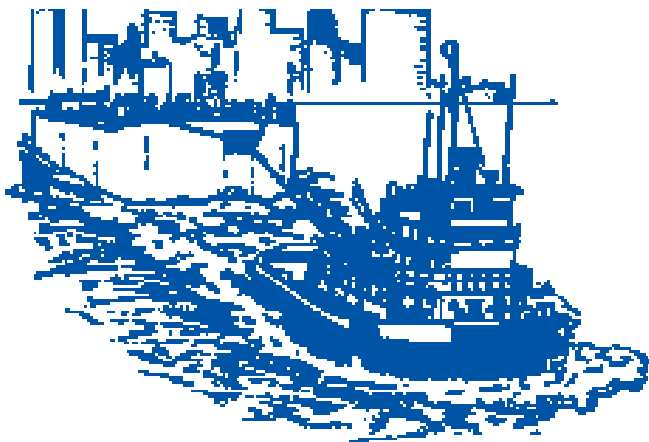


# **AWO Recommended Practice Guide**

## **EPA Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels**



**The American  
Waterways  
Operators**



**January 16, 2009**

## INTRODUCTION

The Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Vessel General Permit (VGP) for discharges incidental to the normal operation of vessels is a set of requirements that apply to 26 types of vessel discharges for the purpose of minimizing their impact on surrounding waters. As of February 6, 2009, all commercial vessels of 79 feet or more in length must comply with the requirements of the VGP when operating in U.S. inland and coastal waters (including the Great Lakes) inside the three-mile limit of the U.S. territorial sea. Vessels less than 79 feet in length that discharge ballast water in these waters must comply with the requirements of the permit with respect to ballast water. The VGP's requirements include Best Management Practices (BMPs) for each of the 26 discharges, as well as requirements for corrective actions, inspections, recordkeeping, and reporting.

Many of the Best Management Practices contained in the VGP are vague and nonspecific. AWO developed this Recommended Practice Guide in order to clarify, and add specificity to, the requirements of the VGP to assist barge and towing vessel owners and operators in complying with the permit. The Recommended Practices included in the Guide were developed by a cross-section of AWO members from all sectors and all regions of the tugboat, towboat and barge industry. They are designed to assist you in incorporating the requirements of the permit into your operations in a way that ensures paramount attention to the safety of vessel crewmembers and can be readily incorporated into your Responsible Carrier Program (RCP) or other safety management system, such as the International Safety Management (ISM) Code.

While AWO has taken care to ensure that the Guide accurately reflects the requirements of the VGP applicable to most barge and towing vessel operations, the Guide has not been reviewed or approved by EPA. As a user of the Guide, you retain responsibility for reviewing the VGP and ensuring that you have fully implemented all requirements of the permit applicable to your operations. The VGP can be found on EPA's Web site [here](#).

Some of the VGP's requirements for environmental controls, vessel inspections, corrective actions and recordkeeping may overlap with practices you have already implemented as part of your RCP or other safety management system. You may incorporate the VGP's requirements into your existing safety management system instead of establishing new policies and procedures or documentation systems; however, you should make sure that you clearly understand and can identify requirements imposed by the permit so that you can readily demonstrate to EPA (or an authorized agent of EPA) that your vessel is in compliance with the VGP.<sup>1</sup>

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<sup>1</sup> Records developed to achieve/demonstrate compliance with the VGP are subject to inspection by EPA and, once provided to the agency, may be subject to public review. If the records maintained for VGP compliance purposes are inextricably intertwined with other records, it may be difficult to produce the required records without also disclosing non-required ones. You should be aware of this as you consider the system you will use to comply with the recordkeeping requirements of the VGP.

The VGP does not explicitly address the issue of who is responsible for ensuring that a vessel that is leased or contracted to another person or company complies with the VGP's requirements. However, EPA regulations at 40 CFR 122.21 provide that when a facility or activity is owned by one person but operated by another person, it is the operator's duty to obtain a permit. At the same time, there are circumstances in which EPA could seek to impose liability on an owner as well. If your barge or towing vessel will not be in your care or custody for a period of time (e.g., if your barge is at a fleeting area or your towing vessel is chartered to another operator), you should ensure that your contract with the second party specifies who will be responsible for the vessel's compliance with applicable requirements of the VGP.

The VGP's requirements overlap with a number of existing laws and regulations. In order to comply with the VGP, you must also comply with those provisions of the following laws and regulations applicable to your vessel:

- 33 CFR parts 151 and 401 (Coast Guard ballast water management, discharge, and exchange requirements)
- 33 CFR part 155 Subparts B and C (Coast Guard oil pollution prevention requirements)
- 33 CFR part 159 (Coast Guard sewage discharge requirements)
- 40 CFR part 110, 117, and 302 (EPA oil or hazardous substance discharge reporting requirements)
- 40 CFR 122.44(p) (Coast Guard requirements for safe storage and transportation of pollutants)
- 40 CFR part 140 (EPA sewage discharge requirements)
- 7 USC 136 (Federal Insecticide, Fungicide, and Rodenticide Act [FIFRA])
- 16 USC 1431-45 (National Marine Sanctuaries Act) and 15 CFR part 922 and 50 CFR part 404 (implementing regulations)
- 33 USC 1321 (Clean Water Act)
- 33 USC 190-1915 (Act to Prevent Pollution from Ships)
- 33 USC 2701-2720 (Oil Pollution Act of 1990)

While many of the VGP's definitions are footnoted in the AWO Recommended Practice Guide, a full list can be found [here](#). The VGP also contains special requirements that must be observed while operating in federally-protected waters. A list of those waters can be found [here](#). Finally, while initial coverage under the VGP is automatic, vessels that are 300 or more gross tons (GT) under the International Tonnage Convention measurement system<sup>2</sup> or have more than eight cubic meters (2,113 gallons) of ballast water capacity are also required to submit a Notice of Intent (NOI) notifying EPA that they intend to discharge under the VGP. (Other vessels remain covered automatically.) An outline of

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<sup>2</sup> EPA has advised AWO that vessels that have not been admeasured under the ITC system may use their domestic/regulatory tonnage to determine the applicability of the NOI requirement.

the NOI and associated Notice of Termination and certification requirements can be found in the Appendix.

