

Rec'd 9/10/08 of rawey



Hercules Incorporated
Pulp and Paper Division
1111 Grattan Street
Chicopee, MA 01013
Phone: 413-536-6426

September 9, 2008

CERTIFIED MAIL # 7004 2890 0004 2107 5117
RETURN RECEIPT REQUESTED

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

Re: **Coverage under general permit for Non-contact Cooling Water Discharges**

Enclosed is a Notice of Intent (NOI) submitted on behalf of Hercules Incorporated Chicopee Facility as required according to the Federal Register notice (Thursday July 24, 2008, Vol.73, No. 148), in order to be covered by the General Permit.

Please note that we have listed in our application a maximum daily flow of 300,000 gallons per day (gpd). This represents a 25% increase over our previous permit of 225,000 gpd. Although we have not exceeded the previous flow characteristic, the increase is being requested in anticipation of future expansion and increased cooling needs associated with process changes which may be occurring in the next 5 years.

A copy of the NOI to be covered under a general permit is also being submitted to the Massachusetts Department of Environmental Protection, Division of Watershed Management, 627 Main Street, 2nd floor, Worcester, MA 01608.

If you have any questions regarding any of this information, please feel free to contact myself at 322-1435 or Liz Bocon, of my staff, at 322-1432.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Thomson".

Scott Thomson,
Plant Manager

Cc: File
Massachusetts DEP – Division of Watershed Management

**NOTICE OF INTENT
for the
NONCONTACT COOLING WATER GENERAL PERMIT**

PART 1 – General Facility Information

Name of Facility:

Hercules Incorporated
1111 Grattan Street
Chicopee, MA 01013

Owner of Facility: Private owner

Hercules Incorporated
1111 Grattan Street
Chicopee, MA 01013
413-322-1411
413-536-3114 (fax)

Type of Business: Chemical Manufacturer

Facility SIC codes: Primary code 2821 – Plastic materials, synthetic resins
Secondary code 2899 – Chemicals and chemical preparation

Contact Information:

Plant Manager:
Scott Thomson
413-322-1435
sthomson@herc.com

Safety, Health, & Environmental Leader:
Elizabeth Bocon
413-322-1432
ebocon@herc.com

NPDES Permit number: MAG250848

Facility Latitude: 42.1825° N
Longitude: 72.6099° W

Topographic Map: Attached; indicating facility location, discharge point, and name of receiving water

PART 2 – Discharge Information

Discharge Information:

- a) Name of Receiving Water: Connecticut River, Class B warm water fisheries, Freshwater
- b) Discharge Activity: Noncontact cooling water from heat exchangers
- c) Engineering Calculations: for surface water temperature rise – See Attachment
- d) Number of Outfalls: one
- e) Maximum Daily and Average Monthly Flow of Discharge:
Max Daily Flow: 300,000 gpd
Average Flow: 200,000 gpd
- f) Maximum Daily and Average Monthly Temperature of Discharge:
Max Daily Temperature: 77° F
Average Temperature: 65° F
- g) Maximum and Minimum Monthly pH of Discharge:
Max pH: 7.9
Min pH: 7.1
- h) Is the Source water of the NCCW potable water: Yes
- i) Is the discharge continuous: Yes
- j) Latitude and Longitude of Discharge:
Latitude: 42°-09'-24"
Longitude: 72°-37'-35"
- k) Calculated Seven Day-ten Year Low Flow of Receiving Water: 1222 cfs

Areas of Critical Environmental Concern (ACEC): The Connecticut River is not listed as an ACEC.

PART 3 – NCCW Source Water Information

Source of the NCCW: City of Chicopee Water Department, who receives their water from: Surface Water – Quabbin Reservoir.

PART 4 – Best Technology Available for CWIS

Subject to BTA Requirements at Part 4.2 of the General Permit: Hercules receives their NCCW from the City of Chicopee Water Department. All Best Technology Available for CWIS would be at the City of Chicopee Water Department.

