DRAFT PERMIT MODIFICATION

AUTHORIZATION TO DISCHARGE UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, 33 U.S.C. §§1251 et seq., the "CWA",

Neptune LNG LLC

is authorized to discharge from the facility located at

Neptune Deepwater Port
Massachusetts Bay

to receiving water named

Massachusetts Bay

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit action modified the permit issued on June 6, 2008 which became effective on August 1, 2008.

This permit modification includes the entire permit, with the modified and unmodified permit conditions for convenience, and reflects the following changes: permit conditions have been revised to authorize the discharge of treated hydrostatic test water containing corrosion inhibitor at outfall 003 and effluent limits for outfall 003 have been revised to include effluent limits for corrosion inhibitor active ingredients. ***The revised language is in bold italics.***

This permit modification shall become effective on (**see below)

This permit modification does not affect the July 31, 2013 expiration date of the permit.

The authorization to discharge contained in this permit and permit modification shall be effective only during time periods when a National Oceanic and Atmospheric Administration Incidental Take Statement, which exempts the U.S. Environmental Protection Agency from the take prohibitions of the Endangered Species Act, is in effect for the Neptune LNG Deepwater Port.

This permit and permit modification consists of 8 pages in Part I including effluent limitations, and monitoring requirements, 25 pages in Part II including Standard Conditions, and 5 pages (including cover) in Attachment A, *Operational Monitoring Program for the Neptune Deepwater LNG Port, Massachusetts Bay Offshore Gloucester, MA.*

Signed this day of

_____

Stephen S. Perkins, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

** This permit modification will become effective on the date of signature if no comments are received during the public notice. If comments are received during public notice, the permit will become effective on the first day of the calendar month immediately following 30 days after signature.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Any regasification vessel, while moored at the deepwater port, must comply with this permit and this permit applies only when the regasification vessel is moored at the deepwater port.
2. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to **discharge pipe flushing and hydrostatic test water** from **outfall 003.** Discharge shall be limited and monitored by the permittee as specified below:

OUTFALL 003 – Latitude 42°27'21" Longitude 70°36'07"

Effluent Characteristic (units)	Discharge Limitations	Monitoring Requirements	
	Maximum	Measurement Frequency	Sample Type
Flow rate (gpm)[1]	2,101	Continuous	Estimate[2]
Total suspended solids (mg/l)	100	2/discharge	Grab
Chemical Oxygen Demand (mg/l)	***15***	***1/hour***	***Grab***
Sodium Bisulfite[3] (mg/l)	***11***	***1/hour***	***Grab***
Dissolved oxygen (mg/l)	***6.0 (minimum)***	***1/discharge***	***Grab***
pH range (s.u.)	***6.5 to 8.5***	***1/discharge***	***Grab***

[1] Total flow from Outfall 003 shall not exceed twice the total volume required to fill the pipeline lateral and flowline.

[2] The maximum flow rate, which is to be reported in units of gallons per minute (gpm), shall be either measured or estimated based upon the summation of the pump curve value(s) for all pumps operating and controlling the rate of flow.

[3] ***Sodium Bisulfite is the primary active ingredient in WFT 9371, the corrosion inhibitor authorized for use, treatment and discharge to maintain the integrity of the pipeline. No other additives are authorized for discharge.***

3. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to **discharge non-contact cooling water** from **outfall 04A or outfall 04B** during the commissioning of the deepwater port and regasification vessels for a **total of not more than 45 days for any individual vessel.** Discharge shall be limited and monitored by the permittee as specified below:

   OUTFALL 04A - Latitude 42°29'13" Longitude 70°36'30"

   OUTFALL 04B - Latitude 42°27'21" Longitude 70°36'07"

Effluent Characteristic (units)	Discharge Limitations	Monitoring Requirements	
	Maximum Daily	Measurement Frequency	Sample Type
Flow (MGD)	8.2[3]	Continuous	Estimate
Temperature Rise, ΔT (°C)[4]	8[5]	Continuous	Grab

[3] Flow rate shall not exceed 13,900 gallons per minute during any period.

[4]Temperature Rise (ΔT) is the difference between the discharge temperature and the intake temperature. The intake and discharge temperatures shall be continuously measured and recorded by instruments or computers (thermistors) which record a minimum of 12 times per hour. The intake temperature shall be monitored at the intake structure of each unit that is operating. The temperature rise shall be calculated as an hourly average, based on the hourly average intake temperature and the hourly average discharge temperature measured during the same hour.

[5] Maximum instantaneous temperature rise shall not exceed 10°C.

4. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to **withdraw cooling water from high and low sea chests** located on each regasification vessel as described in section I.B.1 of this permit. Cooling water withdrawal from each vessel moored at the deepwater port shall be limited and monitored by the permittee as specified below:

COOLING WATER INTAKE[6] AT HIGH AND LOW SEA CHESTS

	Intake Limitations	Monitoring Requirements	
Effluent Characteristic (units)	**Maximum Daily**	**Measurement Frequency**	**Sample Type**
Flow rate (gpm)	2.25 MGD[7,8]	Continuous	Estimate[2]

[6] Cooling water shall not be discharged while the regasification vessel is moored at the deepwater port.

[7] The total number of hours during which cooling water is withdrawn from both of the deepwater port's two buoys simultaneously shall not exceed 550 hours per year. Each year, the number of hours in that year during which cooling water was withdrawn from both of the deepwater port's two buoys simultaneously shall be reported in the annual report, as described in section I.C.1.

