeon, Michigan (Hiawatha National Forest) Sturgeon, Michigan (Ottawa National Forest) Sudbury, Assabet, Concord, Massachusetts

Sycan, Oregon
Tinayguk, Alaska
Tlikakila, Alaska
Trinity, California
Tuolumne, California
Unalakleet, Alaska
Upper Rogue, Oregon
Verde, Arizona
Wallowa, Oregon
Wekiva, Florida
Wenaha, Oregon

West Little Owyhee, Oregon Westfield, Massachusetts

White Clay Creek, Delaware & Pennsylvania

White Salmon, Washington

White, Oregon Whitefish, Michigan

Wildcat River, New Hampshire Wildhorse and Kiger Creeks, Oregon Wilson Creek, North Carolina

Wind, Alaska Wolf, Wisconsin Yellow Dog, Michigan

G.6 Outstanding National Resource Water (ONRW) Designated by a State or Tribe

States have an obligation under the antidegradation policy of the CWA to ensure that water quality is maintained and protected where "high quality waters constitute an outstanding national resource, such as water of national and state parks and wildlife

refuges and waters of exceptional recreational or ecological significance." 40 CFR § 131.12(a)(3).

Water Resources Boards may designate certain waters, including wetlands, as outstanding under state and federal law. When waters are designated, their existing water quality shall, at a minimum, be protected and maintained. Because ONRWs are designated by each state, permittees should consult state water quality management agencies to determine if ONRWs exist in the area where they may operate their vessel.

Appendix H – Annual Report

EPA United States Environmental Protection Agency
Washington, DC 20460 Form Approved OMB No.
One Time Report for Discharges Incidental to the Normal Operation
Of a Vessel under the NPDES Vessel General Permit

2040-0004

Owner/Operator and Vessel Information
Date Submitted Vessel NOI Number (if applicable) Vessel Owner/Operator Phone
Questions
Please list your vessel's primary geographical regions of operation in U.S. waters last year and report the approximate percentage of time was your vessel in each region? □ Gulf Coast □ Pacific Coast □ Atlantic Coast □ Mississippi-Ohio River System □ Great Lakes □ Puerto Rico and the US Virgin Islands □ Other:
2a. Did you conduct the following inspections in the last year? Drydock □ Yes □No Most recent inspection date: Annual □ Yes □ No Most recent inspection date: All Required Routine □ Yes □No If you checked no, how many routine inspections did you miss in the last year? □ 1-2 □ 3-4 □ 5-6 □ 7 or more 2b. On average, how often did you conduct routine inspections in the last year? □ Never □ Once per week □ Between once per week and once per day □ Once per day □ More than once per day □ Other:
3a. Did your vessel discharge ballast water in U.S. waters? □ Yes □No What is the capacity of your vessel's ballast tank? Does your vessel have a ballast water treatment system? □ Yes □No □ N/A If you answered yes, please attach analytical monitoring data for treated ballast water discharges required by Parts 2.2.3.5.1.1 of the permit.
3b. Does your vessel have an exhaust gas scrubber? □ Yes □No Did your vessel discharge washwater from its exhaust gas scrubber in U.S. waters? □ Yes □No □ N/A

If you answered yes, please attach analytical monitoring data for exhaust gas scrubber washwater Discharge required by Part 2.2.26 of the permit.

If your vesse	e. Does your vessel have an oily water separator (OWS)? Yes No your vessel is greater than 400 GT did it discharge treated bilgewater within 1 nm of shore? Yes No N/A You answered yes, why did you discharge? Never left waters subject to this permit, but the discharge met a 15 ppm standard. Technically feasible or unsafe to hold (if checked, please attach explanation as to why it was technically feasible or unsafe to hold).									
Does your v Yes □No □ If yes, pleas Is your	essel have and use a N/A e list the system mal vessel subject to ana	untreated graywater in U.S. treatment system for graywater and model: Llytical monitoring requirement and monitoring data for treater	ater or graywater mixents in Parts 2.2.15, 5	5.1, or 5.2 □ Yes □						
onshore disp	oosal?	tharges incidental to the normal defends to	_	N						
5. Did your □ Yes (pleas	vessel use environm	entally acceptable lubricants	for oil to sea interfac							
6. Did you h meet effluen	tave to claim a safety at limits of the VGP? e list discharge type n(s) safety exemption eceive any citations tal laws? If yes, plea	y exemption for any discharges) s) ons claimed? or warnings from EPA or the	e U.S. Coast Guard fo	□No						
□ 1cs (cxpia										
•	nave any instances of umeric effluent limi	f noncompliance this year (e.ts)?	g., discharging untre	ated bilgewater,						
If you answe	ered yes, please fill o	out the form below. Please at	tach additional pages	s as necessary.						
Date	VGP Requirement Affected		Cause of Noncompliance	Description of Corrective Action Performed or Scheduled						

