

**APPENDIX 5**

**Suggested Form for Notice of Intent (NOI) for the Noncontact Cooling Water General Permit**  
 1. General facility information. Please provide the following information about the facility.

a) Name of facility: <u>UNION WHARF CONDO TRUST</u>		Type of Business: <u>Residential and Office</u>
Facility Location Address: <u>343 Commercial St. Boston, MA 02109</u> longitude: <u>see attached</u> latitude: <u>71 03 03</u>	Facility SIC codes: <u>6722</u> <u>7311</u>	Facility Mailing Address (if not location address) <u>SAME</u>
b) Name of facility owner: <u>see above</u>		Email address of owner: <u>UNIONWHARFMANAGEMENT@GMAIL.COM</u>
Owner's Tel #: <u>617-742-1647</u>	Owner is (check one): 1. Federal _____ 2. State _____ 3. Tribal _____	
Owner's Fax #: <u>617-740-0456</u>	4. Private <input checked="" type="checkbox"/> 5. Other _____ (Describe)	
Address of owner (if different from facility address) <u>SAME</u>		
Legal name of Operator, if not owner: <u>SEE ABOVE</u>		
Operator Contact Name: <u>DAN FLAHERY</u>		
Operator Tel Number: <u>see above</u>		Fax Number: _____
Operator's email: _____		
Operator Address (if different from owner) _____		
d) Attach topographic map indicating the locations of the facility and the receiving water; all NCCW discharge points; upstream and downstream monitoring points. Map attached? <u>yes</u>		
e) Check Yes or No for the following:		
1. Has a prior NPDES permit been granted for the discharge? Yes <input checked="" type="checkbox"/> No _____ If Yes, Permit Number: <u>FUED 1996 / never</u>		
2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes _____ No <input checked="" type="checkbox"/> If Yes, Permit Number: <u>UP001</u>		
3. Is the facility covered by an individual NPDES permit? Yes <input checked="" type="checkbox"/> No _____ If Yes, Permit Number: _____		
4. Is there a pending application on file with EPA for this discharge? Yes <input checked="" type="checkbox"/> No _____ If Yes, date of submittal: <u>(see attached)</u>		

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)

a) Name of receiving water into which discharge will occur: BOSTON HARBOR Marine Water: BOSTON HARBOR  
State Water Quality Classification: \_\_\_\_\_ Freshwater: \_\_\_\_\_

b) Describe the discharge activities for which the owner/applicant is seeking coverage: 100 gpd non-contact cooling water

c) FOR MASSACHUSETTS FACILITIES ONLY: Engineering Calculations: Submit the completed engineering calculation of the surface water temperature rise as shown in Attachment A of the General Permit. Check if attached:

d) Number of outfalls 1 discharge. See attached Summary of Operations

For each outfall:

e) What is the maximum daily and average monthly flow of the discharge? Note that EPA will use the flow reported here as the facility's permitted effluent flow limit. Max Daily Flow 1100 GPD Average Flow 100 GPD Average Temp. 58° F

f) What is the maximum daily and average monthly temperature of the discharge (in degrees F)? Max Temp. 68° Average Temp. 58°

g) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 6.775 Min pH \_\_\_\_\_ } see Attached

h) FOR MASSACHUSETTS FACILITIES ONLY: Is the source water of the NCCW potable water? Yes \_\_\_\_\_ No X If Yes, EPA will calculate the Total Residual Chlorine limit for facilities located in Massachusetts.

i) Is the discharge continuous? Yes \_\_\_\_\_ No ✓ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) \_\_\_\_\_  
If (P), number of days or months per year of the discharge 0 and the specific months of discharge May to November;  
If (I), number of days/year there is a discharge \_\_\_\_\_  
-71° 03' 03" lat. 42° 21' 59" long. outfall 1: long. \_\_\_\_\_ lat. \_\_\_\_\_  
outfall 2: long. \_\_\_\_\_ lat. \_\_\_\_\_  
outfall 3: long. \_\_\_\_\_ lat. \_\_\_\_\_ (See [http://www.epa.gov/tri/report/siting\\_tool](http://www.epa.gov/tri/report/siting_tool)) SEE ATTACHED

j) Latitude and longitude of each discharge within 100 feet: outfall 1: long. \_\_\_\_\_ lat. \_\_\_\_\_ cfs  
outfall 2: long. \_\_\_\_\_ lat. \_\_\_\_\_ cfs  
outfall 3: long. \_\_\_\_\_ lat. \_\_\_\_\_ cfs

k) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water \_\_\_\_\_ cfs  
Please attach any calculation sheets used to support stream flow and dilution calculations. See General Permit Attachment B for equations and additional information.

