

Vessel General Permit



Overview

VGP- overview

Presentation will touch upon

- Elements of VGP- why needed
- Responsibilities of crew and management
- Requirements for annual inspection

Why Required- NPDES

- National Pollutant Discharge Elimination System
 - Required by Clean Water Act
 - Permit to discharge ship waste into navigable waterways
- Main enforcement done by EPA
 - Measure of regulating what is discharged

NPDES Continued

- Properties
 - One permit that applies to all ships (VGP)
 - Needed by ships operating in US waters within three miles of shore
 - The VGP is published on EPA website at
 - www.epa.gov/npdes/home.
- Fixed Shore Facilities
 - Need an individual NPDES permit

Requirements of VGP

- Submit a Notice of Intent -NOI
- General housekeeping and other requirements
- Compliance with control of 27 specific and regulated discharges
- individual state requirements
- Inspection and Monitoring Requirements
- Recordkeeping and Reporting Requirements
- Requirements specific to vessel-type

Notice of Intent

First Step – Submit NOI to EPA

Note: This is your way of registering your ship with the EPA under the NPDES program.

Can be submitted online, must be 30 days before entry in US waters (changing to 7 days after Dec. 19, 2013)

Updating NOI for New VGP

- New NOI must be submitted for new VGP
- Needs to be done before Dec. 12, 2013 in order for continuous coverage (Done by SHEQ)
- Each vessel must have a copy of the NOI and EPA Confirmation Letter on board
- NOI must be kept updated if there are changes made to vessel or if vessel changes ownership
 - -Vessel name change, flag or call sign change, dry-dock dates, and address changes for owner/operator (Done by SHEQ)

GENERAL HOUSEKEEPING & OTHER REQUIREMENTS

General Housekeeping are BMP which are required under the Permit. These are intended to reduce the amount of incidental effluent generated on board and their potential for contamination.

These include:

- Proper Material Storage (hazardous and non)
- Crew Training (Informal)
- Spill Prevention
- Compliance with other applicable regulations (11 states have more stringent procedures in addition to VGP)

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GENERAL HOUSEKEEPING & OTHER REQUIREMENTS

- Minimize the on deck storage of materials which may dissolve or leach when exposed to water or which may blow overboard.
- Locate storage areas where they have the least exposure to the weather.

GENERAL HOUSEKEEPING & OTHER REQUIREMENTS

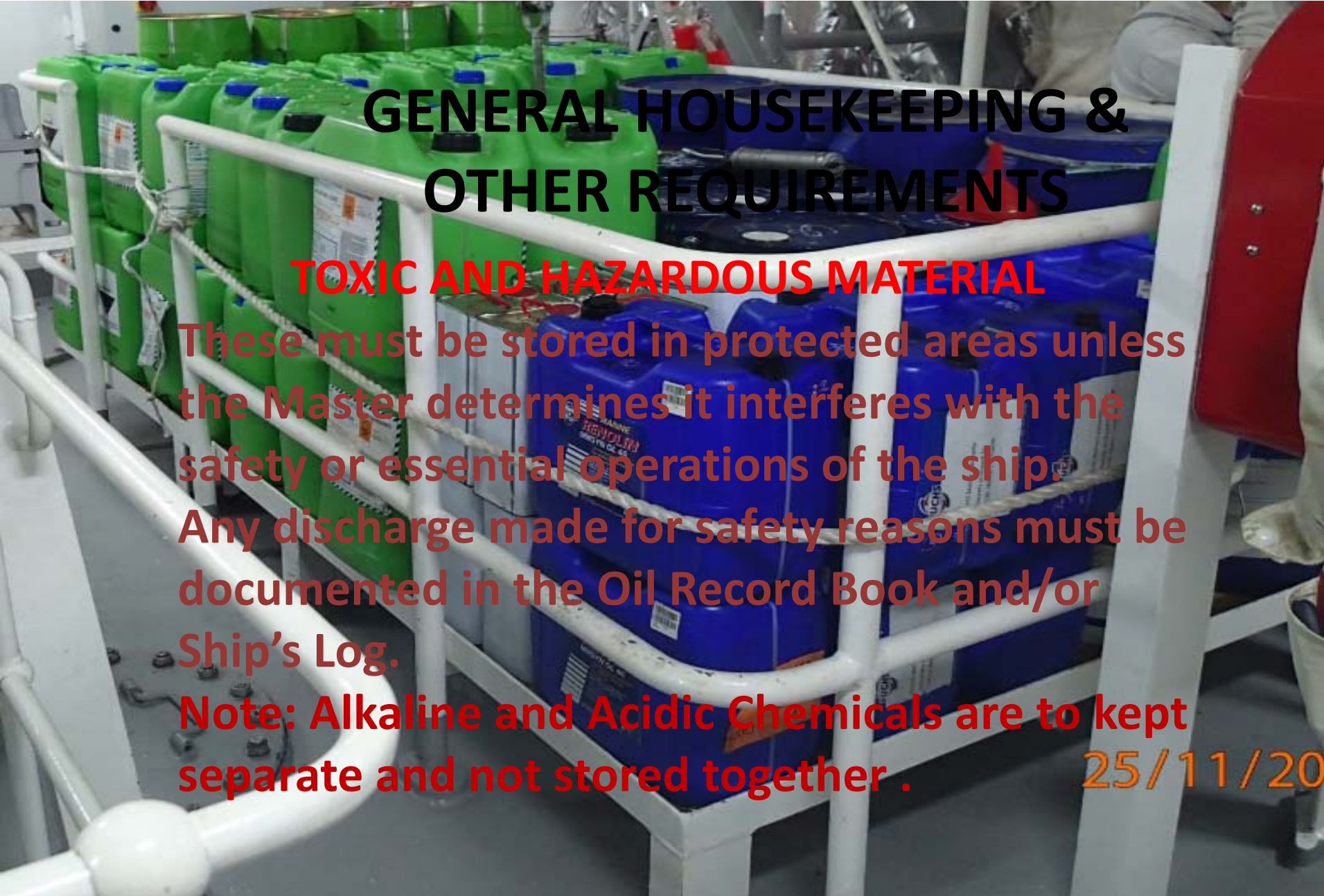


GENERAL HOUSEKEEPING & OTHER REQUIREMENTS

MATERIAL STORAGE

If water draining from storage areas comes in contact with oily material 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 or other appropriate technology so that the resulting discharge will not contain oil in quantities that may be harmful



GENERAL HOUSEKEEPING & OTHER REQUIREMENTS

TOXIC AND HAZARDOUS MATERIAL

These must be stored in protected areas unless the Master determines it interferes with the safety or essential operations of the ship.

Any discharge made for safety reasons must be documented in the Oil Record Book and/or Ship's Log.

Note: Alkaline and Acidic Chemicals are to kept separate and not stored together .

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GENERAL HOUSEKEEPING & OTHER REQUIREMENTS

TOXIC AND HAZARDOUS MATERIAL

Materials must be stored in sealed containers of suitable materials, labelled and secured.

Containers must not be overfilled.

Incompatible wastes should not be mixed.

Exposure of containers to ocean spray and precipitation must be minimized.

Jettisoning of containers of hazardous materials is not authorized by the permit

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GENERAL HOUSEKEEPING & OTHER REQUIREMENTS

Fuel Spills and Overflows

You must conduct fuelling operations using control measures and practices designed to minimize the effects of overflows and ensure prompt cleanup, if they occur.

These items are also required under 33 CFR 155:

Tanks must not be overfilled.

Fuel tank air vents must have containment to collect overflow and protect from contamination of surrounding waters.

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Compliance with other Statutes and Regulations

All vessels must comply with applicable US Coast Guard specifications for safe transport, handling, carriage and storage of pollutants.

All /Any discharges from vessel must comply :

- Federal Water Pollution Control Act (Clean Water Act, CWA)
- Act to Prevent Pollution from Ships (APPS, this is the US compliance with MARPOL)
- National Marine Sanctuaries Act (NMSA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Oil Pollution Control Act of 1990 (OPA 90)

Also:

- Applicable State or requirements as a result of state certification of the VGP.

Training

Under the new VGP, crewmembers who take part in management of incidental wastes must be trained in the VGP.

- Training is not required to be formal or accredited.
- On-board training, including reading and signing the VGP instructions/guidance/or manual should meet this requirement and it must be documented.

27 Specific Regulated Discharges

- In new VGP there are 27 specific discharges which are regulated.
- Not all discharges apply to all types of ships.
- Many of these discharges are also regulated by MARPOL or other existing regulations.
- Old VGP had 26 - New discharge covered is “Fish hold effluent”

VGP Covered Discharges

27 Discharges covered in VGP are:

- Ballast water
- Graywater
- Seawater cooling discharge
- Chain locker effluent
- Anti-fouling hull coating leachate
- Sonar Dome discharge
- Distillation & reverse osmosis brine (fresh water generator)
- Deck washdown and runoff and above water line hull cleaning
- Bilgewater/oily water separator effluent
- Aqueous Film Foaming Foam (AFFF)
- Graywater mixed with sewage
- Cathodic protection
- Boiler/economizer blowdown
- Underwater ship husbandry
- Seawater piping biofouling prevention
- Oil-sea interface wastes
- Exhaust gas scrubber wash water discharge

VGP Covered Discharges

27 Discharges covered in VGP are: (cont'd)

- Elevator pit effluent
- Firemain systems
- Freshwater layup
- Gas turbine washwater
- Non –oily machinery wastewater
- Refrigeration and air condensate discharge
- Boat Engine wet exhaust
- Welldeck discharges
- Graywater mixed with sewage
- Motor gasoline and compensating water
- **Fish hold effluent (new)**

BALLAST WATER

Incorporates the IMO Convention standard and installation timetable of the final USCG rules

Interim requirements until BW treatment equipment is installed:

- Conduct a mandatory exchange if the voyage goes more than 50 nm from shore from one US port to another if the ship is bound for a west coast port.
- Ballast exchange between US east coast and Gulf coast ports is NOT required unless the ships intended course takes it 200 nm from shore.
- Ballast water exchange at least 50 mi. from shore when taking on ballast in any west coast (only) port and discharging in another west coast port. East and gulf coast ports exempt.
- If entering from outside EEZ conduct ballast exchange as early as possible in depth > 200mtrs
- Mandatory salt water flushing of all tanks, which contain un-pumpable residual ballast water or sediment, for vessels that leave the US EEZ, travel more than 200 nm from shore, and will subsequently discharge ballast water to waters within 3 nm of shore.