[8] During initial Neptune Deepwater Port and regasification vessel commissioning activities, cooling water intake shall be limited to 8.2 MGD for 45 days for each individual vessel in accordance with section I.A.3. At all other times, the maximum intake flow shall be limited to 2.25 MGD.

5. Total withdrawals of seawater through the cooling water intake structures while regasification vessels are moored at the deepwater port shall not exceed 873 million gallons in any calendar year. Each year, the total annual volume of seawater withdrawal through the cooling water intake structures shall be reported in the annual report, as described in section I.C.1.
6. The pH of the effluent shall be neither less than 6.5 nor greater than 8.5 at any time, nor changed more than 0.2 units outside of the naturally occurring variation.
7. The discharge shall not cause objectionable discoloration of the receiving waters.
8. The effluent shall not contain visible oil sheen, foam, or floating solids at any time.
9. Rainwater and oil from the utility areas that include power generation, boil-off gas compressor, emergency diesel generator, diesel tank, and diesel loading areas where there is a potential for the presence of petroleum hydrocarbons shall be collected in dedicated drip pans. Discharge of rainwater from the drip pans is prohibited.
10. At no time shall the filled pipeline be left open. Tie-in to the Hubline shall be accomplished in a manner to prevent water and sediments from entering the pipe.
11. The discharges shall not contain materials in concentrations or combinations which are hazardous or toxic to human health or aquatic life of the receiving surface waters.
12. Fluorescein dye may be utilized and discharged for the purpose of hydrostatic testing. The amount of dye used shall not exceed the amount required for the hydrostatic test, nor shall it exceed the dosage recommended by the manufacturer for this purpose.
13. Chemicals (e.g., disinfecting agents, detergents, emulsifiers, etc.) shall not be discharged into waters of the United States without prior approval by the U.S. Environmental Protection Agency (EPA).
14. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.
15. The permittee shall report the results of sampling for any parameter above its required frequency, in accordance with 40 CFR §122.41(l)(4)(ii).
16. The permittee shall notify EPA in writing within 20 days after any changes in the operations, including the use of chemical additives, at the facility that may have an effect on the permitted discharge of wastewater from the facility.
17. EPA may modify this permit in accordance with EPA regulations in 40 CFR §122.62 and §122.63 to incorporate more stringent effluent limitations, increase the frequency of analyses, or impose additional sampling and analytical requirements.
18. This permit shall be modified, or revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

a. contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or

b. controls any pollutant not limited by this permit.

If the permit is modified or reissued, it shall be revised to reflect all currently applicable requirements of the Act.

19. In addition to any other grounds specified herein, this permit shall be modified or revoked at any time if, on the basis of any new data, the director determines that continued discharge may cause unreasonable degradation of the marine environment.

20. The discharge shall comply with any applicable regulations, promulgated by the Secretary of the department in which the Coast Guard is operating, that establish specifications for safe transportation, handling, carriage, and storage of pollutants and which are then in effect.

21. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR §122.42):

    a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

        i. One hundred micrograms per liter (100 µg/l);

        ii. Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

        iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

        iv. The level established by the Director in accordance with 40 CFR §122.44(f).

    b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

        i. Five hundred micrograms per liter (500 µg/l);

        ii. One milligram per liter (1 mg/l) for antimony;

        iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

        iv. The level established by the Director in accordance with 40 CFR §122.44(f).

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

B. COOLING WATER INTAKE STRUCTURE

1. Shuttle and regasification vessels (SRVs) using the Neptune deepwater port shall be constructed, maintained and operated to ensure that:
    a. Each CWIS is located at least 20 feet below the surface of the water,
    b. cooling water intake systems (including the structure and associated intake pumps) maintain a controlled intake velocity no greater than 0.5 feet per second at all times.
    c. CWISs maintain screen slot openings no greater than 1 inch, and
    d. the SRVs use the closed-loop heat vaporization system to regasify LNG.
2. No regasification vessel that utilizes the Neptune deepwater port may vary from the criteria specified in paragraph I.B.1 above unless the permittee first applies for and obtains a permit modification under 40 C.F.R. § 122.62.

C. COOLING WATER INTAKE MONITORING

1. The permittee shall monitor the potential impact of water withdrawal in accordance with requirements in the monitoring program in Attachment A to this permit. For each calendar year, the permittee shall submit an annual report detailing the results of this monitoring effort no later than March 1 of the following year. This report shall also state the following information for the year: the number of hours in that year during which cooling water was withdrawn from both of the deepwater port's two buoys simultaneously, as described in section I.A.4 footnote 7; the total volume of sea water withdrawal through the cooling water intake structures, as described in section I.A.5; a narrative description of any malfunctions, operator or equipment failures, or unusual events, including natural events, that occurred during the year; for any such malfunction, failure, or unusual event, a detailed description of any unanticipated withdrawals or discharges to waters of the United States that may have occurred as a result of such event; and a description of how, if at all, the facility's operations (including number and duration of Port visits) differed from the plans stated in the FEIS and/or the NPDES permit application, and if so, why. Copies of this report shall be submitted to the address listed in paragraph I.D.3 below, to the following persons, and to such other persons as EPA may designate:

Phil Colarusso, Ocean & Coastal Unit
U.S. Environmental Protection Agency
One Congress Street (COP)
Boston, MA 02114-2023

Chris Boelke
National Marine Fisheries Service
1 Blackburn Drive
Gloucester, MA 01930

and

Leila Hatch
Stellwagen Bank National Marine Sanctuary Office
175 Edward Foster Road
Scituate, MA 02066

