Capaccio
Environmental Engineering, Inc.

9/30/08 received

"Helping Industry and the Environment Prosper"

September 29, 2008

US EPA Region 1
NCCW GP Processing
Municipal Assistance Unit (CMU),
1 Congress Street, Suite 1100
Boston, MA 02114-2023

RE: Kidde-Fenwal, Inc. Notice of Intent

Dear EPA Staff:

Capaccio Environmental Engineering, Inc. is submitting the enclosed Notice on Intent to discharge Noncontact Cooling Water (NCCW) on behalf of the Kidde-Fenwal, Inc., (KIDDE) located at 400 Main Street, Ashland MA. KIDDE requests coverage under the new General Permit that became effective on August 1, 2008. KIDDE uses private well water for NCCW in a partially closed loop cooling water system.

If you have any questions feel free to contact me at (508) 970-0033 ext 114.

Sincerely,
Capaccio Environmental Engineering, Inc.
BY:

Lucille C. Servidio, CHMM

Lucille Servidio, CHMM, TURP
Vice President

c: MF: 00-053 AE
Christopher Mousseau (Kidde)
Rachael Weiskind (KIDDE)
Roger Riley (UTC)

APPENDIX 5

Suggested Form for Notice of Intent (NOI) for the Noncontact Cooling Water General Perm

1. General facility information. Please provide the following information about the facility.

a) Name of facility: Kidde-Fenwal Inc.

Type of Business: Manufacturing

Facility Location Address :
400 Main Street
Ashland, MA 01721
longitude: 71 27' 29.23" W
latitude: 42 15' 19.99"

Facility SIC codes: 3823
3999

Facility Mailing Address (if not location address)

b) Name of facility owner: Pout Rock Trust

Email address of owner: JWPoitras@aol.com

Owner's Tel #: 407-892-3957

Owner's Fax # N/A

Owner is (check one): 1. Federal____ 2. State _____ 3.Tribal___
4. Private ✓ **4. Other _____(Describe)**

Address of owner (if different from facility address)
Pout Rock Trust
3100 Springhead Court Narcrossee, FL 34771

Legal name of Operator, if not owner: Kidde-Fenwal Inc.

Operator Contact Name: David J. Palardy

Operator Tel Number: 508-881-2000 **Fax Number:** 508-881-8920

Operator's email: David.Palardy@fs.utc.com

Operator Address (if different from owner) 400 Main Street Ashland, MA 01721

d) Attach topographic map indicating the locations of the facility and the receiving water; all NCCW discharge points; upstream an downstream monitoring points. Map attached? ✓ see attachment A

e) Check Yes or No for the following:

1. **Has a prior NPDES permit been granted for the discharge? Yes** ✓ **No____ If Yes, Permit Number:** MAG250946
2. **Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes_____ No** ✓
3. **Is the facility covered by an individual NPDES permit? Yes_____ No** ✓ **If Yes, Permit Number ____**
4. **Is there a pending application on file with EPA for this discharge? Yes** ✓ **No _____ If Yes, date of submittal:** 2/3/2005

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

a) Name of receiving water into which discharge will occur: Cold Spring Brook
State Water Quality Classification: Warm Water Fishery (B) Freshwater: X Marine Water: _____

b) Describe the discharge activities for which the owner/applicant is seeking coverage: 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: ✓ see attachment B

d) Number of outfalls 1

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 8,760 GPD Average Flow 0 GPD

f) What is the maximum daily and average monthly temperature of the discharge (in degrees F)? Max Temp. 80 Average Temp. 68

g) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 7.9 Min pH 6.8

h) FOR MASSACHUSETTS FACILITIES ONLY: Is the source water of the NCCW potable water? Yes _____ No ✓ 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) I
If (P), number of days or months per year of the discharge _____ and the specific months of discharge _____;
If (I), number of days/year there is a discharge 1 see attachment C

j) Latitude and longitude of each discharge within 100 feet: outfall 1: long. 71 27' 20.26" lat. 42 15' 23.06"; outfall 2: long. NA lat. NA;
outfall .3: long. NA lat. NA (See http://www.epa.gov/tri/report/siting_tool)

k) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.36 cfs
Please attach any calculation sheets used to support stream flow and dilution calculations. See General Permit Attachment B for equations and additional information. see attachment D