MASSACHUSETTS FACILITIES: See Part 3.4 and Appendix 1 of the General Permit for more information on ACEC.  
Areas of Critical Environmental Concern (ACEC): Does the discharge occur in an ACEC? Yes \_\_\_\_\_ No X  
If yes, provide the name of the ACEC: \_\_\_\_\_

3. NCCW Source Water Information. Please provide information about the NCCW source water, using separate sheets as necessary:

a) Indicate source of the NCCW (i.e., municipal water supply, private well, surface water withdrawal, groundwater):  
 Source: BOSTON INNER HARBOUR  
 Name of Source Water: \_\_\_\_\_  
 \_\_\_\_\_  
 Is the source registered/permitted under MA Water Management Act or NHDES Water User Registration Rule (Env Wq 2202)?  
 Yes \_\_\_\_\_ No \_\_\_\_\_  
 If yes, registration number: \_\_\_\_\_

b) If source water is surface water:  
 i) Is it a freshwater river or stream Yes \_\_\_\_\_ No X  
 ii) Is it a lake? \_\_\_\_\_ reservoir? \_\_\_\_\_  
 iii) Is it tidal river? \_\_\_\_\_ estuary? \_\_\_\_\_ ocean? \_\_\_\_\_  
 c) Is the source water groundwater? Yes \_\_\_\_\_ No X If yes, see Appendix 8 and submit effluent and surface water test results, as required in Part 5.4 of the General Permit.  
 d) Does the facility use both a primary and backup source of noncontact cooling water?  
 Yes \_\_\_\_\_ No X  
 If yes, attach information that identifies and explains the primary and backup sources of noncontact cooling water for and how often the backup supply was used in last three years.

4. Best Technology Available for CWIS See attached Original Application  
 Are you subject to BTA requirements at Part 4.2 of the General Permit? (Facility's discharge is covered by this General Permit and the facility withdraws noncontact cooling water from surface source water). Yes \_\_\_\_\_ No \_\_\_\_\_  
 If No, explain:

If YES, attach the facility-specific BTA description as required in Part 4.3 of the General Permit. For additional information and guidance, see Questions 13-23 of the NCCW Fact Sheet, posted at <http://www.epa.gov/region1/npdes/nccwgp.html>. Provide a map showing the location of each CWIS intake structure; NCCW outfall(s) and any CWIS feature referred to in the BTA description.

Include in your description:  
 \_\_\_\_\_ Measures to meet the General Permit Part 4.3.a general BTA requirements, including documentation that describes the facility's monitoring program for impinged fish and/or invertebrate; or the required alternative monitoring plan frequency and/or protocol  
 \_\_\_\_\_ A characterization of the source water body's aquatic life habitat in the vicinity of each CWIS during the seasons when the CWIS may be in use  
 \_\_\_\_\_ The attributes of the current CWIS  
 \_\_\_\_\_ Design measures of the CWIS  
 \_\_\_\_\_ Operation measures of the CWIS  
 \_\_\_\_\_ Historical occurrence of impinged fish for the past five years  
 \_\_\_\_\_ If applicable, a demonstration that the facility's intake rate is commensurate with a closed-cycle recirculation system  
 \_\_\_\_\_ Other components to reduce impingement and/or entrainment of aquatic life

4. BTA FOR CWIS CONTINUED: *See attached Original Application*

Provide the following information for each CWIS to support your attached facility-specific BTA description.

Design capacity of the of the CWIS \_\_\_\_\_MGD  
Maximum monthly average intake of the CWIS during the previous five years \_\_\_\_\_MGD Month in which this flow occurred \_\_\_\_\_  
Maximum through-screen design intake velocity \_\_\_\_\_feet/second (fps)

For facilities where the CWIS is located on a freshwater river or stream, provide the following information:

The source water's annual mean flow \_\_\_\_\_cubic feet/second (cfs) as available from USGS or other appropriate source  
The design intake flow as a % of the source water's annual mean flow \_\_\_\_\_ Attach calculations if equal to or less than 5% of annual mean flow.  
The source water's 7Q10 \_\_\_\_\_cfs. See Attachment B of the General Permit for more information on 7Q10 determinations.  
The design intake flow as a percent of the source water's 7Q10 \_\_\_\_\_

5. Contaminant Information *See Attached Summary of Operations*

If applicable, attach a listing of all non-toxic pH neutralization and/or dechlorination chemicals used, including chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the NCCW discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC<sub>50</sub> in percent for aquatic organism(s)).

6. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendix 2, Part C, Step 4, of the General Permit. In addition, respond to the following questions. *SEE ATTACHED ORIGINAL APPLICATION*

- a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes \_\_\_\_\_ No
- b) Has any consultation with the federal services been completed? Yes \_\_\_\_\_ No
- c) Is consultation underway? Yes \_\_\_\_\_ No
- d) What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service (check one):
  - a "no jeopardy" opinion \_\_\_\_\_ or written concurrence \_\_\_\_\_ on a finding that the discharges are not likely to adversely affect any endangered species or
- e) Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D or E) have you met? \_\_\_\_\_
- f) Attach a copy of the most current federal listing of endangered and threatened species from the USF&W web site listed in Appendices 2, 2.1 and 4

7. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:


- a) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes  No \_\_\_\_\_
- b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes \_\_\_\_\_ or No \_\_\_\_\_ If yes, attach the results of the consultation(s).
- c) Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 or 3) have you met? \_\_\_\_\_

8. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit

9. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the noncontact cooling water (NCCW) system; (2) the discharge consists solely of NCCW (to reduce temperature) and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product (other than heat) or finished product; (4) if the discharge of noncontact cooling water subsequently mixes with other wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for noncontact cooling water; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name:	Union Wharf Condominium Trust
Operator signature:	
Title:	Chair, Board of Trustees
Date:	9/3/09

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

## FIELD SAMPLING REPORT

**Client:** Ms. Susan A. Bernstein, Esq.  
200 Highland Ave  
Suite 306  
Needham, MA 02494-3035

**Report Date:** August 31, 2009

**Site Location:** Union Wharf, 343 Commercial Street, Boston, MA  
**Outfall Location(s):** Outfall to Boston Harbor  
**Sample Date:** August 31, 2009  
**Field Technician(s):** Matt Gould

### Summary:

On the morning of August 31, 2009 EST field staff collected a pH and temperature sample from an outfall pipe to Boston Harbor containing non-contact cooling water. The line identified on site as "Seawater Discharge" was purged for five (5) minutes prior to sample collection. A pH of 6.97 s.u. and temperature of 19.4 °C was recorded. Field instrumentation was calibrated in accordance with the manufacturer's specifications prior to sample collection. A copy of the calibration record is provided as an attachment to this report.

<b>Date of Sample Collection</b>	8/31/2009
<b>Time of Sample Collection</b>	0915
<b>Sample Site Identification</b>	Non Contact Cooling Water
<b>Field pH</b>	6.97 s.u
<b>Field Temperature</b>	19.4 °C

Reviewed By: 

Date:

### Environmental Sampling Technology Calibration Form

Page of

Purchase Order Number:	_____
Reference Number:	_____

Site:

Union Warf

Contact:

Dan Flaherty

Address:

343 Commercial St.  
Boston Ma

Title:

Phone:

Site Description:

Equipment On Site:

Model # 54X002608

Serial # 284069

Description of Service:

Special Instructions:

\_\_pH \_\_Flow  
Before Calibration:

NA

\_\_pH \_\_Flow  
After Calibration:

NA

#### STANDARD CALIBRATION

	Before Calibration	After Calibration
pH Buffer 4.0	<u>3.74</u>	<u>4.00</u>
pH Buffer 7.0	<u>7.25</u>	<u>7.00</u>
pH Buffer 10.0	<u>10.37</u>	<u>10.05</u>

Notes:

Technician's Name:

Matt Gould

Signature:

[Signature]







3. Complete pH calibration record prior to sample collection (RD to provide with project paperwork)
4. Site contact will provide access to site. May need peristaltic pump with weighted strainer to draw sample
5. Carefully document sample location
6. Field tech to submit field data (to J. Costello) in order to generate field report within 24 hours of sample collection
7. Report to Susan A. Bernstein in electronic format to email address above

Please contact me if you have any questions.

Thanks,

John

**John Carlin**

**President**

**EST Associates, Inc.**

Phone:(781) 455-0003 x11.

