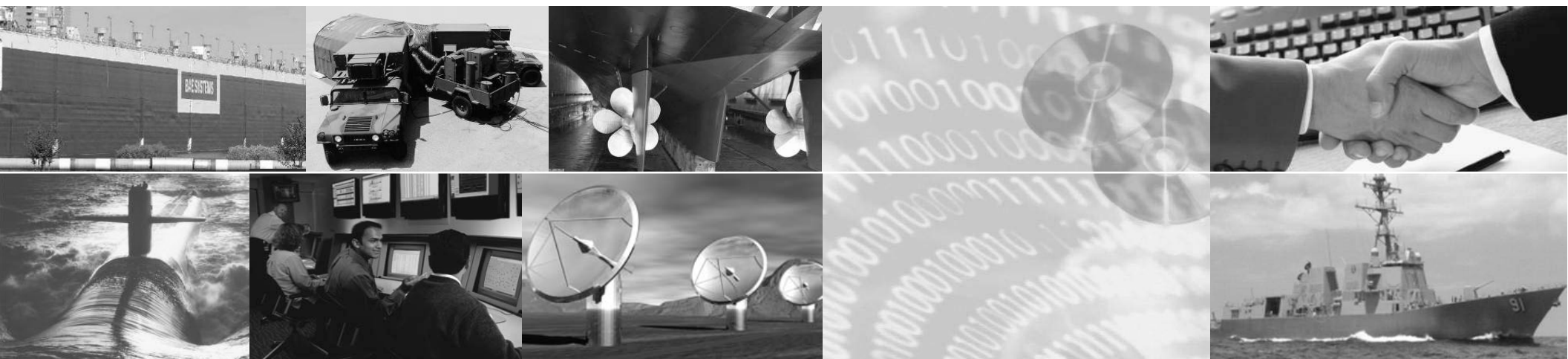


VESSEL DISCHARGE REGULATIONS

National Shipbuilding Research Programs (NSRP)
Environmental Technologies Panel (ETP) Meeting
February 18th, 2009

Shaun Halvax, BAE Systems



Topics to be covered

- CWA/NPDES Permitting
- History of Vessel Exemption
- VGP Applicability
- Coverage under the Permit
- Pollutants and Discharges
- Corrective Actions
- Inspections and monitoring
- Vessel Class Specific Requirements
- State 401 Water Quality Certification

Vessel Discharge Permitting – CWA

- Section 301(a) of the Clean Water Act (CWA) provides that:
“the discharge of any pollutant by any person shall be unlawful” unless the discharge is in compliance with certain other sections of the Act. 33 U.S.C. 1311(a). **[E.g., without a permit]**
- The CWA defines “discharge of a pollutant” as:
- “(A) any addition of any **pollutant** to navigable waters from any point source.
 - A “**point source**” is a “discernible, confined and discrete conveyance” and **includes a “vessel or other floating craft.”** 33 U.S.C. 1362(14).”
 - The Act's definition of “pollutant” specifically **excludes** “sewage from vessels or a discharge incidental to the normal operation of a vessel of the **Armed Forces**” within the meaning of CWA 312. 33 U.S.C. 1362(6).

Vessel Discharge Permitting – NPDES

- Discharge from vessels includes “a worthless or useless flow discharged during a vessel’s normal operations” and within EPA’s broad pollutant categories. [VGP Fact Sheet at 3.4]
- National Pollutant Discharge Elimination System (NPDES) Permits [CWA 402]
 - General permits: Covers multiple facilities within a specific category
 - Individual permits: Tailored to a specific discharger
 - Permit Term not to exceed 5 years
 - State authorization (46 States and authorized territories)
 - For EPA-issued permits, State 401 cert required
 - Many state implement their own permit programs

CWA/NPDES

- **REGULATORY exclusion [40 CFR 122.3(a)]**

- Issued in May 1973
- Excluded certain discharges incidental to the normal operation of vessels from the obligation to obtain an NPDES permit

- **STATUTORY DEFINITION [33 USC 1322]**

(12)“discharge incidental to the normal operation of a vessel”

(A) Means a discharge, including –

- (i) Lists various discharges of greywater, bilgewater, cooling water, weather deck runoff...; and
- (ii) A discharge in connection with the testing, maintenance, and repair of a system described in clause (i) whenever the vessel is waterborne

Vacatur of Vessel Exception

NWEA Lawsuit - Chronology

Northwest Env'tl. Advocates et al. v. United States EPA, 2005 U.S. Dist. LEXIS 5373 (N.D. Cal2005)