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 ✓
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: Private Well

Name of Source Water: Kidde-Fenwal Private Well

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: 31401402

b) If source water is surface water:

i) Is it a freshwater river or stream Yes_____ **No**_____

ii) Is it a lake? _____ **reservoir?**_____

iii) Is it tidal river? _____ **estuary?** _____ **ocean?**_____

c) Is the source water groundwater? Yes ✓ **No** _____ **If yes, see Appendix 8 and submit effluent and surface water test results, as required in Part 5.4 of the General Permit.** see attachment E

d) Does the facility use both a primary and backup source of noncontact cooling water?

Yes ✓ **No** _____

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. see attachment F

4. Best Technology Available for CWIS

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:** Kidde-Fenwal does not use surface water for NCCW

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:

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

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_{50} in percent for aquatic organism(s)). N/A

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.

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_✓_ see attachment G
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 N/A **or written concurrence** N/A **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? A
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 o3) have you met? 1

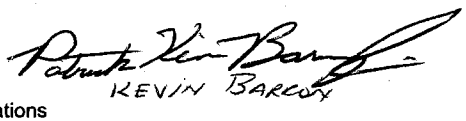
8. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit N/A

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.

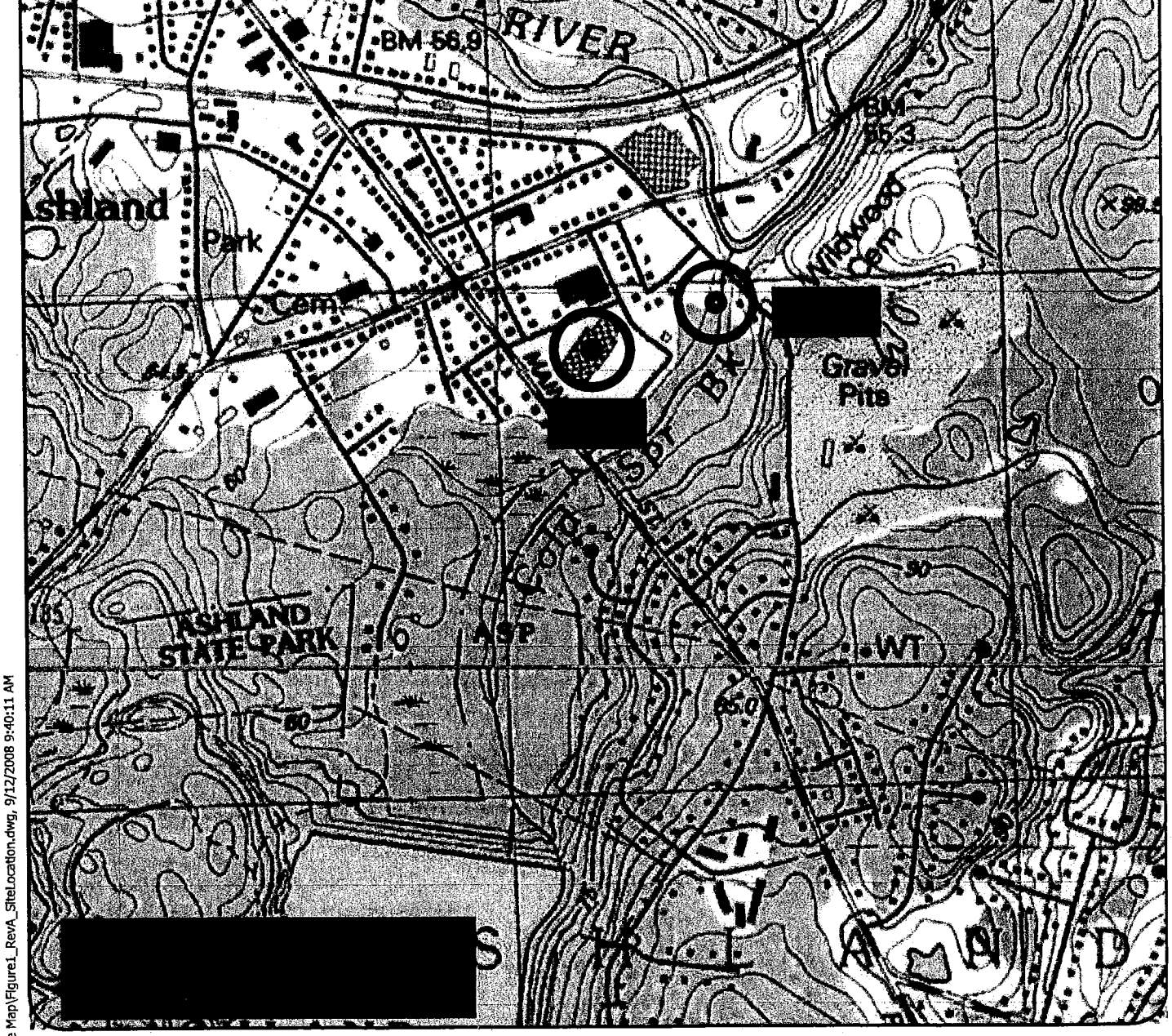
Facility Name: Kidde-Fenwal Inc.

