

9/30/08
received

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: Double-A-Plastics Co. Inc.		Type of Business: Custom injection molding of plastic parts
Facility Location Address : 85 Bethany Road Monson, MA 01057 longitude: _____ W72° 22' 30" latitude: _____ N42° 0' 0"	Facility SIC codes: Industry Group 308	Facility Mailing Address (if not location address) P.O. Box 332 Monson, MA 01057
b) Name of facility owner: Clifford Farquhar		Email address of owner: doubleaplastics@verizon.net
Owner's Tel #: 413-267-4403 Owner's Fax #: 413-267-3363		Owner is (check one): 1. Federal _____ 2. State _____ 3. Tribal _____ 4. Private ☒ 4. Other _____ (Describe)
Address of owner (if different from facility address) 12 Alden Thrasher Road Monson, MA 01057		
Legal name of Operator, if not owner: _____		
Operator Contact Name: _____		
Operator Tel Number: _____ 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 ☒ No _____ If Yes, Permit Number: MAG250027		
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. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)

- a) Name of receiving water into which discharge will occur: Chicopee Brook
State Water Quality Classification: _____ Freshwater: X Marine Water: _____
- b) Describe the discharge activities for which the owner/applicant is seeking coverage: See attached description.
- 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: X
- 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 7825 GPD Average Flow 7000 GPD
- f) What is the maximum daily and average monthly temperature of the discharge (in degrees F)? Max Temp. 74.8 Average Temp. 66.9
- g) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 8 Min pH 7.7
- h) **FOR MASSACHUSETTS FACILITIES ONLY:** Is the source water of the NCCW potable water? Yes X No _____ If Yes, EPA will calculate the Total Residual Chlorine limit for facilities located in Massachusetts.
- i) Is the discharge continuous? Yes _____ No X 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 app 190 days - discharges when plant is in operation M-Th 6am-5pm
- j) Latitude and longitude of each discharge within 100 feet: outfall 1: long. _____ lat. _____; outfall 2: long. _____ lat. _____; outfall 3: long. _____ lat. _____ (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 1.1 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 attached calculations
- 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: <u>Municipal Water Supply</u> Name of Source Water: <u>Town of Monson Water System (wells)</u> 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: <u>1191000</u>	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. 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.
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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: Our withdrawal of cooling water comes from a municipal water supply.

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.

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 LC₅₀ 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.

- a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes _____ No X
- 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 X
- 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? _____

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:	Double-A-Plastics Co. Inc.
Operator signature:	
Title:	President
Date:	9/29/08