- **Rulemaking petition submitted to EPA sought to repeal 40 CFR 122.3(a) due to concerns about ANS in ballast water.**
 - Jan 1999: Petition from Northwest Environmental Advocates, Center for Marine Conservation, Great Lakes United
 - Petition concern focused on ballast water
 - Sept 2003: EPA denied petition based on Congressional acquiescence and Coast Guard authority under NISA
 - Dec. 2003: Lawsuit filed by Northwest Environmental Advocates and others challenging petition denial

Vacatur of Vessel Exclusion

• **Litigation & outcome**

- March 2005: Ruling that the regulation (40 CFR 122.3(a)) excluding discharges incidental to the normal operation of a vessel from NPDES permitting exceeded the Agency's authority under the CWA (Ultra Vires rulemaking)
- Sept 2006: Final order vacating (revoking) the regulatory exclusion as of September 30, 2008, [later extended to February 6, 2009] and potentially affects all incidental discharges of vessels
- Nov 2006: Gov't files notice of appeal with 9th Circuit
- July 2008: 9th Circuit affirmed

Other Vessel Discharge Legislation

- In late July 2008, Congress enacted two pieces of legislation to exempt discharges incidental to the normal operation of certain types of vessels from the need to obtain an NPDES permit.
 - The Clean Boating Act of 2008, amends the CWA to provide that discharges incidental to the normal operation of **recreational vessels are not subject to NPDES permitting**, and instead, creates a new regulatory regime to be implemented by EPA and the U.S. Coast Guard under new 312(o) of the CWA.
 - **Temporary moratorium on NPDES permitting** for discharges subject to the 40 CFR 122.3(a) exclusion from (1) commercial fishing vessels and (2) from those other **non-recreational vessels less than 79 feet in length**. The statute's NPDES permitting moratorium runs for a two year period beginning July 31, 2008
 - **No exemptions or legislative relief currently exist for discharges incidental to the normal operation of a commercial vessel ≥ 79 ft.**

Vessel General Permit

- DRAFT VGP Published June 17, 2008 [final permit 2/6/2009]
- EPA currently estimates that there are approximately **61,000 U.S. flagged vessels** that may be eligible for coverage under this permit and up to **8,000 additional foreign flagged vessels.**
- More than 170 comments submitted, totaling 3102 pages
- EPA performed an economic assessment of this general permit, including an examination of the economic impact this permit may have on small businesses.
 - **BMP implementation cost between \$ 6.7M and \$16.7M annually**
 - **Total Implementation cost between \$ 8.9M and \$23M Annually**
- EPA concluded that the **permit is unlikely to result in a significant economic impact on any businesses**, and in particular, small businesses.

Vessel General Permit – What's Regulated

Part 1: Coverage under the Permit

- The purpose of the VGP is to regulate to vessel discharges formerly excluded from requiring NPDES permits under 40 CFR 122.3(a)
- Two requirements:
 - Must be a [commercial] vessel or floating craft [≥ 79 ft.], AND
 - Must operate in a capacity as a means of transportation
- Questions:
 - When is a floating drydock operating as a means of transportation?
 - Discharges from vessels in drydock?
 - When are vessels under construction operating as a means of transportation?