Operator signature: 
KEVIN BARCOS

Title: Director of Operations

Date: 29SEP08

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.



CLIENT: Kidde-Fenwal 400 Main St., Ashland, MA 01721		Figure 1	**Capaccio** Environmental Engineering, Inc. 293 Boston Post Road-West Marlborough, MA 01752 (508) 970-0033 * www.capaccio.com "Helping Industry and the Environment Prosper"	
TITLE: Site Location Map	NORTH	SCALE: 1" = 1000'-0" JOB # 00-053AE DATE: 09-12-08	DR BY: TJL CK BY: LCS REV: B	SIZE: A

Z:\Kidde Fenwal 00-053\Ashland\Base Map\Figure1_RevA_SiteLocation.dwg, 9/12/2008 9:40:11 AM

Notice of Intent for Noncontact Cooling Water General Permit
Attachment B

Kidde-Fenwal, Inc.
400 Main Street
Ashland, MA

Receiving Water Temperate Engineering Calculation:

$\Delta T_r = (M_p / M_r)(\Delta T_p)$

ΔT_r = Change in river temp
M_p = Mass of Effluent
M_r = Mass of River
ΔT_p = Change in temp (effluent– influent)

Volume can be substituted for mass as long as units are consistent

V_p = .0088 MGD
V_r = .232 MGD

$\Delta T_r = (V_p / V_r)(\Delta T_p)$

$\Delta T_r = (.0088 \text{ MGD} / .232 \text{ MGD})(68° \text{ F} - 60° \text{ F})$

$\Delta T_r = (0.002)(8)$

$\Delta T_r = 0.016$ ° F

Notes:

1. Mass of river determined from 7Q10
2. Effluent temperature of NCCW determined from the average of testing done by Kidde.
3. Influent temperature determined form average groundwater temperature
4. Discharge to brook would only occur during malfunction of well shut-off device.
5. Maximum daily flow from plant based on maximum well flow (~146 gpm) for one hour.
6. Kidde has committed to installing an alarm, with call-out capability, to notify them of an overflow condition. In the event of an overflow Kidde personnel will stop discharge to brook within one hour.

Description of Discharge Conditions
Attachment C

Kidde-Fenwal, Inc.
400 Main Street
Ashland, MA

Under normal operating conditions the noncontact cooling water (NCCW) system at Kidde-Fenwal (KIDDE) is a partially closed loop system in which water re-circulates through the plant and back to the initial storage tank (see Attachment F for a detailed description). This tank is periodically replenished, via a private ground water well, when evaporation or sanitary discharge occurs. There is typically no discharge from this process to surface waters unless there is a malfunction in the system. In the event that the well pump fails to turn off, water overflows the storage tank and flows into a manhole equipped with a rectangular weir. If this manhole becomes full the well water then overflows the rectangular weir and ultimately discharges to the brook on the south side of the property. Due to the fact this situation is not expected to take place KIDDE has estimated the average discharge to be zero gallons per day (GPD). However, due to the nature of the discharge KIDDE has used the worse case scenario of flow to the brook in all calculations included with this submittal. In doing this the maximum flow from the well was determined (~146 gpm), and it was assumed that 100% of the water coming from the well would ultimately discharge to the brook, due the storage tank being eventually filled. Kidde has committed to installing an alarm system which will be tied into the building alarm system to provide notification of an overflow condition. Kidde plans to institute and train emergency personnel on the well shut down procedure. In the event of an overflow the alarm would notify Kidde personnel, who would in turn shut down the well pump and prevent further overflow, within one hour of initial notification. With that said, the maximum well flow over one hour has been used for the maximum daily flow calculations. This discharge is not expected to take place, however, KIDDE wishes to be permitted for any discharge that may take place during an emergency situation.