D. MONITORING AND REPORTING

1. The permittee shall notify the EPA, 48 hours prior to each regasification vessel's arrival at the port, by calling George Harding, EPA (617-918-1870) or Denny Dart (617-918-1850), or such other persons as EPA may designate. The permittee shall provide transportation for inspectors by appointment, as requested by EPA, from a coastal port location to, and from, the regasification vessel and/or deepwater port.
2. Monitoring results obtained during each calendar month for the monitoring required under Part I.A of this permit shall be summarized and reported on Discharge Monitoring Report Form(s) postmarked **no later than the 15th day of the following month.**
3. Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director at the following address:

Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND
ONE CONGRESS STREET
BOSTON, MA 02114-2023

STATEMENT OF BASIS

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

NPDES PERMIT No.: MA0040258

NAME AND ADDRESS OF PERMITTEE:

Neptune LNG LLC
1 Liberty Square, 10th Floor
Boston, MA 02109

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Neptune Deepwater Port
Outer Continental Shelf Blocks NK 19-04 6525 and NK 19-04 6575
Massachusetts Bay, North Atlantic Planning Area

RECEIVING WATER: Massachusetts Bay

DATE OF PUBLIC NOTICE: February 19, 2009

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1. PROPOSED ACTION, TYPE OF FACILITY AND DISCHARGE LOCATION

This action is a proposed modification to the NPDES permit issued to Neptune LNG LLC on June 6, 2008 and effective on August 1, 2008 (the current permit). The above named applicant has applied to the U.S. Environmental Protection Agency (EPA) for the issuance of a NPDES permit modification to discharge hydrostatic test water containing corrosion inhibitor from its new subsea pipeline which connects the Neptune LNG Deepwater Port with the existing Spectra HubLine.

The hydrostatic test water discharge is the result of the construction of a new offshore liquefied natural gas (LNG) terminal in federal waters of Massachusetts Bay. The new pipeline will facilitate the delivery of regasified liquefied natural gas (LNG) from the Northeast Port to onshore markets in New England. The discharge will be located at the site of the new deepwater port, located in federal waters in the eastern side of Massachusetts Bay in Office of Coast Survey (OCS) blocks NK 19-04 6525 and NL 19-04 6575, approximately 22 miles northeast of Boston in a water depth of approximately 260 feet.

2. LIMITATIONS AND CONDITIONS

Part I.A.1 of the current permit authorizes discharge of hydrostatic test ("hydrotest") water, with specified limits on flow, total suspended solids, and fluorescein dye. This permit modifies part I.A.1 to authorize the discharge of hydrostatic test water containing WFT 9371 corrosion inhibitor, following treatment to reduce toxicity.

All other conditions of the existing Permit, including effluent limitations and monitoring requirements, will remain unchanged.

3. DESCRIPTION OF PROPOSED ADDITIONAL DISCHARGE

On September 25, 2008, Neptune submitted an application for a proposed permit modification for the discharge of hydrotest water containing corrosion inhibitor from outfall 003.

On September 25, 2008 Neptune LNG LLC (Neptune) provided EPA with 90-day notification of their intention to discharge hydrotest water containing corrosion inhibitor from its subsea pipeline which will connect the Neptune Deepwater Port with Spectra's existing Hubline natural gas distribution pipeline. This discharge will be from outfall 003, located at the Neptune Deepwater Port site, and is a one-time, one day (24 hour) event. The new pipeline is approximately 10.9 miles long and 24-inches in diameter. The total volume of one pipe fill is approximately 1.35 million gallons.

The subsea pipeline was completed in September 2008 and will be idle until mid to late 2009 when the Neptune Deepwater Port construction is completed. The original plan, and the basis for the current permit, was to fill the pipeline with gaseous nitrogen for this 10 to 12 month idle time. However, upon further engineering evaluation by Neptune contractors, it was determined that nitrogen alone would not eliminate microbial anaerobic corrosion. To protect the integrity of the pipeline, Neptune has filled the pipeline with a bacterial growth inhibitor solution to prevent any corrosion in the line.

Neptune proposes to remove the solution from the pipeline, treat it to reduce inhibitor concentrations to very low levels, and discharge the treated solution into Massachusetts Bay.

Attachment A provides a process schematic for the removal and treatment of the corrosion inhibitor solution, showing the filtration and liquid phase carbon adsorption processes. Following the treatment processes shown on Attachment A, effluent with be aerated prior to discharge.

The corrosion inhibitor solution is a proprietary aqueous solution of a metal passivating corrosion inhibitor, oxygen scavenger and bactericide. The product (brand name Weatherford WFT 9371) is specifically formulated as a one-step chemical treatment for hydrostatic testing and mothballing operations of subsea natural gas pipelines. The primary ingredient (14 to 40%) is sodium bisulfite. WFT also contains an oxygen scavenger which will be treated prior to discharge via aeration.[1]

4. PERMIT MODIFICATION BASIS: STATUTORY AND REGULATORY AUTHORITY

4.1 Permit Requirements, Generally

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without authorization by a National Pollutant Discharge Elimination System (NPDES) permit, unless the discharge is otherwise authorized by the CWA. Technology-based and water quality-based effluent limitations and other requirements, including monitoring and reporting, are typically implemented by including them in NPDES permits issued to specific facilities. *See* 33 U.S.C. §§ 1311(a) and (b), 1313, 1318(a), 1326(b), 1341, 1342, 1343. The draft NPDES permit modification here was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA. The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136. For this permit, EPA considered technology-based and water quality-based requirements under the CWA and other applicable statutes. In addition, EPA considered any requirements that might arise out of any applicable statutes in addition to the CWA.