Vessel General Permit - Drydocks

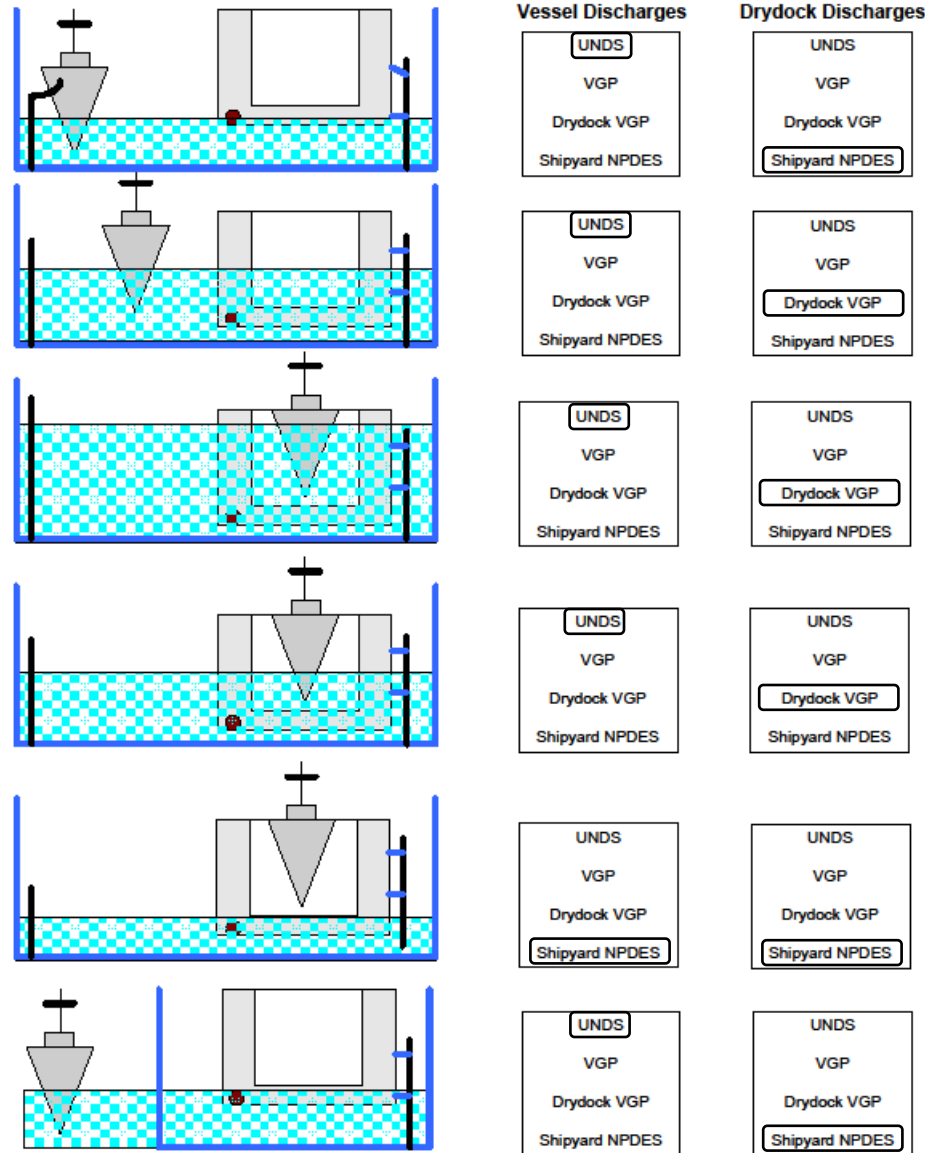
- In EPA's response to comments regarding drydocks EPA cites the UNDS Technical Support Document, pg. 1-3:
 - "Discharges related to a floating drydock's function as a vessel are covered by UNDS and do not require authorization by NPDES permit".
- Unlike UNDS, EPA does not extend that operational framework following docking of the vessel
 - "However, once immobile and operating in an industrial capacity as a ship maintenance or repair facility, the drydock ceases to operate in a capacity as a means of transportation and thus its discharges are not covered by the VGP."
- EPA includes the "transitional" periods of operation

Vessel General Permit – Vessels in Drydock

- VGP Applicability
 - New and existing “vessels” as defined in 33 USC 1322(1) & (2):
 - “includes every description of watercraft or other artificial contrivance used, *or capable of being used*, as a means of transportation...”
 - But, EPA interprets the CWA and 40CFR 122.3(a) to define a vessels “act” or *current* “operational capacity”, not its intended purpose or capability, to determine the VGP applicability
 - Following docking of a vessel, once the drydock is acting in the capacity of a ship maintenance or repair facility, the discharges from the vessel in drydock are no longer within the scope of the vessel general permit
 - Under EPA’s definition, vessels in drydock are no longer “acting” in the capacity of a means of transportation
 - Discharges from vessels in drydock must therefore be permitting by the facility

Vessel General Permit - Drydocks

Navy Vessel, Private Drydock, Private Shipyard



Vessel General Permit – New Construction

- VGP Applicability
 - "Sea trials" are conducted to measure a vessel's performance and general seaworthiness. Testing of a vessel's speed, maneuverability, equipment and safety features are usually conducted. Successful sea trials subsequently lead to a vessel's certification for commissioning and acceptance by its owner.
 - When a vessel is engaged in "sea trials" which result in operational discharges [EPA fact sheet, page 28]
 - Under EPA opinion, discharges incidental to the normal operation of a vessel under construction, even pierside after launch, are not within the scope of the VGP, except during sea trials.
 - In some cases, sea trials might take place pierside where equipment and safety features are being testing consistent with sea trials applicability. This may be analogous to the "transitional" period during docking/undocking.

Vessel General Permit – Requirements

- Two Choices for Drydock discharges
 - Permit under the Shipyard Individual NPDES Permit

Or

- Obtain coverage under the VGP for periods of docking/undocking and under the shipyard Individual NPDES Permit all other times

Vessel General Permit – Requirements

- Notice of Intent (one for each vessel)
 - To obtain authorization under the permit, operators must meet the Part 1.2 eligibility requirements and, if required by Part 1.5.1.1 of the permit, submit a complete and accurate NOI according to the requirements in Appendix E (Part 10 in the Permit), no later than 9 months after the permit effective date.
 - Part 1.2
 - Those vessels previously covered under 40 CFR 122.3(a)
 - Part 1.5.1.1
 - The vessel is greater than or equal to 300 gross tons, or
 - The vessel has the capacity to hold or discharge more than 8 cubic meters (2113 gallons) of ballast water.
 - Vessel meeting Part 1.2 but not Part 1.5.1.1, NOI not required