Notice of Intent for Noncontact Cooling Water General Permit
Attachment D

Kidde-Fenwal, Inc.
400 Main Street
Ashland, MA

Dilution Factor:

$$\text{Dilution Factor} = \frac{[Q_r + (Q_p \times 1.55)]}{(Q_p \times 1.55)}$$

$$\text{Dilution Factor} = \frac{[0.36 \text{ cfs} + (0.0088 \text{ MGD} \times 1.55)]}{0.0088 \text{ MGD} \times 1.55}$$

Dilution Factor = (0.374/0.014)

Dilution Factor = 26.7

Note: Q_r determined from 7Q10
Q_p calculated assuming maximum flow from well (146 gpm) for a 60 minute period without interruption. This would only occur should pump controls malfunction and pump fail to shut off

Maximum Daily Total Residual Chlorine (TRC):

Max Daily TRC = (Dilution Factor) X (Water Quality Criteria Class Freshwater Acute)

Max Daily TRC = (26.7)(19 ug/L)

Max Daily TRC = 507.3 ug/L

Average Monthly Total Residual Chlorine (TRC):

Average Monthly TRC = (Dilution Factor) X (Water Quality Criteria Class Freshwater Chronic)

Average Monthly TRC = (26.7)(11 ug/L)

Average Monthly TRC = 293.7 ug/L

ALPHA ANALYTICAL

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Kidde-Fenwal, Inc.

Address: 400 Main Street
Ashland, MA 01721

Attn: Mr. Chris Mousseau

Project Number:

Laboratory Job Number: L0813548

Date Received: 12-SEP-2008

Date Reported: 17-SEP-2008

Delivery Method: Client

Site: NCCW

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0813548-01	NCCW	

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL
NARRATIVE REPORT

Laboratory Job Number: L0813548

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Sample Receipt

At the client's request, Hexavalent Chromium was performed instead of Trivalent Chromium.

Chloride

L0813548-01 has an elevated detection limit due to the 10x dilution required to quantitate the result within the calibration range.

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LA000065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0813548-01
NCCW
Sample Matrix: WATER

Date Collected: 12-SEP-2008 14:04
Date Received : 12-SEP-2008
Date Reported : 17-SEP-2008

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Plastic

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP	DATE ANAL	ID
Chloride	110	mg/l	10	1 9251		0915 19:52	DD
pH (H)	6.8	SU	-	30 4500H+-B		0912 19:01	JT
Chromium, Hexavalent	ND	mg/l	0.010	30 3500CR-D	0912 22:15	0912 22:15	HS
Total Hardness by SM 2340B							
Hardness	61	mg/l	0.66	19 200.7	0913 13:00	0915 14:35	MG
Total Metals				19 200.7			
Antimony, Total	ND	mg/l	0.050	19 200.7	0913 13:00	0915 14:35	MG
Arsenic, Total	ND	mg/l	0.005	19 200.7	0913 13:00	0915 14:35	MG
Cadmium, Total	ND	mg/l	0.005	19 200.7	0913 13:00	0915 14:35	MG
Chromium, Total	0.01	mg/l	0.01	19 200.7	0913 13:00	0915 14:35	MG
Copper, Total	0.593	mg/l	0.005	19 200.7	0913 13:00	0915 14:35	MG
Iron, Total	0.79	mg/l	0.05	19 200.7	0913 13:00	0915 14:35	MG
Lead, Total	0.053	mg/l	0.010	19 200.7	0913 13:00	0915 14:35	MG
Mercury, Total	ND	mg/l	0.0002	3 245.1	0912 20:45	0914 03:51	HG
Nickel, Total	0.015	mg/l	0.010	19 200.7	0913 13:00	0915 14:35	MG
Selenium, Total	ND	mg/l	0.010	19 200.7	0913 13:00	0915 14:35	MG
Silver, Total	ND	mg/l	0.007	19 200.7	0913 13:00	0915 14:35	MG
Zinc, Total	0.185	mg/l	0.010	19 200.7	0913 13:00	0915 14:35	MG