25/11/2013

BALLAST WATER-INTERIM REQ

-Mandatory saltwater flushing for all vessels engaged in Pacific near-shore voyages that travel through more than one COTP Zone.

Salt Water Flushing: ATTEND MID-OCEAN WHEN SAFETY OF VESSEL PERMITS.

- This is the mixing of flush water with residual water and sediment +ship motion.
- This process is to remove sediment and such that after the discharge of mixed water the residual water in tank MUST be at as high a salinity as possible –greater than 30 parts per thousand.
- Vessel is to indicate SW Flushing in section 4 of BW Report Form by checking the “UNDERWENT ALTERNATIVE MANAGEMENT” box and indicating that the vessel underwent SW flushing in the “specify alternate method” line.
- No Ballast on board (NOBOB) vessel who have attend salt water flushing should also complete Section 5.

Marine Sanctuaries

Several Bodies as below are included in National Marine Sanctuaries Act.

**WASTE DISCHARGES IN FOLLOWING SEGMENTS ARE
PRHIBITED FROM DISCHARGE IN THESE AREAS .**

Channel Islands (California);
Fagatele Bay (American Samoa);
Flower Garden Banks (Texas);
Gulf of the Farallones (California);
Monterey Bay (California);
Hawaiian Islands Humpback Whales (Hawaii);
Papahanaumokuakea Marine National Monument (Hawaii);
Stellwagen Bank (Massachusetts);
(Michigan).

Cordell Bank (California);
Florida Keys (Florida);
Grays Reef (Georgia);
Monitor (North
Carolina);
Olympic Coast (Washington
State);
Thunder Bay

Deck Washdown and Runoff, and above water line hull cleaning

Contain potential contaminants and prevent from entering the waste stream:

Example

- clean decks and remove debris prior entry into port
- check hydraulic fittings and hoses on deck & repair/replace those necessary.
- maintain decks and bulkheads and ensure no leaks, excessive corrosion .
- use drip pans under or fixed containment under deck machinery.
- collect deck runoff during and after re-fuelling or liquid transfers .
- if deck washdown is required use non-toxic and phosphate free cleaners and detergents.
- use of Environmentally Acceptable Lubricants (EAL's) is recommended.
- use scuppers with mechanical closures
- Ensure scuppers blocked on entry in EEZ.

2013/04/22

BILGE WATER

**No discharge is permitted of untreated bilge-water.
All vessels must minimize the discharge of bilge-water.**

The use of dispersants ,detergents ,emulsifiers or chemicals to remove oil or sheen from bilge-water is prohibited.

NEW BUILD VESSELS MUST MONITOR DISCHARGE ANNUALLY FOR OIL & GREASE:

-Sample analysis sent ashore ,results included in Annual report.

**If 2 years monitoring shows <5ppm then no additional monitoring provided
OCM is calibrated annually.**

25/11/2013

ANTI-FOULING HULL COATINGS

A Valid International Antifouling System Certificate should provide all of the information required to demonstrate compliance with this section which is in accordance International Regulations.

Apply coatings in accordance FIFRA Label (for coatings purchased in USA). FIFRA compliant products do not contain biocides or toxic material banned in USA.

Vessels must use coatings which use lower biocide release rate, non-persistent biocides or non-biocide alternatives.

If copper based coatings are used the reason must be documented on the Annual Report.

2013/02/03



Boiler / Economizer Blowdown

No discharge within 3 miles from shore unless extended port stay exceeds blowdown cycle.
-discharge blowdown effluent while ship is underway and as far from shore as possible.

Discharge in Marine Sanctuaries is PROHIBITED.

25/11/2013

AFFF-Aqueous Film Foaming Foam

No discharge of AFFF permitted within 3 miles of shore except in emergency.

No discharge is permitted within 1 mile of Marine Sanctuary except in emergency. A written explanation is to be made in Ships log if done.

Discharge of AFFF for Regulatory certification and inspection must be minimized and a substitute non-fluorinated or alternate foaming agent which do not contain fluorinated Nosurfactants must be used if possible.

21/09/2013

Cathodic Protection

Impressed Current Cathodic Protection (ICCP) systems are the most environmentally preferable method, eliminating the need for sacrificial anodes.

For sacrificial anode systems, choose the least toxic material that is practical. In order of preference: magnesium, aluminium, then zinc.

Use of sacrificial anodes should be in conjunction with corrosion control coatings which minimize the release of dissolved metals.

Sacrificial anodes should not be used more than necessary. Clean and replace anodes during drydock to reduce flaking or releases from oxidizing anodes or the dielectric coating from ICCP systems.

11/03/2013

Chain Locker Effluent

- Clean out, rinse or pump out chain lockers in open waters (> 50nm from shore).
- Clean chain locker during each dry-dock maintenance.
- Rinse anchor and chain during anchor pick-up.



Oil-to-Sea Interfaces

Includes lubrication discharges from:

- Controllable pitch propeller
- Rudder Bearings
- Stern Tubes
- Propulsion pod lubrication
- Thrusters, thruster bearings
- Stern Tubes
- Wire Ropes and Mechanical equipment subject to immersion.



Oil-to-Sea Interfaces(cont'd)

- Maintain seals in good working order.
- Maintenance should be conducted in dry-dock to prevent spillage.
- For emergency maintenance –outside D/D –employ containment boom and have spill clean up materials available.
- Discharge of rudder bearing lubricant is **PROHIBITED**. Discharge of lubricants indicates lack of maintenance.
- Wire rope should be wiped down to remove excessive lubricant unless unsafe to do so.
- Use of “environmentally acceptable lubricant (EAL)” is required unless technically infeasible. For existing vessels you must document why they are not used and report this in your ANNUAL REPORT. Master must be advised dates and conversion location status for conversion to EAL’s .
- Newbuilds must use EAL’s starting 20 Dec 2013.

Distillation and Reverse Osmosis Brine (Fresh Water Generator)

- Keep reject water from coming in contact with materials , products or wastes which may contaminate the discharge with environmentally harmful substance.
- Shut the fresh water generator prior arrival/entry in Permit Waters and Log the Time and Location where this is done.



Firemain Systems

- Minimize discharges while vessel is in shallow or contained waters and in port.
- Using the firemain for anchor wash is permitted and considered a worthwhile trade off for preventing the transport of unwanted organisms. Under 33CFR 151.2050(e) rinsing of the anchor and anchor chain is now required.
- The firemain may be used in port -to wash decks or certification maintenance and training purposes. In order to do this it is important to flush the system at sea (at least 3NM from shore) to remove accumulated rust and slag.
- Discharge in Marine Sanctuaries is prohibited.

25/11/2013

Graywater Requirements

- Empty graywater tanks prior to entry into port ,at least 1NM from shore.
- If the vessel is equipped with storage capacity, store graywater and discharge at least 1NM from shore while vessel is underway after depart port.
- Minimize the production and discharge of graywater whilst in Port .
-recommended restricting laundry in port and water restricting nozzles.
- If on –board storage capacity is reached then you may discharge.
- Soaps and detergents used in graywater must be non-toxic and phosphate free.
- Soaps and detergents should be biodegradable where possible unless harmful to environment.
- When cleaning dishes you must remove as much food and cooking oils/grease as is practicable prior to rinsing.
- **COOKING OIL MUST NOT BE DISCHARGED IN PERMIT WATERS.**
- Newbuild Vessels with 15 or more crew- must sample graywater discharges twice a year.

Non-Oily Machinery Wastewater

- Applies to distilling plant discharges , chilled water condensate drains, fresh and salt water pump drains, potable water tank overflows and leaks from propulsion shaft seals.
- May be discharged if controls are used to prevent oils and other toxins from contaminating it. This water is allowed to drain into the bilge.

Seawater Piping Biofouling Prevention

- Control and removal of biofouling is also required by 33CFR 151.2050(f).
 - Biofouling chemicals must be used in accordance FIFRA label. This label is found on all chemicals purchased in the US. Applies only to products manufactured in the US.
 - Discharge removed organisms at least 50NM from shore.
 - Use the minimum amount of biocide needed to keep fouling under control. Discharges containing active ingredients must contain as little chlorine as possible.
 - If the vessel is fitted with a Marine Growth Prevention System (MGPS) then the system should be checked frequently and the results logged in the engine room log or other document.
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- FIFRA- Federal Insecticide, Fungicide and Rodenticide Act

Boat Engine Wet Exhaust

- Boats that generate wet exhaust must be maintained in good operating condition and functioning in accordance with manufacturer specifications.
- Vessel operators are encouraged to use four stroke engines in lieu of two stroke engines to minimize the discharge of pollutants into waters subject to the Permit.
- Use low sulphur or alternate fuels.
- If two stroke engines are used, you must use EAL's unless technologically infeasible. Infeasibility is to be documented and explanation why not used.

21/09/2013

Seawater Cooling Overboard Discharge (Jacket Cooling system water)

- Conduct regular removal of fouling organisms to prevent transporting them to other locations. Cleaning should take place at least 50NM from shore.
- Ships should use shore based power supplies when available and compatible.

Underwater Ship Husbandry Discharges

- Conduct all extensive hull cleaning in dry-dock when by products can be contained and properly disposed off.
- Hull cleaning is NOT prohibited. However Owners must use cleaning method which reduces impact of release of hull coatings. For example the below are recommended but not a permit requirement:
 - Use soft brushes
 - vacuum cleaning technology in conjunction with mechanical cleaning.
- Hull cleaning while in the water is NOT prohibited. However environmentally friendly methods should be used.
- No in water cleaning with copper based coatings for 365 days after application. A reason must be documented if done.

Graywater mixed with Sewage

- Since the comingled wastes cannot be separated and since sewage is not regulated under VGP- graywater and sewage mixture are required to meet the discharge requirements of graywater as described earlier.
- Sewage is regulated separately by the CWA and MARPOL.