**RECOMMENDED PRACTICES FOR DISCHARGES  
FROM TOWING VESSELS AND BARGES  
(VGP SECTIONS 2 AND 5)**

The following are Recommended Practices for each of the discharge types in the VGP that AWO has identified as commonly applicable to tugboat, towboat and barge operations. Not all of these discharges may be applicable to your vessel. In addition, because vessel design and operations vary, you should consult the VGP to determine whether your vessel produces any of the other discharges covered by the permit.<sup>3</sup> If it does, you must comply with the requirements of the permit with respect to those discharges.

Important: In addition to the Recommended Practices below, you must comply with any applicable permit conditions imposed by the states or territories in which your vessel operates. For a list of permit conditions by state, click [here](#).

**1. Material Storage (VGP section 2.1.1.)**

- Store cargoes and other onboard materials in order to minimize the likelihood that they will be washed away, blown overboard, or dissolve after contact with precipitation or surface water spray. If possible, store onboard materials in a covered place.
- If water draining from storage areas comes in contact with oily materials, you must use dry cleanup methods or absorbents to clean up the wastewater and either store it for onshore disposal, or run it through an oily water separator.

**2. Toxic and Hazardous Materials (VGP section 2.1.2.)**

- You must store toxic and hazardous materials in sealed containers that are constructed of a suitable material, labeled and secured, unless doing so would interfere with vessel operations or safety.
  - Store containers in protected areas of the vessel.
  - Do not overfill containers.
  - Do not mix incompatible wastes.
  - Minimize the containers' exposure to ocean spray or precipitation.
  - Do not jettison containers.

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<sup>3</sup> These are: boiler/economizer blowdown, freshwater layup, gas turbine wash water, motor gasoline and compensating discharge, boat engine wet exhaust, sonar dome discharge, underwater ship husbandry discharges, welldeck discharges, and exhaust gas scrubber washwater discharge.

- If you must discharge toxic or hazardous materials for safety reasons, document the incident as required in the Recordkeeping section below.

### **3. Fuel Spills/Overflows (VGP section 2.1.3.)**

- Train the crew responsible for fueling operations in methods to minimize spills.
- Conduct all fueling operations using control measures designed to minimize spills and ensure prompt cleanup if they occur.
- To avoid overfilling, do not load fuel tanks beyond 98.5 percent of tank capacity.
- If your vessel has air vents, use containment to prevent fuel or oil from overflowing into surrounding waters.
- When fueling auxiliary vessels such as lifeboats or other small boats that will be deployed from your vessel, take the following precautions:
  - While fueling, examine the surrounding water for the presence of a visible sheen. If a sheen is observed as a result of your fueling, clean it up immediately and comply with applicable reporting requirements under 40 CFR part 110.
  - Know the capacity of the fuel tanks before you begin fueling.
  - Prevent overfilling and do not top off fuel tanks.
  - When possible, fill fuel tanks when the boat is on shore or on the host vessel, not in the water.
  - When possible, fill portable tanks on shore or on the host vessel.
  - Use oil absorbent pads or other appropriate equipment to catch drips from the vent overflow and fuel intake when fueling the auxiliary vessel.
  - Regularly inspect the fuel and hydraulic systems for any damage or leaks.

### **4. Discharges of Oil Including Oily Mixtures (VGP section 2.1.4.)**

- If your vessel is subject to MARPOL Annex I (all vessels over 400 gross tons, oceangoing U.S. vessels, international vessels in U.S. waters and oil tankers over 150 gross tons), you must comply with Coast Guard regulations at 33 CFR 151.09, including the requirement to maintain a valid International Oil Pollution Prevention Certificate (IOPP).
- Discharges of oil and oily mixtures must not contain harmful quantities of oil (see 40 CFR Part 110).

## **5. Deck Washdown and Runoff and Above Water Line Cleaning (VGP section 2.2.1.)**

Discharges from deck washdowns must be free from floating solids, foam, halogenated phenol compounds, and dispersants, or surfactants. You should take the following steps to minimize the discharge of contaminants into the water from deck washdown and runoff:

- Load cargo in a manner to minimize cargo spillage on deck gunnels.
  - If cargo does spill onto the gunnels, it should be swept into the hopper, against the coamings or placed in a bag or waste container.
- Maintain the topside surface and other portions of the vessel above the water line so that a minimum of rust and topside preservation materials (such as cleaning products, paint chips and non-skid material fragments) are discharged during washdown.
  - Sweep up rust and other materials into a bag or waste container.
- Clear decks of debris, garbage, cargo residue and spills before:
  - deck washdowns
  - departing from port
- Towing vessels and tank barges must comply with applicable Coast Guard regulations contained in 33 CFR part 155 Subparts B and C regarding discharge containment and associated requirements.
- When required by their class societies, tank barges must be fitted with, and use, perimeter spill rails and scuppers.
- Drip pans used to collect oily water from machinery must be drained to a waste container for proper disposal or periodically wiped and cleaned.
- When washing down the deck, use cleaners and detergents that are:
  - non-toxic
  - phosphate-free
  - biodegradable
  - minimally caustic or non-caustic
- Minimize deck washdowns while in port.
- Do not conduct maintenance painting during windy conditions to avoid paint droplets splattering in the water. Do not over-apply paint.

## **6. Bilgewater (VGP section 2.2.2.)**

You must either:

- Dispose of bilgewater to a reception facility and document the date and amount of bilgewater so discharged, or
- Treat bilgewater with an approved oily water separator and discharge it in accordance with 33 CFR 151.10.

