EPA's proposed 2013 Vessel General Permit (VGP) and Small Vessel General Permit (sVGP)

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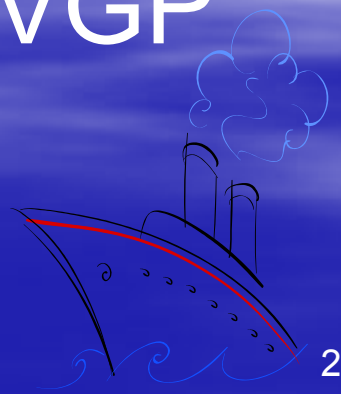
Topics to be Discussed

- Background on the EPA's Vessel Program
- Overview of the proposed changes to the VGP
- Overview of the proposed sVGP
- How to submit comments



Vessel Exclusion and Lawsuit

- Since 1973, EPA regulations had excluded discharges incidental to normal operation of a vessel from NPDES permitting
- Exclusion vacated by court decision as of

  Feb. 6, 2009
- In response, EPA issued the Vessel General Permit (December 18, 2009)
- Permit is National in scope

  There are additional state-specific requirements issued via the 401 certification process

Small Vessel/Recreational Vessel Exemptions

- Summer 2008
  - P.L. 110-288 exempts recreational vessels from NPDES permitting and develops regulatory regime under Section 312 of the Clean Water Act
  - P.L. 110-299 created a temporary moratorium for vessels less than 79 feet and commercial fishing vessels regardless of size (except ballast water discharges)
- Summer 2010
  - P.L. 111-215 extended the expiration date of the moratorium from July 31, 2010 to December 18, 2013

Goals

- Use the best available science to inform our determinations of appropriate technology- based and water-quality based effluent limitations
- Improve administrative efficiency where feasible
  - Reduce permittee confusion
- Produce a simple permit for non-recreational, non-military vessels less than 79 feet in case NPDES moratorium not extended beyond December 18, 2013
  - Effluent limits generally Best Management Practices (BMPs)

Applicability

- **Vessel General Permit (VGP):** non-recreational, non-military vessels greater than 79 feet
  - Approximately 70,000 existing VGP vessels plus ~2,200 commercial fishing vessels greater than 79 feet
- **Small Vessel General Permit (sVGP):** non-recreational, non-military vessels less than 79 feet
  - Approximately 118,000 to 138,000 vessels eligible for coverage

Vessel General Permit

- The current VGP expires on December 19, 2013
  - The current VGP covers
    - Discharges incidental to normal operation of non-recreational vessels 79 feet or longer, except commercial fishing vessels
    - For ballast water discharges, permit covers all non-recreational vessels (including commercial fishing vessels and vessels less than 79 feet)
- National in scope
  - Pursuant to CWA § 401, 28 States, Tribes, and Territories provided additional permit conditions

Proposed Vessel General Permit

- Covers 27 discharge types including ballast water
- Has additional vessel class-specific conditions for 8 classes of vessels
- Jurisdiction of the permit covers inland waters and 3 nautical mile (nm) Territorial Sea

VGP Structure

- Part 1 – Coverage under the Permit
  - (General Information and Standard Requirements)
- Part 2 – Effluent Limits and Related Requirements
- Part 3 – Corrective Actions
- Part 4 – Inspections, Monitoring, Reporting, and Recordkeeping
- Part 5 – Vessel Class-Specific Requirements
- Part 6 – State 401 certification conditions
- Part 7 – Definitions
- Appendices

VGP: Key Improvements

- Ballast Water
- Exhaust Gas Scrubber Effluent
- Oil to Sea Interfaces (product substitution requirement)
- Administrative Changes and Efficiency Improvements
  - Combined Reporting
  - Reducing Redundancy
  - Changes to Inspections