Refrigeration and Air Condensate Discharge

- Waste may be discharged directly overboard if it is segregated from coming in contact with other wastes.
- Waste may also be drained to the bilge and discharged with bilge water through the OWS.
- Waste may also be collected for shore disposal but this is not required.
- Discharge is prohibited if the waste is contaminated with oil or toxic material.

Other Regulated Discharges (not included in this presentation)

The below are Other Regulated Discharges which have not been included here in the Presentation. You are directed to Review the VGP Manual for their detailed description and control measure:

- Elevator Pit Effluent (for vessels fitted with elevators)
- Freshwater layup (for steam propulsion when not in use pierside)
- Gas turbine washwater
- Well deck discharges (vessels using a floodable for launching boats)
- Motor gasoline and compensating water (where gasoline as propulsion fuel)
- Exhaust Gas Scrubber Wash water discharge
- Fish Hold effluent (commercial fishing vessels)

State VGP Requirements (not included in this presentation)

All states including US territories have certified the VGP. 25 states added more stringent conditions , 11 of which have no commercial navigable waters.

To comply with VGP ,you must comply also with the state requirements.

REFER CHAPTER 2 of VESSEL VGP MANUAL AND FOLLOW ADDITIONAL PROCEDURES FOR APPLICABLE STATE .

Inspection and Monitoring

Each vessel must conduct:

- **Weekly Inspections :**

Visual Inspection of all accessible areas on board where oil, chemicals or other materials are stored, mixed or used. The intention is to monitor each of the 27 regulated discharges applicable to your vessel.

- **Drydock Inspections**

- **Annual Vessel Inspection:** Covering all discharges without forcing vessel to drydock. Must be done by appropriately qualified person.

Analytical Monitoring

- Graywater discharge analysis (newbuild- if crew over 15)
- Oily Water analysis (newbuild-if vessel over 400GT)
- Discharge analysis (if installed ballast treatment system)

Record Keeping and Reporting

Records Needed

- Drydock Inspection Reports
- Copy of NOI/EPA Confirmation
- Weekly Inspection Reports
- Annual Inspection Reports
- Applicable Analytical Monitoring Reports
- Non-Conformity Reports
- VGP Guidance or Instruction

Reporting Requirements

- There are 2 Types of reporting required under the VGP
- 1) Annual Report
- 2) Discharge of Hazardous Materials Quantity

- All Reports to EPA must be electronic
- Annual Report- First due 28 Feb 2015, for 2014 calendar year
- Discharge of Hazardous Materials Quantity- If any hazardous materials are discharged

Corrective Action

Can be triggered by:

- Violation of discharge limits
- Insufficient control measures on discharge levels
- Pollution control practices not up to standard

Corrective Action Assessment Report:

- Describes problem
- Explains cause (if known)
- Describes corrective actions required
- Indicates if dry docking is required
- Records when corrective action implemented

Enforcement of VGP

US Coast Guard Will Check following:

- Senior officers are aware of VGP requirements
- NOI and VGP manual are on-board
- Record keeping is in order
- Analytical monitoring is taking place

Violations noted during inspection will be sent to EPA and could result in fines

Annual Inspection Procedure

1. Examine Exterior of Vessel before boarding
 2. Meet with the Master
 3. Conduct Deck Rounds
 4. Meet with Chief Engineer
 5. Meet with Chief Officer
 6. Meet with Cook/Steward
7. Meet with Vessel Staff Post-Inspection

THANK YOU

Vessel General Permit



Guidance for Implementing the EPA 2013 Vessel General Permit (2013 VGP)

INTERTANKO





INTERTANKO

INTERTANKO Guidance for Implementing the EPA 2013 Vessel General Permit (2013 VGP)

- 1. General background and context**
- 2. Notice of Intent**
- 3. Enforcement: Inspections by US Coast Guard**
- 4. Significant Changes in the 2013 VGP**
- 5. Guidance on the Requirements**
 - 5.1 Company Compliance Map**
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 - 5.3 Monitoring, Sampling and Reporting**
 - 5.3.1 Electronic Reporting
 - 5.3.2 Annual Report
 - 5.3.3 Analytical Monitoring and Sampling
 - 5.4 Additional Specific Requirements for Oil Tankers**
 - 5.5 Corrective Action**
 - 5.6 Dry-dock Inspection Report**

Annexes

- I Model Compliance Map
- II Model Weekly Routine Visual Inspection Record
- III Model Annual Inspection Record
- IV Model Corrective Action Assessment
- V Model Dry-dock Inspection Record

The purpose of this document is to provide INTERTANKO members with guidance for compliance with the 2013 VGP requirements which authorizes discharges incidental to the normal discharge of operations of commercial vessels.

1. General background and context

The purpose of this document is to provide INTERTANKO members with guidance for compliance with the 2013 VGP requirements. The second Vessel General Permit (VGP) was finalized on 28 March 2013 which authorizes discharges incidental to the normal discharge of operations of commercial vessels. The 2013 VGP, which has an effective date of **19 December 2013**, will replace the 2008 Vessel General Permit. Coverage under the 2008 VGP terminates for all vessels on 19 December 2013. An electronic Notice Of Intent (eNOI) must be submitted seven days before the entry into force date to ensure the continuation of the 2008 VGP coverage for the vessels in question. Refer to part 4 of this Guide and the detailed dates for submitting the eNOI.

The Final VGP can be seen at http://www.epa.gov/npdes/pubs/vgp_permit2013.pdf

Further background and explanations for the discharge requirements can be found in the EPA's Fact Sheet. This provides useful information regarding the context of certain requirements and should be used as reference, http://www.epa.gov/npdes/pubs/vgp_fact_sheet2013.pdf

This guidance has not been reviewed or approved by the US EPA. It is the responsibility of each member to review the VGP and ensure that all of the requirements applicable to its vessels have been implemented. It is not the intent of INTERTANKO to duplicate all the VGP requirements in this document. However, a copy of the full text of the final VGP should be kept on board.

Inspectors may request to see a copy of the VGP Final Rule and as such, a hard or soft copy should be available on board.

In summary, the 2013 VGP contains 6 sections and a 11 Appendices as follows:

- Section 1 contains the general requirements and identifies 27 different vessel discharges that are eligible for coverage.
- Section 2 contains the effluent limits and related requirements, including monitoring and reporting, for each of the 27 vessel discharges. Many of the requirements are based upon "Best Management Practices" and are unchanged from the 2008 VGP. The exceptions to this pertain to bilgewater, ballast water, antifouling hull coatings, graywater and underwater husbandry, exhaust gas scrubbers and all oil-to-sea interfaces. In addition to these 27 discharges, Section 2 remains the same as the 2008 VGP in containing requirements for material storage, toxic and hazardous materials, fuel oil spills/overflows and discharges of oil.
- Section 3 contains the corrective action that must be taken if problems are identified.
- Section 4 contains the inspections, monitoring, reporting and record-keeping requirements, which are quite onerous. A significant change in this section relates to the inclusion of an Annual Reporting scheme and the subsequent removal of one-time reports and annual noncompliance

reports. The reporting requirements have been facilitated by more guidance in the appendices of the standard formats for reporting and recording certain discharges.

- Section 5 contains vessel class-specific requirements with section 5.5 focusing on oil tankers and petroleum tankers. Section 5.5 contains additional requirements for the inert gas scrubber, deck seals, scuppers, supplemental inspections and crew training.
- Section 6 contains the specific requirements for individual States and Indian Tribes.
- The Appendices contain definitions, EPA regional contacts, areas covered, procedures for filing a Notice of Intent or a Notice of Termination, Annual Report requirements and templates as well as requirements for federally protected waters.

Most tanker owners will by now have implemented the 2008 VGP requirements and will therefore focus on including the differences outlined in part 4 and 5 of this guide into their management system and compliance documentation.

Those owners who have not yet implemented a VGP and are doing so for the first time with the VGP 2013 will note, following a detailed review of the Final VGP 2013, that many of the requirements will already be implemented within the company's various management systems and operating procedures. In particular these may include the Planned Maintenance Schedule (PMS), Safety Management System (SMS), Ballast Water and Biofouling Management Plans and Environmental Management System (EMS). However, there are two reasons as to why an operator should carefully consider the implementation of the VGP requirements:

1. There are a number of new requirements within the VGP that are not already covered by current international or Federal tanker rules, or included in the more familiar tanker operators safety, quality and environmental management systems and procedures. In particular the analytical monitoring requirements for ballast water and bilgewater.
2. Demonstrating and documenting compliance with the VGP requirements will mean officers and crew have a detailed knowledge, understanding and immediate access to all relevant tanker rules and requirements as well as company management procedures. With an increased emphasis on training in the 2013 VGP this has gained significance.

A review should be taken of all 27 requirements to determine which of them are already covered within the company's management systems and operational procedures. It will be useful for those undertaking this review to be familiar with the likes of the Safety Management System, the Ballast Water Management Plans, the Planned Maintenance Schedule, the environmental management system (e.g. ISO14001 if implemented), dry-docking procedures and technical inspection checklists.

2. Notice of Intent

As per the 2008 VGP, the owner or operator of a vessel that is greater than 300GT or has a ballast water capacity of more than 8m³ is required to submit a Notice of Intent (NOI) for each vessel to be covered by the permit. Vessels authorized to discharge under the 2008 VGP must submit an NOI at least 7 days before discharging waters subject to the permit.

Importantly, the 2013 VGP now requires all NOIs to be submitted electronically via the vessel website: www.epa.gov/npdes/vessels/eNOI (See also part 5.3.1 of this Guide.) Submitting a paper NOI may result in processing delays dependent upon the volume of NOIs received by EPA.

Submission dates for the eNOI are detailed in Table 1 of section 1.5.1.1 of the 2013 VGP. The relevant sections for INTERTANKO members are reproduced below for convenience:

- ***Vessels authorized to discharge under the 2008 Vessel General Permit (VGP) should submit the eNOI no later than December 12, 2013 or 7 days prior to discharge into waters subject to the VGP, whichever is later***
- ***New vessels delivered to the owner or operator after December 19, 2013 and submitted an eNOI, this should be submitted 7 days prior to discharge into waters subject to this permit.***

The eNOI Form and the EPA's guidance is provided in Appendix E of the 2013 VGP.

