



Protection is a concrete idea.



MAG 250121

rec'd 9/29/08  
ofrawey

Kathleen Keohane  
Surface Water Discharge Permits Program  
Mass DEP Division of Watershed Management  
627 Main Street  
Worcester, MA 01608

September 23, 2008

Reference: **NPDES Non-Contact Cooling Water General Permit NOI**

Kathleen,

This serves as a cover letter to the attached Notice of Intent for coverage under the General Permit for our NPDES Non-Contact Cooling Water here at our facility in West Brookfield.

I wanted to point out some details regarding the engineering calculations that were used to determine our surface water temperature rise as shown in section 2.c of the NOI referenced in Attachment A of the General Permit.

This past April, CBIS purchased a newer and larger cooling tower that has already shown to be much more effective in reducing our discharge water temperature even during the hottest of days this current Summer. With our old tower we were approaching our temperature limit and we wanted to allow for any future growth by having a larger tower with more features that would also enable us to reach lower temperatures throughout the year. Due to the fact that the tower is new to the facility this Year, we have no history on its performance during the winter months. I have calculated the temperature rise based on current conditions and history from past years to determine the rise, which calculated to be above the 5 degrees allowed.

Concrete Block Insulating Systems  
P.O. Box 1000  
Freight House Road  
West Brookfield, MA 01585-1000

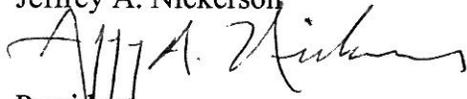
508.867.4241  
800.628.8476  
Fax: 508.867.5702

[www.cbisinc.com](http://www.cbisinc.com)  
E-mail: [korfil@cbisinc.com](mailto:korfil@cbisinc.com)  
Member of NCMA and EPSMA

Obviously we will be able to determine the actual rise once we enter into the coldest months and we obtain the real time temperatures from the new tower. As you know we have a unique situation with our discharge location as we are quite a distance from the Quaboag River so the impact on the river's temperature rise is somewhat inconclusive.

If there are any questions pertaining to the NOI, or if you want to discuss it further, please contact me at your earliest convenience.

Jeffrey A. Nickerson



President

Cc: USEPA, Region 1  
NCCW GP Processing  
Municipal Assistance Unit (CMU),  
One Congress Street, Suite 1100  
Boston, MA 02114-2023



**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>Concrete Block Insulating Systems, Inc.</u>		Type of Business: <u>Manufacturing</u>
Facility Location Address : 29 Freighthouse Rd. West Brookfield, MA 01585 longitude: <u>72°08'38"</u> latitude: <u>43°13'42"</u>	Facility SIC codes: <u>3086</u>	Facility Mailing Address (if not location address) P.O. Box 1000 West Brookfield, MA 01585-1000
b) Name of facility owner: <u>Jeffrey A. Nickerson</u>		Email address of owner: <u>CBISJN@AOL.com</u>
Owner's Tel #: <u>508-867-4241</u> Owner's Fax # <u>508-867-5702</u>		Owner is (check one): 1. Federal <input type="checkbox"/> 2. State <input type="checkbox"/> 3. Tribal <input type="checkbox"/> 4. Private <input checked="" type="checkbox"/> 4. Other <input type="checkbox"/> (Describe)
Address of owner (if different from facility address)		
Legal name of Operator, if not owner: <u>Same as Owner</u>		
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>X</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 <input type="checkbox"/> If Yes, Permit Number: <u>MAG250121</u>		
2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
3. Is the facility covered by an individual NPDES permit? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, Permit Number _____		
4. Is there a pending application on file with EPA for this discharge? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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: Wetlands leading to Quaboag River  
State Water Quality Classification: Class B Freshwater: X Marine Water: \_\_\_\_\_

b) Describe the discharge activities for which the owner/applicant is seeking coverage: Cooling water for expandable polystyrene manufacturing.