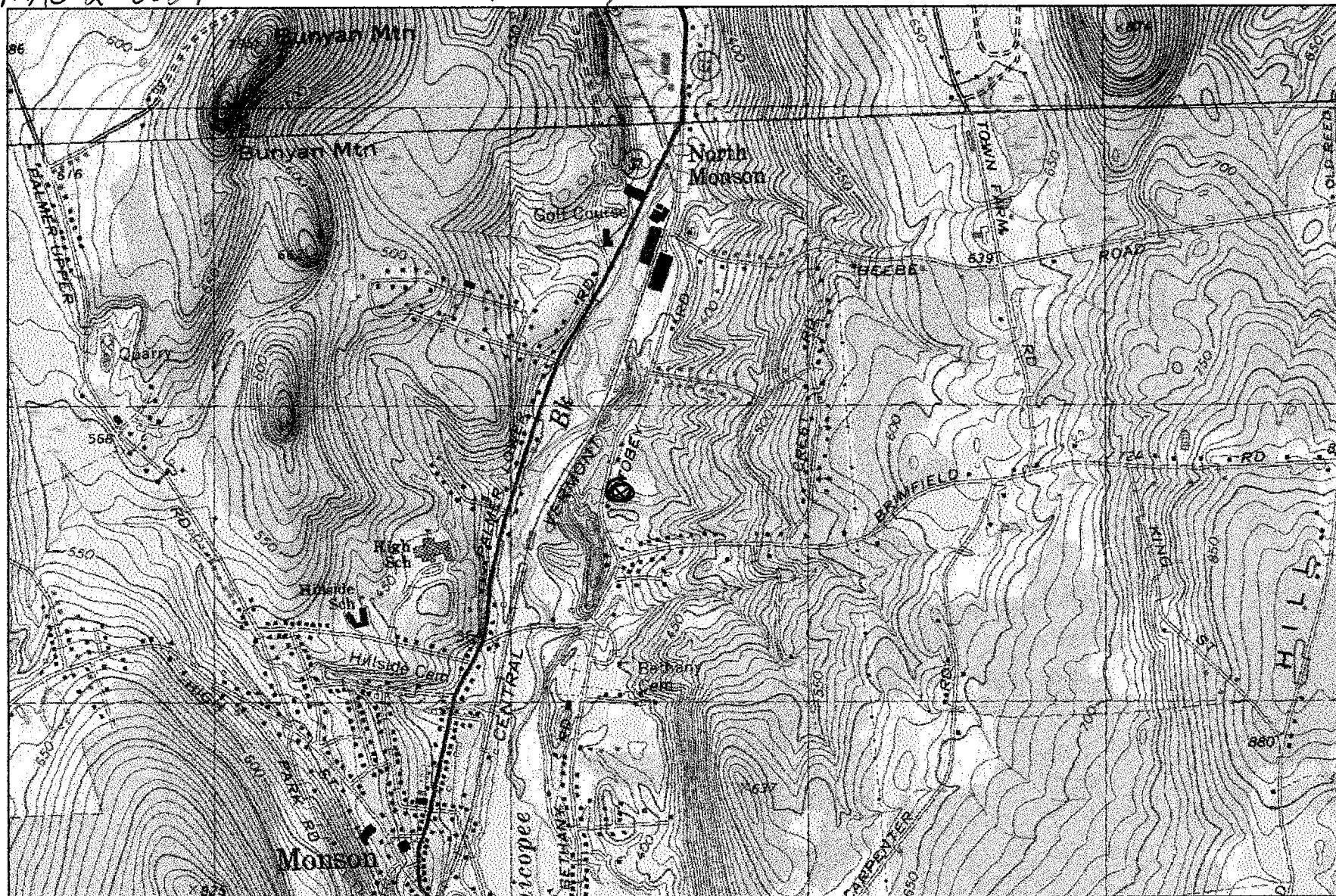
Federal regulations require this application to be signed as follows:

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.

MAG 250027

⊗ Double H PLASTICS CORP
85 Bethany Road
Monson MA 01057

1000y Road is now
Bethany Road



0 0.5 Mi
0 2000 Ft

Map provided by MyTopo.com

Attachment A – NCCW General Permit
Receiving Water Temperature
Engineering Calculation for Massachusetts Facilities

ΔT_p = change in temperature – (discharge temperature – upstream river temperature)

Maximum discharge temperature = 74.8°F

Upstream river temperature = 56.8°F

Change in temperature = 18°F

M_p = volume of effluent – 7825 gallons per day = 0.0078 MGD

M_r = 7Q10 flow = 0.71 MGD

Therefore:

$$\begin{aligned} T_r &= M_p / M_r \times \Delta T_p \\ 0.198^\circ\text{F} &= .0078 / .71 \times 18^\circ\text{F} \end{aligned}$$



Double-A-Plastics Co., Inc.