Certification Information

I certify under penalty of law that the information contained in this form is, to the best of my knowledge and belief, true, accurate and complete. Furthermore, 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 gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than 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 and Date	

Annual Report: Ballast Water Treatment System Reporting Supplemental Addendum

A. Ballast Water Treatment System Information		
Treatment system description:		
Date ballast treatment system put into use:		
Technology type (check all that apply):		
Akylamines	Deoxygenation	Ozone
Bioremediation	Electric pulse	Peracetic acid
Cavitation	Filtration	Plasma pulse
Chlorine addition/electrochlorination	Heat	
Chlorine dioxide	Hydrocyclone	Ultrasound
Coagulation	☐ Menadione/Vitamin K	Ultraviolet
Other (specify):		
Is the ballast water treatment system type approved?		Yes No
If you answered "Yes" please provide the flag administrat	ion that approved that system? —	
Are all type approval data available to US EPA or the US		of Yes No Unknown
this permit)?	Coust Guard (See 1 art 2.2.3.3.1.1.1	of 165 No Olikhowii
Note: if you responded " <u>unknown</u> ", you must follow the r	nonitoring schedule for devices for	
which data are not available.	nonitoring senerate for devices for	
B. Monitoring Information		
Have all the permit monitoring conditions for the ballast v		
your vessel (Part 2.2.3.5.1.1.1 of this permit) been comple		ear?
Please check which monitoring requirements were comple		
☐ Ballast water system functionality monitoring at least	monthly.	
Calibration of probes/sensors that measure ballast wa	ter treatment performance at least a	nnually.
☐ Biological monitoring. Number of sampling events: _		
Residual biocide and derivative monitoring (if applications)	able). Number of initial: Num	ber of maintenance:
Prayida hallaat water traatment avatem functional manito	ring information and ballast disabor	era analytical data for the
Provide ballast water treatment system functional monitor previous calendar year in the attached tables. Provide any		
parameters and treatment concentrations in the space belo	ow (e.g., correlation between measur	red ORP and emorine
concentration in ballast water):		
C. Certifier Name and Title		
I certify under penalty of law that this document were pre	pared under my direction or superv	ision in accordance with a
system designed to assure that qualified personnel proper		
on my inquiry of the person or persons who manage the s		
information, the information contained is, to the best of m		
personnel knowledge that the information submitted is otl		
significant penalties for submitting false information, incl		
violations.		r
D. A.		
Print Name:		
Title:		
Signature:		
Email:		

Units ^b Measurement Month ^d Number of Minimum Ave	age Maximum S	Sy
Units ^b Measurement Month ^d Number of Minimum Ave	age Maxim	am S

Parameter Used to Measure System Functionality ^a	Unitsb	Measurement Method ^c	Month ^d	Number of Measurements per Month ^e	Minimum Monthly Measured Value	Average Monthly Measured Value	Maximum Monthly Measured Value	System Design Operating Range
					, min	, min	, min	

- Part 2.2.3.5.1.1.2 and Appendix J of the permit describes the types of measurements required to verify system functionality (e.g., chlorine concentration, ORP, ozone concentration, etc.).
- Units include items such as mg/L or ppm for chemical concentrations, lbs or gallons/month for chemical dosage amounts, watts/month for power consumption, etc.
- Measurement methods can include probe, sensor, sample analysis, counts, etc. c.
- Vessels need to provide information for only those months that ballast water was discharged into U.S. waters. d.
- If continuous measurements are recorded for the parameter, note "continuous" in the provided column.

Biological Monitoring of Ballast Water Discharges (provide information for all that apply)

Parameter	Analytical Method	Sample Date(s) ^a	Sample Result(s) ^a	Units	Discharge Location
Total live bacteria					
E. coli Enterococci					
Other (specify):					

Part 2.2.3.5.1.1.4 of the permit provides the required sampling schedule. If you collected multiple samples during the calendar year, list the samples and corresponding results in order of date collected.