Science Advisory Board Ballast Water Study

- **EPA's Science Advisory Board (SAB) Panel Charge:** evaluate the status of existing and potential shipboard ballast water treatment technologies and their ability to meet different discharge standards (Report finalized July 12, 2011)
- **SAB Report Key Conclusions**: International Maritime Organization (IMO) standard is achievable from a technology and testing standpoint
  - The state of technology does not support a TBEL limit more stringent than IMO for shipboard treatment systems
  - Issue of Detection/Quantification below IMO

National Academy of Sciences Study

- National Academy of Sciences National Research Council (NAS) Charge:
  - The NAS study panel assessed methods to evaluate the risk of invasive species introductions associated with ballast water discharges (report finalized June 2, 2011)

- NAS Report Key Conclusions:
  - Found our ability to adequately quantify risk suffers from a "profound lack of data"
  - Concluded that the IMO standard is "clearly a first step forward" and that it "represents a significant reduction in concentrations beyond ballast water exchange"

Ballast Water Limits in the VGP

- Establish numeric limits set at a range equivalent to proposed USCG Phase I limit as Technology-Based Effluent Limit (same as International Maritime Organization (IMO) limits)
  - Expressed as instantaneous maximum

Large Organisms (> 50µm)	Small Organisms (>10µ and ≤50 µm)	Toxigenic *Vibrio cholerae* (O1 & O139)	*Eschericia coli*	Intestinal enterococci
< 10 per m^3	< 10 per ml	<1 cfu per 100 ml	<250 cfu per 100 ml	<100 cfu per 100 ml

- Found numeric Water Quality-Based Effluent Limit (WQBEL) infeasible to calculate

Ballast Water Limit Applicability

- Vessels for which the numeric TBEL does not apply; hence, limits are BMPs:
  - Unmanned, unpowered barges
  - Confined Lakers
  - Short distance voyage vessels
  - Seagoing/Inland vessels with less than 8 cubic meters of ballast water
  - Shipboard Technology Evaluation Program (STEP) vessels

Ballast Water

- Four possible options to meet limits:
  - Use a treatment device
  - Use onshore treatment
  - Use potable water (from US and Canada only)
  - No discharge
- IMO-equivalent implementation schedule

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

Ballast Water Monitoring

- Monitoring requirements if using a treatment device
  - Functional
    - Goal is to test if the system functioning as designed (e.g., applying chlorine dose, filtering water)
  - Biological
    - *E. coli,* enterococci, and total heterotrophic bacteria
  - Active substance and residuals (for systems that use them)
    - Numeric limits for systems using chlorine, chlorine dioxide, ozone, and peracetic acid
    - Other parameters set at Gold Book values (if such systems were developed)
  - Reduced frequency monitoring schedule available if system is one for which US government has high quality efficacy/toxicity type approval data from flag administration or vendor

Ballast Water:
Additional WQ based requirement

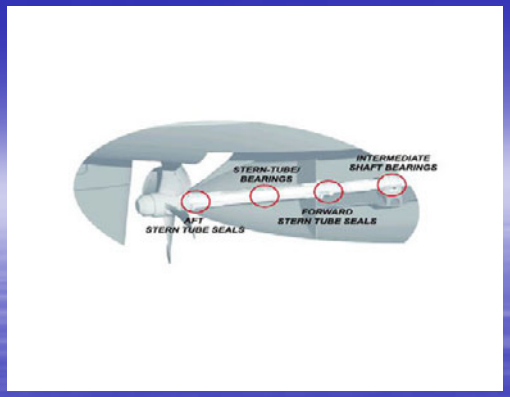
- Certain vessels entering the Great Lakes must conduct ballast water exchange/saltwater flushing in addition to treatment if they have taken on ballast from freshwater or brackish water ecosystems within the previous month

Interim Ballast Water Requirements

- Interim requirements must be met (Part 2.2.3.6) until numeric limits apply
  - Requirements fundamentally the same as the 2008 VGP
- Interim requirements include:
  - Incorporating existing Coast Guard mandatory management and exchange requirements
  - Mandatory saltwater flushing for all vessels with residual ballast water and sediment (NOBOBs) coming from outside the USEEZ and 200 nm from shore
  - Mandatory exchange and flushing for vessels engaged in Pacific nearshore voyages
  - Conducting exchange as early as practicable