Fax:(781) 455-8336

51 Fremont Street, Needham, MA 02494

[www.estassociates.com](http://www.estassociates.com)

**Union Wharf Condominium Trust, 343 Commercial Street, Boston, MA:  
Noncontact Cooling Water Facility  
Summary of Operations**

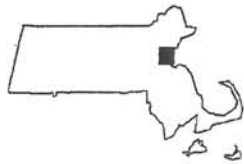
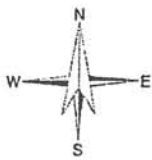
- (1) System discharges approximately 1,100 gallons per minute.
- (2) System has the following outfalls:
  - a) three (3) six inch pipes
  - b) two (2) seawater intakes
  - c) one (1) seawater discharge
- (3) Average daily ocean temperature ranges from 50° in April to 68° in October, return temperatures vary by 0 (zero)° or no change (no change in ocean temperature) to a maximum of 10°.
- (4) Typical operational cycle is from May 1<sup>st</sup> operating continuously through November 1<sup>st</sup>.
- (5) The intake/discharge pipes are non-chemically cleaned annually. A diver inspects each line and removes by hand any aquatic growth on each of the pipes. The intakes have large strainers that prohibit suction of anything larger than 1/8<sup>th</sup> of an inch. Typically, only sand and seaweed are found in the pump strainers.
- (6) The demand for cooling in the building is monitored by an automatic control panel in the building, which monitors both the loop and seawater temperatures. An automatic controller opens or closes a series of valves allowing condenser water to automatically bypass the titanium plate heat exchanger. The temperature fluctuation then varies depending on the actual seawater temperature.



SITE COORDINATES: 42°21'56"N 71°3'4"W

**HALEY & ALDRICH**

UNION WHARF  
343 COMMERCIAL STREET  
BOSTON, MASSACHUSETTS

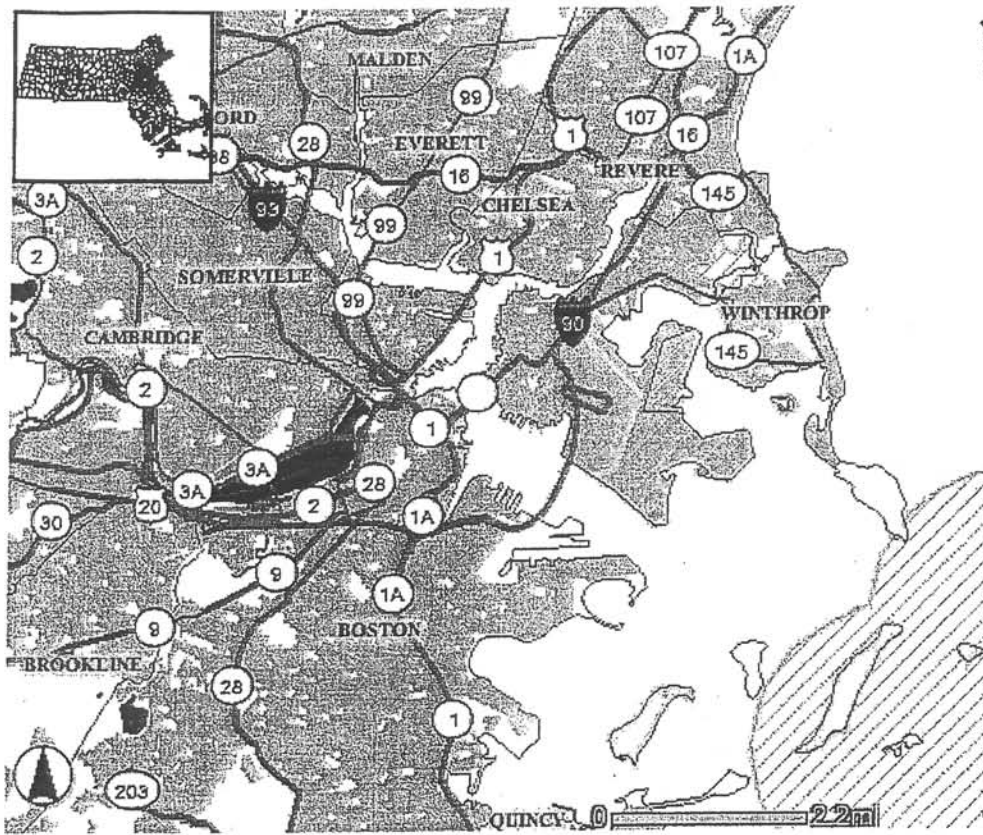


PROJECT LOCUS

U.S.G.S. QUADRANGLE: BOSTON SOUTH, MA

SCALE: 1:24,000  
OCTOBER 2007

FIGURE 1



NHESP MAP  
2006

