The 2013 Draft Vessel General Permit (VGP) – Ballast Water

United States Environmental Protection Agency

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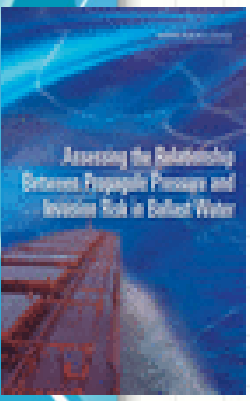
Goals for the 2013 VGP

- Use the best available science to inform our determinations of appropriate technology-based and water quality-based ballast water discharge limitations
  - Protect our waters from new invasions
- Improve administrative efficiency where feasible
  - Reduce permittee confusion
- Improve the CWA section 401 certification process
  - Increase State coordination and regional consistency where appropriate

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)

- <u>NAS Report Key Conclusions</u>:
  - 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"

Highlights of Proposed 2013 VGP

- Ballast Water
  - Numeric limits equivalent to the IMO D-2 standard
  - Limits apply to most vessels with at least 8 cubic meters of ballast water; includes some inland vessels
  - Exchange + treatment requirement for vessels entering the Great Lakes from a freshwater/brackish port
  - Self-monitoring
  - Interim requirements similar to 2008 VGP

Ballast Water Limits in the draft VGP

- Expressed as Instantaneous Maximum

Large Organisms (> 50µm)	Small Organisms (>10µ and ≤50 µm)	Toxigenic *Vibrio cholerae* (O1 & O139)	*Escherichia 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 Limits in the draft VGP

- Four possible options to meet limits:
  - Use a treatment device
  - Use onshore treatment
  - Use potable water (from U.S. and Canada only)
  - No discharge
- Implementation Schedule
  - Consistent with IMO implementation schedule
  - Differs from USCG final rule on date for defining what constitutes a “new build” vessel

Ballast Water:

Additional water quality-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

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 U.S. government has high quality efficacy/toxicity type approval data from flag administration or vendor

Summary of Key Comments

- We received 5,500 comments, 363 of which are unique
  - Approximately 5,100 were the result of mass-write in campaigns led by NWF and the Alliance for the Great Lakes
  - 20 comments from environmental groups (e.g., NRDC, NWEA)
  - 14 States and State-affiliated groups (e.g., California, Michigan, Minnesota, New York, Wisconsin, Great Lakes Commission)
  - Approximately 80 comments from industry and industry-affiliated groups (e.g., ballast water treatment manufacturers)
  - Several comments from foreign governments (e.g., Canada)
  - 2 federal agencies (NPS, Army Corps)

- Significant ballast water comments include discussion of:
  - Appropriateness of effluent limits
  - Exchange + treatment
  - Implementation schedule

EPA's Ongoing Efforts

- EPA's follow-up to NRC study recommendations
- Permit Development
- Outreach
- Partnering with the U.S. Coast Guard and others
- CWA section 401 certifications – process & status

Questions?