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 -10 GPD Average Flow .065 GPD

f) What is the maximum daily and average monthly temperature of the discharge (in degrees F)? Max Temp. 76° Average Temp. 70°

g) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 8.1 Min pH 7.5

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 X 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 \_\_\_\_\_ and the specific months of discharge \_\_\_\_\_;  
If (I), number of days/year there is a discharge \_\_\_\_\_

j) Latitude and longitude of each discharge within 100 feet: outfall 1: long. 72° 9' lat. 42° 14'; 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))

k) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.11 MGD \_\_\_\_\_ 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:**

<p>a) Indicate source of the NCCW (i.e., municipal water supply, private well, surface water withdrawal, groundwater): Source: <u>Town water supply</u> Name of Source Water: _____ _____</p> <p>Is the source registered/permitted under MA Water Management Act or NHDES Water User Registration Rule (Env Wq 2202)? Yes _____ No _____</p> <p>If yes, registration number: _____</p>	<p>b) If source water is surface water:</p> <p>i) Is it a freshwater river or stream Yes _____ No _____</p> <p>ii) Is it a lake? _____ reservoir? _____</p> <p>iii) Is it tidal river? _____ estuary? _____ ocean? _____</p> <p>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.</p> <p>d) Does the facility use both a primary and backup source of noncontact cooling water? Yes _____ No <u>X</u></p> <p>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.</p>
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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 X If No, explain: Town 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 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.

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 X

c) Is consultation underway? Yes \_\_\_ No X

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? 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 X

b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes \_\_\_ or No X If yes, attach the results of the consultation(s).

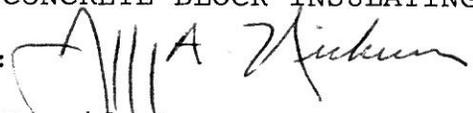
c) Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 o3) have you met? 1

**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

**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:	CONCRETE BLOCK INSULATING SYSTEMS, INC.
Operator signature:	
Title:	President
Date:	9/26/08

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.

**ENGINEERING CALCULATIONS**  
**FOR RECEIVING RIVER TEMPERATURE RISE**

**CBIS has an estimated maximum  $\Delta T$  during the Winter months of 22°F**

**Calculated as follows:**

**60°F (Discharge Temp of NCCW) - 38°F (Warm Water Fisheries Factor) = 22°F**

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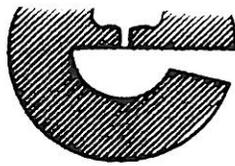
**CBIS has a discharge amount during Winter months of 34,000 Gal per day (.034MGD)**

