

# UNDS *tidings*

Uniform National Discharge Standards



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## Identifying and Assessing UNDS Discharges

**T**he Navy and EPA are working to complete Phase I of the UNDS rulemaking. During this first phase, they have focused on identifying and evaluating discharges that are incidental to normal Armed Forces vessel operations. The goal of these efforts is to generate two lists of discharges:

- 1) Discharges that require control by a marine pollution control device (MPCD) and
- 2) Discharges that do not require control by a MPCD.

These two lists of discharge determinations will be published as a proposed rule in the Federal Register in the Summer of 1998.

### Discharge Assessment Activities

In defining the universe of discharges to be regulated by UNDS, Navy and EPA conducted a

#### Phases of the UNDS Rulemaking

- I - Determine incidental vessel discharges requiring a marine pollution control device (MPCD).
- II - Set performance standards for MPCDs.
- III - Establish guidelines for designing, constructing, installing, and using MPCDs.

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comprehensive review of vessel equipment systems. As a result, 39 discharges that are generated as a result of normal vessel operations have been identified. Normal operations is broadly defined to include maintenance, systems testing, and repair activities; and includes releases from the protective, preservative, or absorptive hull coatings, which may generate a discharge when the vessel is waterborne.

The UNDS Technical Working Group (TWG), which is responsible for the technical evaluation of discharges, has followed a consistent assessment process to identify discharges requiring control by a MPCD. Technical considerations included a review of the process generating the discharge, the types of constituents in the discharge, the nature of the constituents, (i.e., priority pollutant or bioaccumulator), constituent concentrations, constituent mass loadings, frequency of generation, and whether the discharge is currently controlled.

For all discharges, constituent concentrations were compared to federal criteria guidance and state water quality criteria or other applicable standards (e.g., international standards). Preliminary determinations have been made for most discharges, based on analyses conducted with available information. All discharges that are controlled currently will continue to be controlled under UNDS. Analyses and related conclusions are subject to change as additional information becomes available, and may change prior to the final rulemaking based on public comment.

### Discharges of Interest

During state consultation meetings, several state representatives expressed an interest in knowing more about how preliminary determinations were



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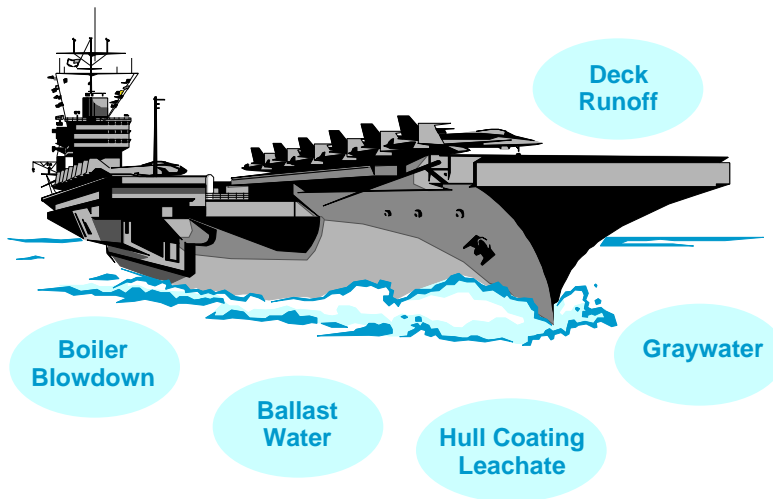
made for some of the discharges. The five discharges in which the state regulators expressed an interest were:

- 1) graywater
- 2) deck runoff
- 3) hull coating leachate
- 4) boiler blowdown
- 5) ballast water

Ballast water was featured in the August/September issue of UNDS<sup>tidings</sup>, and a preliminary determination that most types of ballast water will require control has been made. This issue of UNDS<sup>tidings</sup> briefly discusses the remaining four discharges and the preliminary determinations of whether the discharges should be controlled.

### Graywater

Graywater is wastewater generated from showers, baths, and galleys. On vessels of the Armed Forces, drainage from laundry, interior deck drains, lavatory sinks, and miscellaneous shop sinks are often collected together with graywater. Sewage is collected separately from graywater on most vessels of the Armed Forces. Most vessels of the Armed Forces collect graywater and transfer it to shore treatment facilities while pierside. Some vessel types, however, have minimal or no graywater collection or holding capability because their storage capacity must be dedicated to sewage. Because graywater can contain metals and conventional or nonconventional pollutants, is generated in large volumes, and is currently controlled on some vessels, the preliminary determination is that graywater requires control. Potential control options will be evaluated in Phase II of UNDS.