3. Enforcement: Inspections by US Coast Guard

US Coast Guard (USCG) officers are permitted to inspect the VGP on behalf of the EPA following the signing of a Memorandum of Understanding (MoU) between the two agencies. The USCG in turn has issued guidance to its inspectors relating to the VGP. USCG PSC officers will not undertake separate inspections for the VGP but may include the basic check within more routine PSC inspections.

The USCG Guidance to Inspectors contained in the CG-543 Policy Letter 11-01 can be viewed on the USCG website:

<http://www.intertanko.com/Global/Environment/USCGvgpGUIDANCEchecklist.pdf>

A summary of inspection focus areas and questions is given below and taken from the table in Enclosure (1) of the CG-543 Policy Letter 11-01:

- Are the vessel master and senior crew aware of the VGP?
- Has the vessel submitted a Notice of Intent (NOI)?
- Record of routine visual inspections
- Record of annual inspections
- Record of VGP drydock inspection

- Documentation of Corrective Action Assessments: does the vessel maintain records of completed?
- actions
- Ballast Water Management Plans (BWMPs): Does the plan adequately lay out a ballast water management strategy specifically for the vessel? The BWMP must be in accordance with USCG Ballast Water Rule 33 C.F.R. 151 and the VGP.
- Ballast Water Record Book: If applicable, has the vessel maintained records of conducting ballast water exchange, near shore ballast water exchange, and saltwater flushing? For those vessels which periodically enter as NOBOBs, and which do not report salt water flushing to the NBIC, they must have records of salt water flushing onboard.
- Bilgewater Discharges: Is the vessel maintaining records of its bilge water discharges? Is the vessel discharging within 1nm of shore or within National Parks, Marine Sanctuaries, etc., listed in the VGP?
- Is the state of deck and work areas housekeeping adequate?
- Is deck free of clutter, garbage, fuel/oil spills?
- Are spill rails and drip pans in place and utilized?

Please note that the guidance may change with the introduction of this latest 2013 VGP. INTERTANKO will advise its members of any update in the USCG Inspection Guidance.

4. Significant Changes in the 2013 VGP

The following are the changes between the 2008 and 2013 VGP which will impact tanker owners and operators;

Section 2.2.1 Deck Washdown, Runoff and Above Water Line Hull Cleaning

The 2013 VGP introduces the requirement to broom down, or equivalent, exposed decks prior to washing down.

To reduce the risk of any leakage or spills of harmful oils into the aquatic environment, the EPA strongly encourages the use of environmentally acceptable lubricants (EALs) in all above deck equipment. Note detailed guidance on EALs under section 2.2.9.

If the deck washdown results in a discharge then the detergents and cleaners used must be '*minimally toxic*' and '*phosphate free*' and biodegradable.

Section 2.2.2 Bilgewater/Oily Water Separator Effluent

Additional and extensive monitoring requirements have been introduced in the 2013 VGP and are given in detail in part 5.3 of this Guide.

However, it should be noted that the monitoring requirements are applicable only if bilgewater is discharged within 3nm of the US coast. Those vessels that frequently travel outside of the 3nm may therefore consider the banning of any discharge of bilgewater from the vessels within the 3nm zone.

Section 2.2.3 Ballast Water

The 2013 VGP introduces ballast water requirements in line with both the discharge standard and implementation schedule provided in the US Coast Guard's ballast water rule, 33 CFR Part 151. However, unlike the USCG rules, the 2013 VGP does not require a BWMS to be approved. Instead the EPA only require a BWMS *"which has been shown to be effective by testing conducted by an independent third party laboratory, test facility or test organization."* As the BWMS under the VGP does not have to be approved, the EPA did not include an extension provision as per 33 CFR Part 151.2036 in the 2013 VGP.

Thus, for the time being, for new ships (keel laid after 1 December 2013) if they want to discharge ballast water in US waters, they will need to install a BWMS to comply with the VGP. The assumption is that these ships would have installed an Alternate Management System (AMS) to meet the USCG requirement, but that would only be good for five years – after that they would have to install a USCG-approved BWMS which would meet both USCG and 2013 VGP requirements.

The USCG note that the EPA advise, *"where the US Coast Guard has granted or denied an extension request pursuant to 33 CFR 151.2036, that information will be considered by EPA, but is not binding on EPA"*. The USCG encourages owners and operators to contact the EPA at the earliest opportunity. As such, INTERTANKO recommends that the Extension Request Letter, the accompanying documentation as well as the response from the USCG are referenced within the 2013 VGP compliance documentation on board and within the vessel's BWMP.

Dialogue with the EPA has clarified the requirements for installing and actually using a BWMS for compliance. The EPA has stated that a vessel must only meet treatment limits when the effluent limits become applicable to the vessel (see Part 2.2.3.5.2 of the permit for schedule), even if the vessel has already been installed with a BWMS. However, EPA notes that if a vessel uses a BWMS, they need not conduct mandatory ballast water exchange otherwise required under Part 2.2.3.6 of the VGP.

The EPA's general recommendation would be to try and use the system if already installed (such use could help provide assurance that it is working correctly before having to meet the numeric limits and guide future system purchase decisions). However, the EPA adds that the vessel is not obligated to use the BWMS by the permit until mandated by the schedule in Part 2.2.3.5.2..

Additional requirements for monitoring are introduced in the 2013 VGP and should be included in the vessel's BWMP. In general the monitoring requirements are:

2.2.3.5.1.1.2 *Ballast Water System Functionality Monitoring*

2.2.3.5.1.1.3 *Ballast Water monitoring equipment calibration*

- 2.2.3.5.1.1.4 *Effluent Biological Organism Monitoring*
- 2.2.3.5.1.1.5 *Requirements and Effluent Limitations for BWTS that use Active Substances (e.g., biocides)*

Details on the monitoring and reporting of the effluent discharge is found in part **5.3** of this Guide.

6.4 California

While the 2013 VGP retains the requirement for vessels entering California State waters to comply with the State ballast water requirements, since the release of the Final 2013 VGP the California State Lands Commission (CSLC) has delayed implementation of their interim performance standards for the discharge of ballast water by two years.

A letter to agents states that the CSLC approved a report to the California Legislature recommending a delay in the implementation of California’s interim performance standards for the discharge of ballast water. This recommendation was based on the lack of available treatment technologies to comply with all of California’s standards. In response to the recommendations in the report, the Legislature passed Senate Bill (SB) 814, which was signed by California Governor Edmund G. Brown Jr. on 1 October 2013, and will become effective on 1 January 2014. Among its provisions, SB 814 amends Public Resources Code section 71205.3 and delays implementation of the interim performance standards for two years.

Ballast capacity of vessel:	Standards to apply to new vessels in this size class constructed on or after:	Standards to apply to all other vessels in this size class beginning on:
<1500 metric tons	1 January 2016	1 January 2018
1500-5000 metric tons	1 January 2016	1 January 2016
>5000 metric tons	1 January 2016	1 January 2018

The CSLC note in their letter that this delay does not apply to the implementation of the final discharge standard of zero detectable living organisms for all size classes by 1 January 2020.

CSLC staff will conduct another review of available ballast water treatment technologies to comply with California's performance standards by 1 July 2014. In the meantime, staff will continue to work with the regulated industry and interested stakeholders to evaluate options for compliance with the interim standards once the interim standards are implemented.

Notwithstanding the above, vessels entering California State waters should complete the SLC forms found in the following Marine Invasive Species Program (MISP) Compliance and Reporting Documents page:

http://www.slc.ca.gov/spec_pub/mfd/ballast_water/Compliance_Rptng_Docs.html

2.2.4 Anti-Fouling Hull Coatings/Hull Coating Leachate

The 2013 VGP introduces the requirement for vessels to comply with the Clean Hull Act of 2010 (33 U.S.C. §§ 3801 *et seq.*). The principle requirement for operators in the Clean Hull Act is the implementation of the IMO's Antifouling Systems Convention, which currently prevents the use of organotin compounds in antifouling systems.

2.2.7 Cathodic Protection

For vessels that spend the majority of their time in saltwater, if vessel zinc anodes are selected, the vessel owner/operator must document why aluminium is not selected. The documentation requirement is applicable after the vessel's first drydocking after 19 December 2013 (e.g., if the vessel drydocks in 2015, the requirement is applicable for that vessel starting in 2015).

The EPA also urges owners, where feasible, to fit anodes flush to the hull, or fill the space between the anode and hull backing to remove the potential for hotspots for fouling organisms.

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 most significant element associated with this section is the requirement to use Environmentally Acceptable Lubricants (EALs) in all oil to sea interfaces. The exception is when it is deemed technically infeasible to do so. EALs are defined in Appendix A of the VGP but in summary are lubricants which are biodegradable, minimally-toxic and do not bioaccumulate.

In terms of technically infeasible, the VGP states:

"...technically infeasible means that no EAL products are approved for use in a given application that meet manufacturer specifications for that equipment, products which come pre-lubricated (e.g., wire ropes) have no available alternatives manufactured with EALs, products meeting a manufacturers specifications are not available within any port in which the vessel calls, or change over and use of an EAL must wait until the vessel's next drydocking."

The use of a non-EAL needs to be recorded and noted in the Annual Report. For new builds, the EPA recommend the use seawater-based systems for their stern tube lubrication to eliminate the discharge of oil from these interfaces to the aquatic environment. New build is defined in Appendix A of the VGP as "a vessel constructed after a given date". For section 2.2.9 the given date is 19 December 2013. Constructed is defined in Appendix A as:

"...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.”*

This requirement has raised a number of queries in regards to implementation. In this respect, INTERTANKO has contacted the EPA directly and provides for guidance the EPA’s responses below:

Q.1 Does EPA have or has EPA issued or will EPA issue a list with the lubricants certified (by EPA) as EAL products? Up to now, the shipping community receives this information only from the products’ makers. We believe that an official list should be released by EPA and the information should also contain the manufacturers’ opinion on the impact these substances might have on the materials used by ships’ installations.