4.2 Technology Based Requirements

Technology-based effluent limits represent the minimum level of pollutant discharge control that dischargers must achieve under the CWA. The CWA requires that different types of pollutant discharges be controlled to levels that reflect the capability of certain technological measures. These technology standards vary depending on the type of pollutant and facility in question. *See* 33 U.S.C. §§ 1311(b), 1314, 1316; 40 C.F.R. § 125.3. Sections 301(b) and 306 of the CWA and 40 CFR Part 125 Subpart A require that pollutant discharges be reduced to a level equivalent to using the best practicable control technology currently available (BPT), best conventional control technology (BCT) for conventional pollutants, the best available technology economically available (BAT) for toxics and non-conventional pollutants, and the best available demonstrated control technology (BADCT) for discharges from "new sources," as defined under the CWA. *See* 33 U.S.C. §§ 1316(a); 40 C.F.R. §§ 122.2, 122.29. BAT limits are also supposed to "result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants." 33 U.S.C. § 1311(b)(2)(A). These technology-based requirements are then to be reflected in NPDES permits issued to specific facilities. *See* 33 U.S.C. §§ 1311, 1316, 1342(a); 40 C.F.R. §§ 122.29, 125.3. Any applicable new source performance standards must be met when the new source commences operations. *See* 40 C.F.R. § 122.29(d)(4) and (5). Compliance

[1] The full ingredient list of WFT 9371 is proprietary information. The Material Safety Data Sheet for WFT 9371 lists only sodium bisulfite, the sole active ingredient.

schedules and deadlines not in accordance with the statutory deadlines of the CWA cannot be authorized by a NPDES permit.

EPA regulations found at 40 C.F.R. Part 125, Subpart A, set forth procedures, standards and criteria for the development and imposition of technology-based requirements in NPDES permits under Section 301(b) of the CWA, including the application of EPA-promulgated National Effluent Guidelines (NEGs) (i.e., technology-based effluent limitations developed for entire industrial categories which are then applied to specific facilities through NPDES permits) and, when no relevant NEGs are in effect, the development of case-by-case, Best Professional Judgment (BPJ) determinations of technology-based discharge limits under Section 402(a)(1) of the CWA. *See* 40 C.F.R. § 125.3. EPA has not promulgated technology-based NEGs for pollutant discharges from LNG deepwater ports or any other type of deepwater port. In addition, EPA has not promulgated any new source performance standards for deepwater ports. Therefore, all technology-based effluent limits for the Port's NPDES permit have been developed on a case-by-case, BPJ basis, as discussed further below.

4.3 Ocean Discharge Criteria Under CWA § 403

Point source pollutant discharges to marine waters are subject to the Ocean Discharge Criteria (ODC) under Section 403 of the Clean Water Act (CWA). 33 U.S.C. § 1343. The ODC apply to NPDES permits for pollutant discharges into the territorial seas, the contiguous zone and the ocean. EPA has promulgated guidelines for regulating discharges to satisfy CWA section 403 and give effect to the ODC. *See* 40 C.F.R. Part 125, Subpart M.

EPA conducts an Ocean Discharge Criteria Evaluation (ODCE) using the guidelines in 40 C.F.R. Part 125, Subpart M to determine whether and the extent that the discharge will cause degradation of the marine environment. 40 C.F.R. 125.122(a). EPA may not issue an NPDES permit to authorize any pollutant discharge that the Agency determines will cause "unreasonable degradation of the marine environment." 40 C.F.R. 125.123(b). The ODC defines "unreasonable degradation of the marine environment" to mean:

- Significant adverse changes in ecosystem diversity, productivity, and stability of the biological community within the area of discharge and surrounding biological communities;
- Threat to human health through direct exposure to pollutants or through consumption of exposed aquatic organisms; or
- Loss of aesthetic, recreational, scientific or economic values which is unreasonable in relation to the benefit derived from the discharge.

See 40 C.F.R. 125.121(e). CWA Section 403(c) guidelines require that a number of factors be considered in the determination of degradation. These factors include the amount and nature of the pollutants, the potential transport of the pollutants, the character and uses of the receiving water and its biological communities, the impacts on recreational and commercial fishing, the existence of special aquatic sites (including parks, refuges, etc.), any applicable requirements of an approved Coastal Zone Management plan, marine water quality criteria developed by EPA pursuant to CWA Section 304(a)(1), and potential impacts on water quality, ecological health and human health.[2] See CWA 403(c)(1), 33 U.S.C. § 1343(c)(1); 40 C.F.R. § 125.122(a). EPA

[2] The EPA National Recommended Water Quality Criteria, 2006, contain applicable water quality criteria for marine discharges.

may include limits in NPDES permits in order to ensure that discharges will not result in unreasonable degradation of the marine environment and, as stated above, discharges that would cause such unreasonable degradation may not be permitted (40 C.F.R. §§ 125.123(a) and (b)). If EPA has insufficient information to determine prior to permit issuance that there will be no unreasonable degradation of the marine environment, the Agency may not issue the permit unless, among other requirements, it finds that such discharge will not cause irreparable harm (40 C.F.R. § 125.123(c)).

EPA finds that the discharge of hydrotest water treated to remove corrosion inhibitor toxicity will not cause unreasonable degradation or cause irreparable harm to the marine environment.