Residual Biocide/Derivative Monitoring of Ballast Water Discharges (provide information for all that apply)

Biocide/Derivative ^a	Analytical Method	Sample Date(s) ^b	Sample Result(s) ^b	Units	Discharge
					Location

- Section 2.2.3.5.1.1.5 of the permit lists biocides and derivatives the vessel must monitor for based on the type treatment system (e.g., chlorine, haloacetic acid, trihalomethanes). You must report those results here.
- Section 2.2.3.5.1.1.5 provides the required sampling schedule. If you collected multiple samples during the calendar year, list the samples and corresponding results in order of date collected.

Appendix I – Discharge Monitoring Report

Appendix J – Ballast Water Treatment System Sensors, Measurement Requirements and Appropriate Equipment for Physical/Chemical Indicator Monitoring

Technology Type	Measurement	Potential Control Sensor, Equipment, or Procedure	Non Discharge Indicators of BWTS performance	Required Metrics to be Reported
Alkylamines	Alkylamines	Chemical analysis and treatment monitoring	-Alkylamines concentration at injection -Alkylamines dosage and usage	-Alkylamines sample concentration -Alkylamines dosage and usage
	pН	pH sensor	рН	pH readings
Biological agents	Treatment chemical	Chemical analysis and treatment monitoring	-Treatment chemical concentration at injection -Treatment chemical dosage and usage	-Treatment chemical sample concentration -Treatment chemical dosage and usage
Cavitation	Pressure Differential	Pressure sensors (before/after)	Pressure Differential	Pressure readings
Chlorination: (e.g., sodium chlorite and sodium hypochlorite	Chlorine	In-line N,N diethyl-p-phenylene diamine (DPD) analyzer, sample analysis, and treatment monitoring	-Chlorine concentration at injection -Chlorine dosage on treatment and usage (if chlorine addition)	-Chlorine readings from both on-line sensor and sample analysis -Chlorine dosage on treatment (if chlorine addition)
	Oxidation reduction potential (ORP)	ORP sensor	ORP at injection	ORP readings
	Power consumption, voltage and current	System power diagnostics	Chlorination module power consumption, voltage and current (if electrochlorination)	No Reporting Required
	Total residual oxidizers (TRO)	Amperometric sensor	TRO at injection	TRO readings
	Conductivity/salinity	Conductivity and temperature sensor	Conductivity and temperature at injection	Conductivity/salinity and temperature readings
Chlorine Dioxide	Chlorine Dioxide	On-line chlorine dioxide amperometric sensor, Lissamine Green B (LGB) sample analysis, and treatment monitoring	-Chlorine dioxide concentration at injection - Chlorine dioxide dosage and usage (if chlorine addition)	-Chlorine dioxide readings from both on-line sensor and sample analysis - Chlorine dioxide dosage and usage (if chlorine addition)
Coagulation (flocculent)	Coagulant	Chemical analysis and treatment monitoring	-Treatment flocculent concentration at injection -Treatment chemical dosage and usage	- Treatment flocculent concentration -Treatment chemical dosage and usage

