

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
1 CONGRESS STREET
SUITE 1100
BOSTON, MASSACHUSETTS 02203

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES.

NPDES PERMIT NO.: MA0090671

PUBLIC NOTICE DATE:

NAME AND ADDRESS OF APPLICANT:

**United States Coast Guard
Integrated Support Center
427 Commercial Street
Attn: Facilities Engineering
Boston, Massachusetts 02109**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**United States Coast Guard
Integrated Support Center
427 Commercial Street
Boston, Massachusetts 02109**

RECEIVING WATER: **Boston Harbor**

CLASSIFICATION: **SB**

I. Proposed Action, Type of Facility, and Discharge Location

The above named applicant has requested that the U.S. Environmental Protection Agency (EPA) issue a NPDES permit to discharge into the designated receiving water. The discharges are from a permanent underdrain system, boiler blowdown, boiler condensate, and stormwater runoff through Outfall 002. Discharges from Outfall 001 consisted of construction dewatering and the discharge was terminated in 1992.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters may be found in Attachment A of the fact sheet.

III. Limitation and Conditions

The effluent limitations and monitoring requirements may be found in the draft NPDES permit.

IV. Permit Basis and Explanation of Effluent Limitations Derivation

The discharge from Outfall 002 consists of groundwater, boiler blowdown, boiler condensate, saltwater intrusion and stormwater runoff. An underdrain system along the perimeter of building #8 collects saltwater intrusion and groundwater. The water from the underdrain system and the boiler blowdown is treated by an oil/water separator prior to discharging into the receiving water. Sampling for the effluent limitations shall be done prior to the discharge mixing with stormwater. The stormwater is tied into the system after the oil/water separator and is now covered under the multisector general permit, MAROSB240.

EPA is required to consider technology and water quality requirements when developing permit effluent limits. Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301 (b) of the Act (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants.

EPA regulations require NPDES permits to contain effluent limits more stringent than technology based limits where more stringent limits are necessary to maintain or achieve Federal or State water quality standards.

In the absence of technology based guidelines, EPA is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA. The permit must limit any pollutant or pollutant parameter (conventional or non-conventional, toxic, and whole effluent toxicity) that is or may be discharged at a level that caused, has reasonable potential to cause, or contributes to an excursion above any water quality criterion. An excursion occurs if the projected or actual in stream concentrations exceed the applicable criterion. In determining the reasonable potential, EPA considers variability of the pollutant in the effluent, sensitivity of the species to the toxicity, and where appropriate, the dilution of the effluent in the receiving water.

According to 40 CFR 122.44(1), when a permit is reissued, effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards or conditions in the previous permit unless the circumstances on which the previous permit was based have materially and substantially changed since the time the last permit was issued.

The effluent monitoring requirements have been specified to yield data representative of the discharge. The general conditions of the permit consist primarily of management requirements common to all NPDES permits.

TSS and pH

The daily maximum Total Suspended Solids (TSS) limit is 50 mg/l and based on BPJ and the antibacksliding rule. A review of the discharge monitoring data indicates that there are no violations for TSS since January 1998. The monitoring requirement for TSS will remain at one time per month.

The pH range is 6.5 to 8.5 standard units with not more than 0.2 standard units outside of the normally occurring range. The pH is based on the State's water quality standards. The monitoring requirement for pH is one time per month.

Copper

Data on copper submitted on the facility's DMR indicates the presence of copper in the discharge. The permittee shall monitor for copper once per month and investigate and identify sources of copper in the effluent within 90 days from the effective date of the permit, after which time the permittee shall implement a strategy to eliminate sources of copper in the effluent. A report documenting the sources of copper and the corrective action measures to eliminate copper from the effluent shall be available to MA DEP and EPA upon request.

Temperature

A requirement to monitor the temperature of the discharge monthly has been added to the draft permit. It will determine whether or not the temperature of the effluent is having an impact to the temperature of the receiving water.

Whole Effluent Toxicity Tests

Under Section 301(b)(1) of the CWA, discharges are subject to effluent limitations based on water quality standards. The State Surface Water Quality Standards (314 CMR 4.05(5)(e.)), include the following narrative statements and require that EPA criteria established pursuant to Section 304(a)(1) of the CWA be used as guidance for interpretation of the following narrative criteria:

All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife. Where the State determines that a specific pollutant not otherwise listed in 3.14 CMR 4.00 could reasonably be expected to adversely affect existing or designated uses, the State shall use the recommended limit published by EPA pursuant to 33 U.S.C. 1251 §304(a) as the allowable receiving water concentrations for the affected waters unless a site-specific limit is established. Site specific limits, human health risk levels and permit limits will be established in accordance with 314 CMR 4.05(5)(e)(1)(2)(3)(4).