In addition, you must:

- Comply with applicable regulations in 40 CFR Parts 110, 116, and 117, and 33 CFR 151.10.
- Not add dispersants, detergents, or other substances to remove the appearance of a visible sheen in bilgewater discharges.
- Not add substances that drain to the bilgewater that are not produced in the normal operation of your vessel. Additives used as part of the functioning of an oily water separator are acceptable if they do not alter the chemical makeup of the oils being discharged and are not disposed of in waters subject to the VGP.
- Minimize the discharge of bilgewater into waters subject to the VGP.
- If your vessel is over 400 gross tons, you must not discharge treated bilgewater into federally-protected waters (click [here](#) for a complete list) unless the discharge is necessary to maintain the safety and stability of the vessel. Any such discharge must be documented in accordance with the Recordkeeping section below.
- If your vessel is over 400 gross tons and sails outside the territorial sea at least once per month, you must not discharge treated bilgewater within one nautical mile of shore if technologically feasible. If it is not technologically feasible to avoid such a discharge, you must document the discharge in accordance with the Recordkeeping section below. Discharges of treated bilgewater into waters subject to the VGP must be conducted when your vessel is underway at a speed of 6 knots or more, unless doing so would threaten the safety and stability of the vessel.

### **7. Ballast Water (VGP section 2.2.3.)**

If your barge or towing vessel is equipped with ballast tanks,<sup>4</sup> you must comply with applicable Coast Guard regulations for ballast water management, exchange and discharge contained in 33 CFR parts 151 and 401. In addition, you must:

- Train your crew on ballast water and sediment management and treatment procedures applicable to your vessel.
- Incorporate into your existing Coast Guard-required ballast water management plan the following requirements:
  - Avoid discharging ballast water into federally-protected waters (click [here](#) for a complete list).
  - Do not discharge sediment from cleaning of ballast tanks within waters subject to the VGP.
  - Discharge only the minimal amount of water essential for vessel operations while in waters subject to the VGP.

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<sup>4</sup> The VGP defines ballast tanks as “any tank or hold on a vessel used for carrying ‘ballast water,’ whether or not the tank or hold was designed for that purpose.”

*Additional Requirements for Oceangoing Barges and Towing Vessels*

Because onshore treatment for ballast water is neither available nor economically practicable and achievable for barges and towing vessels, your oceangoing barge or towing vessel must conduct ballast water exchange<sup>5</sup> on any tanks that will discharge ballast water within waters subject to the VGP if:

- It carries ballast water that was taken on less than 200 nautical miles from any shore, and
- It will subsequently operate beyond the U.S. EEZ and more than 200 nautical miles from any shore, and
- It travels through more than one Coast Guard Captain of the Port Zone, or is engaged on an international voyage, and
- Exchange can be conducted without requiring the vessel to deviate from, or delay, its voyage (except for vessels entering the Great Lakes), and
- Exchange can be conducted without compromising the safety of the vessel or its crew. Mid-ocean ballast water exchange is not safe for unmanned barges. The use of this safety exemption must be documented in accordance with 33 CFR 151.2030, including the date, location, and reason for the claim.

Notwithstanding these requirements, you do not need to conduct ballast water exchange if your vessel uses an alternative, Coast Guard-approved method of ballast water management; if your vessel is participating in the Coast Guard's Shipboard Technology Evaluation Program (STEP); or your vessel retains all ballast water on board in waters subject to the VGP.

If your oceangoing vessel is certified No Ballast on Board in accordance with Coast Guard regulations or has any ballast tank that is empty or contains unpumpable residual ballast water,<sup>6</sup> you must:

- Either seal the empty or unpumpable tanks so that there is no discharge or uptake of ballast water in waters subject to the VGP, or

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<sup>5</sup> Ballast water exchange must be carried out in waters beyond the U.S. EEZ, more than 200 nm from any shore, and in waters at least 200 meters deep. The exchange must be initiated as early in the voyage as possible consistent with these conditions.

<sup>6</sup> Unpumpable residual water means water left in a ballast water tank that is out of reach of the pumping system as originally designed.



- Conduct saltwater flushing<sup>7</sup> of such tanks at least 200 nm from any shore and in waters at least 200 meters deep prior to the discharge or uptake and subsequent discharge of ballast water in waters subject to this permit.

Notwithstanding these requirements, saltwater flushing is not required if:

- It would compromise the safety of the vessel or its crew. The use of this safety exemption must be documented in accordance with 33 CFR 151.2030, including the date, location, and reason for the claim;
- It would require the vessel to deviate from, or delay, its voyage;
- The vessel uses an alternative, Coast Guard-approved method of ballast water management;
- The vessel is participating in the Coast Guard's Shipboard Technology Evaluation Program (STEP);
- The vessel retains all ballast water on board while in waters subject to the VGP;
- or
- The vessel is not engaged in an international voyage and does not travel through more than one COTP zone.

*Additional Requirements for Barges and Towing Vessels Engaged on Pacific Nearshore Voyages*

If your barge or towing vessel carries ballast water, enters any port in the states of Alaska, California, Oregon or Washington, and travels through more than one Captain of the Port zone, it must:

- Before discharging ballast water in waters subject to the VGP, conduct ballast water exchange more than 50 nm from any Pacific (U.S. or non-U.S.) shore, in waters more than 200 meters deep,<sup>8</sup> and
- Conduct saltwater flushing of any tanks that are empty or have unpumpable residual water.

Notwithstanding these requirements, ballast water exchange and saltwater flushing are not required if:

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<sup>7</sup> The VGP defines saltwater flushing as the addition of water to empty ballast water tanks; the mixing of the flush water with residual water and sediment through the motion of the vessel; and, the discharge of the mixed water, such that the resultant residual water remaining in the tank must obtain either a minimum salinity of 30 parts per thousand (ppt) or a value equal to the ambient salinity at the location of the flushing. In order to conduct saltwater flushing, the vessel should take on as much water into each tank as is safe (for the vessel and crew).

<sup>8</sup> You must conduct ballast water exchange in waters at least 200 nm from shore if your vessel spends sufficient time in waters beyond 200 nm to allow such exchange to be conducted.