A.1 *EPA does not have a list of approved EAL products at this time. However, we generally expect that use of products labelled by one of the labelling programs referenced in the VGP (Blue Angel, European Ecolabel, Nordic Swan, the Swedish Standard SS 155470, Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) requirements, and EPA’s Design for the Environment (DfE)) will meet the EAL requirements in the permit. We understand that several products are labelled under some of the European programs, and that our DfE partners are well on the way of awarding labels for some lubricant products. Note that we do not specifically require that a lubricant have received a label from one of the programs listed and that some vendors have either internal self certification or are seeking other third-party certification. At the end of the day, for the purposes of the permit, the lubricant has to meet the definition of "environmentally acceptable lubricant" to be considered in compliance with the VGP. Thus, it must meet the definitions of "biodegradable," "minimally-toxic," and "not bioaccumulative" included in Appendix A the permit. I understand that there are several lubricant manufacturers currently manufacturing VGP compliant products, that they are generally available for oil-to-sea applications, and that their use is technically feasible (particularly for newer vessels), although am reluctant to provide a list to avoid the appearance of endorsing any given vendor or product.*

Q.2 INTERTANKO members have been informed that a number of manufacturers have issued statements commenting that the use of Environmentally Acceptable Lubricants (EALs) may damage their seals. Some noted that problems existed with controllable pitch propellers. Therefore, compliance with EPA VGP in this case may jeopardise the ship’s safety.

If the use of an EAL in an oil-to-sea interface is claimed to be “technically not recommended” as the integrity of the material may be jeopardised, the ship will carry documentation to that effect. Most makers are issuing such a letter, as a general statement, that change can be done only in dock. There seems to be confusion and constraint of time, if each ship should have its own letter with ship’s name and IMO number. We believe that a general statement from “makers of seals” can be recorded as sufficient documentation, at least until the next drydock. Does EPA agree?

A.2 *For purposes of the EAL requirement, technically infeasible means that no EAL products are approved for use in a given application that meet manufacturer specifications for that equipment, products which come pre-lubricated (e.g., wire ropes) have no available alternatives manufactured with EALs, products meeting a manufacturers specifications are not available within any port in which the vessel calls, or change over and use of an EAL must wait until the vessel's next drydocking. In other words, the use of EAL may be considered technically infeasible if no EAL products are approved for use in a given application, or products meeting a manufacturers specifications are not available within any port in which the vessel calls.*

If a vessel operator believes that one of these conditions apply for their vessel, for example needing to wait until the next drydocking to change to an EAL (the most common reason for technical infeasibility we are aware of), vessel operators must document in their recordkeeping documentation why they are unable to use an EAL until the next drydocking. Additionally, they must report the use of a non-environmentally acceptable lubricant to EPA in their Annual Report. The vessel would then be required to change over lubricants in the next drydocking.

You asked the question whether "a general statement from 'makers of seals' can be recorded as sufficient documentation [of technical infeasibility], at least until the next drydock. Does EPA agree?" The answer is yes: EPA agrees this is sufficient documentation at this time.

Q.3 Since most makers indicate that EAL is not good for the long life of seal materials, INTERTANKO will suggest that "air seals" and "double barrier seals systems" may be used in lieu of EALs, even though this is believed to be more appropriate for new buildings only. We describe below the "air seals" and the "double barrier seal" systems" and explain how tightness of the system is ensured and there is no risk for oil leaks.

Air Seal – AX TYPE – Pollution free

A constant quantity of air is supplied from the air source. It passes through #2/3 chamber and is spouted into sea by lifting #1 and #2 rings. The air pressure in #2/3 chamber is always maintained about 0.1 bar greater than the sea water pressure so to slightly exceed the tightening force of #1 and #2 rings.

The air pressure is added to the stern tube oil tank. The oil tank is installed at 3 metres above a shaft centre. The stern tube oil pressure becomes "air pressure in #2/3 chamber + 0.3 bar" and it also follows the draft change. Any draft change can be automatically detected and the air pressure in #2/3 chamber and stern tube oil pressure follow the draft change instantly.

These are stern tubes with oil seals and a 4th seal (back-up seal, 3S), offering an extra double barrier seal system, to effectively safeguard against oil leaks to the sea.

Double Security seal, DX type seal, is composed of 4 sealing rings. Because the oil pressure in #3/3S chamber is the same as stern tube oil pressure, #3S ring is usually maintained in an idling condition. When #3 ring is damaged, #3S ring is put into operation by closing two valves. At such case, the oil leakage can be stopped.

Suppliers indicate that the systems above comply with the ABS, LR, DNV and other classification societies' pollution free category/class. We also investigate if similar recognition is given to bow thrusters seals.

Does EPA concur that "air seals" and "double barrier seals systems" may be used in lieu of EALs?

A.3 *In reference to the use of air seals, the answer hinges on whether, with the use of an air seal, the stern tube or equipment ceases being an oil-to-sea interface. Based on our preliminary research and information provided by a classification society representative consulted on this matter, the answer appears that some air seal designs, when properly maintained, can completely and permanently eliminate oil drips or leakage into surrounding waters. However, we say this from the perspective of ecologists and environmental scientists (and not marine architects), hence, we cannot provide any formal certification or "clean" endorsement. If this is the case, then the lubricated stern tube would be much like a seawater lubricated stern tube in terms of having no potential for oily discharge, and use of an EAL would not be required. However, if there is any possibility that such a system fails (e.g., any leakage occurs), then an EAL must be used if technically feasible. If a vessel operator utilizes an air seal system and elects not to use an EAL, and that air seal system fails, then any leakage of a non EAL lubricant might be a permit violation and must be reported on the annual noncompliance report. If there is any chance of leakage, however, EPA would recommend utilizing an EAL to avoid the possibility of a permit violation for failing to use an EAL in an oil-to-sea interface where it would have been technically feasible.*

Q.4 According to INTERTANKO members' experience and according to the makers' advice it is not advisable to replace stern tube lube while the vessel is afloat. Therefore, we would suggest that the switching to EALs should be undertaken at the next scheduled dry dock, rather than while the vessel is afloat. Does EPA concur?

A.4 *In reference to stern tube lube change over to EAL, if it is necessary to wait until the next drydocking to change to an EAL, this would fall under the purview of technically infeasible (see above).*

Q.5 INTERTANKO would note that vegetable oils and synthetic esters (that are the base of most of the EAL products) are lighter than seawater and create sheens. Should these sheens be reported while the vessel is within 3nm in the US?

A.5 *...the 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. However, under*

certain circumstances and on a case-by-case basis as appropriate, EPA and/or USCG authorities may consider whether a vessel used an EAL in their enforcement response. According to 40 CFR Part 110.3, quantities that may be harmful to the public health or welfare or the environment include discharges of oil that cause a film or sheen. A ship's watch must include visual monitoring of the water around and behind the vessel for visible sheens. 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. It is assumed that oil-to-sea interfaces are not discharging large quantities of oil, but this requirement should be considered when choosing an appropriate EAL.

2.2.15 Graywater

Additional guidance is provided in the 2013 VGP on methods to reduce the production of graywater on board but the significant changes are related to the inclusion of cooking oil and vegetable fat as a restriction, use of phosphate-free soaps as well as additional monitoring and reporting requirements.

While the VGP requires vessels to minimise the discharge to the sea of oil from the kitchen and scullery it should be noted that the revised MARPOL Annex V requirements which entered into force on 1 January 2013 prohibit the discharge to sea of cooking oil.

If the vessel is using phosphate-free and minimally toxic soaps then the discharge of graywater is permitted, otherwise the graywater must be stored while in waters subject to the VGP. It is considered good practice to only procure phosphate-free and minimally toxic soaps for all vessels.

Part **5.3** of this guide provides details on the new monitoring and reporting requirements for graywater for vessels constructed after **19 December 2013**.

2.2.23 Underwater Ship Husbandry and Hull Fouling Discharges

This section differs from section 2.2.4 Anti-Fouling Hull Coatings/Hull Coating Leachate as it relates to the physical process of hull cleaning and other hull maintenance/repair work. In particular in regards to the removal of anti-fouling systems which contain copper as a biocide. It is generally recommended that any hull cleaning in accordance with the PMS or Biofouling Management Plan should take into account the additional management practices outlined in the 2013 VGP, as follows:

- *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.*
- *When feasible, attempts must be made to minimize the release of fouling organisms and antifouling systems (including copper-based coatings) into surrounding waters.*

- *EPA maintains a list of copper-impaired waters on its webpage at www.epa.gov/npdes/vessels. If you clean before 365 days after paint application in copper-impaired waters, you must document in your recordkeeping documentation why this early cleaning was necessary.*

Note that the majority of copper-impaired waters listed on the EPA website are freshwater.

INTERTANKO advise that a Biofouling Management Plan is drawn up in line with the IMO standard format for Biofouling Management Plans (Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species, resolution MEPC.207(62)). INTERTANKO has also produced a Model Biofouling Management Plan for use by members when developing Biofouling Management Plans.

2.2.26 Exhaust Gas Scrubber Wash Water Discharge

The requirements for Exhaust Gas Scrubber (EGS) equipment are consistent with those in MARPOL Annex VI and reference is therefore given to the IMO Guidelines for effluent quality, Resolution MEPC.184 (59) – 2009 Guidelines for Exhaust Gas Cleaning Systems. This is available from the INTERTANKO website:

<http://www.intertanko.com/upload/79314/MEPC%2059-24-Add1-ExhGasCleanSys.pdf>.

These Guidelines should therefore form the basis for compliance with both the IMO MARPOL Annex VI and EPA VGP requirements.

In section 5.5 there are specific requirements relating to oil tankers. In this section the inert gas scrubbing equipment is explicitly excluded from the discharge requirements stipulated for EGS.

5. Guidance on the Requirements

5.1 Company Compliance Map

In relation to the cross-over with standard tanker operator rules, requirements and best practices, the development of a map for compliance may be considered by the company. A tabulated example of a compliance map is provided in **Annex I**.

When developing the compliance map, the company should also consider the likelihood that the company has already implemented extensive inspection, test and maintenance procedures for:

- Steel structure and coating performance
- Deck machinery, mooring equipment and deck fittings
- Cargo operation equipment
- Engine room machinery and equipment
- Pollution prevention systems and equipment
- Cargo gear and lifting equipment
- Navigation and Communication equipment
- Safety and Fire-fighting equipment

Where applicable, reference should be made to the above inspections, tests and procedures.