The principal advantages of biological techniques are: (1) the effects of complex discharges of many known and unknown constituents can be measured only by biological analysis; (2) bioavailability of pollutants after discharge is measured by toxicity testing including any synergistic effect of pollutants; and (3) pollutants for which there are inadequate analytical methods or criteria can be addressed. Therefore, toxicity testing is being used in connection with pollutant-specific control procedures to control the discharge of toxic pollutants.

An acute whole effluent toxicity test is being imposed on the discharge using Mysid shrimps, Mysidopsis bahia, and Inland silverside, Menidia beryllina. Since the identification and quantification of all the toxic materials which might be present in the discharge is not possible and because the summation of the toxic effects of each of these chemicals would be difficult, the discharge impact upon a sensitive aquatic organism is being used to help assess the total potential impact upon the aquatic community. The objective of this test is to determine the concentration of the discharge that will cause death to 50% of the test organisms after exposure of 48 hours.

The discharge from Outfall 002 will have three (3) acute biological toxicity tests during each year of the permit duration. However, the permittee may request a reduction in the WET tests required after submitting 3 consecutive satisfactory toxicity test results. The permittee may submit a written request to EPA seeking a review of the toxicity test results.

Best Management Practices Plan

Pursuant to Section 304(a) of the Act and 40 CFR 125.103(b), Best Management Practices may be expressly incorporated into a permit on a case-by-case basis where determined to carry out the provision of the CWA under Section 402 (a)(1). These conditions apply to the facility because the operations at the facility require the use of pollutants listed as hazardous under Section 311 of the Act and have operations which could result in significant amounts of these pollutants reaching waters of the United States. These operations include material storage, plant site runoff, in plant transfer, and loading and unloading operations.

In essence, the BMP requirement directs the permittee to totally review the physical equipment, the operational procedures, and the operator training for the US Coast Guard Integrated Support Center. The objective of this review is to protect the local waterway by minimizing the potential of solid and/or hazardous pollutants being discharged through facility design, through human error, or through equipment malfunction. In issuing such a condition to the US Coast Guard Integrated Support System, consideration of the potential for solid and hazardous pollutants being discharged into the Boston Harbor were the dominant factors.

The BMP plan becomes an enforceable element of the permit upon the BMP plan's submittal to EPA and the State 120 days after the effective date of the permit.

Waterbody Classification and Usage

Boston Harbor is classified as a Class SB waterway by the Massachusetts Department of Environmental Protection (MADEP). Class SB waters are designated as habitat for fish, other aquatic wildlife and for primary and secondary contact recreation. SB classified waters shall be suitable for shellfish harvesting with depuration and shall have consistently good aesthetic value.

V. Essential Fish Habitat (EFH)

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with NMFS if EPA's action or proposed actions that it funds, permits, or undertakes, "may adversely impact any essential fish habitat.", 16 U.S.C. § 1855(b). The Amendments broadly define "essential fish habitat" as: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.", 16 U.S.C. § 1802(10). Adversely impact means any impact which reduces the quality and/or quantity of EFH, 50 C.F.R. § 600.910(a). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g. loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences or actions. Id.

Essential fish habitat is only designated for fish species for which Federal Fisheries

Management Plans exist. 16 U.S.C. § 1855(b)(1)(A). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999.

A review of the relevant essential fish habitat information provided by NMFS indicates that EFH has been designated for 22 species within the boundaries of Area 29, which encompasses the discharge site. Although EFH has been designated for this general location, EPA has concluded that this activity is not likely to adversely affect EFH or its associated species because, the effluent limitations are based on state water quality standards, the authorized discharge is very small and will not increase with the renewal of this permit. If adverse impacts to EFH are detected as a result of this permit action, NMFS will be notified and an EFH consultation will be promptly initiated.

EPA has determined that a formal EFH consultation with NMFS is not required because the proposed discharge will not adversely impact EFH.

VI. State Certification Requirements

EPA may not issue a permit unless the Massachusetts Department of Environmental Protection with jurisdiction over the receiving waters certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards. The staff of the Massachusetts Department of the Environmental Protection has reviewed the permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State and expects that the permit will be certified.

VII. Public Comment Period, Public Hearing, and Procedures for Final Decision

All person, including applicants, who believe any condition of the permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, 1 Congress Street, Suite 1100 (CMA), Boston, MA 02114-2023. Any person, prior to such date, may submit a request in writing for a public hearing to consider the permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the permit the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit decision and forward copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit decision, any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of 40 CFR §124.74, 48 Fed. Reg. 14279-14280 (April 1, 1983).

IX. EPA Contact

Additional information concerning the permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Betsy Davis
US EPA
1 Congress Street
Suite 1100 (CPE)
Boston, MA 02114-2023
Telephone: (617) 918-1576

Date

Linda M. Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency