GZA
GeoEnvironmental, Inc.

Engineers and
Scientists

Via Email: Frawley.Austine@epamail.epa.gov

November 15, 2011

One Edgewater Drive
Norwood
Massachusetts
02062
781-278-3700
FAX 781-278-5701
http://www.gza.com

Ms. Austine Frawley, US EPA-New England
Office of Ecosystem Protection (OEP06-4)
5 Post Office Square
Boston, Massachusetts 02109-3901

Re: Eastman Gelatine Corporation
227 Washington Street
Peabody, Massachusetts 01960
Noncontact Cooling Water General Permit Notice of Intent

Dear Ms. Frawley,

On behalf of the Applicant, Eastman Gelatine Corporation (Eastman Gelatine), GZA GeoEnvironmental, Inc. respectfully resubmits this Notice of Intent (NOI) in order to seek authorization for coverage under the National Pollutant Discharge Elimination System (NPDES) Noncontact Cooling Water General Permit (NCCWGP). Eastman Gelatine Corporation (Eastman Gelatine) recently submitted an application for renewal of the facility's Individual NPDES permit (Permit No. MA0003956). As part of this permit renewal application, Eastman Gelatine is seeking NCCWGP coverage for the facility's lone industrial storm water discharge in compliance with the provisions of the Federal Clean Water Act, as amended (33 U.S.C. 1251 et seq.) and the Massachusetts Clean Waters Act, as amended (M.G.L. Chap. 21, sections 26-53).

The Applicant has in place a 10" diameter steel pipe, gravity-fed cooling water intake structure that spans approximately ¾ of a mile, from Sidney Pond to the facility's on-site power plant. Sidney Pond is located due west of the Meadow at Peabody Golf Course and can be accessed via Granite Street. The cooling water intake structure (CWIS) is located near the bottom of Sidney Pond and is covered with a ¼" mesh stainless steel box screen. Cooling water enters the 10" diameter intake pipe and travels via gravity feed to an in-line wire mesh basket strainer located in the facility's power plant. Cooling water is then pumped, by one of two 10 horsepower pumps, to a 3" line that feeds boiler accessory equipment equipped with cooling sleeves. The water is returned to the surface of Goldthwait Brook resulting in a discharge temperature that is approximately 1-2 °F higher than the intake water temperature.

Best Technology Available (BTA)

The design capacity of the cooling water intake structure is approximately 0.165 million gallons per day (MGD); however, the CWIS is no longer utilized to provide boiler feed water and therefore the CWIS experiences a maximum monthly average intake of approximately 0.023 MGD. Based on the minimal anticipated thermal effect on water quality, the cooling system component of the process will have a negligible effect on any macroinvertebrate populations that may be present within Sidney Pond.

Endangered Species Eligibility Act

GZA GeoEnvironmental, Inc. has consulted the U.S. Fish and Wildlife Service's Endangered Species Consultation website for updated lists of federally-listed or proposed threatened or endangered species and critical habitats and has also obtained written notification that there are no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service that are known to occur in the project area. Please find the attached documentation located in Appendix A of the NCCW General Permit NOI.

National Historic Preservation Act

GZA GeoEnvironmental, Inc. has consulted the Massachusetts Historical Commission and obtained written notification that there is no potential to cause effects to historic properties in the project area. Please find the attached documentation located in Appendix A of the NCCW General Permit NOI.

As required, a copy of this NCCWGP NOI has been sent to the Massachusetts Department of Environmental Protection (DEP) Division of Watershed Management. The NCCWGP NOI is presented in Appendix A and a copy of the BRP WM 11 application MassDEP transmittal form (Transmittal Number X239313), and submittal fee of $385 is presented in Appendix B.

Please do not hesitate to contact me directly at (781) 278-5852 if you have any questions or require additional information about the facility or the attached NOI.

