

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
OFFICE OF ECOSYSTEM PROTECTION
ONE CONGRESS STREET
BOSTON, MASSACHUSETTS 02114**

FACT SHEET

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

NPDES PERMIT NO.: MA0029424

PUBLIC COMMENT PERIOD:

NAME AND ADDRESS OF APPLICANTS:

Modern Continental Construction Co 6 Necco Court Boston, MA 02210	Boston Redevelopment Authority 10 Drydock Avenue South Boston, MA 02210
--	--

Modern Continental Construction Company (MC) is solely responsible for compliance with all the conditions specified in this permit until such time as the Boston Redevelopment Authority (BRA) notifies EPA and MADEP that BRA has resumed full operational control of the permitted facility.

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Drydock Number 4 - Marine Industrial Park
300 Northern Ave.
South Boston, MA

SIC CODE: 3731

RECEIVING WATER: **Boston Harbor to Massachusetts Bay**
(Boston Harbor Basin, MA70-02)

CLASSIFICATION: Class SB - CSO

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

The above named applicants have applied to the U.S. Environmental Protection Agency for issuance of a NPDES permit to discharge into Boston Harbor. The Modern Continental Construction Company is engaged in the construction of three concrete tunnel sections for the MBTA Silver Line. Modern Continental leases the shipyard from the Boston Redevelopment Authority (BRA). The draft permit also covers discharges from the facility after Modern Continental returns operational control back to BRA.

II. Description of Discharge.

A quantitative description of the discharges in terms of significant effluent parameters may be found in the permit application dated, April 2, 2002. A site plan is presented in Permit Attachment A.

III. Limitations and Conditions.

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

IV. Permit Basis and Explanation of Effluent Limitations Derivation.

A. General Requirements

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. This draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and any applicable State regulations. The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136.

EPA is required to consider a) technology-based requirements, b) water quality-based requirements, and c) all limitations and requirements in the current/existing permit, when developing permit limits. These requirements are described in the following paragraphs.

TECHNOLOGY-BASED REQUIREMENTS

Technology-based requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA (see 40 CFR §125 Subpart A). For existing sources, technology-based requirements according to best practicable control technology currently available (BPT) are applied for conventional, non-conventional, and toxic pollutants. More stringent technology-based requirements are applied through best conventional control technology (BCT) for conventional pollutants; and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. The factors to be considered in developing BAT limits are set forth at 40 C.F.R. §§ 125.3(c)(2)(i) and (ii) and 125.3(d)(3)(i) - (vi) and include, among other things, the age of existing facilities, engineering issues, process changes, non-water quality-related environmental impacts, and the costs of achieving required effluent pollutant reductions. New source performance standards (NSPS) are applied to new sources, to control conventional, non-conventional, and toxic pollutants.

There are no applicable technology guidelines (effluent limitations guidelines) for drydocks. EPA issued a Draft Development Document for Proposed Effluent Limitations and Guideline for the Shipbuilding and Repair Point Source Category in December of 1979, which covers drydock operations. The draft Guidelines were never finalized. In the absence of published technology-based effluent guidelines, the permit writer is authorized under Section 402(a)(1) of the CWA to establish effluent limitations on a case-by-case basis using best professional judgement (BPJ). See 40 CFR §§125.3 (c)(2) and (c)(3).

WATER QUALITY-BASED REQUIREMENTS

Under Section 301(b)(1)(C) of the CWA and EPA regulations, NPDES permits must contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve state or federal water quality standards.

The permit must limit any pollutant or pollutant parameter (conventional, non-conventional, toxic, and whole effluent toxicity) that is or may be discharged at a level that causes or has the "reasonable potential" to cause or contribute to an excursion above any water quality standard (40 CFR §122.44(d)). An excursion occurs if the projected or actual in-stream concentration exceeds an applicable water quality criterion. In determining "reasonable potential", EPA considers: (1) existing controls on point and non-point sources of pollution; (2) pollutant concentration and variability in the effluent and receiving water as determined from the permit's reissuance application, monthly discharge monitoring reports (DMRs), and State and Federal Water Quality Reports; (3) sensitivity of the indicator species used in toxicity testing; (4) known water quality impacts of processes on waste waters; and (5) where appropriate, dilution of the effluent in the receiving water.