5. DERIVATION OF EFFLUENT LIMITS

As noted above, Neptune proposes to remove the WFT solution from the pipeline, treat it through filtration and liquid phase carbon adsorption to reduce inhibitor concentrations to very low levels, and discharge the treated solution into Massachusetts Bay. Attachment 1 provides a process schematic for the removal and treatment of the corrosion inhibitor solution.

5.1 Sodium bisulfite

In its permit modification application, Neptune has proposed an effluent limit of 11 mg/l sodium bisulfite, based on what the proposed treatment technology (filtration and liquid phase carbon adsorption) can achieve. EPA is unaware of any superior technology available for use in a shipboard biocide treatment system, or of superior results available with the proposed treatment technology. Consequently, based on the information available at this time, EPA finds that an effluent limit of 11 mg/l for sodium bisulfite reflects Best Available Technology.[3]

EPA also conducted an Ocean Discharge Criteria Evaluation for this effluent. At the proposed effluent limit of 11 mg/l sodium bisulfite, the toxicity to marine organisms would be low. This sodium bisulfite concentration, equates to a WFT 9371 concentration of 75 mg/l or less which was the NOEC test data result for WFT 9371.[4] At this concentration, the discharge would be equivalent to approximately 6% of the LC50[5] concentration for WFT 9371. Based on a review of the toxicity data provided in the application, EPA agrees with the permittee that the discharge of wastewater with a concentration of no more than 11 mg/l sodium bisulfite will not cause unreasonable degradation to the marine environment.

5.2 Chemical Oxygen Demand

In its permit modification application, Neptune has proposed to treat the oxygen scavenger via aeration to ensure that discharged water has adequate dissolved oxygen to maintain aquatic life. Neptune has proposed a carbonaceous oxygen demand (COD) effluent limit of 15 mg/L to ensure the aeration treatment has been effective. Using best professional judgment, EPA agrees

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[3] A mass-based limit is not required under 40 C.F.R. §§ 122.45(e)-(f) because Part I.A.2 footnote 1 limits the total flow from Outfall 003 (over the lifetime of the permit) to twice the total volume required to fill the pipeline lateral and flowline.

[4] NOEC is the No Observable Effluent Concentration and is defined as the greatest effluent concentration which does not result in lethality that is statistically different from the control (0% effluent) at the 95% confidence level.

[5] LC50 (Lethal Concentration 50 Percent) is the concentration of wastewater (effluent) causing mortality to 50 percent (%) of the test organisms.

that a technology based limit of 15 mg/L reflects best available technology for shipboard aeration systems at this time.

EPA finds that the technology-based limit for COD of 15 mg/L in conjunction with a requirement to maintain dissolved oxygen concentrations at levels equal to or greater than 6 mg/L (see below) will not cause unreasonable degradation of oxygen levels in the marine environment.

5.3 Dissolved Oxygen

To ensure adequate removal of the oxygen scavenger, the draft permit modification provides a dissolved oxygen effluent limit at outfall 003 of no less than 6.0 mg/L. The dissolved oxygen limit is consistent with the dissolved oxygen water quality standard for nearby Massachusetts class SA waters and greater than the marine aquatic life chronic and episodic exposure criteria developed by EPA[6]. EPA finds that the dissolved oxygen effluent limit in combination with the effluent limit for COD will not cause unreasonable degradation of oxygen levels in the marine environment.

5.4 pH

Part I.A.6 of the June 6, 2008 final permit provided that "[t]he pH of the effluent shall be neither less than 6.5 nor greater than 8.5 at any time, nor changed more than 0.2 units outside of the naturally occurring variation." For clarity and convenience, the draft permit modification includes a new row in the table in Part I.A.2 specifying that the effluent pH must remain within 6.5-8.5 standard units, and also providing for monitoring. Part I.A.6 (including its requirement that the effluent pH not be changed more than 0.2 units outside of the naturally occurring variation) continues to apply to Outfall 003 as well as to all other outfalls.

5.5 Other Effluents

All other effluent limits and monitoring requirements for outfall 003 are consistent with the June 6, 2008 final permit. No other additives besides WFT 9371 are authorized to be discharged.

6. 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., federal agencies are required to consult with the National Marine Fisheries Service (NMFS) with respect to an action or proposed action "that may adversely impact any essential fish habitat." 16 U.S.C. § 1855(b)(2). Essential fish habitat (EHF) means "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 of 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.

Essential fish habitat is only designated for fish species for which federal Fisheries Management Plans exist. EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999. A listing of the essential fish habitat designations for the 10

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[6] United States Environmental Protection Agency (USEPA). 2000b. Ambient Aquatic Life Water Quality Criteria for Dissolved Oxygen (Saltwater): Cape Cod to Cape Hatteras. November 2000. USEPA, Office of Water. EPA-822-R-00-012. 55 p.

minute by 10 minute square coordinates containing the discharge locations for Outfall 003 is provided in Attachment B.

During the EIS process for the existing permit, NOAA conducted a formal EFH consultation with the federal agencies issuing licenses or permits for the Neptune Deepwater Port, including EPA. However, the corrosion inhibitor discharge that this permit modification proposes to authorize was not included in the EFH review conducted by NOAA during the EIS process.

Based on the information available, EPA is not aware of any evidence suggesting that the discharge would adversely impact essential fish habitat. A copy of the draft permit modification has been provided to NOAA for review and comment.