- It would compromise the safety of the vessel or its crew. Mid-ocean ballast water exchange is not safe for unmanned barges. The use of this safety exemption must be documented in accordance with 33 CFR 151.2030, including the date, location, and reason for the claim;
- It would require the vessel to deviate from, or delay, its voyage;
- The vessel uses an alternative, Coast Guard-approved method of ballast water management;
- The vessel is participating in the Coast Guard's Shipboard Technology Evaluation Program (STEP);
- The vessel retains all ballast water on board while in waters subject to the VGP;  
or
- The vessel uses ballast water drawn exclusively from treated municipal or potable water supplies, provided that such ballast water is not mixed with any ballast water or sediments from other sources.

#### **8. Anti-Fouling Hull Coatings (VGP section 2.2.4.)**

If your towing vessel or barge uses anti-fouling hull coatings, you must:

- Ensure that anti-fouling hull coatings are applied, maintained and removed in a manner consistent with applicable requirements on the coatings' Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) label. Coatings not produced for sale and distribution in the United States must not contain any biocides or toxic materials banned for use in the United States.
- Avoid using anti-foulant paint containing tributyltin (TBT) or any other organotin compound.
- If the vessel has previously been covered with a hull coating containing TBT or any other organotin compound, it must be overcoated or stripped so that there is no discharge of TBT or any other organotin compound into the water.
- Use coatings appropriate to the vessel's operations that are non-biocidal or have the lowest possible biocide release rates or rapidly biodegradable components.
- Use alternatives to copper-based anti-foulant paints, if possible, on vessels that spend more than 30 days per year in copper-impaired waters. (A list of copper-impaired waters can be found at [www.epa.gov/npdes/vessels](http://www.epa.gov/npdes/vessels)).
- If you use copper-based anti-foulant paints on a vessel that spends more than 30 days per year in copper-impaired waters, you must document how you reached the decision not to use an alternative coating in accordance with the Recordkeeping requirements below.
- Avoid over-application of coating and minimize leachate of anti-fouling coatings in the water by reapplying coatings during regularly scheduled drydockings (every 2.5 to 5 years), with patching as necessary in the interim.

### **9. Aqueous Film Forming Foam (AFFF) (VGP section 2.2.5.)**

- Barges and towing vessels will only discharge AFFF for emergency purposes to ensure the safety or security of the vessel or its crew.
- If you discharge AFFF in federally-protected waters (click [here](#) for a complete list), you must document the date and explanation for the discharge in the vessel's log or other onboard documentation.
- For vessels that do not leave the U.S. territorial sea more than once per month, you may discharge AFFF for maintenance and training purposes if:
  - Discharges are conducted outside of port, as far from shore as practicable, and at least 1 nm from federally-protected waters; and,
  - You collect, store and dispose of AFFF onshore, unless you use non-fluorinated or alternative foaming agent. If it is not technologically feasible to collect and store AFFF, you must discharge only the minimum amount necessary to conduct legally required tests.

### **10. Cathodic Protection (VGP section 2.2.7.)**

There are two types of cathodic protection: sacrificial electrodes and Impressed Current Cathodic Protection (ICCP).

For vessels using sacrificial electrodes, you must:

- Use electrodes made from the least toxic metal that is technologically feasible and economically practicable given the vessel's operating environment. (While magnesium is less toxic than aluminum, which is less toxic than zinc, magnesium and aluminum electrodes are not technologically feasible for use on vessels operating in freshwater.)
- When the vessel is on drydock, inspect sacrificial electrodes to identify large, corroded portions of these anodes and clean or replace these anodes during normally-scheduled drydocking or maintenance events.
- Do not use more sacrificial anodes than originally designed to be mounted on the vessel, or determined to be operationally necessary to protect the vessel hull and other exposed areas, such as the sea chest and rudder.

For vessels using ICCP, you must:

- Maintain dielectric shields to prevent flaking.
- Inspect and, if necessary, repair dielectric shields during the vessel's regularly scheduled drydocking.

### **11. Chain Locker Effluent (VGP section 2.2.8.)**

If your barge or towing vessel is equipped with a chain locker, you must:

- Carefully and thoroughly wash down the anchor chain as it is being hauled out of the water to remove sediment and marine organisms.
- Clean the chain locker thoroughly during drydockings to remove sediments and possible pollutants.
- Ensure that if liquid accumulating in the chain locker drains to the bilge, then bilgewater is discharged in accordance with the Recommended Practices for bilgewater above.
- If your vessel leaves waters subject to the VGP at least once per month, you may not rinse or pump out the chain locker in waters subject to the permit, unless not emptying them would compromise safety. Such a safety claim must be documented as required in the Recordkeeping section below.

### **12. 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 (VGP section 2.2.9.)**

- Maintain protective seals on rudder bearings, stern tubes, and controllable pitch propellers in good operating order to prevent the leaking of hydraulic oil or other oils.
- Promptly repair any leaks.
- Inspect rudder-bearing seals and stern tubes during each regularly scheduled drydocking.
- Conduct maintenance activities on stern tube seals and controllable pitch propellers while the vessel is on drydock, if possible.
- If maintenance or emergency repair must occur when the vessel is in the water, use an oil boom to contain any hydraulic oil leakage and have cleanup equipment, such as oil absorbent pads, on hand to clean up any spillage.
- Apply only the amount of lubrication necessary for proper maintenance of the tow wire or mechanical coupling device.
- Apply lubrication only as often as necessary for proper maintenance of the tow wire or mechanical coupling device.
- Apply lubrication in a manner that minimizes drips and spills and promptly clean up any drips or spills that occur.
- After applying lubrication to wire rope and mechanical equipment subject to immersion, wipe down the equipment thoroughly to remove excess lubricant.
- Replace absorbent pads, booms and other containment or cleanup equipment as necessary.

- If discharge of tow-wire or intercon lubrication does produce a sheen, report it promptly in accordance with 40 CFR part 117 and 302.
- If possible, use food-grade or vegetable-based hydraulic oil.

### **13. Distillation and Reverse Osmosis Brine (VGP section 2.2.10.)**

If applicable to your vessel, you must use a dedicated line to discharge distillation and reverse osmosis brine reject water to ensure that it does not come into contact with machinery or industrial equipment, toxic or hazardous materials, or wastes.