A company circular advising all ship and shore teams of the new VGP requirements along with subsequent references to and changes to the company management procedures should be issued.

Note that equipment-based procedures which can be identified in the inspection records may also be linked with the specific equipment maintenance record and can be taken into account in the Compliance Plan, if necessary.

5.2 Regular Inspections

Section 4 of the VGP contains the inspection requirements. The EPA has advised INTERTANKO that vessels are not required to conduct inspections when they are not in waters subject to the Permit (within the 3nm territorial sea of the US). Vessels must be in compliance upon re-entering the waters of the US. However, this means a vessel must have conducted a routine inspection within the last week or during the voyage, whichever is more frequent, and have had a comprehensive annual inspection within the last year, prior to entering US waters.

Once an eNOI has been filed and the vessel has become compliant with EPA requirements, INTERTANKO recommends that vessels continue to follow those policies and practices necessary to comply with all aspects of the VGP including Ballast Water Management, Routine Inspections, Annual Inspections, Corrective Action Assessments and Annual Reports even if the vessel is not navigating/plying US waters. This should avoid any confusion by the ship's crew as to when the inspections should be conducted, and will be particularly relevant should the company choose to integrate the VGP inspection requirements with the company's current management and operational procedures.

A substantive part of the VGP requirements relate to inspections and sampling, as follows:

- Routine Visual Inspections: As per section 4.1.1 of the VGP requirements. For ease of implementation and to ensure that the necessary frequency of inspections is undertaken, these have been referred to as Weekly Routine Visual Inspections. A Model Weekly Routine Visual Inspection Record is provided in **Annex II** of this Guide. Reference to these inspections will be required in the Annual Report, question '2b';
- Comprehensive Annual Inspections: as per section 4.1.3 of the VGP requirements. This is referred to as Annual Inspections. These inspections must be verified by a Superintendent or the Master. A Model Annual Inspection Record is provided in **Annex III** of this Guide. The inspection items correspond to the questions in the Annual Report (3a through to 7); and,
- Dry-dock Inspections: As per section 4.1.4 of the VGP requirements and included in this guide as Dry-dock Inspection Record, **Annex V**.

The above referenced inspections and associated records will fulfil the requirements of the Annual Report question '2a'.

While model records have been provided in this guide, it is expected that many companies may wish to include these inspection records in an electronic record or tracking system.

Reference to the VGP and a description of the requirements are included in the model records to assist the ship's staff in understanding the objective and reasoning behind the item under inspection.

The use of the model records, however, does not preclude the requirement of the ship's watch to visually monitor 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. If a crew member identifies or becomes aware that pollutants or constituents of concern are originating from the vessel, corrective actions must be initiated.

5.3 Monitoring, Sampling and Reporting

5.3.1 Electronic Reporting

Contrary to the 2008 VGP, all reporting in the 2013 VGP must be electronic. There are a few exceptions to this requirement, as presented below, but it is unlikely that INTERTANKO members will fall into any one of the below categories:

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.*

5.3.2 Annual Report

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.

Appendix H of the VGP provides the following 5 forms and associated tables for Annual Reporting:

1. **Annual Report**
2. **Annual Report: Ballast Water Treatment System Reporting** (*Supplemental Addendum (VG Ballast Water DMR)*) – *this includes recording formats for:*
 - a. *Ballast Water Treatment System Functionality Monitoring (Monthly)*
 - b. *Biological Monitoring of Ballast Water Discharges*

- c. *Residual Biocide/Derivative Monitoring of Ballast Water Discharges*
3. **Annual Report: Exhaust Gas Scrubber Discharge Monitoring** (Supplemental Addendum (VGP Exhaust Gas Scrubber Discharge Monitoring Report))
 4. **Annual Report: Graywater Discharge Monitoring** (Supplemental Addendum (VGP Graywater Discharge Monitoring Report))
 5. **Annual Report: Bilgewater Discharge Monitoring** (Supplemental Addendum (VGP Bilgewater Discharge Monitoring Report))

The questions in the Annual Report will directly correspond with the inspection and record keeping as per the Routine Visual Inspections, Comprehensive Annual Inspections and Dry-dock Inspections. See part 5.2 and Annexes II, III and V of this Guide.

5.3.3 Analytical Monitoring and Sampling

A number of new requirements have been introduced for monitoring, sampling and reporting. In particular analytical monitoring for bilgewater, ballast water, exhaust gas scrubber discharge and graywater. These new requirements are explained in detail below.

In addition to visual inspections, section 4.1.1 of the VGP requires sampling to be undertaken of discharge streams which are not readily visually inspected such as effluent streams discharged below the waterline.

Results from analytical sampling should be cross referenced to the necessary documentation on board, e.g. the BWMP for ballast water biological sampling and monitoring.

Records of all inspections, sampling and testing must be kept on board for at least three years.

- Bilgewater Monitoring and Reporting (2.2.2)

2.2.2.1 Bilgewater monitoring

New Build vessels built after December 19, 2013 greater than 400 gross tons that may discharge bilgewater into waters subject to this permit (3nm off the US coast) must monitor (i.e., sample and analyze) their bilgewater effluent **at least once a year** for oil and grease content. That monitoring can be conducted as part of the vessel's annual survey. The analysis will have to be undertaken by a laboratory and follow one of the two prescribed methodologies in the VGP.

As previously noted in this Guide, the monitoring requirements are applicable only if bilgewater is discharged within 3nm of the US coast. Those vessels that frequently travel outside of the 3nm may therefore consider the banning of any discharge of bilgewater from the vessels within the 3nm zone.

If your analytical results show oil and grease concentrations of less than 5 ppm for two consecutive years, you need not sample and analyze subsequent years of permit coverage if:

- *Your vessel uses an oily water separator capable of meeting a 5 ppm oil and grease limit, or you use an alarm which prevents the discharge of oil and grease above 5 ppm whenever you discharge in waters subject to this permit,*
- *You calibrate your OCM at least annually (calibrations during a vessel survey meet this requirement), and*
- *Your OCM never reads above 5 ppm during discharges into waters subject to this permit. If this information is recorded in the oil record book, you need not record these data in other recordkeeping documentation.*

Appendix H of the VGP provides a recording and reporting format for the Bilgewater Discharge Monitoring Report.

- Ballast Water Monitoring and Reporting (2.2.3)

The ballast water monitoring requirements are intended to assess the functionality of a BWMS and so are only applicable to those vessels that have a BWMS installed.

2.2.3.5.1.1.2 Ballast Water System Functionality Monitoring

Operators will have to monitor the BWMS to make sure that it is being operated to the manufacturers specifications. To undertake this the EPA specifies that the BWMS functionality is tested **once a month** against the specific parameters of the BWMS. The specific parameters are the treatment parameters, for example, for filters the operator would be required to measure flow rate, back flush frequency and pressure differential every month while for chlorination the: chlorine; oxidation reduction potential (ORP); power consumption (voltage and current); total residual oxidizers (TRO), and/or; conductivity/salinity, would have to be measured and recorded. See Appendix J of the VGP for full measurement requirements.

Appendix H of the VGP provides a recording and reporting format for the monthly Ballast Water Treatment System Functionality Monitoring.

2.2.3.5.1.1.3 Ballast Water monitoring equipment calibration

Any BWMS sensors used for monitoring the functionality must be calibrated on a regular, minimum annual, basis.

2.2.3.5.1.1.4 Effluent Biological Organism Monitoring

This requirement stipulates that an operator must sample and test, at least **twice a year**, the discharge against the biological standards (limits) for total heterotrophic bacteria, *E. Coli* and *Enterococci*. Based on very specific and detailed microbiological test procedures specified in the VGP we would assume that this will involve the use of a third party to undertake the physical biological tests for the three organism types listed.

If two consecutive samples show the BWMS to operate below the limits then the vessel may revert to a one test per year regime. If, however, the BWMS fails to meet the discharge standard then the vessel must persist with the **two tests per year**. For the first year the sampling and monitoring of the BWMS during installation and sea trials of the vessel may count as one test. There after one of the tests may be done in accordance with the vessel’s annual or other such survey. Appendix H of the VGP provides a recording and reporting format for the *Biological Monitoring of Ballast Water Discharges*

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

While limits are placed on the concentration of common active substances, these are no more stringent than those in the USCG or IMO requirements for type approval, i.e. neither the USCG nor the IMO will approve a BWMS which discharges above the limits prescribed in the VGP. The common substances listed are chlorine, chlorine dioxide, ozone, peracetic acid and hydrogen peroxide.

In order to demonstrate that the limits of biocides or its derivatives are in compliance with the VGP then the operator must take samples as follows:

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

As per the biological sampling and testing, prescribed methods are provided for the testing of certain biocides. It is anticipated that the testing for chemicals will be more straightforward than biological testing and facilitated by more readily available test apparatus which the crew can use. Furthermore, if a BWMS manufacturer supplies a system requiring active substances then the vendor should provide a means to test that the discharge ballast water meets the type approval requirements for active substance concentrations. This may be something that the operator can more easily determine and therefore more easily sample, test and monitor than the biological tests noted above.

Appendix H of the VGP provides a recording and reporting format for the Residual Biocide/Derivative Monitoring of Ballast Water Discharges.

In relation to monitoring, the EPA has confirmed to INTERTANKO that if a vessel is utilizing the BWMS, then they need to conduct the monitoring required by the VGP (even if the systems use is before the numeric limits that mandate treatment are applicable to the vessel). See Part 2.2.3.5.1.1.1 of the permit which states that the monitoring requirements *"apply to ballast water discharges from vessels employing ballast water treatment systems that are used to achieve the effluent limitations of Part 2.2.3.5."* Since the vessel would be using the system to meet the effluent limits in Part 2.2.3.5, instead of those in Part 2.2.3.6, the monitoring

requirements are required to provide EPA (and the operator) information that the systems are functioning as designed.

- Graywater (2.2.15)

2.2.15.2 Graywater Monitoring

The following monitoring requirements are applicable to vessels which discharge graywater into waters subject to the VGP and are constructed after **19 December 2013**.