7. ENDANGERED SPECIES ACT

Section 7(a) of the Endangered Species Act of 1973, as amended (ESA) imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants ("listed species") and habitat of such species that has been designated as critical (a "critical habitat"). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of the Interior or Commerce, as appropriate, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish & Wildlife Service (USFWS) administers Section 7 consultations for freshwater species. The National Oceanic and Atmospheric Administration (NOAA) administers Section 7 consultations for marine species and anadromous fish.

The following listed species are known to inhabit (seasonally) the Massachusetts Bay in the area of the proposed discharge: North Atlantic right whale, blue whale, humpback whale, fin whale, sei whale, Kemp's ridley sea turtle, leatherback sea turtle, loggerhead sea turtle, hawksbill sea turtle and green sea turtle.

On January 12, 2007, NOAA issued a Biological Opinion under Section 7 of the ESA concluding that deepwater port project would neither likely jeopardize the continued existence of any listed species nor affect any designated critical habitat. However, the corrosion inhibitor discharge that this permit modification proposes to authorize was not included in the ESA review conducted by NOAA.

Based on the information available, EPA is not aware of any evidence suggesting that the discharge will affect any listed species. A copy of the draft permit modification has been provided to NOAA for review and comment.

8. NATIONAL MARINE SANCTUARIES ACT (NMSA)

The Stellwagen Bank National Marine Sanctuary (SBNMS) was designated in 1992 and encompasses approximately 842 square miles in the Gulf of Maine and overlapping the eastern edge of Massachusetts Bay. The Neptune Port is located 1 to 2 nautical miles from the western edge of the SBNMS. In light of this proximity, the Federal agencies issuing permits or licenses for the proposed Neptune Port consulted with NOAA under Section 304(d) of the NMSA, 16 U.S.C. § 1434(d), regarding the potential effects of the Port on the resources of the SBNMS. This consultation was conducted in connection with the National Environmental Policy Act (NEPA) review of the federal actions necessary to authorize the proposed Port. As with the NEPA and Endangered Species Act (ESA) reviews, the United States Maritime Administration (MARAD) and the United States Coast Guard (USCG) were the lead agencies for the NMSA consultation.

As part of the consultation, NOAA's National Marine Sanctuaries Program (NMSP) recommended "reasonable and prudent alternatives" for the federal action agencies to pursue in order to protect sanctuary resources. However, the corrosion inhibitor discharge that this permit modification proposes to authorize was not included in the NMSA review conducted by NOAA.

Based on the information available, EPA is not aware of any evidence suggesting that the discharge will destroy, cause the loss of, or injure any sanctuary resource. A copy of the draft permit has been provided to NOAA for review and comment.

9. NATIONAL ENVIRONMENTAL POLICY ACT

Section 511(c)(1) of the Clean Water Act (CWA), 33 U.S.C. § 1371(c)(1), expressly provides that EPA issuance of an NPDES permit under CWA § 402, 33 U.S.C. § 1341, to a facility that is a "new source" under CWA § 306, 33 U.S.C. § 1316, is one of only two types of EPA actions under the CWA that are subject to review under the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4321, et seq. Where such an action is determined to be a major federal action significantly affecting the quality of the human environment, NEPA requires that the federal agency, or agencies, proposing major federal actions significantly affecting the quality of the human environment first complete an "environmental impact statement" (EIS) evaluating the proposed action, reasonable alternatives to it and the environmental effects of the proposed and alternative actions. See 40 C.F.R. Part 1502. EPA regulations at 40 C.F.R. Part 6, Subparts A, B, D, and F also address the preparation of EISs in conjunction with EPA proposals to issue NPDES permits to new sources.

The Deepwater Port Act (DPA), 33 U.S.C. §§ 1501 et seq., specifies that deepwater ports shall be considered "new sources" under the CWA. See 33 U.S.C. § 1502(9)(D). As a result, by operation of the DPA, NEPA applies to EPA's proposal to issue an NDPES permit to the NEPTUNE deepwater port.

The DPA also specifies that for DPA *license applications*, the Secretary of Transportation shall comply with NEPA, and that "[s]uch compliance shall fulfill the requirement of all Federal agencies in carrying out their responsibilities under the National Environmental Policy Act pursuant to this Act." 33 U.S.C. § 1504(f). Consistent with this provision of the DPA, in conjunction with Neptune's DPA license application NPDES permit application, the United States Coast Guard (USCG) and the United States Maritime Administration (MARAD) served as lead agencies preparing an EIS to satisfy NEPA, and EPA (and other agencies) cooperated with the USCG and MARAD in the preparation of the EIS. Also consistent with the DPA, that EIS satisfied EPA's NEPA obligations with respect to issuance of the June 6, 2008 NPDES permit.

However, this permit modification is not being considered in conjunction with a DPA license application. Therefore, EPA is responsible for fulfilling any NEPA obligations associated with issuance of a permit modification to a "new source" as defined by the CWA.

The final EIS did not discuss discharge of sodium bisulfite or chemical oxygen demand in the hydrostatic test water because, during the DPA license application process, the permittee had not proposed such a discharge. Consequently, EPA has evaluated this discharge under NEPA and prepared a Supplemental Information Report (SIR), which is in the administrative record for this draft permit modification. As explained more fully therein, the SIR concludes that the discharge (as limited by the NPDES permit modification) does not trigger any further NEPA process beyond the SIR itself.

10. PUBLIC COMMENT PERIOD AND PROCEDURE FOR FINAL DECISION

As part of the modification procedure, EPA is now taking public comment on the proposed modification. If no comments opposing the draft Permit Modification are submitted, or if EPA determines that any comments do not warrant changes or warrant only minor changes, EPA will issue the Permit Modification in final form. The Permit, as modified, will thereafter take effect.