### **14. Elevator Pit Effluent (VGP section 2.2.11.)**

If your barge or towing vessel is equipped with an elevator, you must ensure that elevator pit effluent drains into the bilge and is handled in accordance with the Recommended Practices for bilgewater above.

### **15. Firemain Systems (VGP section 2.2.12.)**

Discharging the firemain system is necessary in order to ensure the ability of the vessel and its crew to respond effectively in an emergency. You should discharge the firemain system, using intake from the surrounding water or potable water supplies, only to the extent necessary to accomplish the following purposes:

- During drills and training to ensure that the crew is prepared to use the system during an emergency.
- During testing and maintenance of the equipment to ensure that it is ready for use in an emergency.
- As required by the Coast Guard in order to demonstrate that the equipment is ready for use in an emergency.
- When pulling the anchor chain from the water to wash it down in accordance with the Recommended Practices for chain locker effluent above.
- To wash down the deck in accordance with the Recommended Practices for deck washdown and runoff above. The firemain system should not be used to wash down the deck in federally-protected waters. (For a complete list, click [here](#).)

When feasible, training and maintenance activities should be conducted outside of port and/or outside of waters subject to the VGP.

## **16. Graywater (VGP section 2.2.15.)<sup>9</sup>**

Most towing vessels and barges do not have holding tanks for the storage of graywater.<sup>10</sup> You must minimize the production of graywater and the introduction of contaminants into graywater that will be discharged into the water. You should:

- Use shoreside washroom, kitchen and laundry facilities when practicable when a vessel is at the dock;
- Repair leaky fixtures promptly;
- Use sinks, showers, washing machines, etc. in accordance with manufacturers' recommendations;
- Educate crewmembers on steps to be taken to reduce the production and contamination of graywater and post signs on the vessel to remind the crew of these actions;
- Remove as much food and oil as possible before rinsing dishes and preventing cooking oil from going down the sink;
- Use soaps and detergents that are phosphate-free and non-toxic; and,
- Consider additional measures to reduce graywater production and discharge in nutrient-impaired waters, such as the Chesapeake Bay and Puget Sound. A complete list of nutrient-impaired waters can be found on the EPA Web site [here](#).

## **17. Non-Oily Machinery Wastewater (VGP section 2.2.17.)**

Non-oily machinery wastewater discharged into waters subject to the VGP must be free from oil and any toxic or bioaccumulative additives. You should:

- Lock out/tag out block valves where there is the potential for contamination of clean water.
- Handle any waste streams that drain to the bilge in accordance with the Recommended Practices for bilgewater above.

## **18. Refrigeration and Air Condensate Discharge (VGP section 2.2.18.)**

You must not allow refrigeration and air condensate discharge to come into contact with oily or toxic materials if it will be discharged directly overboard. You should:

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<sup>9</sup> Several states have imposed prohibitions on the discharge of graywater in state waters. For a list of permit conditions by state, click [here](#).

<sup>10</sup> If your vessel does have the capacity to store graywater, you must comply with additional BMPs and should consult the VGP for guidance on these requirements.

- Maintain the deck free of oil and toxic materials in accordance with the Recommended Practices for deck washdown and runoff above, to avoid contamination of refrigeration and air condensate discharge into the water.
- Handle any waste streams that drain to the bilge in accordance with the Recommended Practices for bilgewater above.

#### **19. Seawater Cooling Overboard Discharge (VGP section 2.2.19.)**

Seawater cooling overboard discharge includes non-contact engine cooling water, hydraulic system cooling water and refrigeration cooling water. You should:

- Use shore power when available and when practicable given the nature of the vessel's voyage.
- When possible, discharge seawater cooling overboard when the vessel is underway so that thermal impacts are dispersed.
- Maintain all piping and seawater cooling systems in accordance with the Recommended Practices for seawater piping biofouling prevention below.

#### **20. Seawater Piping Biofouling Prevention (VGP section 2.2.20.)**

If applicable to your vessel, you must:

- Use seawater piping biofouling chemicals in accordance with their FIFRA label.
- Not discharge pesticides or chemicals banned for use in the United States into the water.
- Use the minimum amount of biofouling chemicals needed to keep fouling under control.
- Remove fouling organisms from seawater piping on a regular basis and dispose of removed substances in accordance with local, state and federal regulations.
- Discharge fouling organisms at sea, outside waters subject to the VGP, to reduce the risk of invasive species introduction in ports.

#### **21. Graywater Mixed with Sewage from Vessels (VGP section 2.2.25.)**

Graywater mixed with sewage must be handled in accordance with:

- The Recommended Practices for the discharge of graywater above, and
- Existing regulations for the discharge of sewage in 40 CFR part 140 and 33 CFR part 159.

## **22. Vessel-Specific Requirements for Barges (VGP section 5.4.)**

If you operate barges (including hopper, deck and tank barges), you must:

- Minimize the contact of below-deck condensation with oily or toxic materials, and any materials containing hydrocarbon.
- Visually inspect void spaces or wing tanks to ensure that no oil is present before pumping out the void or tank.
- When pumping out a void or tank, extract all free water and monitor pumping to minimize the collection and discharge of solids.
- After every instance of pumping water from areas below deck, or immediately after washing down the deck, conduct a visual inspection, focusing on the area surrounding the vessel where the discharges occurred, to ensure that no visible sheen is produced in the water.<sup>11</sup> If a sheen is produced, take corrective action and document the occurrence in accordance with the Corrective Actions and Recordkeeping requirements below.
- Clean cargo residue from cargo compartments before washing the cargo compartments and discharging wash water overboard.

In addition, if you operate tank barges, you must:

- Equip tank barges with spill rails if required by the barge's class society.
- Ensure that scuppers are plugged before commencing cargo operations and keep scuppers plugged until any discharge or residue resulting from cargo operations is cleaned up.