Technology Type	Measurement	Potential Control Sensor, Equipment, or Procedure	Non Discharge Indicators of BWTS performance	Required Metrics to be Reported	
	Turbidity (NTU)	Turbidity sensor	Coagulation effluent turbidity	Coagulation effluent turbidities	
Deoxygenation	Dose of inert gas (if used)	Treatment monitoring	Deoxygenation gas dosage and usage	Deoxygenation gas dosage and usage	
	pH (if CO ₂ used)	pH sensor	рН	pH readings	
	Dissolved Oxygen (DO)	DO sensor	Deoxygenation module dissolved oxygen concentration	Dissolved oxygen concentrations	
Electric pulse	Power consumption, voltage and current	System power diagnostics	Electric pulse module power consumption, voltage and current	Electric pulse module power consumption, voltage and current readings	
Filtration	Flow rate	Flow meter	Filter effluent flow	Flow readings	
	Pressure Differential	Pressure sensors (before/after)	Filter pressure differential (e.g., before/after filtration)	Filter pressures (before/after)	
	Back flush frequency	Treatment monitoring	Filter backwash frequency	Filter backwash frequencies	
Heat	Temperature	Thermistors	Treatment temperature	Temperature readings	
Hydrocyclone	Back flush frequency	Treatment monitoring	Hydrocyclone back flush frequency	Hydrocyclone back flush frequencies	
	Power consumption, voltage and current	System power diagnostics	Hydrocyclone power consumption, voltage and current	Hydrocyclone power consumption, voltage and current	
Menadione/Vitamin K	Menadione/Vitamin K	Chemical analysis and treatment monitoring	-Menadione/Vitamin K concentration at injection -Menadione/Vitamin K dosage and usage	-Menadione/Vitamin K concentration at injection -Menadione/Vitamin K dosage and usage	
Ozone	TRO	Amperometric sensor	TRO at ozone injection	TRO readings	
	Ozone	On-line ozone sensor (if used) and sample analysis	Ozone concentration at injection	Ozone readings from both on- line sensor (if used) and sample analysis	
	Bromate	Sample analysis	Bromate at ozone injection	Bromate measurements	
	Power consumption, voltage and current	System power diagnostics	Ozonation module power consumption, voltage and current	No Reporting Required	
	Conductivity/salinity	Conductivity and temperature sensor	Conductivity and temperature at injection	Conductivity/salinity and temperature readings	
Peracetic acid	Hydrogen peroxide	On-line sensor, chemical analysis, treatment monitoring	-Hydrogen peroxide concentration at injection -Hydrogen peroxide dosage	-Hydrogen peroxide readings from both on-line sensor and sample analysis	

Technology Type	Measurement	Potential Control Sensor,	Non Discharge Indicators of	Required Metrics to be
		Equipment, or Procedure	BWTS performance	Reported
			and usage	-Hydrogen peroxide dosage
				and usage
	Peracetic acid	On-line sensor, chemical	-Peracetic acid concentration at	-Peracetic acid readings from
		analysis, treatment monitoring	injection	both on-line sensor and
			-Peracetic acid dosage and	sample analysis
			usage	-Peracetic acid dosage and
				usage
	pН	pH sensor	pH at injection	pH readings
Plasma pulse	Power consumption,	System power diagnostics	Plasma pulse module power	Plasma pulse module power
	voltage and current		consumption, voltage and	consumption, voltage and
			current	current readings
	Temperature	Thermistors	Treatment temperature	Temperature readings
Shear	Pressure differential	Pressure sensors (before/after)	Pressure differential	Pressure readings
Ultrasound	Power consumption,	System power diagnostics	Ultrasound power	Ultrasound module power
	voltage and current		consumption, voltage and	consumption, voltage and
			current	current readings
UV and UV+TiO ₂	Power consumption,	System power diagnostics	UV module power	UV module power
	voltage and current		consumption, voltage and	consumption, voltage and
			current	current
	Lamp status and age	Treatment monitoring	UV lamp status and age	No Reporting Required
	UV dose, intensity,	UV sensors and monitors	UV dose, intensity,	UV dose, intensity,
	transmittance		transmittance	transmittance
	Flow rate	Flow meter	UV effluent flow	Flow readings

Appendix K – Permit Authorization and Record of Inspection Form (PARI) (for vessels which need not complete NOIs)

VGP Authorization and Record of Inspection (PARI) Form

1 /
I. Vessel Owner/Operator Information
Vessel Owner/Operator Phone
Address and Email Address:
II. Vessel Information
Vessel Name Vessel Type
Vessel Identifier Registered number/operating number IMO number
III. Owner/Operator Acknowledgement
By signing this form, I acknowledge that I have read and am familiar with the VGP and that I am implementing all permit requirements contained in the VGP.
IV. Certification Information
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 gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than 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 and Date
V. Annual Inspections by Year
A. 2014
I certify that I have completed an annual inspection for 2014 in accordance with Part 4.1.3 of the VGP.
Signature and Date
B. 2015 I certify that I have completed an annual inspection for 2015 in accordance with Part 4.1.3 of the VGP.
C. 2016
I certify that I have completed an annual inspection for 2016 in accordance with Part 4.1.3 of the VGP.
Signature and Date
D. 2017
I certify that I have completed an annual inspection for 2017 in accordance with Part 4.1.3 of the VGP.
Signature and Date
E. 2018 I certify that I have completed an annual inspection for 2018 in accordance with Part 4.1.3 of the VGP.
Signature and Date