In federal waters EPA operates the NPDES permitting program and issues permits that satisfy the requirements of federal law.

All persons, including applicants, who believe any condition of the draft Permit Modification 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 Ellen Weitzler, U.S. EPA, Office of Ecosystem Protection, One Congress Street, Suite 1100 (CWQ), Boston, Massachusetts 02114-2023. EPA is only taking public comment on the parts of the Permit proposed to be modified. Since the rest of the Permit is not being reopened at this time, EPA is not taking public comment on any other parts of the Permit.

Any person, prior to the close of the public comment period, may submit a request in writing for a public hearing to consider the draft Permit Modification to EPA. 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. No public hearing has been scheduled at this time. In reaching a final decision on the Permit Modification, 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 modification decision and forward a copy of the final decision to the permittee and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit modification decision, any interested party may file an appeal to contest the final decision. Procedures for filing an appeal will be explained when the final Permit Modification is issued.

11. EPA CONTACT

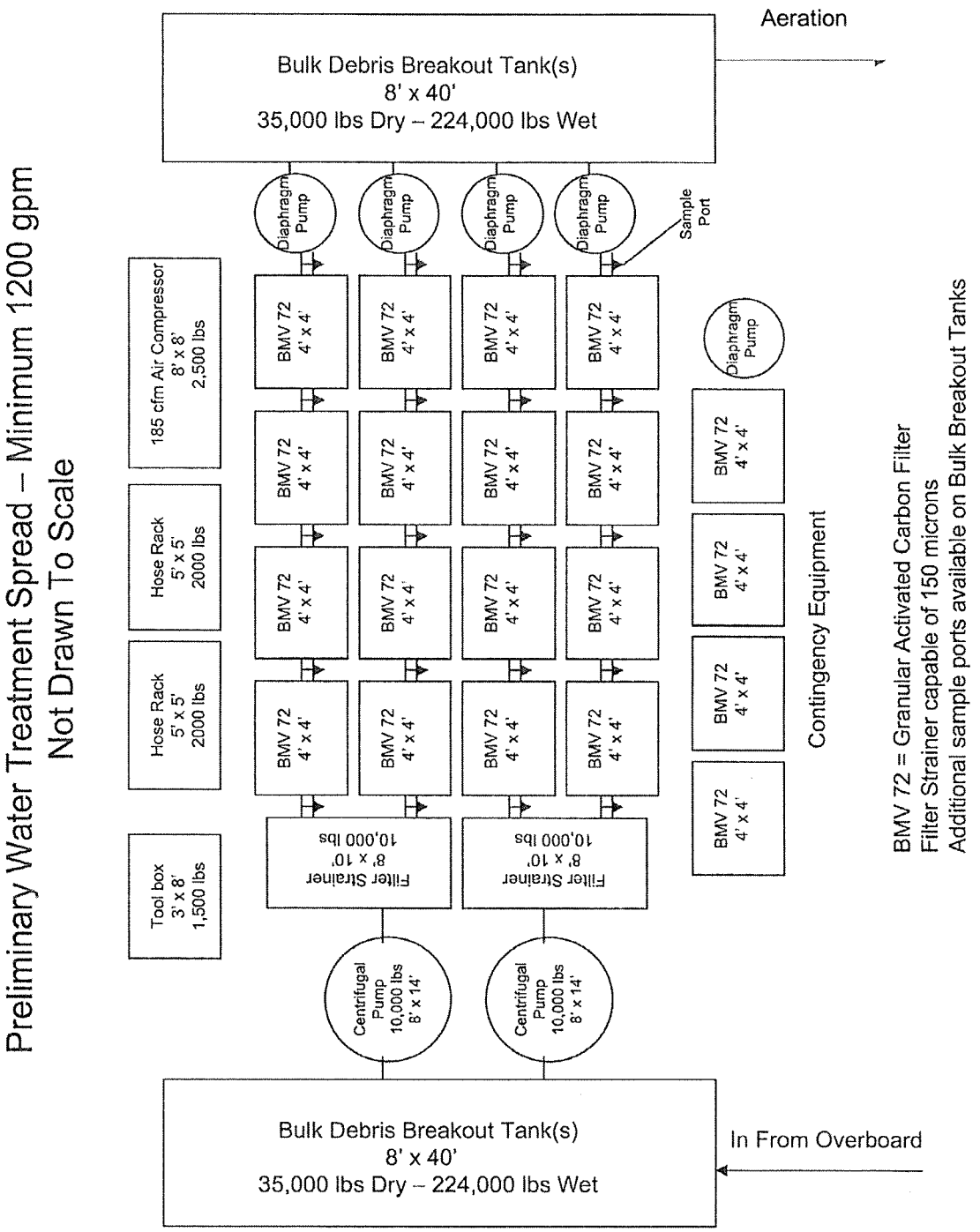
Additional information concerning the draft permit modification may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Ms. Ellen Weitzler
Office of Ecosystem Protection
U.S. Environmental Protection Agency
1 Congress Street, Suite 1100 (CWQ)
Boston MA 02114-2023
Tel: (617)918-1582
weitzler.ellen@epa.gov

2/13/09.
Date

Stephen S. Perkins, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency, Boston, MA

ATTACHMENT A



ATTACHMENT B

Summary of Essential Fish Habitat (EFH) Designation

Neptune LNG Deepwater Port - 10' x 10' Square Coordinates:

Boundary	North	East	South	West
Coordinate	42° 30.0' N	70° 30.0' W	42° 20.0' N	70° 40.0' W

Square Description (i.e. habitat, landmarks, coastline markers): Waters within the Atlantic Ocean within Massachusetts Bay within the square one square northeast of Scituate, MA. and Cohasset, MA., and three squares east of Boston, MA. There are three overlapping dump sites within this square, two of which are for dredged material, and one of which is a discontinued site that had industrial wastes dumped in it, all of which are approximately in the middle of the square. Also, on the southwest corner, part of the Boston Harbor Shipping Traffic Lane is affected.