PART 5 – Contaminant Information

Not Applicable

PART 6 – Determination of Endangered Species Act Eligibility: See Attachment

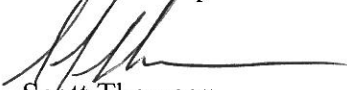
PART 7 – Documentation of National Historic Preservation Act

There are no historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in the path of the discharge. See Attachment for map of Historical Places in vicinity of Hercules Incorporated

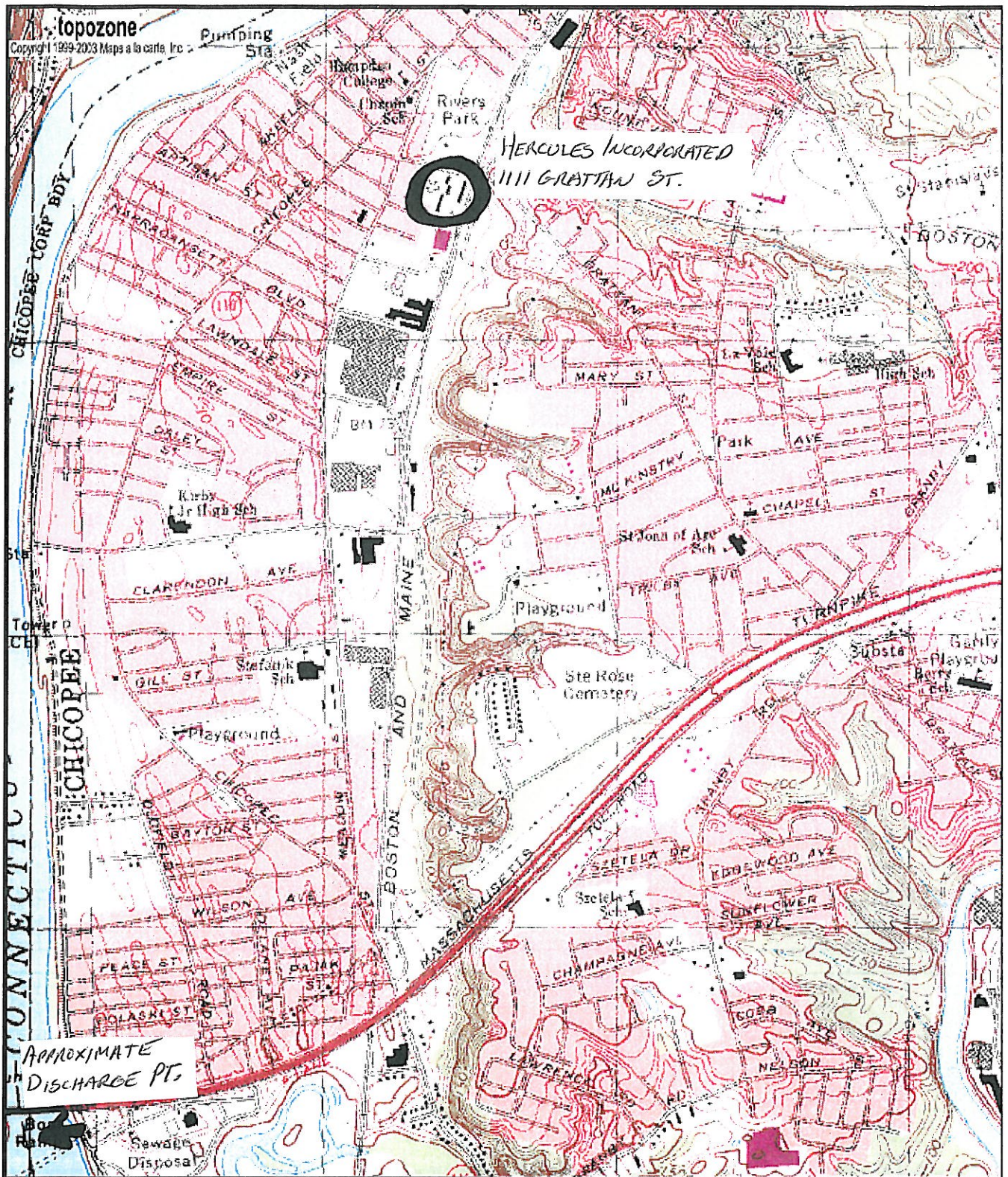
I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the noncontact cooling water (NCCW) system; (2) the discharge consists solely of NCCW (to reduce temperature) and authorized pH adjustment and/or dechlorination 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.