Exhaust Gas Scrubber Effluent

- Exhaust gas scrubber effluent is waste water that has been used in cleaning vessel exhaust gases
- Make IMO voluntary guidelines mandatory
  - Guidelines include limits for pH, turbidity, nitrates, and one PAH compound
- Require monitoring
  - Assure systems capable of meeting limits
  - IMO guidelines do not currently contain total PAH and metal limits: may later find that limits may need to be added
- Currently applicable to a handful of vessels
  - EPA trying to establish clear limits to provide certainty for system operators and assure that discharges are not left uncontrolled



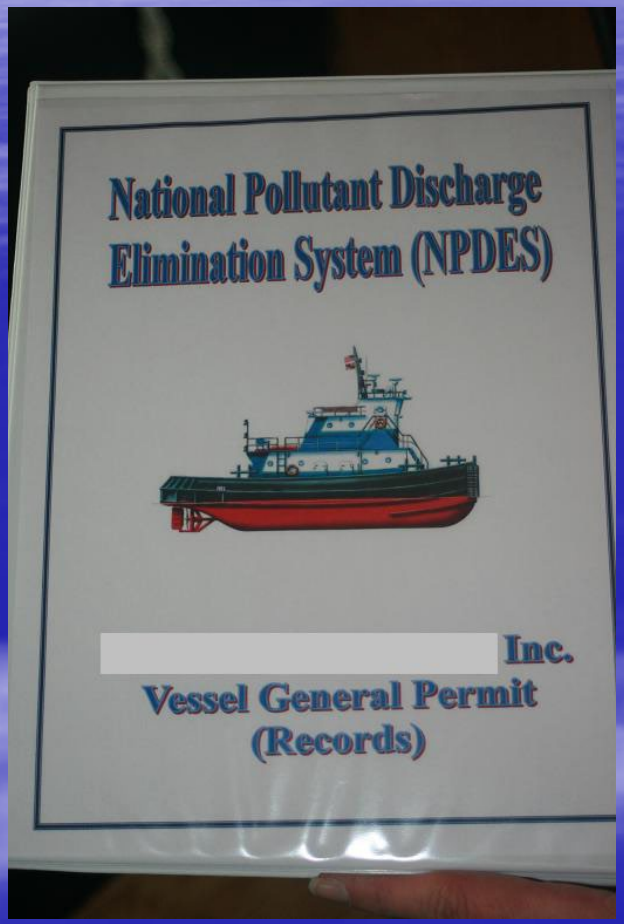
Oil to Sea Interfaces

- Oil to Sea interfaces include stern tubes, thrusters, hydraulic pitch propellers, wire rope lubrication, etc.
- Stern tubes alone have been estimated to leak between 4.6 to 28.6 million liters of oil annually into ports worldwide
- Increasing mandate for use of “environmentally acceptable lubricants” (EALs) in US waters (vegetable oils, synthetic esters, and polyalkylene glycols)
  - For existing vessels, owner/operators must use environmentally acceptable lubricants in all oil to sea interfaces unless technologically infeasible.
  - New build vessels must use EALs in oil to sea interfaces

Reporting Improvements

- Annual Report
  - Eliminate One-Time Report and Annual Non-Compliance Report and consolidate into Annual Report
    - Will result in significantly reduced confusion for industry: EPA found that thousands of permittees were confused by the annual noncompliance report
  - Report all analytical monitoring as part of Annual Report
    - Reduce frequency of when they must submit information to EPA to one time per year
  - Allow unmanned, unpowered barges meeting certain requirements to submit consolidated annual reports
- Reduce duplicative reporting
  - Where immediate notification is reported to the NRC, no longer need to also report to EPA regions