Water quality standards consist of three parts: (1) beneficial designated uses for a water-body or a segment of a water-body; (2) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s); and (3) antidegradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts Surface Water Quality Standards, found at 314 CMR 4.00, include these elements. The state will limit or prohibit discharges of pollutants to surface waters to assure that surface water quality standards of the receiving waters are protected and maintained or attained. These standards also include requirements for the regulation and control of toxic constituents and require that EPA criteria, established pursuant to Section 304(a) of the CWA, shall be used unless a site specific criteria is established.

STATE CERTIFICATION

Under Section 401 of the CWA, EPA is required to obtain certification from the state in which the discharge is located which determines that all water quality standards, in accordance with Section 301(b)(1)(C) of the CWA, will be satisfied. Regulations governing state certification are set forth in 40 CFR §124.53 and §124.55. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 CFR §122.44(d).

B. Water Quality Standards and Designated Uses

The Boston Inner Harbor has been classified as Class SB (CSO) under the Massachusetts Surface Water Quality Standards. The CSO designation identifies the waters as impacted by the discharge of combined sewer overflows (CSO). Title 314 Code of Massachusetts Regulations ("CMR") 4.05(4)(b) states that Class SB waters have the following designated uses: *These waters are designated as habitat for fish, other aquatic wildlife and wildlife and for primary and secondary contact recreation. In approved areas they shall be suitable for shellfish harvesting with depuration (Restricted Shellfish Areas). These waters shall have consistently good aesthetic value.*

Section 303(d) of the Federal Clean Water Act (CWA) requires states to identify those water-bodies that are not expected to meet surface water quality standards after the implementation of technology-based controls and, as such require the development of total maximum daily loads (TMDL). The 1998, 303(d) report states that the Boston Inner Harbor (Basin MA70-02), is not attaining water quality standards because of Pathogens.

C. Brief Permitting History

1995	BRA received coverage under the Storm Water General Permit (MAR00A928) and prepared a SWPPP
1998	Drydock No. 4 covered under Storm Water Multi-Sector General Permit (MAR05B264)
February 6, 2001	Initial contact with Modern Continental staff regarding need for NPDES Individual Permit
March 21, 2001	EPA Tour of Drydock Number 4
August 21, 2001	EPA/DEP visit to Drydock Number 4
March 21, 2002	EPA/Permittee meeting regarding application and Best Management Practices (BMPs)
April 2, 2002	NPDES application submitted to EPA with draft BMPs from Modern Continental
June 13, 2002	Application submitted to EPA from EDIC/BRAA
July 22, 2002	Revised BMPP and SPCCC plans submitted to EPA

D. Description of Facility and Discharges

Some portions (in *italics*) of the April 2, 2002 Modern Continental NPDES Permit Application and the Best Management Practices Plan submitted to EPA by Modern Continental Construction Company, Inc., are paraphrased in this document without further reference.

Modern Continental Construction Company, Inc. (MC) leases a graving dock (Drydock Number 4) located on Boston Harbor, from the Boston Redevelopment Authority (BRA). Modern Continental has fabricated three reinforced concrete tunnel sections in the drydock. Each tunnel section was constructed on a bed of gravel within the drydock. The gravel was contoured to match the grade of the harbor bottom where the tunnel section will eventually be placed. The graving dock was built in 1915 by the US Navy. The drydock is located between Piers 5 and 6 in South Boston. The drydock is approximately 660 feet long. The dock is 100 feet wide for most of its length with a tapered section at the inland head wall. The caisson is approximately 45 feet in height. The total volume of the drydock when completely full is approximately twenty one million gallons of sea water.