Vessel owners/operators must collect and analyze **two samples per year**, collected at least **14 days apart**, and report the results of those samples as part of their Annual Report.

Records of monitoring information shall include:

The date, exact place, time, and sampling port location(s) of sampling or measurements;

- The date(s) analyses were performed;
- The individual(s) who performed the analyses;
- The analytical techniques or methods used;
- The results of such analyses; and
- Proportions of wastestreams being treated and sampled (such as mixed graywater, mixed graywater and blackwater, and galley. If actual amounts are not available, the estimated proportions should be provided).

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).

The Graywater Discharge Monitoring Report form is provided in Appendix H of the VGP.

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.

- Exhaust Gas Scrubber Washwater Discharge Monitoring and Sampling (2.2.26)

EGS monitoring is to be conducted both continuously and as annual analytical monitoring.

2.2.26.2.1 Continuous Monitoring

The EGS data recording system must comply with the guidelines in sections 7 and 8 of MEPC.184(59) and must continuously record pH, PAH (as available), and turbidity. The vessel owner/operator must continuously monitor for PAH discharges where continuous monitoring

technologies (e.g., probes/analyzers) are available (availability should include the technology's robustness, reliability and ability to perform over for a minimum of two years). When the EGS is operated in waters subject to the permit, the washwater monitoring and recording must be continuous. The values monitored and recorded must include pH, PAH (as available), turbidity, and temperature.

Monitoring data must be submitted at least once per calendar year as per the Annual Report.

2.2.26.2.2 Analytical Monitoring

In addition to the continuous monitoring found in Part 2.2.26.2.1 of the permit (above), vessel owner/operators must collect and analyze **two samples in the first year** of permit coverage or system operation, whichever is first, to demonstrate treatment equipment maintenance, probe accuracy, and compliance with this permit. Samples must not be collected within 14 days of each other. Samples must be collected for inlet water (for background), water after the scrubber (but before any treatment system), and discharge water. For all vessels, one of those samples may be conducted as part a vessel's annual or other survey, and during the first year, one of those sampling events may be conducted as part of the installation of the system to ensure it is functioning properly.

After the first year, samples must be collected at least once per calendar year for inlet water (for background), water after the scrubber (but before any treatment system), and discharge water, and may be collected as part of the vessel's annual survey as appropriate.

Data must be submitted in the Annual Report s per the exhaust gas scrubber DMR available in Appendix H of the VGP.

5.4 Additional Specific Requirements for Oil Tankers

Section 5.5 of the VGP contains additional specific requirements for oil tankers that pertain to discharges from inert gas scrubbers, deck seals and scuppers. This section also contains supplemental inspection and training requirements.

- Supplemental Inspection Requirements for Oil Tankers.

A visual sheen test must be conducted after cargo loading operations, cargo unloading operations, and deck washing. However, it is advisable to undertake the inspections before, during and after cargo operations, i.e. on a continuous basis. 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. A record of the time frame for when the inspections were undertaken, the results and of who undertook the visual sheen test should be maintained. This may be kept in the Weekly Routine Visual Inspection Record for easy access and record keeping.

If a visible sheen is detected, the discharge must be reported immediately to the National Response Centre according to procedures described in the vessel's VRP. Furthermore,

appropriate corrective actions must be taken and must be recorded accordingly in the Bridge Log Book. Note that some operators may also record this data electronically, which may also allow for easier retrieval of the data as and when required.

- Training requirements

Implementation of the VGP will require the establishment of a training plan to ensure the company's personnel are familiar with, and fully understand, the VGP requirements and their integration into the company's management procedures. This is part of the additional requirements for the tanker crew which extend to proficiency in the arrangement of environmental procedures and relevant discharge types. Please refer to section 5.5.4 of the VGP and note that records should be maintained to demonstrate that staff have undertaken appropriate training.

The 2013 VGP has expanded this requirement for all vessel types and includes requirements to ensure vessel personnel are trained in the procedures for responding to fuel spills and overflows, including notification of appropriate vessel personnel, emergency response agencies, and regulatory agencies. Section 2.1.6 of the 2013 VGP adds that the 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 the VGP.

- Inert Gas Scrubbing equipment

In section 5.5 the Inert Gas Scrubbing equipment is explicitly excluded from the discharge requirements stipulated for Exhaust Gas Scrubbers.

5.5 Corrective Action

In the model inspection and recording forms provided in the Annexes an option is given to provide details of any non-compliance. However, such details should make reference to the relevant Corrective Action Assessment. A model format for a Corrective Action Assessment is provided in **Annex IV**.

Alternatively it may be appropriate to incorporate the non-compliance and corrective action into more standardised procedures for shipboard safety and quality & environmental management, e.g. the SMS or, if applicable, an environmental and/or quality management system such as ISO14001/2004 or ISO9001/2000 respectively. In such cases reference of the non-compliance must be included in the inspection and sampling records.

Finally, any non-compliance which is deemed to endanger human health or the environment should be reported orally to the appropriate EPA regional office within 24 hours and in writing within 5 days.

5.6 Dry-dock Inspection Report

Annex V provides a model Dry-dock Inspection Certification Report. Note that this document provides only the details as relevant to the VGP requirements and that operators will already have in place extensive dry-docking inspection procedures.

Annex I – Model Compliance Map

Following provides an **example** of a format for cross referencing standard company management procedures with the VGP requirements:

Item *	Management Procedure **	Records/Documentation
<i>Effluent Limits and Related Requirements for Specific Discharge Categories</i>		
2.2.1 Deck washdown and runoff and above waterline hull cleaning	PMS: Drip trays should be drained, wiped and cleaned. Procedure for the minimisation of droplets when conducting maintenance painting. SMS: No deckwash within 3 nm of US shore; visual sheen test. Procedure for deckwashing and sweeping of decks prior to washdown.	<i>Insert specific reference to appropriate company document or record</i>
2.2.3 Ballast Water	BWMP: Only discharge ballast through the ballast water management system	<i>Section xx of the Ballast Water Record Book</i>
2.2.4 Anti-fouling hull coatings	SMS: Routines for diving inspections. BFMP: Procedures for hull inspections during diving inspections.	“
2.2.5 Aqueous Film Forming Foam	SMS: Do not use foam during training within 1 nm of US shore.	“
2.2.8 Chain Locker Effluent	SMS: Procedure for cleaning anchor chain Dry-dock Procedure: Cleaning chain lockers PMS: Chain box to be cleaned yearly.	“
2.2.15 Graywater	SMS: Minimise grey water production and discharge while in port. Always order and only use phosphate free and minimally toxic soaps. GMP: Prohibition of cooking oil into the sea.	“
2.2.20 Seawater Piping Biofouling Prevention	Dry-dock Procedure: Routine for removing seawater piping biofouling. SMS: Minimise chemical usage within 3 nm of the shore.	“
2.2.21 Small Boat Engine Wet Exhaust	Use low sulphur fuel or alternative fuels for small-boat engines.	“

* Item number corresponds to relevant section of the VGP requirements

** Insert relevant company management procedure either current or updated – the text in the table is for example only

SMP Safety Management System

BFMP Biofouling Management Plan

PMS Planned Maintenance Schedule

GMP Garbage Management Plan

BWMP Ballast Water Management Plan

Such a table should be drawn up following a full review of the VGP requirements. Drawing together the key management team responsible for marine operations, safety, quality and technical management procedures will likely be necessary to undertake this task.

Annex II – Model Weekly Routine Visual Inspection Record

Vessel name:

IMO Number:

	Inspection items	Applicable / Date Inspected	Responsible officer Signature
Deck Area (2.2.1) <i>(note that any deck wash down should be conducted prior to entry into US waters)</i>	Confirm that the decks are kept clear of any debris, garbage, and oil/chemical spills (e.g. grease, fuel, hydraulic fluid, caustics, detergents) to prevent these wastes from contaminating discharges.	Y / N Date	C/O
	Confirm that the deck area is properly maintained, in a manner consistent with good marine practice, to prevent excess discharge of metals and oils from eroding metals and deteriorating pipes, coamings, and other topside infrastructure.	Y / N Date	C/O
Paints/solvents in the Paint locker (2.1.1)	Confirm that: - Materials/stores are properly stored/stowed; - The area is free of any leaks/spills; - Toxic and hazardous materials are kept in appropriate sealed containers constructed of a suitable material, labelled, and secured; and - MSDS are available for the hazardous material.	Y / N Date	C/O
Chemicals in the Chemical locker (2.1.1)		Y / N Date	C/E
Lube oils/Greases in the Engine/Steering Gear Room (2.1.1)		Y / N Date	C/E
Cargo/bunker samples in the Paint Locker or in the anti pollution store/sample locker (2.1.1)		Y / N Date	C/O / C/E
Oil dispersants in the Deck Store (2.1.1)		Y / N Date	C/O
Detergents in the Cabin Stores Locker (2.1.1)		Y / N Date	C/O
Refrigerant gases in the Engine Room (2.1.1)		Y / N Date	C/E
Oxygen/acetylene gases in the Oxygen/Acetylene rooms (2.1.1)		Y / N Date	C/E
Any other stores/materials stored in the deck area (2.1.1)		Confirm that the materials/stores are properly stowed/lashed in an area as much as possible protected from wind, rain, or spray.	Y / N Date
Garbage storage area	Confirm that the garbage storage is located aft and that the stored garbage are properly stored and protected as much as possible from wind, rain, or spray.	Y / N Date	C/O
Spill containment arrangements around bunker and cargo manifolds, service and storage oil tank vents and hydraulic machinery (2.1.3)	Check that no leak exists.	Y / N Date	C/O