**The 7Q10 is determined to be 0.11MGD**

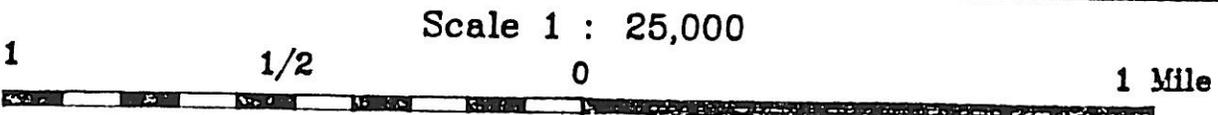
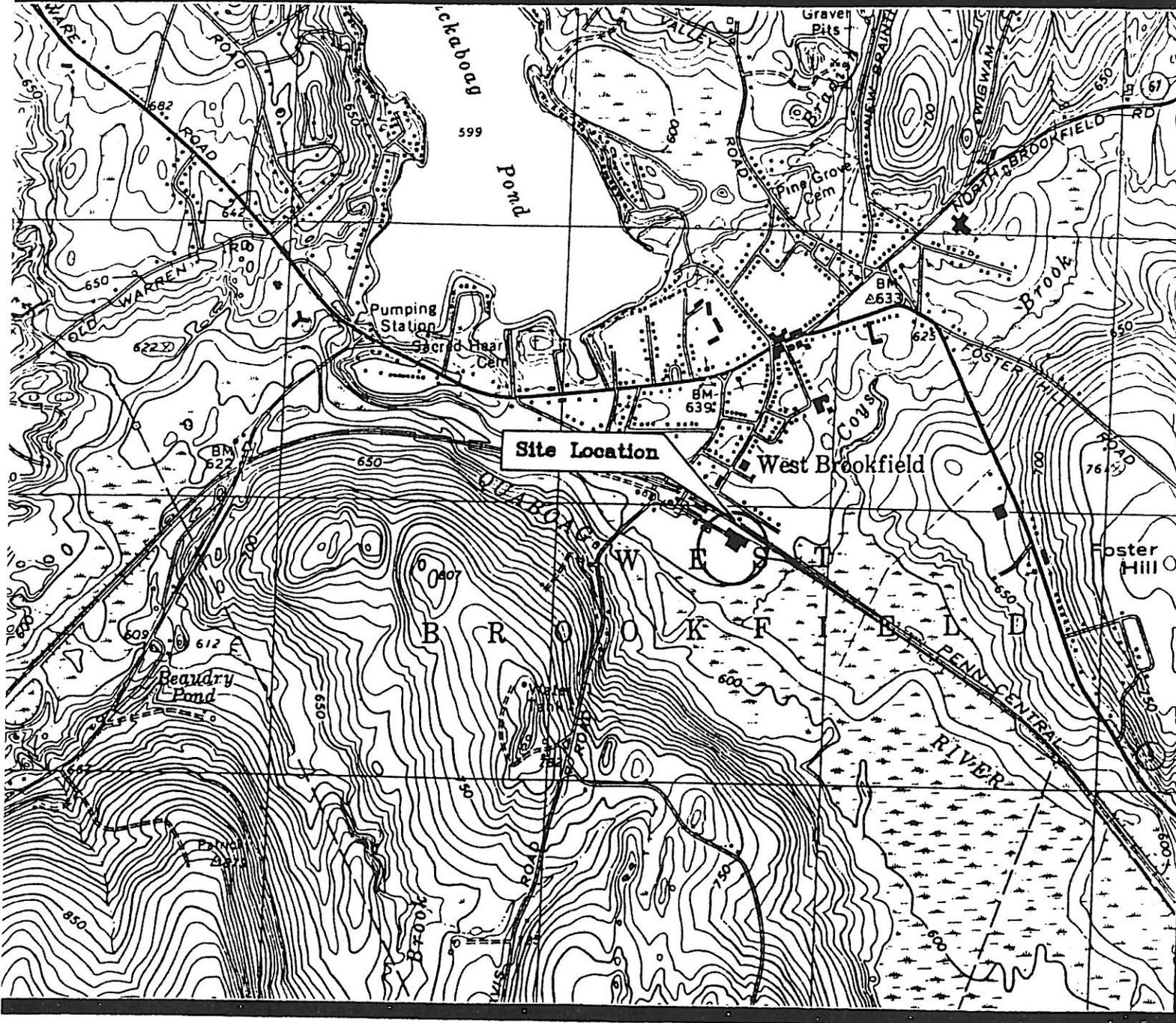
**.034MGD / 0.11MGD = .309**