The draft permit will cover the period where Modern Continental has full operational control of the drydock, and Piers 5 and 6, and additionally, the period after Modern Continental has returned complete control back to the Boston Redevelopment Authority. Both Co-permittees have requested that a clear demarcation of permit responsibilities be established for the current period when MC is using the drydock and the period after BRA has resumed full control of the facilities. When MC has concluded their tenancy, MC will be released as a co-permittee under the provision of 40 CFR §122.61(b), *automatic transfer*. A copy of an agreement signed by both MC and BRA detailing the time of transfer for full operational control back to BRA, shall be submitted to both EPA and MADEP at least 30 days in advance of the intended transfer date. Thereafter, BRA will be the sole permittee. This approach insures an uninterrupted continuity of permitting for the facilities.

Sources of Discharge

Outfall 010, 020, and 030: Drydock Dewatering - Pumps

Modern Continental does not plan to use the drydock pump system. Instead, MC will use portable pumps to flood and dewater the graving dock. MC will use five, ten inch pumps to flood the drydock. There will be a continuous infiltration water discharge from Outfalls 010 and 020. The drydock will be flooded initially to test the watertight integrity of the tunnel sections. The tunnel segments will be submerged in place. After the tunnel segments are floated out, the drydock will be dewatered down to a depth of five feet by one 10 inch portable pump. The remainder of the water will be removed by 3 inch pumps located on Piers 5 and 6. The flow from the 3 inch pumps will pass through sedimentation tanks and be discharged to the Harbor. The sedimentation tanks will have sorbent material to capture any oil sheen prior. MC has submitted specifications for the sedimentation tanks with their application. A barrier will be placed on the drydock floor between the gravel bed and the caisson sump. This is to prevent gravel from washing out when the caisson is lowered to remove the tunnel sections.

Outfall 040: Caisson Ballast Water

Caisson ballast (ocean) water is discharged to Boston Harbor and replaced with air to raise the caisson and seal the drydock. The discharge shall consist of uncontaminated sea water.

Storm Water: (Outfalls 001-009)

There are nine catch basins located on Piers, 5 and 6. The storm water outfalls are identified as 001 through 009 in the draft permit. The draft permit requires a quarterly flow estimate for the nine outfalls in accordance with 40 CFR 122.44(i)(1)(ii), which requires monitoring of *the volume of effluent discharged from each outfall*. The estimate may be derived from local rainfall gage data and known surface area. (Report on one DMR page)

Sediment: (Drydock floor)

Sediment enters the drydock when the caisson is lowered to dock or undock a ship. Sediment removed from the drydock floor shall not be reintroduced to the harbor but hauled off site for disposal in accordance with land disposal regulations.

Solid Wastes: (Drydock and Piers)

All solid wastes shall be disposed off site in conformance with all appropriate solid waste regulations.

Flow Monitoring: (Outfalls 010, 020, 030, and 040)

40 CFR 122.44(i)(1)(ii), requires monitoring of *the volume of effluent discharged from each outfall*. The permittee may estimate the discharge volume of each of the regulated discharges from duration and pump capacity.

Best Management Practices (BMPs): (All operations)

The CWA allows the use of Best Management Practices where specific numerical effluent limitations are not practical. The Best Management Practices Document produced by BSR, dated June 6, 2002, is included as an integral part of the draft NPDES permit. Pursuant to 40 CFR §122.44(k)(4), Best Management Practices (BMPs) may be expressly incorporated into a permit on a case-by-case basis where it has been determined they are needed to carry out the provisions of the CWA (see CWA, Section 304(e)).

EPA is incorporating the BMP document into the draft permit as a fully enforceable requirement based on Best Professional Judgement (BPJ). The authority for BPJ is contained in Section 402(a)(1) of the CWA, which authorizes the EPA Administrator to issue a permit containing “such conditions as the Administrator determines are necessary to carry out the provisions of the Act”. The NPDES regulations in 40 CFR §125.3 state that permits developed on a case-by-cases basis under Section 402(a)(1) of the CWA must consider (1) the appropriate technology for the category class of point sources of which the applicant is a member, based on available information, and (2) any unique factors relating to the applicant.