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0813548

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Chloride for sample(s) 01 (L0813423-03, WG336412-4)					
Chloride	2.0	1.5	mg/l	29	7
pH for sample(s) 01 (L0813548-01, WG336229-2)					
pH (H)	6.8	6.8	SU	0	5
Chromium, Hexavalent for sample(s) 01 (L0813548-01, WG336250-3)					
Chromium, Hexavalent	ND	ND	mg/l	NC	20
Total Hardness by SM 2340B for sample(s) 01 (L0813548-01, WG336302-1)					
Hardness	61	60	mg/l	2	20
Total Metals for sample(s) 01 (L0813548-01, WG336302-1)					
Antimony, Total	ND	ND	mg/l	NC	20
Arsenic, Total	ND	ND	mg/l	NC	20
Cadmium, Total	ND	ND	mg/l	NC	20
Chromium, Total	0.01	ND	mg/l	NC	20
Copper, Total	0.593	0.582	mg/l	2	20
Iron, Total	0.79	0.69	mg/l	14	20
Lead, Total	0.053	0.052	mg/l	2	20
Nickel, Total	0.015	0.013	mg/l	12	20
Selenium, Total	ND	ND	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Zinc, Total	0.185	0.183	mg/l	1	20
Total Metals for sample(s) 01 (L0813475-03, WG336241-3)					
Mercury, Total	ND	ND	mg/l	NC	

Explanation of primary and backup source of NCCW
Attachment F

Kidde-Fenwal, Inc.
400 Main Street
Ashland, MA

Kidde-Fenwal (KIDDE) utilizes a private ground water well, storage tank, transfer pump, and pneumatic feed tank to circulate water through the various processes in the plant requiring non contact cooling water (NCCW). This water is re-circulated back to the storage tank once it passes through the system. However, there are several processes utilizing NCCW which are discharged directly to the sanitary sewer system and therefore do not return to the storage tank. Due to these discharges the well cycles throughout the day to replenish the water that is not returned to the storage tank. In the event that the primary well used for NCCW were to become compromised, there is the capability to manually direct municipal water to this partially closed loop system. The manual ball valves on the municipal water line are locked, with keys being provided only to responsible parties. In the event that municipal water is needed the responsible party would unlock and manually open the valves and then initiate the proper sampling protocol, to be recorded and submitted on the discharge monitoring report.

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Raynham and Taunton
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Glocester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague
	Dwarf wedgemussel	Endangered	Mill River	Whately
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hadley, Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, and Wareham
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
Suffolk	Piping Plover	Threatened	Coastal Beaches	Winthrop
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.
-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.
-Critical habitat for the Northern Red-bellied cooter is present in Plymouth County.