Inspection Improvements

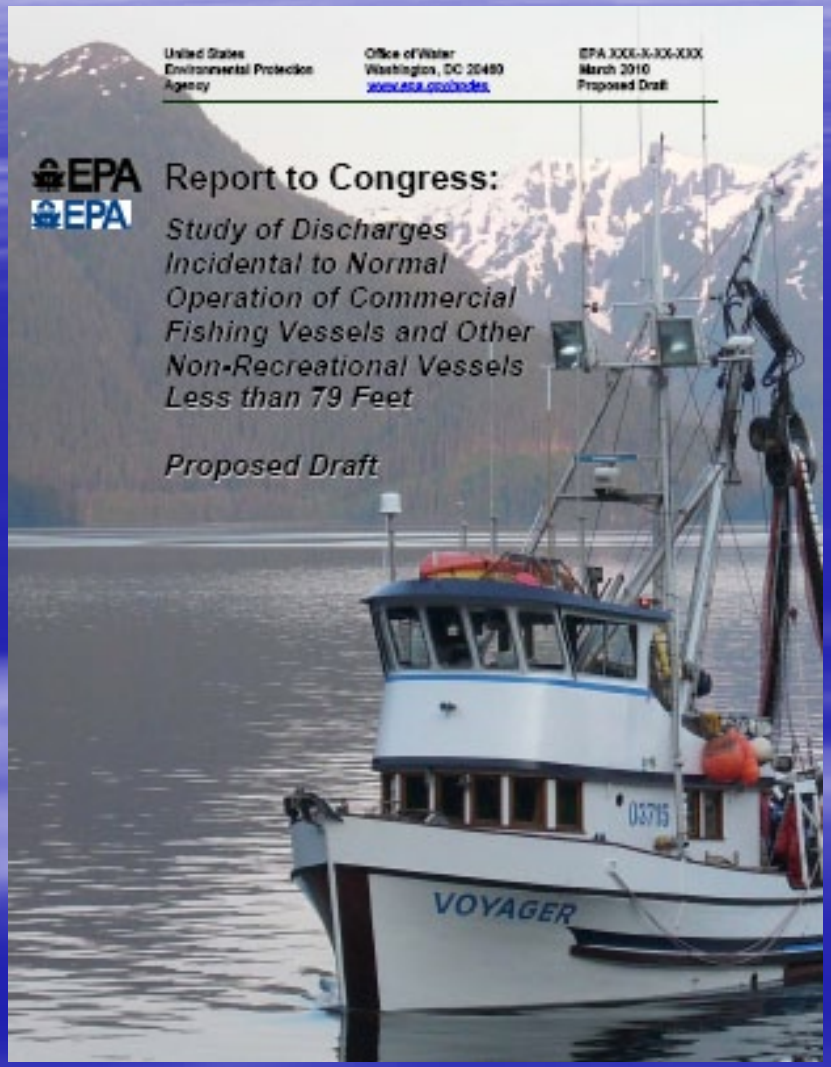


- Eliminate quarterly visual monitoring
  - Instead, require additional analytical monitoring from select vessel discharges from certain vessels (ballast water, exhaust gas scrubber, graywater)
- Allow “Extended Unmanned Vessel” inspections in lieu of routine vessel inspections for unmanned vessels
  - Reduced routine visual inspection frequency requested by permittees with “fleeted” vessels to reduce burden

General Efficiency Improvements

- Reducing NOI processing time from 30 to 7 days (for electronic filers only)
- Developing electronic tools to submit all information/data
  - Requiring e-reporting unless specified exemptions apply
- Making data submitted to the agency in electronic form available to the public in electronic form
- Clearly allow for and specify electronic recordkeeping requirements
  - Requested by permittees as a way to reduce burden

Additional New Information



- Report to Congress
  - Finalized in August 2010
  - Study of “Moratorium Vessels”
  - www.epa.gov/npdes/vessels/reportcongress.cfm

Report Summary Conclusions

- Certain pollutants from vessel discharges subject to the moratorium are in elevated concentrations.
- Generally discharges are in low or lower volumes.
- Unlikely to 'solely' cause exceedance of WQS in large waterbodies. However, cumulative impacts of unregulated discharges may significantly contribute to exceedances for limited pollutants (e.g., copper) in large waterbodies.
- Some pollutants/discharges more likely to cause localized impacts or impacts in small water bodies, particularly in water bodies with poor flushing, with other pollutant sources, or with many vessels.