**.309 X 22°F ( $\Delta T$ ) = 6.80°F Temperature Rise**





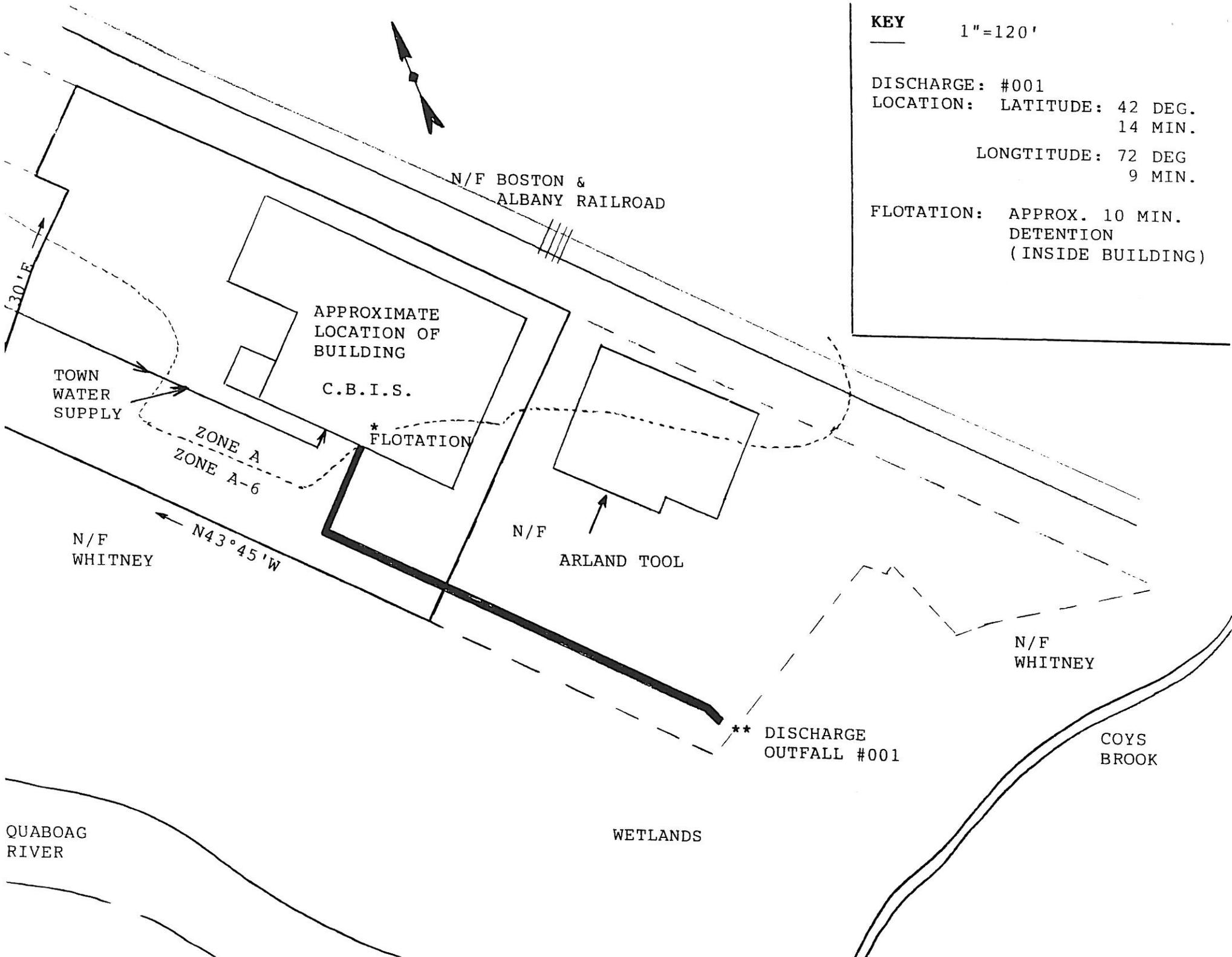
ENVIRONMENTAL COMPLIANCE SERVICES, INC.  
588 Silver Street \* Agawam, MA 01001



Contour Interval 10 Feet  
Base Map: U.S. Geological Survey, Quadrangle Location: Warren, MA  
Map Edited: 1989      Photorevised: None      Photoinspected: None

CBIS, Inc.  
Freight House Road

Site Locus



**KEY**

1"=120'

DISCHARGE: #001  
 LOCATION: LATITUDE: 42 DEG.  
 14 MIN.  
 LONGTITUDE: 72 DEG  
 9 MIN.

FLOTATION: APPROX. 10 MIN.  
 DETENTION  
 (INSIDE BUILDING)

N/F BOSTON &  
 ALBANY RAILROAD

APPROXIMATE  
 LOCATION OF  
 BUILDING

C.B.I.S.