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod *(Gadus morhua)*	X	X	X	X
haddock *(Melanogrammus aeglefinus)*	X		X	
pollock *(Pollachius virens)*				
whiting *(Merluccius bilinearis)*	X	X	X	X
offshore hake *(Merluccius albidus)*				
red hake *(Urophycis chuss)*	X	X	X	X
white hake *(Urophycis tenuis)*	X	X	X	X
redfish *(Sebastes fasciatus)*	n/a	X	X	X
witch flounder *(Glyptocephalus cynoglossus)*	X	X	X	X
winter flounder *(Pleuronectes americanus)*	X	X	X	X
yellowtail flounder *(Pleuronectes ferruginea)*	X	X	X	X
windowpane flounder *(Scopthalmus aquosus)*	X	X		
American plaice *(Hippoglossoides platessoides)*	X	X	X	X
ocean pout *(Macrozoarces americanus)*	X	X	X	X
Atlantic halibut *(Hippoglossus hippoglossus)*	X	X	X	X
Atlantic sea scallop *(Placopecten magellanicus)*	X	X	X	X
Atlantic sea herring *(Clupea harengus)*		X	X	X
monkfish *(Lophius americanus)*	X	X	X	X
bluefish *(Pomatomus saltatrix)*				
long finned squid *(Loligo pealei)*	n/a	n/a	X	X
short finned squid *(Illex illecebrosus)*	n/a	n/a	X	X
Atlantic butterfish *(Peprilus triacanthus)*	X	X	X	X
Atlantic mackerel *(Scomber scombrus)*	X	X	X	X
summer flounder *(Paralicthys dentatus)*				
scup *(Stenotomus chrysops)*	n/a	n/a		
black sea bass *(Centropristus striata)*	n/a			
surf clam *(Spisula solidissima)*	n/a	n/a		
ocean quahog *(Artica islandica)*	n/a	n/a		
spiny dogfish *(Squalus acanthias)*	n/a	n/a		
tilefish *(Lopholatilus chamaeleonticeps)*				
bluefin tuna *(Thunnus thynnus)*			X	X

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
OFFICE OF ECOSYSTEM PROTECTION
REGION I
BOSTON, MASSACHUSETTS 02114

PUBLIC NOTICE OF A DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT MODIFICATION TO DISCHARGE INTO THE WATERS OF THE UNITED STATES UNDER SECTION 301 AND 402 OF THE CLEAN WATER ACT (THE "ACT"), AS AMENDED.

DATE OF NOTICE: February 19, 2009

PERMIT NUMBER: MA0040258

NAME AND MAILING ADDRESS OF APPLICANT:

Mr. Juan M. Restrepo
Neptune Deepwater Port
One Liberty Square, 10th Floor
Boston, MA 02109

NAME AND ADDRESS OF THE FACILITY WHERE DISCHARGE OCCURS:

Massachusetts Bay, Federal Waters

RECEIVING WATER: Massachusetts Bay

PREPARATION OF THE DRAFT PERMIT MODIFICATION:

The U.S. Environmental Protection Agency, (EPA) has developed a permit modification for the above identified facility. The effluent limits and permit conditions imposed have been drafted to assure that the provisions of the Clean Water Act will be met.

INFORMATION ABOUT THE DRAFT PERMIT MODIFICATION:

The draft permit modification is in regards to the construction related discharge of treated hydrostatic test water containing corrosion inhibitor from its new subsea pipeline which connects the Neptune LNG Deepwater Port with the existing Spectra HubLine.

A fact sheet or a statement of basis (describing the type of facility; type and quantities of wastes; a brief summary of the basis for the draft permit modification conditions; and significant factual, legal and policy questions considered in preparing this draft permit modification) and the draft permit modification may be obtained at no cost at http://www.epa.gov/region1/npdes/offshorelng/index.html or by writing or calling EPA's contact person named below:

Ellen Weitzler
US EPA
1 Congress Street, Suite 1100 (CWQ)
Boston, MA 02114-2023
Telephone: (617) 918-1582

The administrative record containing all documents relating to this draft permit modification is

on file and may be inspected at the EPA Boston office mentioned above between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

All persons, including applicants, who believe any condition of this draft permit modification is inappropriate, must raise all issues and submit all available arguments and all supporting material for their arguments in full by **March 20, 2009**, to the U.S. EPA, 1 Congress Street, Suite 1100, Boston, Massachusetts 02114-2023. Any person, prior to such date, may submit a request in writing to EPA and the State Agency for a public hearing to consider this draft permit modification. 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 this draft permit modification the Regional Administrator will respond to all significant comments and make the responses available to the public at EPA's Boston office.

FINAL PERMIT DECISION:

Following the close of the comment period, the Regional Administrator will issue a final permit modification decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

Stephen S. Perkins, Director
OFFICE OF ECOSYSTEM PROTECTION
ENVIRONMENTAL PROTECTION AGENCY