Hercules Incorporated


Scott Thomson
Plant Manager

September 9, 2008



ENGINEERING CALCULATIONS
For Surface Water Temperature Rise

m_p = mass of effluent, lbs /gal

m_r = mass of river, lbs / gal

ΔT_p = change in temperature, effluent – influent °F

ΔT_r = change in river temperature = $m_p / m_r \times \Delta T_p$

Max Daily Flow Rate = 300,000 gpd or 0.30 mgd

Max Daily Temperature of Discharge = 77° F

Average Incoming Water Temp = 50° F

7Q10 = 1222 mgd

$m_p = 0.30 \text{ mgd} \times 8.34 \text{ lbs/gal} = 2.502 \text{ Mlb / day}$

$m_r = 1222 \text{ mgd} \times 8.34 \text{ lbs/gal} = 10191.48 \text{ Mlb / hr}$

$\Delta T_p = 77^\circ \text{ F} - 50^\circ \text{ F} = 27^\circ \text{ F}$

$\Delta T_r = 2.502 / 10191.48 \times (27^\circ \text{ F}) = 0.0066^\circ \text{ F}$



Hercules Incorporated
Pulp and Paper Division
1111 Grattan Street
Chicopee, MA 01013
Phone: 413-536-6426

September 9, 2008

U.S. Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, MA 02114-8127

Re: Endangered Species Act Review

To meet the obligations under the Endangered Species Act (ESA) in seeking coverage under the Noncontact Cooling Water General Permit requirements, Hercules Incorporated conducted a review to demonstrate that Hercules meets the ESA eligibility criteria.

The review found that the federally-listed endangered shortnose sturgeon is found in the Connecticut River in the area where Hercules Incorporated noncontact cooling water is discharged.

The discharge pipe from the Hercules facility runs about 25 feet from the facility and goes under a set of railroad tracks before discharging into a concrete trench. This trench is located between the railroad tracks and Route 391 that both run parallel to the facility. The trench continues past the facility and about a half mile down from the facility the trench then goes into an underground catch basin. The pipe from the catch basin discharges into the Connecticut River along the bank by the City of Chicopee Water Pollution Control facility. The total distance from the facility to point of discharge is about two miles. The trench was put in to catch storm water run-off when Route 391 was built.

On August 13, 2008 Elizabeth Bocon, (Safety, Health, & Environmental Leader) of Hercules contacted John Nagle (Biologist / Environmental Scientist) of U.S. Environmental Protection Agency regarding this species of concern. John Nagle discussed the life history of the Shortnosed Sturgeon and provided additional written information regarding the Sturgeon.

The Shortnosed Sturgeon spawning occurs over channel habitats that contain gravel or rock-cobbled substrates. The eggs adhere to the rocky substrates and once hatched, the larvae remain on the bottom. Juvenile and adult Shortnosed Sturgeon habitat is in the deepest parts of the rivers.

The Hercules discharge into the river is not likely to adversely affect the species of concern or its critical habitat because of the following reasons:

- The discharge point is along the bank of the river where any heat from the discharged water would dissipate before reaching the deepest part of the river.
- The characteristic of the noncontact cooling water that is discharged into the trench is being changed by environmental elements before the point of discharge by stormwater runoff into the trench and ambient outside temperature.

If you have any questions regarding any of this information, please feel free to contact myself at 322-1435 or Liz Bocon, of my staff, at 322-1432.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Thomson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Scott Thomson,
Plant Manager

Cc: File

Index by State and City

National Register Information System

08/06/2008 13:25:17

No filter

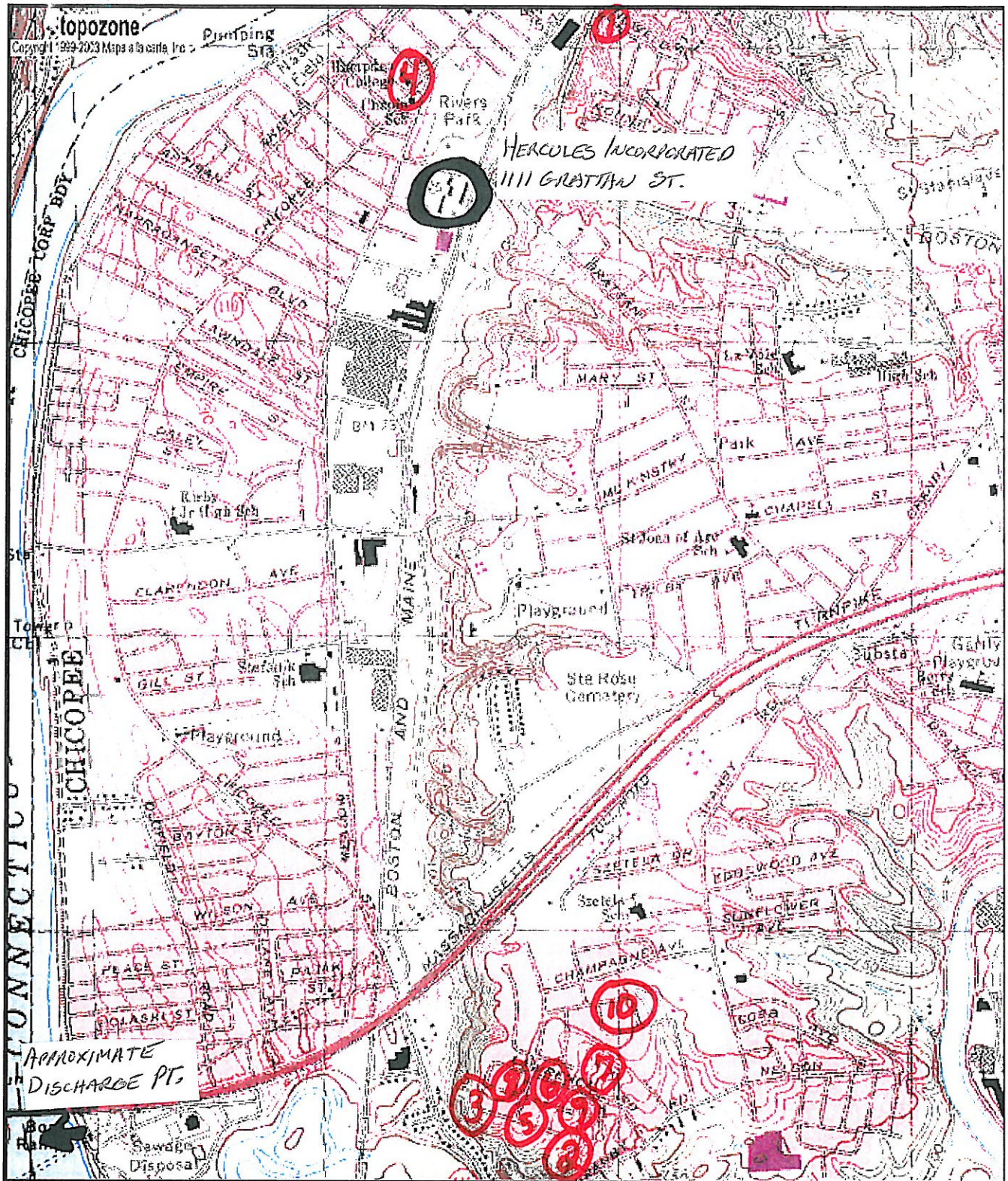
Include filter in navigation ☐

Row	STATE	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
1	MA	Hampden	Al's Diner	14 Yelle St.	Chicopee	2000-12-14	Diners of Massachusetts MPS
2	MA	Hampden	Ames Manufacturing Company	5-7 Springfield St.	Chicopee	1983-06-23	
3	MA	Hampden	Cabotville Common Historic District	School, Chestnut, Park and West Sts.	Chicopee	1999-05-28	
4	MA	Hampden	Carreau Block	640-642 Chicopee St.	Chicopee	1998-08-06	
5	MA	Hampden	City Hall	Market Sq.	Chicopee	1974-07-30	
6	MA	Hampden	Dwight Manufacturing Company Housing District	Front, Depot, Dwight, Exchange, Chestnut Sts.	Chicopee	1977-06-03	
7	MA	Hampden	Page, Thomas D., House	105 East St.	Chicopee	1988-10-25	
8	MA	Hampden	Polish National Home	136-144 Cabot St.	Chicopee	1980-11-14	
9	MA	Hampden	Springfield Street Historic District	Roughly bounded by Springfield St., Gaylord St. and Fairview Ave.	Chicopee	1991-01-25	
10	MA	Hampden	Valentine School	Grape and Elm Sts.	Chicopee	1983-09-16	

Page 1



National Register of Historical Places



0 0.3 0.6 0.9 1.2 1.5 km
0 0.2 0.4 0.6 0.8 1 mi

Map center is UTM 18 697654E 4671345N (WGS84/NAD83)

Springfield North quadrangle

Projection is UTM Zone 18 NAD83 Datum

M = -14.735
G = 1.607