\* FLOTATION

N/F  
 ARLAND TOOL

N/F  
 WHITNEY

\*\* DISCHARGE  
 OUTFALL #001

COYS  
 BROOK

WETLANDS

QUABOAG  
 RIVER

TOWN  
 WATER  
 SUPPLY

ZONE A  
 ZONE A-6

N/F  
 WHITNEY

N43°45'W

30'E



Enter your transmittal number

W057341  
Transmittal Number

Your unique Transmittal Number can be accessed online: <http://www.mass.gov/dep/counter/trasmfrm.shtml> or call DEP's InfoLine at 617-338-2255 or 800-462-0444 (from 508, 781, and 978 area codes).

Massachusetts Department of Environmental Protection  
Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. Copy 2 must accompany your fee payment. Copy 3 should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

DEP  
P.O. Box 4062  
Boston, MA  
02211

\* Note:  
For BWSC Permits,  
enter the LSP.

A. Permit Information

1. Permit Code: BRP WM 11  
2. Name of Permit Category: GENERAL Permit  
3. Type of Project or Activity: SURFACE WATER DISCHARGE of NON-CONTACT COOLING WATER

B. Applicant Information - Firm or Individual

1. Name of Firm - Or, if party needing this approval is an individual enter name below: Concrete Block Insulating Systems Inc.  
2. Last Name of Individual: 25 Freighthouse RD  
3. First Name of Individual: Jeff Nickerson  
4. MI: MA  
5. Street Address: West Brookfield  
6. City/Town: West Brookfield  
7. State: MA  
8. Zip Code: 01585  
9. Telephone #: 508-867-4241  
10. Ext. #:   
11. Contact Person: Jeff Nickerson  
12. e-mail address (optional): CBISJN@AOL.COM

C. Facility, Site or Individual Requiring Approval

1. Name of Facility, Site Or Individual: CBIS INC  
2. Street Address: 25 Freighthouse RD  
3. City/Town: West Brookfield  
4. State: MA  
5. Zip Code: 01585  
6. Telephone #: 5088674241  
7. Ext. #:   
8. DEP Facility Number (if Known): 04-3157804  
9. Federal I.D. Number (if Known):   
10. BWSC Tracking # (if Known):

D. Application Prepared by (if different from Section B)\*

1. Name of Firm Or Individual: Same as Section B  
2. Address:   
3. City/Town:   
4. State:   
5. Zip Code:   
6. Telephone #:   
7. Ext. #:   
8. Contact Person:   
9. LSP Number (BWSC Permits only):

E. Permit - Project Coordination

1. Is this project subject to MEPA review?  yes  no  
If yes, enter the project's EOE file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

Special Provisions:

- 1.  Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less).  
*There are no fee exemptions for BWSC permits, regardless of applicant status.*
- 2.  Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
- 3.  Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
- 4.  Homeowner (according to 310 CMR 4.02).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Check Number: 050343 Dollar Amount: \$ 385.00 Date: 12/4/04



CONCRETE BLOCK INSULATING SYSTEMS, INC.  
P.O. BOX 1000 • WEST BROOKFIELD, MA 01585

Country Bank for Savings  
Ware, Massachusetts

No. 050343

DATE	CHECK NO.	CHECK AMOUNT
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12/03/04 50343 \$385.00

THREE HUNDRED EIGHTY FIVE AND NO/100----DOLLARS

PAY  
TO  
THE  
ORDER  
OF

COMMONWEALTH OF MASSACHUSETTS

TRANSMITTAL# W057341

⑈050343⑈ ⑆211870980⑆ 89 0000043⑈

CONCRETE BLOCK INSULATING SYSTEMS, INC.  
P.O. BOX 1000 • WEST BROOKFIELD, MA 01585

VENDOR NO.