7/31/2008

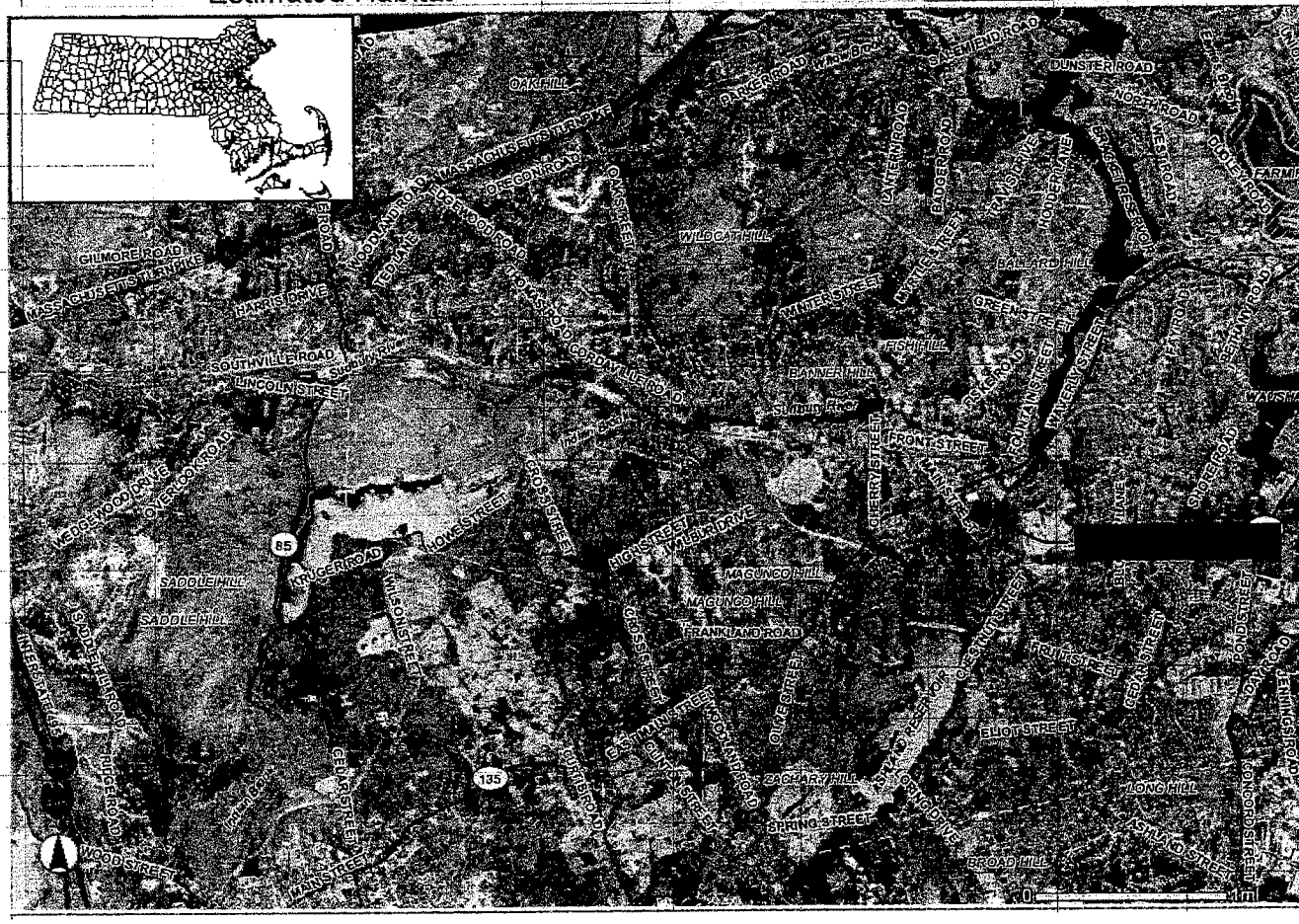
Natural Heritage & Endangered Species Program

2006 Priority Habitat & Estimated Habitat

- NHESP Review
- Dept. of Fish and Game Home Page
- Priority Habitat Info
- Estimated Habitat Info

Orthophotos are turned off when zoomed in more than 1:25,000 scale.

Legend
- Land Feature Names
- EOT-OTP Roads Names
- EOT-OTP Roads
- Limited Access Highway
- Multi-lane Hwy, Not Limited Access
- Other Numbered Hwy
- Place Names
- Surrounding States Labels
- Surrounding States
- NHESP 2006 Priority Habitats of Rare Species and also Estimated Habitats of Rare Wildlife
- NHESP 2006 MA Priority Habitats of Rare Species
- Color Orthos 2001



CLIENT: Kidde-Fenwal 400 Main Street, Ashland, MA	PHEHRS-1	NORTH	SIZE: A
TITLE: Priority Habitat or Estimated Habitat for Rare Species	SCALE: 1" = 5280'-0" (1 Mile)	DR BY: TJL	
	JOB # 00-053	CK BY: LCS	
	DATE: 09-11-08	REV: A	

Cap Envi
293 B Marlb (508) 9
"Helping Inc

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