### **CORRECTIVE ACTIONS (VGP SECTION 3)**

A corrective action is an action you take to eliminate a problem causing a violation of the requirements of the VGP and to ensure that the problem will not be repeated in the future. The requirements below may be incorporated into your existing Responsible Carrier Program corrective action process and may be documented on paper or electronically.<sup>12</sup>

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<sup>11</sup> The VGP defines visible sheen as “a ‘silvery’ or ‘metallic’ sheen, gloss, or increased reflectivity; visual color; iridescence, or oil slick on the surface.”

<sup>12</sup> As noted in the Introduction, records developed to achieve/demonstrate compliance with the VGP are subject to inspection by EPA and, once provided to the agency, may be subject to public review. If the records maintained for VGP compliance purposes are inextricably intertwined with other records, it may be difficult to produce the required records without also disclosing non-required ones. You should be aware of this as you consider the system you will use to comply with the recordkeeping requirements of the VGP.



- You must take corrective action if any of the following problems are identified:
  - You violate any requirement of the VGP;
  - An inspection or evaluation conducted by EPA (or an official agent acting on EPA's behalf) determines that modifications to your control measures are necessary to meet the requirements of the permit;
  - You become aware, or EPA determines, that your control measures for a discharge are not stringent enough to meet applicable water quality standards; or,
  - You become aware that your pollution control measures or BMPs are not being properly operated and maintained, or are not having the intended effect in minimizing pollutant discharges.
  
- You must conduct a corrective action assessment as soon as you or a member of your vessel's crew becomes aware of a violation of the VGP. Your corrective action assessment must include the following:
  - A description of the problem(s) discovered, including the date, time and locations on the vessel where it occurred;
  - The types of impacts observed;
  - The names, titles and signatures of the persons who identified the problem and who recorded the problem;
  - An explanation of the cause of the problem(s), if known. If the cause is unknown, you must describe the steps that will be taken to determine the cause;
  - A description of the corrective actions to be taken to eliminate the problem(s);
  - A schedule of activities for completing the corrective actions within the timeframes required below; and,
  - An indication whether the corrective action requires drydocking the vessel and, if so, the next planned drydocking date.
  
- Once the corrective action is implemented, you must record the following information and retain the findings of your corrective assessment so that they can be provided to EPA upon request:
  - A description of the correction action implemented;
  - Date(s) and time(s) of the corrective action taken; and,
  - The name, title, and signature of the person recording this information.
  
- If you can immediately correct a problem and return your vessel to compliance with the permit, you must do so. Problems that must be corrected immediately include, but are not limited to: housekeeping, reporting, recordkeeping, inspections and some operation and maintenance requirements.

- If correcting a problem causing a violation of the permit requires additional time, the following deadlines apply:

<b>Corrective Actions That:</b>	<b>Must Be Completed:</b>
<ul style="list-style-type: none"> <li>• Can be accomplished with relatively simple adjustments to your control measures;</li> <li>• Can be accomplished with existing personnel and resources; and,</li> <li>• Do <u>not</u> require the vessel to be on drydock</li> </ul>	<p>As soon as possible, but no later than two weeks after the discovery of the problem.</p>
<ul style="list-style-type: none"> <li>• Require new parts or the installation of new equipment, and</li> <li>• Do <u>not</u> require the vessel to be on drydock</li> </ul>	<p>No later than three months after the discovery of the problem, unless this is impracticable, in which case you must:</p> <ul style="list-style-type: none"> <li>• Complete repairs as soon as possible after three months, and</li> <li>• Document the reason why more time is needed as part of your corrective action assessment.</li> </ul>
<ul style="list-style-type: none"> <li>• Require large or comprehensive alterations or repairs to the vessel; and,</li> <li>• Require the vessel to be on drydock</li> </ul>	<p>Prior to re-launching the vessel after its next scheduled drydocking.</p>

Note: The initial occurrence of a problem identified in this section constitutes a violation of the VGP. Failure to conduct the corrective action assessment and carry out corrective actions in compliance with this section constitutes an additional permit violation. Conducting the corrective action assessment and correcting the problem does not absolve you of liability for the original violation. However, EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations. EPA also reserves the right to impose additional corrective action requirements or more stringent deadlines for corrective action than those identified here.

## INSPECTIONS, RECORDKEEPING AND REPORTING (VGP SECTION 4)

You should be aware that the sanctions for failing to conduct the inspections, maintain the records, or make the reports required below can be as severe as those for a discharge that violates the requirements of the VGP.

### Inspections (VGP Section 4.1)

You must conduct regular inspections of your barge or towing vessel to make sure that it complies with the requirements of the VGP. The requirements below may be incorporated into your existing Responsible Carrier Program vessel inspection process and may be documented on paper or electronically. As required under the Responsible Carrier Program, your procedures should specify who is responsible for conducting these inspections. You do not need to create a new system of documentation for these inspections, but you must be prepared to show evidence of compliance with these requirements to EPA upon request.

#### *Routine Visual Inspections*

- During each watch, you must visually monitor the water around and behind the vessel for visible sheens, dust, chemicals, abnormal discoloration or foaming, and other indicators of pollutants originating from the vessel.
- At least once per week or once per voyage, whichever is more frequent, you must conduct a visual inspection of your towing vessel and any barges in tow. Harbor tugs that make more than one “voyage” in the course of a single day should conduct these inspections daily. Loaded barges in fleets should be inspected when dropped off and picked up from the fleet, but not less often than weekly. (Empty barges in fleets are not being used for transportation and are not subject to the inspection requirements below.) During these inspections, you must ensure that:
  - Cargo compartments, machinery spaces, welldecks and other deck areas, and other accessible areas of the vessel covered by the VGP -- including all accessible areas where chemicals, oils, dry cargo or other materials are stored, mixed and used -- are clear of garbage, oil and any visible pollutant or constituent of concern that could be discharged into the water;
  - Pollution prevention mechanisms are in proper working order;
  - The Best Management Practices for vessel discharges applicable to your vessel are being met; and,
  - Training and inspections are documented as required below.