VENDOR NAME

TRANSACTION DATE	REFERENCE	GROSS AMOUNT	DEDUCTION	NET AMOUNT
12/03/04	W057341	385.00		385.00
CHECK DATE	CHECK NO.	TOTAL GROSS	TOTAL DEDUCTION	CHECK AMOUNT
12/03/04	000050343	385.00		385.00

**NPDES NCCW ESTIMATED 7Q10**  
(7/1/2008)

Facility	Permit No.	Receiving Water (Watershed)	7Q10 (MGD)
US Army Soldier Systems Center Natick	MAG250035	South Pond of Lake Cochituate (SuAsCo)	Lake
Ametek Aerospace & Power Instruments, Wilmington	MAG250021	Trib to Ipswich River	0.03
Atlantic Frost Seafoods Fall River	MAG250036	Mount Hope Bay	Marine
Baker Commodities North Billerica	MAG250026	Concord River	23.2
Boott Cotton Mills Museum Lowell	MAG250732	Eastern Canal to Merrimack River	~580
Boott Hydropower, Inc. Eldred F. Field Hydroelectric Project Lowell	MAG250163	Merrimack River	~580
Boott Hydropower, Inc. Hamilton Power Station, Lowell	MAG250949	Hamilton Canal to Merrimack R.	~580
Boott Hydropower, Inc. John Street Power Station Lowell	MAG250950	Merrimack River	~580
Communications & Power Industries - Beverly Microwave Division Beverly	MAG250520	Unnamed Trib to Bass River (North Coastal)	0.01
+ Concrete Block Insulating Systems, Inc. West Brookfield	MAG250121	Wetlands leading to Quaboag River (Chicopee)	0.11
Crane & Co., Byron Weston Mill Dalton	MAG250956	Housatonic River	3.4
Crane & Co., Pioneer Mill Dalton	MAG250955	Housatonic River	3.4
Doncasters, Inc. - Storms Forge Division, Springfield	MAG250947	Poor Brook to Chicopee River	0.01
Double-A-Plastics Co. Monson	MAG250027	Chicopee Brook (Chicopee)	0.71

# Massachusetts

Common Name	Scientific Name	Status	Distribution
<b>FISHES:</b>			
Sturgeon, shortnose*	Northeastern bulrush	E	Atlantic coastal water and rivers (Conn. R.)
<b>REPTILES:</b>			
Turtle, bog	Clemmys muhlenbergii	T	Berkshire County
Turtle, green*	Chelonia mydas	T	Oceanic straggler in s England
Turtle, hawksbill*	Eretmochelys imbricata	E	Oceanic straggler in s England
Turtle, leatherback*	Dermochelys coriacea	E	Oceanic summer resid
Turtle, loggerhead*	Caretta caretta	T	Oceanic summer resid
Turtle, Atlantic ridley*	Lepidochelys kempii	E	Oceanic summer resid
Turtle, Northern red-bellied couter (Plymouth redbelly)	Chrysemys rubriventris bangsi	E	Plymouth & Dukes C
<b>BIRDS:</b>			
Plover, piping		T	Atlantic coast, nesting
Tern, roseate	Charadrius melodus	E	Atlantic coast/islands,
	Sterna dougallii dougallii		
<b>MAMMALS:</b>			
Bat, Indiana		E	Berkshire County/hist
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		
<b>MOLLUSKS:</b>			
Wedgemussel, dwarf		E	Hampshire, Franklin C
	Alasmidonta heterodon		
<b>INSECTS:</b>			
Beetle, Puritan tiger		T	Hampshire County
Beetle, Northeastern beach	Cicindela puritana	T	Dukes & Bristol Cour
Beetle, American burying	Cicindela dorsalis dorsalis	E	Penikese & Nantucket reintroduced populatio
	Nicrophorus americanus		
<b>PLANTS:</b>			
Small whorled pogonia		T	Hampshire, Essex, Ha
	Isotria medeoloides	✓	Worcester, Middlesex
Sandplain gerardia		E	Barnstable & Dukes C
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