In December of 1979, EPA issued a Draft Development Document for Proposed Effluent Limitations Guidelines and Standards for The Shipbuilding and Repair Point Source Category. No final effluent guidelines have been issued for this point source category. The draft Development Document states in part:

The studies conducted by the Environmental Protection Agency (EPA) determined that the imposition of national industry-wide numerical limitations and standards is impractical at this time. This document therefore, provides guidance which recommends specific best management practices. Such management practices should be tailored to specific facilities. This determination shall in no way restrict the use numerical limitations in NPDES permits.

The best management practices identified in this document shall be guidance for the determination of best practicable control technology currently available [BPT], best available control technology economically achievable [BAT], and best available demonstrated control technology.

The Best Management Practices Document produced by MC, dated June 6, 2001, conforms to those BMPs recommended in the Draft Development Document. EPA has, therefore, made BPJ determination that the BMP Document produced by MC represents a level of pollution control that is both BCT and BAT for this applicant.

Best Management Practices focus on pollution prevention as a practical alternative to numerical limits and “end of pipe” treatment of contaminated water. Adherence to the BMPs serves to keep pollutants from reaching Boston Harbor. The BMP Document may require additional elements to address future operational changes. The Draft Permit stresses the responsibility of all the employees of MC to understand and carry out the intent of each of the BMPs. The BMP document accordingly contains elements for training, supervision and inspection.

The BMP document was prepared after an inspection of the facility by EPA and MC staff. EPA provided MC with guidance for the development of BMPs. The BMP document written by MC contains BMPs which collectively address all significant sources of pollutants likely to found in the drydock and piers.

MC shall be required to amend the BMP document as necessary to incorporate any changes to facility operations that may result in the discharge of pollutants not currently addressed in the permit. Additionally, the permittee is responsible for all necessary training of MC personnel and subcontractors adequate to insure that all BMPs are properly implemented.

The BRA shall be required to develop similar plans with 90 days of assuming complete operational of the facilities.

Fuel Tank on Pier 5

During a site visit by EPA and MADEP, an above ground fuel tank was identified on Pier 5. The tank was fenced off. Subsequent discussions with both BRA and MC determined that the contents of the tank were unknown. Neither party has been actively maintaining the tank. The draft permit requires BRA to inspect and determine the contents of the tank and report their findings within thirty days of the issuance of the draft permit. The report must indicate what measures will be taken to insure the integrity of the tank is maintained. This requirement is included in the draft permit based on BPJ.

V. Monitoring Frequency

The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308(a) of the CWA as required by 40 CFR 122.41 (j), 122.41 (j)(4), (5), 122.44 and 122.48.

VI. Essential Fish Habitat

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 the National Marine Fisheries Service (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" (EFH) as: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity," 16 U.S.C. § 1802(10). "Adverse 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 of 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.

EFH Species

The Boston Inner Harbor in the vicinity of the Ship Repair, Inc., drydock is designated essential fish habitat (EFH) for 21 species of finfish and mollusks.