- The VGP requires quarterly sampling of discharge streams that are accessible but not readily visually inspected in order to ensure compliance with the applicable Best Management Practices. Towing vessels and barges will not conduct quarterly sampling because applicable discharges are either readily visually inspected<sup>13</sup> or are not accessible for sampling without undertaking significant modifications to the vessel that must be performed in a shipyard and/or create more points of failure that may increase the risk of human error or environmental harm.<sup>14</sup> The one exception is bilgewater that is treated with an oily water separator. If your vessel is equipped with an oily water separator, you must calibrate it in accordance with manufacturer's recommendations in order to ensure it samples and monitors the bilgewater correctly.
- You must document the findings of each routine vessel inspection. You may use your existing documentation system, whether paper or electronic, for this purpose, provided that it includes the following information:
  - The date and time of inspection;
  - Vessel locations inspected;
  - Personnel conducting the inspection;
  - Location of any visual sampling and observations;
  - Any potential problems and sources of contamination found; and,
  - The signature of the master or the person conducting the inspection.
- If you detect a problem during a routine vessel inspection, you must initiate corrective action as required in the Corrective Actions section above.

### *Comprehensive Annual Vessel Inspections*

You must ensure that a comprehensive inspection of all areas of the vessel affected by the requirements of the VGP is conducted by qualified personnel at least once every 12 months.<sup>15</sup> This inspection may be conducted as part of the annual internal audit required

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<sup>13</sup> Discharges that are readily visually inspected include deck runoff, some discharges of ballast water, firemain systems, non-oily machinery wastewater, refrigeration and air condensate discharge, chain locker effluent, elevator pit effluent and tow wire lubricant. Cathodic protection is only readily visually inspected when the vessel is on drydock.

<sup>14</sup> Such discharges include bilgewater, some discharges of ballast water, anti-fouling hull coatings, controllable pitch propeller hydraulic fluid, distillation and reverse osmosis brine, graywater, rudder bearing lubrication discharge, seawater cooling overboard discharge, seawater piping biofouling prevention and stern tube oily discharge.

<sup>15</sup>The VGP defines qualified personnel as "The master or operator of the vessel or appropriately trained marine or environmental engineers or technicians or an appropriately trained representative of a vessel's class society acting on behalf of the owner/operator."

by the Responsible Carrier Program. It does not require drydocking the vessel.<sup>16</sup> During the annual inspection, you must:

- Examine those areas of the vessel most likely to result in a discharge that violates the Best Management Practices, including:
  - Hull (to detect attached living organisms, flaking antifoulant paint, etc.);
  - Ballast water tanks;
  - Bilges, pumps and oily water separator sensors, if applicable;
  - Protective seals (to detect lubrication and hydraulic oil leaks);
  - Oil and chemical storage areas, cargo areas, and waste storage areas; and,
  - Visible pollution control measures (to ensure that they are functioning properly).
- Inspect routine maintenance records to ensure that required maintenance is being performed.

In addition, you must:

- Document the findings of the annual vessel inspection. This may be done on paper or electronically as part of your Responsible Carrier Program internal audit documentation process.
- Initiate corrective actions as required under the Corrective Actions section above if a problem is detected.

#### *Drydock Inspection Reports*

The VGP does not require you to drydock your vessel when not already required by the Coast Guard, your classification society or the AWO Responsible Carrier Program. However, when the Coast Guard, your classification society, or the AWO Responsible Carrier Program requires you to drydock your vessel, you must make the resulting drydock reports (whether prepared by the Coast Guard, your class society, yourself or an entity acting on your behalf) available to EPA on request. This report must attest that:

- The chain locker has been cleaned for sediment and living organisms;
- The hull, propeller, rudder, thruster gratings, sea chest, and other surface areas of the vessel have been inspected for attached living organisms and any such organisms have been removed or neutralized;
- Any antifoulant hull coatings have been applied, maintained and removed consistent with the FIFRA label (if applicable), and any exposed existing or any new coating does not contain biocides or toxins that are banned for use in the United States;

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<sup>16</sup> Any of these portions of the vessel that can only be inspected when the vessel is on drydock should be documented as such and inspected during regularly scheduled drydocking examinations. The results of such inspections should be included in the drydocking examination report.

- For all cathodic protection, anodes or dielectric coatings have been cleaned and/or replaced to reduce flaking; and,
- All pollution control equipment is properly functioning.

If the drydock report prepared by the Coast Guard or your class society does not include these items, you must attach your own report attesting to them.

#### Recordkeeping (VGP section 4.2)

You must keep written or electronic records that include the information required below. You may include these items as part of your Responsible Carrier Program-required documentation system and need not establish a separate documentation system for these items; however, you should consider tagging these items as EPA-required so that they can be easily identified and made available to EPA (or an authorized EPA representative) upon request. You must keep these records for at least three years. Records must be kept on board the vessel or be electronically accessible from the vessel. In the case of a barge, records may be kept on board or accessed electronically from the accompanying towing vessel.

Records must include:

- Owner/vessel information, including:
  - Vessel name
  - Vessel's official number or IMO number
  - Vessel type
  - Owner or operator company name
  - Name of company official completing the certification required below
  - Address of owner or operator
  - Gross tonnage
  - Call sign
  - Flag or port of registry
- Voyage log, including dates and ports of arrival, vessel agent(s), last port and country of call, and next port and country of call.
- Documentation of any violations of the effluent limits (Best Management Practices), including:
  - A description of the violation;
  - Date the violation occurred;
  - Name(s), title(s) and signature(s) of the person who identified the violation and the person who recorded the violation; and,
  - If applicable, attach a copy of the Corrective Action Assessment or indicate where this assessment can be found. If a Corrective Action Assessment was previously conducted and no revisions are needed for this violation, include a reference to the previous Corrective Action Assessment.