85 Beihany Rd.

P.O. Box 332

Monson, MA 01057-0332

413-267-4403 FAX 413-267-3363

MAG250027

Appendix 5 – Notice of Intent for Noncontact Cooling Water General Permit
Page 2, Question 2k

Attachment B – NCCW General Permit
Dilution Factor Calculations for Massachusetts

$Q_r = .71 \text{ MGD} = 1.1 \text{ CFS } (.71 \times 1.55 = 1.1)$

$Q_p = .0078 \text{ MGD}$

$$\begin{array}{l} Q_r + (Q_p \times 1.55) \quad / \quad (Q_p \times 1.55) \\ .71 + (.0078 \times 1.55) / (.0078 \times 1.55) \\ .71 + .01209 \quad / \quad .01209 \\ .72209 \quad / \quad .01209 = 59.72622 \end{array}$$

Dilution factor equals 59.72622



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2. Discharge Information.

b. Describe the discharge activities for which the owner/applicant is seeking coverage:

This facility conducts injection molding of various plastics. There are four injection molders that are cooled with town water. The water is noncontact cooling water (NCCW). The NCCW cools the metal mold and the hydraulic oil of the injection molders. The hydraulic oil is cooled utilizing the NCCW in a water-cooled heat exchanger. All NCCW is single pass through with no reuse of the water. The NCCW drains into an approximately 100-gallon plastic tank (2.5'x2.5'x2.5') located in the facility basement area. The tank has a discharge pump attached with a float liquid level activator. The pump transfers the NCCW wastewater to an approximate 2-inch pipe which exits the basement area. The discharge end of the NCCW discharge pipe is several hundred feet away into an unnamed brook. The unnamed brook flows into Chicopee Brook.

This page goes with page 2, question 2b of the NOI.

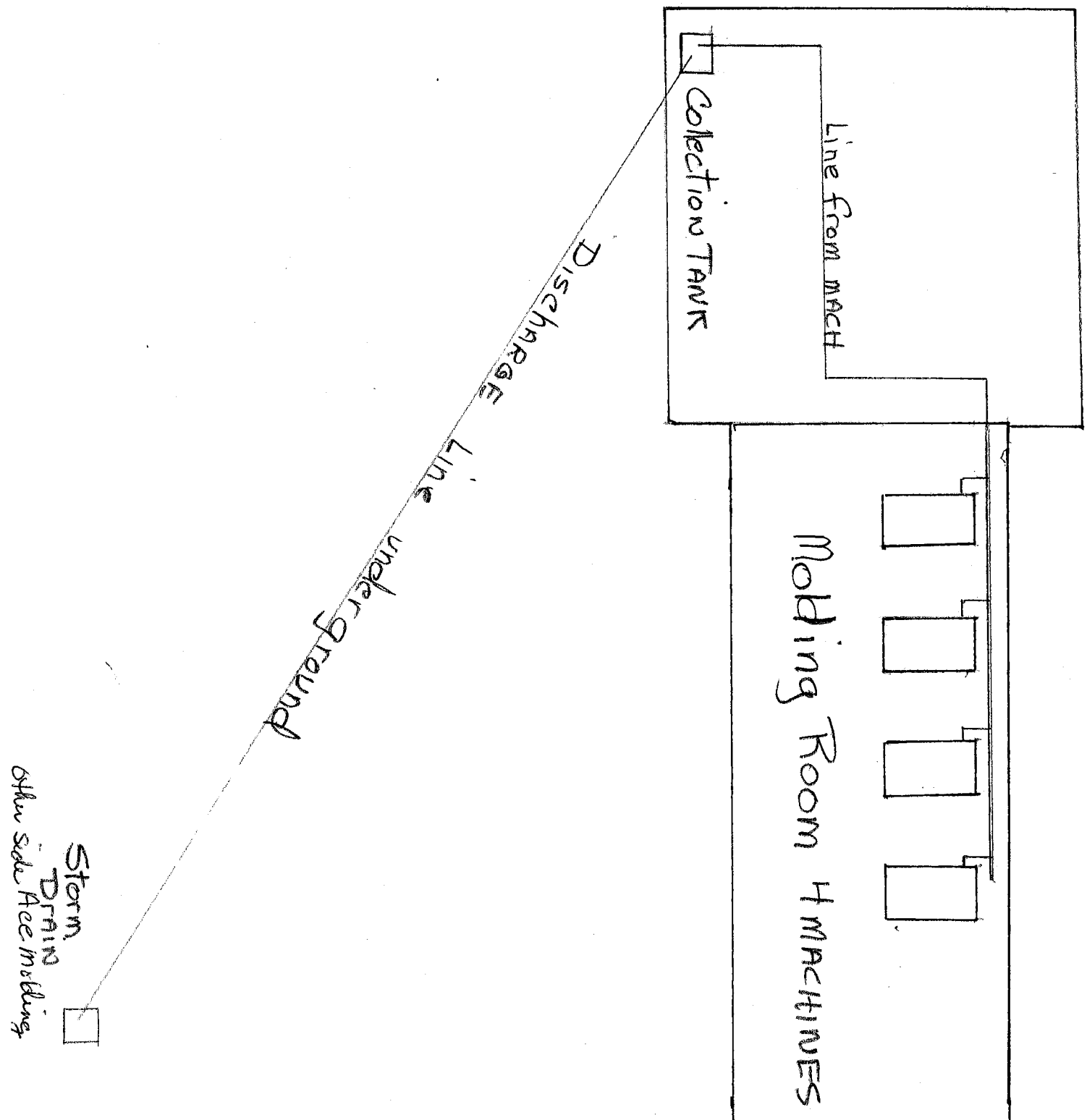
Double R Plastics
85 Bethany Road
Monson MA 01057