Part 1 - Overview of Permit

Part 2 – Effluent Limitations and Related Requirements

Part 3 – Monitoring and Recordkeeping

Part 4 – Additional Requirements

Part 5 – State Specific Requirements

Part 6 – Definitions

Part 7 – sVGP contacts

Appendix A– Permit Authorization and Record of Inspection Form

sVGP

- Slightly different structure than VGP
  - Draft Permit is less than 20 pages long
  - Most important information up front
  - Discharge limits in the middle
  - Standard Permit Conditions and Other Requirements toward the end
- Organized by management groups rather than by discharge types

Part 2 Effluent Limitations and Related Requirements (example language)

Management Area	Highlighted management practices include:
2.1 General Requirements	Oil, including oily mixtures, may not be discharged in quantities that may be harmful or cause a visible sheen
2.2 Fuel Management	Regularly inspect the fuel and hydraulic systems for any damage or leaks, repair if found.
2.3 Engine and Oil Control	Preference for environmentally acceptable lubricants
2.4 Solid and Liquid Waste Management	Prevent monofilament line, fishing nets, lines, lures, rope, bait boxes, and hooks from entering any waste stream covered by this permit

Part 2 Effluent Limitations and Related Requirements (example language)

Management Area		Highlighted management practices include:
2.5	Deck Washdown and Runoff	Minimize the introduction of on deck debris, garbage, residue and spill into deck washdown and runoff discharges.
2.6	Vessel Hull Maintenance	Must use phosphate free, non-toxic soaps
2.7	Graywater	Minimize graywater discharges in areas that have heavy vessel traffic or recreational use and in marine sanctuaries, national wildlife refuges, national wild and scenic rivers, and national wilderness areas.
2.8	Fish Hold Effluent	Minimize discharge of fish hold or dirty ice while in port. If onshore treatment available, must use it

Part 2 Effluent Limitations and Related Requirements (example language)

Management Area		Highlighted management practices include:
2.9	Ballast Water	When feasible, use one of the following measures to reduce the potential transfer or introduction of organisms to waters of the U.S.: • Use potable water for ballasting •Utilize onshore treatment or disposal methods for ballast water •For vessels that conduct fixed routes, capture and reuse ballast water in each port
2.10	Seawater Cooling Overboard Cooling	Minimize thermal impacts to the receiving waters by discharging seawater cooling overboard while the vessel is underway.

Part 3 Monitoring and Recordkeeping

- Vessel owner/operator must:
  - Read and follow the sVGP
  - Sign and maintain a copy of the sVGP permit authorization and record of inspection(PARI)form
  - Conduct quarterly visual inspections and document on PARI form along with any corrective actions taken

Submitting Comments

- 75 day Public comment period ends February 21, 2012
- VGP comments, identified by Docket ID no. **EPA-HQ-OW-2011-0141**
- sVGP comments, identified by Docket ID No. **EPA-HQ-OW-2011-0150** by one of the following methods:
  - www.regulations.gov: Follow the on-line instructions for submitting comments.
  - Email: ow-docket@epa.gov.
  - Mail: Original and three copies to: Water Docket, Environmental Protection Agency, Mail Code: 2822T, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
  - Hand Delivery: EPA Docket Center, Public Reading Room, EPA Headquarters West Building, Room 3334, 1301 Constitution Ave., NW, Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Written Public Comment

- EPA is specifically seeking comment on the provisions discussed above, in addition to other specific questions posed (see Dec. 8, 2011 FR notice for list)
- Permits, fact sheets, and additional information are available at:

  www.epa.gov/npdes/vessels

  – Contact us at vgp@epa.gov or sVGP @epa.gov

Questions?