Vessel General Permit – Requirements

- Notice of Intent (for those vessels that require filing)
 - Coverage under the permit begins February 6, 2009
 - May start filing NOIs on June 19, 2009
 - Must file NOI by September 19, 2009
 - EPA developing an electronic NOI system by June 19, 2009
 - Recordkeeping requirements begin February 19, 2009
 - Signed by Certifying Official (owner or operator)
 - Covers the vessel for the entire 5-year permit cycle
- Notice of Termination
 - NOT required if NOI not required
 - < 79 feet
 - < 8 cu meters ballast water
 - < 300 gross tons

Vessel General Permit – Pollutants Regulated

<u>POLLUTANTS</u>	<u>EXAMPLES</u>
Aquatic Nuisance Species	Non-native jellyfish, Zebra mussels, Asian Clams
Most Conventional Pollutants	BOD, Oil and Grease, pH, TSS, etc.
Metals	Fe, Ni, Zn, Cu, As, Pb, etc.
Nutrients	Phosphorous and Nitrogen
Pathogens	E. Coli and Fecal Coliform
Other Toxic Pollutants	Antifoulant coatings, rust inhibitors, etc.
Non-conventional Pollutants with Toxic Effects	Phthalates, Phenol, Chlorine residual, etc.

Vessel General Permit – Discharges Regulated

Deck runoff, washdown	Gas turbine washwater
Bilgewater separator effluent	Greywater
Ballast water	Compensating ballast water
Antifoulant leachate	Non-oily machinery wastewater
AFFF	AC condensate
Boiler blowdown	Seawater cooling
Cathodic protection	Seawater piping biofouling
Chain locker effluent	Boat engine wet exhaust
CPP, thruster, and other oil seal interfaces	Sonar dome discharge
Distillation and RO Brine	Underwater ship husbandry
Elevator pit effluent	Welldeck discharges
Firemain systems	Greywater mixed with sewage
Freshwater layup	Exhaust gas scrubber washwater

Vessel General Permit – Requirements

Part 3: Corrective Actions

- If any of the following problems are identified, you must take action to ensure that the problem is eliminated and will not be repeated in the future:
 - You violate one or more effluent limits
 - You become aware that your measures do not control discharges necessary to meet applicable water quality standards; or
 - Pollution control measures or best management practices are not being properly operated and maintained

Vessel General Permit – Requirements

Part 3: Corrective Action Assessment

- Following the identification of any of the problems listed in Part 3.1, you must conduct a corrective action assessment. The 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, and the name, title and signature of the person who identified the problem and of the person who recorded the problem;
 - An explanation of the cause of the problem(s),
 - A description of the corrective actions and a schedule for completing such actions
 - Whether the corrective action requires the vessel to be in dry dock and, if so, the next planned date the vessel will be dry-docked; and
 - Record the date(s) and time(s) of the action, a description of the corrective action implemented, and the name, title and signature of the person recording this information.

Vessel General Permit – Requirements

Part 4: Inspections and Monitoring

- Inspections/Monitoring
 - Routine Visual Inspections (once per week or voyage, if >1/day)
 - Comprehensive Annual Vessel Inspection
 - Drydock Inspections (includes underwater hull coatings assessment)
 - Analytical monitoring for
 - Select cruise ships/experimental ballast water treatment systems
 - Quarterly visual discharge inspections
- Recordkeeping
 - All required inspections
- Reporting
 - One time monitoring report (30-36 months into permit coverage)
 - Annual report of non-compliance
 - Discharge Monitoring Reports (for cruise ships and experimental ballast)

Vessel General Permit – Requirements

Part 5: Vessel Class Specific Requirements

<u>SPECIFIC VESSEL CLASSES OR TYPES</u>
Medium Cruise Ships
Large Cruise Ships
Large Ferries
Oil or Petroleum Tankers
Barges
Research Vessels
Emergency Vessels
Vessels with Experimental Ballast Water Treatment Systems

Vessel General Permit – Requirements

Part 6: State Requirements (401 Water Quality Certification)

- Section 401(d) of the CWA provides that any certification under the Act "shall set forth any effluent limitations and other limitations, and monitoring requirements" necessary to assure that any applicant for a federal license or permit will comply with any applicable CWA-based effluent limitations and other limitations, standards of performance, prohibitions, effluent standards, or pretreatment standards, and with any other appropriate requirements of State and Tribal law.
- The VGP is effective in every State and Indian Country Land
- Many states have included additional requirements that apply to discharges within state waters

Parts 7-15: Various Appendices

For more info visit www.epa.gov/npdes/vessels.