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MAG250027

Attachment 1

#2 Diagram

Noncontact cooling water discharge



Common Name	Scientific Name	Status	Distribution
FISHES:			
Sturgeon, shortnose*	Northeastern bulrush	E	Atlantic coastal waters and rivers (Conn. R.)
REPTILES:			
Turtle, bog	Clemmys muhlenbergii	T	Berkshire County
Turtle, green*	Chelonia mydas	T	Oceanic straggler in southern New England
Turtle, hawksbill*	Eretmochelys imbricata	E	Oceanic straggler in southern New England
Turtle, leatherback*	Dermochelys coriacea	E	Oceanic summer resident
Turtle, loggerhead*	Caretta caretta	T	Oceanic summer resident
Turtle, Atlantic ridley*	Lepidochelys kempii	E	Oceanic summer resident
Turtle, Northern red-bellied couler (Plymouth redbelly)	Chrysemys rubriventris bangsi	E	Plymouth & Dukes Counties
BIRDS:			
Plover, piping		T	Atlantic coast, nesting
Tern, roseate	Charadrius melodus	E	Atlantic coast/islands, nesting
	Sterna dougallii dougallii		
MAMMALS:			
Bat, Indiana		E	Berkshire County/historic
Whale, blue*	Myotis sodalis	E	Oceanic
Whale, finback*	Balaenoptera musculus	E	Oceanic
Whale, humpback*	Balaenoptera physalus	E	Oceanic
Whale, right*	Megaptera novaeangliae	E	Oceanic
Whale, sei*	Eubalaena spp. (all species)	E	Oceanic
Whale, sperm*	Balaenoptera borealis	E	Oceanic
	Physeter catodon		
MOLLUSKS:			
Wedgemussel, dwarf		E	Hampshire, Franklin County
	Alasmidonta heterodon		
INSECTS:			
Beetle, Puritan tiger		T	Hampshire County
Beetle, Northeastern beach	Cicindela puritana	T	Dukes & Bristol Counties
Beetle, American burying	Cicindela dorsalis dorsalis	E	Penikese & Nantucket Isl., reintroduced populations
	Nicrophorus americanus		
PLANTS:			
Small whorled pogonia		T	Hampshire, Essex, Hampden, Worcester, Middlesex Counties
	Isotria medeoloides		
Sandplain gerardia		E	Barnstable & Dukes Counties
Northeastern bulrush	Agalinus acuta	E	Franklin County
	Scirpus ancistrochaetus		

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service
 Rev. 1/8/02

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