Essential Fish Habitat Species in Boston Harbor, Massachusetts

Species	Eggs	Larvae	Juveniles	Adults	Spawning Adults
Atlantic cod (<i>Gadus morhua</i>)	S	S	M,S	M,S	S
haddock (<i>Melanogrammus aeglefinus</i>)	S	S			
pollock (<i>Pollachius virens</i>)	S	S	M,S		
whiting (<i>Merluccius bilinearis</i>)	S	S	M,S	M,S	
red hake (<i>Urophycis chuss</i>)		S	S	S	
white hake (<i>Urophycis tenuis</i>)	S	S	S	S	
winter flounder (<i>Pleuronectes americanus</i>)	M,S	M,S	M,S	M,S	M,S
yellowtail flounder (<i>Pleuronectes ferruginea</i>)	S	S	S	S	S
windowpane flounder (<i>Scophthalmus aquosus</i>)	M,S	M,S	M,S	M,S	M,S
American plaice (<i>Hippoglossoides platessoides</i>)	S	S	S	S	S
ocean pout (<i>Macrozoarces americanus</i>)			S	S	
Atlantic halibut (<i>Hippoglossus hippoglossus</i>)	S	S	S	S	S
Atlantic sea herring (<i>Clupea harengus</i>)		S	M,S	M,S	
bluefish (<i>Pomatomus saltatrix</i>)			M,S	M,S	
long finned squid (<i>Loligo pealei</i>)	n/a	n/a			
short finned squid (<i>Illex illecebrosus</i>)	n/a	n/a			
Atlantic butterfish (<i>Peprilus triacanthus</i>)	S	S			
Atlantic mackerel (<i>Scomber scombrus</i>)	M,S	M,S	M,S	M,S	
surf clam (<i>Spisula solidissima</i>)	n/a	n/a			
ocean quahog (<i>Artica islandica</i>)	n/a	n/a			
spiny dogfish (<i>Squalus acanthias</i>)	n/a	n/a			

10' x 10' latitude and longitude squares included in this bay or estuary or river (southeast corner boundaries): 4220/7100; 4210/7050; 4210/7100

Based on the amount and frequency of the discharges, as well as effluent limitations and other permit requirements identified in this Fact Sheet that are designed to be protective of all aquatic species, including those with designated EFH, EPA has determined that a formal EFH consultation with NMFS is not required because the proposed discharge will not adversely impact EFH.

VII. Antibacksliding

Anti-backsliding as defined at 40 CFR §122.44(l)(1) requires reissued permits to contain limitations as stringent or more stringent than those of the previous permit unless the circumstances allow application of one of the defined exceptions to this regulation. Anti-backsliding does not apply to these limits because this is a new permit.

VIII. Antidegradation

The Massachusetts Antidegradation Policy is found at Title 314 CMR 4.04. All existing uses of the Boston Harbor must be protected. The EPA anticipates that the MADEP shall make a determination that there shall be no significant adverse impacts to the receiving waters and no loss of existing uses as a result of the reissuance of this permit. The public is invited to participate in the anti-degradation finding through the permit public notice process.

The remaining general and special conditions of the permit are based on the NPDES regulations, 40 CFR Parts 122 through 125, and consist primarily of management requirements common to all permits.

IX. State Certification Requirements.

EPA may not issue a permit in the Commonwealth of Massachusetts unless the Massachusetts Department of Environmental Protection (MA DEP) 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 MA DEP has reviewed the draft permit. EPA has requested permit certification by the state pursuant to 40 CFR 124.53 and expects that the draft permit will be certified.

X. Coastal Zone Management (CZM) Consistency Review

40CFR §122.49 (d) states: *The Coastal Zone Management Act, 16 U.S.C. 1451 et seq. section 307(c) of the Act and implementing regulations (15 CFR part 930) prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State Coastal Zone Management program, and the State or its designated agency concurs with the certification (or the Secretary of Commerce overrides the State's nonconcurrency).*

The permittee has submitted a letter dated April 2, 2002, to the Massachusetts Coastal Zone Management Program stating their intention to abide by the CZM water quality and habitat policies. The CZM shall review the draft permit and it will only be issued after CZM certification.

XI. Comment Period and Procedures for Final Decisions.

All persons, including applicants, who believe any condition of the draft 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, Office of Ecosystem Protection, Mail Code CPE, One Congress Street, Suite-1100, Boston, Massachusetts 02114. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. Public hearings may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates a significant public interest. In reaching a final decision on the draft 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 a hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

XII. EPA Contact.

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

Douglas M. Corb
U.S. Environmental Protection Agency
Office of Ecosystem Protection
One Congress Street
Suite-1100 - CPE
Boston, MA 02114-2023
Telephone: (617) 918-1565
Facsimile: (617) 918-0565
e-mail: corb.doug@epa.gov

July 22, 2002
Date

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

* Please address comments to Doug Corb