### Deck Runoff

Deck runoff is generated when water from precipitation, freshwater washdowns, or seawater falls on the upper portion of a vessel such as a weather deck or flight deck. This water washes residues present on the deck surface overboard through drain openings. Deck residues originate from topside equipment and deck activities. Deck runoff may include for example, residues of gasoline, oils, and grease from aircraft or other equipment that may be on deck. All vessels of the Armed Forces produce this discharge. Existing management practices include keeping the deck cleared of debris, immediately mopping up and cleaning spills and residues, and maintaining spill prevention practices. Because deck runoff can contain oil, grease, and metals, and currently has management practices that constitute a control, the preliminary determination is that deck runoff requires control. Potential control options will be evaluated during Phase II of UNDS.

### Hull Coating Leachate

Vessels of the Armed Forces use coating systems to protect the sections of the hull that are continuously in contact with seawater. Coating systems typically include a base anticorrosive coating to prevent corrosion of the underwater hull structure. The base coat is covered by an antifouling coating to inhibit biological growth on and adhesion to the hull surface. Most antifouling coatings work through either an ablative (eroding or dissolving) or nonablative (leaching) action typically releasing copper and zinc. The quantity of copper and zinc that is released in port from Armed Forces' vessels has resulted in a preliminary determination to require control of this discharge. Control options will be evaluated in Phase II of UNDS.

### Boiler Blowdown

Boilers are used to produce steam aboard some vessels of the Armed Forces for propulsion and a variety of auxiliary and hotel services (e.g., hot water for showers and laundry). Periodically, water is discharged under pressure from the boiler to control particulate, sludge, and treatment chemical concentrations. The process of discharging the water and the discharged water are referred to as boiler blowdown. Most blowdowns occur at sea when there is the greatest steam demand. The concentrations of some constituents in the discharge exceed federal criteria guidance and state water quality criteria at the point of discharge. However, due to the turbulence, velocity, and small volume of boiler blowdowns, the constituent concentrations rapidly dissipate to less than federal criteria guidance and state water quality criteria within a short distance from the point of discharge. Also, the mass loading of constituents, even those exceeding


water quality criteria, are at low levels so that no significant environment effect is expected. Additionally, based on modeling of the thermal effects of the discharge, the resulting thermal plume is not expected to exceed state standards for thermal effects. Therefore, the preliminary determination is that this discharge will not require control.


### In Summary

Preliminary determinations have been made for most of the 39 incidental discharges. Of the 39 discharges, 25 have been determined to require control. These determinations were based on available information and may change prior to final rulemaking. For additional information on UNDS, visit the UNDS Internet website at <http://www.n4.hq.navy.mil/n45b/doc/unds/unds.html>. Feel free to submit your comments and questions regarding these discharges or any other aspect of the UNDS rulemaking initiative via email to UNDS@bah.com.

## Recent Progress

UNDS development activity is proceeding rapidly to meet an aggressive schedule. To date, the effort has initiated a variety of activities and reached several milestones:

 During the second round of State consultation meetings, representatives from the Navy, EPA, and Coast Guard visited and briefed officials from 22 states interested in the UNDS development process. This round of meetings was completed in January 1998. Each briefing focused on the specific procedures to assess and categorize discharges, preliminary discharge determinations, and technical information supporting decisions to control or not control discharges.

 EPA and Navy representatives have begun preliminary discussions about future UNDS planning and implementation of Phase II activities. The focus of Phase II will be on evaluating MPCD options for discharges requiring control and developing performance standards for the devices that will control these discharges.

### UNDS Fast Fact

Preliminary assessment of the discharges identified suggests that 25 out of the 39 discharges, or nearly 65%, require a marine pollution control device (MPCD). Most of these discharges are already controlled by an existing MPCD on one or more vessels of the Armed Forces. A MPCD may be a policy, management practice, operational procedure, or equipment that reduces the environmental impact of the discharge. Control options for each discharge requiring control will be considered during Phase II.

## Frequently Asked Questions

The UNDS rulemaking is a dynamic process that has generated a great deal of interest and several questions. Here are answers to some frequently asked questions:

**Q. I was not aware that either the Army or Air Force had vessels. What type of vessels do the Army and Air Force have that will be regulated by UNDS?**

- A. The Army's fleet is divided into the Transportation Corps and the Intelligence and Security Command. The Army Transportation Corps operates 327 vessels, ranging from 25 feet to 273 feet in length, including logistics support vessels, landing craft, tugs, floating cranes, barges, and other utility craft to provide waterborne delivery (inland and ship-to-shore) of equipment and supplies for logistics support of all Armed Forces. The Intelligence and Security Command operates seven vessels, ranging from 190 feet to 194 feet in length, for drug interdiction operations. The Air Force operates 53 vessels, ranging from 17 feet to 120 feet in length, including missile retrievers, personnel boats, and utility boats for the location and recovery of practice missiles and to provide logistics support for Air Force Operations

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