- Record of deficiencies found during routine visual inspections conducted as required above, including any corrective actions required. Include date, inspector's name, findings and corrective actions taken. If no deficiencies are found, record that the inspection was completed, along with the inspector's name and date.
- Findings from annual vessel inspections conducted as required above, including any corrective actions required. Include date, inspector's name, findings and corrective actions taken.
- Maintenance and discharge information, including:
  - Deck maintenance: Dates, materials used, application process, etc. for any maintenance of the deck surface;
  - Bilgewater: Dates, location and estimated volume of discharges, whether treated with an oily water separator and discharged into the water or disposed to an onshore reception facility. For vessels without an oily water separator, note any visible sheen observed; for vessels with an oily water separator, note oil concentration.
  - Anti-fouling paint application: Dates, materials used and application process for any anti-fouling paint applied to the vessel.
  - AFFF: Dates, estimated volumes and constituents of any discharges of AFFF.
  - Chain locker inspections: Dates of inspections and any rinsing conducted within waters subject to the VGP.
  - Controllable pitch propeller, stern tube, and other oil-to-sea interface maintenance: Dates and locations of any controllable pitch propeller maintenance in waters subject to the VGP.
  - Any emergencies requiring discharges otherwise prohibited in federally-protected waters (a complete list can be found [here](#)).
  - Estimated volume and location of graywater discharged in waters subject to the VGP. (EPA cites studies estimating average graywater production of 30-85 gallons per person per day. If your vessel discharges graywater as it is used, note the location of discharges as "various locations between [origin] and [destination].")
- All other documentation required under the VGP applicable to your vessel.
- Record of training completed as required by the VGP.

If your barge or towing vessel is equipped with ballast tanks and bound for a port or place in the United States, you must comply with the Coast Guard recordkeeping requirements at 33 CFR 151.2045.

If your barge or towing vessel conducts saltwater flushing as required for certain vessels on Pacific nearshore voyages (outlined in the Ballast Water section above), you must document this on the Coast Guard ballast water reporting form.

#### Reporting (VGP section 4.4)

- You must report all incidents of noncompliance with the VGP at least once per year to the EPA regional office responsible for the waters in which the noncompliance occurred. Click [here](#) for a list of EPA regional offices. If your vessel had more than one instance of noncompliance, you should submit your report to the EPA regional office responsible for the waters where the greatest number of noncompliances occurred, or, if the numbers are equal, to the EPA regional office responsible for the waters where the vessel spent the most time.
- In addition to reporting discharges of oil or a reportable quantity of a hazardous to the National Response Center in accordance with existing regulations, you must also record the following information within 14 days of knowledge of the release:
  - Date and description of the release;
  - Circumstances leading to the release;
  - Responses to be employed for such releases; and,
  - Measures to prevent reoccurrence of such releases.

This requirement can be satisfied by filling out and maintaining a copy of Coast Guard Form CG-2692.

You must report orally to the appropriate EPA regional office within 24 hours any noncompliance with the VGP that may endanger health or the environment, and submit a written follow-up report within five days. This requirement can be satisfied by sending a copy of Coast Guard Form CG-2692 to the appropriate EPA regional office. (If you comply with the Recommended Practices listed in this Guide and report oil and hazardous substance spills to the National Response Center in accordance with existing regulations, the need for such reporting should be rare.)

- You must include the following certification<sup>17</sup> with any report you submit to EPA:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true,

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<sup>17</sup> This certification, the text of which is included in the VGP, is very broad and the penalties for submission of a certification that is not 100 percent accurate are severe. Members may wish to consult legal counsel for advice on whether it is appropriate to use alternative language in making the required certification.



accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

- Between 30 months and 36 months after obtaining permit coverage, you must submit a one-time permit report to EPA headquarters or the EPA Regional Office responsible for the waters in which your vessel spends the most time. (For a copy of this report, click [here](#).) You should review the one-time permit report now and make any adjustments to your documentation system necessary to provide ready access to the information that will be required to complete the report when it is due.

APPENDIX:  
AUTHORIZATION UNDER THE PERMIT  
(SECTIONS 1.5 – 1.7 OF THE VGP)

Notice of Intent (NOI)

- If your vessel is under 300 GT (international tonnage)<sup>18</sup> or has 8 cubic meters or less of ballast water capacity,<sup>19</sup> then it is automatically authorized to discharge under the VGP. You must comply with the applicable requirements of the permit, but you do not need to submit a Notice of Intent to EPA.
- If your vessel is 300 GT or more, or has more than 8 cubic meters of ballast water capacity:
  - It is automatically authorized to discharge under the VGP from February 6, 2009, to September 19, 2009, but
  - You must submit a Notice of Intent (NOI) beginning June 19, 2009, but no later than September 19, 2009, to be covered under the VGP after September 19, 2009.
  - For a vessel delivered to you after June 30, 2009, you must submit an NOI 30 days prior to discharging under the VGP.
- The NOI form can be filled out electronically at [www.epa.gov/npdes/eNOI](http://www.epa.gov/npdes/eNOI) beginning June 19. A hard copy that can be mailed to EPA can be found [here](#). EPA will not accept NOIs before June 19, 2009. EPA will post all NOIs received at [www.epa.gov/npdes/noisearch](http://www.epa.gov/npdes/noisearch).

Notice of Termination (NOT)

- If you want to terminate coverage under the VGP and you were required to fill out an NOI, you must submit a Notice of Termination (NOT) within 30 days after one or more of the following conditions have been met:
  - A new owner or operator has taken over responsibility for the vessel; or
  - You have permanently ceased operating the vessel in waters subject to the permit; or,
  - You have obtained coverage under an individual or alternative general permit for all discharges covered by an NPDES permit.
- The NOT form can be filled out electronically at [www.epa.gov/npdes/eNOI](http://www.epa.gov/npdes/eNOI). A hard copy that can be mailed to EPA can be found [here](#).

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<sup>18</sup> EPA has advised AWO that vessels that have not been admeasured under the ITC system may use their domestic or regulatory tonnage to determine the applicability of the NOI requirement.

<sup>19</sup> Eight cubic meters of ballast water capacity equals 2113 gallons.

- The NOT goes into effect at midnight on the day that your NOT is posted on EPA's Web site ([www.epa.gov/npdes/noisearch](http://www.epa.gov/npdes/noisearch)).

### Certification

The NOI, NOT and any reports submitted to EPA must include the signature of the person preparing the document, the date and the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

## **THE AMERICAN WATERWAYS OPERATORS**



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