	Inspection items	Applicable / Date Inspected	Responsible officer Signature
Scuppers plugging during cargo operation/bunkering (2.1.3)	Check that the general condition of the scupper plugs is satisfactory and no obvious damage exists in the sealing rubbers. Lube oil replenishment.	Y / N Date	C/O
Fixed dump valves (2.1.3)	Inspect condition and ensure proper operation when vessel is in ballast condition.	Y / N Date	C/O
Oil water separator (2.2.2)	Confirm that the OWS and the 15 ppm alarm are inspected on a weekly basis and appropriate records are kept in accordance with the vessel's PMS.	Y / N Date	C/E
Engine Room/Steering Gear Room inspection/Refrigeration plant	Confirm that daily records are kept in the Engine Log Book as regards the implementation of the Daily Inspection described in Engine Standing Orders.	Y / N Date	C/E
Ballast Water Management records (2.2.3)	Confirm that the Ballast Water Management records are properly kept as per Ballast Water Management Plan (and relevant training records).	Y / N Date	C/O
Ballast Water Management System (2.2.3)	Confirm functionality check of the BWMS has been undertaken within the last month . Insert date of last functionality check:.....	Y / N	C/E
Cathodic protection – ICCP (2.2.7)	Check that proper records of the ICCP system inspections are logged in the relevant report form according to the SMS and/or PMS.	Y / N Date	C/E
Chain locker sump (2.2.8)	Confirm that the chain locker sump has been pumped out overboard, <i>on a regular basis as established by the company</i> , in open waters (greater than 50 nm from shore) and recorded in the Bridge Log Book or equivalent electronic log. Indicate date of last discharge.	Y / N Date	C/O
	Confirm that the chain locker sump has been pumped out overboard prior to entering the “waters of the United States”. Date:.....	Y / N	C/O
Fire main system (2.2.12) <i>(note that discharge of foam is prohibited within 3nm of the US coast)</i>	Confirm that the fire/foam hydrants as well as the foam guns are inspected on a regular basis <i>(as established by the company)</i> and that proper records are kept in the relevant section of the SMS, e.g. “Record of Safety Equipment Inspections and maintenance”. Indicate date of last inspection:.....	Y / N	C/O
Graywater (2.2.15) <i>(note VGP requires minimization of grey water production while within 3nm of the US coast)</i>	Confirmed all soaps are phosphate free and/or minimally toxic.	Y / N Date	C/O
	Confirm that oils used in cooking are not discharged in the grey water piping/system but instead are collected and temporarily stored onboard.	Y / N Date	C/O

	Inspection items	Applicable / Date Inspected	Responsible officer Signature
Seawater Piping Biofouling Prevention (2.2.23)	Check that biofouling management inspections are logged in the relevant recording form including maintenance and cleaning of heat exchangers as per manufacturers' requirements.	Y / N Date	C/E
Stern tube sealing arrangement (2.2.9)	Check the recording of date and location of any controllable pitch propeller, stern tube, and other oil-to-sea interface. In particular, ensure a record of maintenance of any controllable pitch propellers that occurs in the waters subject to the VGP.	Y / N Date	C/E
Inert gas scrubber (5.5)	Ensure that the unit is inspected regularly (<i>as per company requirements</i>) and record the date of last inspection Date of last inspection:	Y / N	C/E
Deck Water Seal (2.2.1)	Ensure that the unit is inspected quarterly . Date of last inspection:	Y / N	C/E
Visual monitoring of the water around and behind the vessel	Check for visible sheens, dust, chemicals, abnormal discoloration or foaming, and other indicators of pollutants or constituents of concern originating from the vessel.	Y / N Date	C/O / C/E

Following the above inspections it is confirmed that the vessel complies with the requirements of the VGP YES NO

List and describe any identified case(s) of non-compliance:

List and describe any potential problem(s) identified:

Master: Name: Signature:

Chief Officer: Name: Signature:

Chief Engineer: Name: Signature:

This document must be kept on board the vessel for a period not less than three years after the inspection date.

Annex III - Model Annual Inspection Record

Vessel name:

IMO Number:

VGP Title and Reference	Inspection items	Remarks	Responsible officer Signature
Bilgewater (2.2.2 / Annual Report Q3c)	Check that the OWS sensors (check rule) as well as bilges and pumps are maintained and cleaned.	Date last inspected:.....	
	Bilgewater analytical monitoring report has been completed as part of Annual Survey.	Date of Analytical Report:	
Ballast Water (2.2.3 / Annual Report Q3a)	Ballast tank sediment inspection and removal, as necessary in accordance with the BWMP.	Date last inspected:	
	BWMS sensors have been checked and calibrated.	Date last inspected/calibrated:	
	If a BWMS is installed and operated – Ballast water discharge has been sampled and biologically tested twice/once (as applicable) in last year.	Sampling dates: 1) 2)	
	If a BWMS is installed and operated – Ballast water discharge has been tested for residual biocides/derivates of residual biocides*.	First Year Dates: 1) 2) 3) Subsequent Years: 1) 2)	
	Check that the sea chests, strainer plates and screens have been inspected/cleaned, as necessary.	Date last inspected:	
Protective seals at oil-to-sea interfaces (2.2.9 / Annual Report Q5)	Protective seals on controllable pitch propellers, azimuth thrusters, propulsion pods, rudder bearings, or any other oil-to-sea interfaces are in good operating order.	Refer to the last inspection: Date:	
Graywater (2.2.15 and Annual Report Q3d)	Graywater discharge has been sampled and biologically tested twice/once (as applicable) in last year (for vessels constructed after 19 December 2013)	Sampling dates: 1) 2)	
Underwater Ship Husbandry and Hull Fouling Coatings (2.2.23 and Annual Report Q3e)	Check the degree of hull fouling. Inspect the visual parts of the hull when the vessel is in ballast condition and refer also to the last underwater inspection.	Refer to the last underwater inspection: Date:.....	
Exhaust Gas Scrubber Washwater Discharge	EGS unit inspected and probes for continuous monitoring calibrated. (If turbidity and other probes are inspected more frequently, provide dates and details of probes inspected/calibrated).	Last inspection/calibration: Probe: Date: Probe: Date: etc.	

Annex IV – Model Corrective Action Assessment

Vessel name:

IMO Number:

Reference to incident or inspection/sampling form in which non-compliance identified:
Description of the actual problem – location on board the vessel:
Type of impact
Reported By: To:
Detailed explanation of the cause:
Root cause
Description of the corrective actions to be taken to eliminate the problem:

Annex IV – Model Corrective Action Assessment cntd.

Vessel name:
IMO Number:

Description of Preventative actions taken:	
Schedule of activities for completing corrective actions in accordance with timeframes established in VPG Manual:	
Does the corrective action require the vessel to be in dry dock (circle one)?:	Yes / No If YES, the next planned date the vessel will be dry docked is:

Date: _____

Time: _____

Recorded by Name: _____

Rank: _____

Signature:

Schedule for Corrective Action

(as per section 3.3 of the VGP)

Type of corrective action	Deadline
<p>Corrective actions that can be accomplished with relatively simple adjustments to the control measures, using existing personnel and resources, and not requiring the vessel to be in dry dock (example: altering practices for material or equipment storage that caused contamination during a precipitation or high wave event).</p>	<p>As soon as possible but no later than 2 weeks after the discovery of the problem.</p>
<p>Corrective actions that require new parts or the installation of new equipment, not requiring the vessel to be in dry dock (examples: fixing leaking pipe connections or seals that allow oil or other contaminants to reach discharges; installation of drip pans to prevent equipment spills or machinery area runoff from reaching deck washdown effluent).</p>	<p>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. However, if completing repairs within 3 months is impracticable, repairs must be completed as soon as possible after 3 months and the reason why more time is needed must be documented as part of the corrective action assessment.</p> <p>The appropriate EPA regional office must be notified of why the additional time is needed and of the date when the correction is anticipated to be completed.</p> <p>It should be noted that during the period immediately following the initial violation and before the corrective action has been completed, every effort must be made to reduce potential environmental harm.</p>
<p>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 (examples: replumbing waste lines, rerouting drains, or installation of additional holding capacity for select discharge types).</p>	<p>Address the underlying cause of the noncompliance and return to compliance and/or complete necessary renovations or repairs prior to re-launching the vessel from dry dock.</p> <p>It should be noted that if the vessel is in dry dock after incurring a violation and corrective action is not taken to alleviate the identified problem, then the vessel will be in violation of the corrective actions section of the VGP for every occurrence or discharge after re-launching the vessel (in addition to any original violations prior to going into drydock).</p>

Annex V – Model Dry-dock Inspection Record

Vessel name:

IMO Number:

Item	Date	Name & Signature
The chain locker, chains and anchor chains have been cleaned and/or flushed in accordance with the requirements of Part 2.2.8 of the VGP and any sediment, living organisms, and other constituents of concern have been removed.		
The vessel hull, propeller, rudder, thruster gratings, sea chest, and other surface and niche areas of the vessel have been inspected for attached living organisms and those organisms have been removed or neutralized.		
The antifoulant hull coatings that 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.		
All cathodic protection, anodes or dialectic coatings have been cleaned and/or replaced to reduce flaking.		
All pollution control equipment is properly functioning.		
Stern tube seals verified to be in good condition.		
Rudder bearings found in good condition with clearances within limits.		
Rudder lubrication was found to be in good operation, without excess grease.		

The above items have been checked and verified in accordance with the requirements stipulated in the United States National Pollution Discharge Elimination System (NPDES) – Vessel General Permit 2013, Paragraph 4.1.4.

Master:

Name:

Signature:

Chief Officer:

Name:

Signature:

Chief Engineer:

Name:

Signature:



INTERTANKO

INTERTANKO London

St Clare House
30-33 Minories
London EC3N 1DD
United Kingdom
Tel: +44 20 7977 7010
Fax: +44 20 7977 7011
london@intertanko.com

INTERTANKO Oslo

Nedre Vollgate 4
5th floor
PO Box 761 Sentrum
N-0106 Oslo
Norway
Tel: +47 22 12 26 40
Fax: +47 22 12 26 41
oslo@intertanko.com

INTERTANKO Asia

5 Temasek Boulevard,
#12-07 Suntec City Tower 5
Singapore 038985
Tel: +65 6333 4007
Fax: +65 6333 5004
singapore@intertanko.com

INTERTANKO North America

801 North Quincy Street – Suite 200
Arlington, VA 22203
USA
Tel: +1 703 373 2269
Fax: +1 703 841 0389
washington@intertanko.com

INTERTANKO Brussels

Rue du Congrès 37-41
B-1000 Brussels
Belgium
Tel: +32 2 609 54 40
Fax: +32 2 609 54 49
brussels@intertanko.com