Very truly yours,

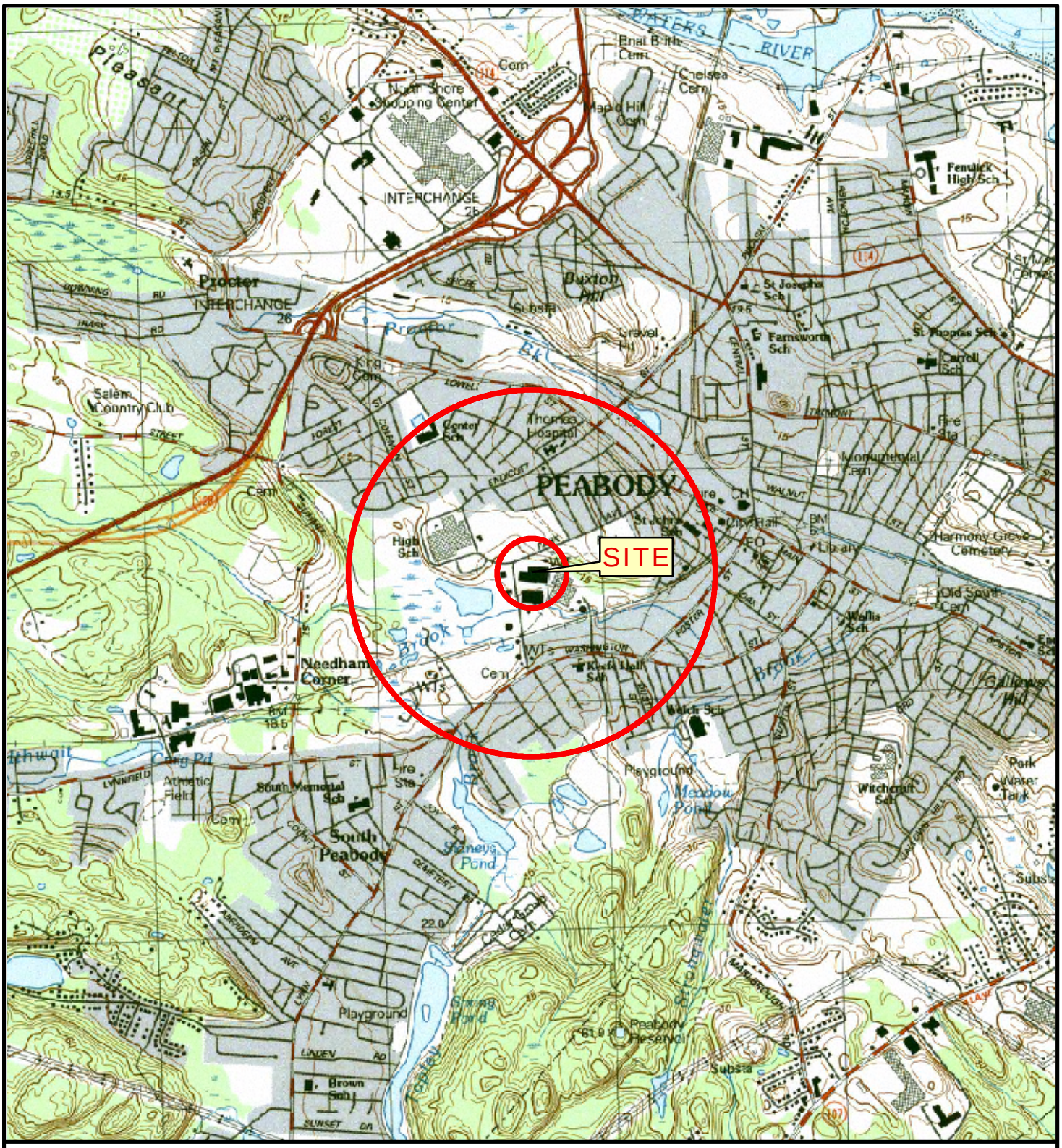
GZA GEOENVIRONMENTAL, INC.

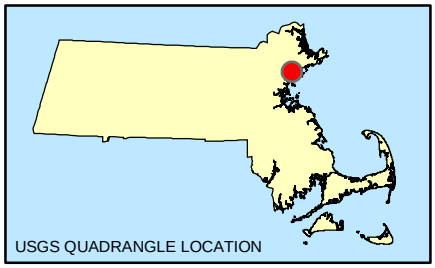
David Fradette
EHS Management Consultant

Attachments:
Figure 1 – Site Locus
Figure 2 – Aerial Site Plan
Figure 3 – Site Scoring Topographic Map
Figure 3 – Aerial Site Plan
Figure 4 – Facility Layout Plan
Figure 5 – Water Use Plan
Appendix A – Non-Contact Cooling Water General Permit NOI
Appendix B – Copy of MassDEP Transmittal Form and Payment

Cc: Massachusetts Department of Environmental Protection

FIGURES





SOURCE : SCANNED USGS TOPOGRAPHIC QUADRANGLES
SCANNED BY THE MASSACHUSETTS EXECUTIVE OFFICE OF
ENVIRONMENTAL AFFAIRS, MASSGIS. DISTRIBUTED JUNE, 2001.

Data Supplied by :

0 1,000 2,000 4,000 6,000
Feet

N
W E
S

PROJ. MGR.: BPM
DESIGNED BY: DF
REVIEWED BY: CSS
OPERATOR: EMD

DATE: 11-24-2009

LOCUS PLAN
SHOWING 500 FOOT & 1/2 MILE RADII

JOB NO.
01.0014396.55

EASTMAN GELATINE COMPANY
227 WASHINGTON STREET
PEABODY, MASSACHUSETTS

FIGURE NO.
1

J:\13,000-14,999\14396.0M4\14396-55.BPM\FIGURES\GIS\MXDs\14396-55_PH1-LOCUS-v2_FIG1.mxd

LEGEND

- ESSEX WELL FIELD PUMPING WELL (APPROXIMATE LOCATION)
- BRIDGE #1 — BROOK SURFACE WATER ELEVATION MEASURING POINT (APPROXIMATE LOCATION)
- MW-1 — EXISTING MONITORING WELL
- 27 — ELEVATION CONTOUR IN METERS

SOURCE

1) THE COLOR ORTHO IMAGERY WAS AQUIRED FOR THE U. S. GEOLOGICAL SOCIETY FROM APRIL 10-18, 2008 BY FUGRO EARTHDATA, INC. GROUND CONTROL POINTS WERE COLLECTED BY DEWBERRY AND DAVIS LLC. AND BY THE MASS HIGHWAY SURVEY SECTION. THE IMAGERY IS MAINTAINED BY MASSGIS AND WAS DISTRIBUTED ON FEBRUARY 20, 2009.

2) THE (1:5000) ELEVATION CONTOURS WERE CREATED AT 3-METER INTERVALS FROM DIGITAL TERRAIN MODEL (DTM) DATA POINTS COLLECTED DURING THE PRODUCTION OF THE BLACK AND WHITE ORTHOPHOTO IMAGES. THE DATA WAS DEVELOPED BY MASSGIS IN APRIL 2003 AND WAS DISTRIBUTED IN JUNE 2003.

0 60 120 240
SCALE IN FEET

EASTMAN GELATINE COMPANY
227 WASHINGTON STREET
PEABODY, MASSACHUSETTS

EXPLORATION LOCATION PLAN

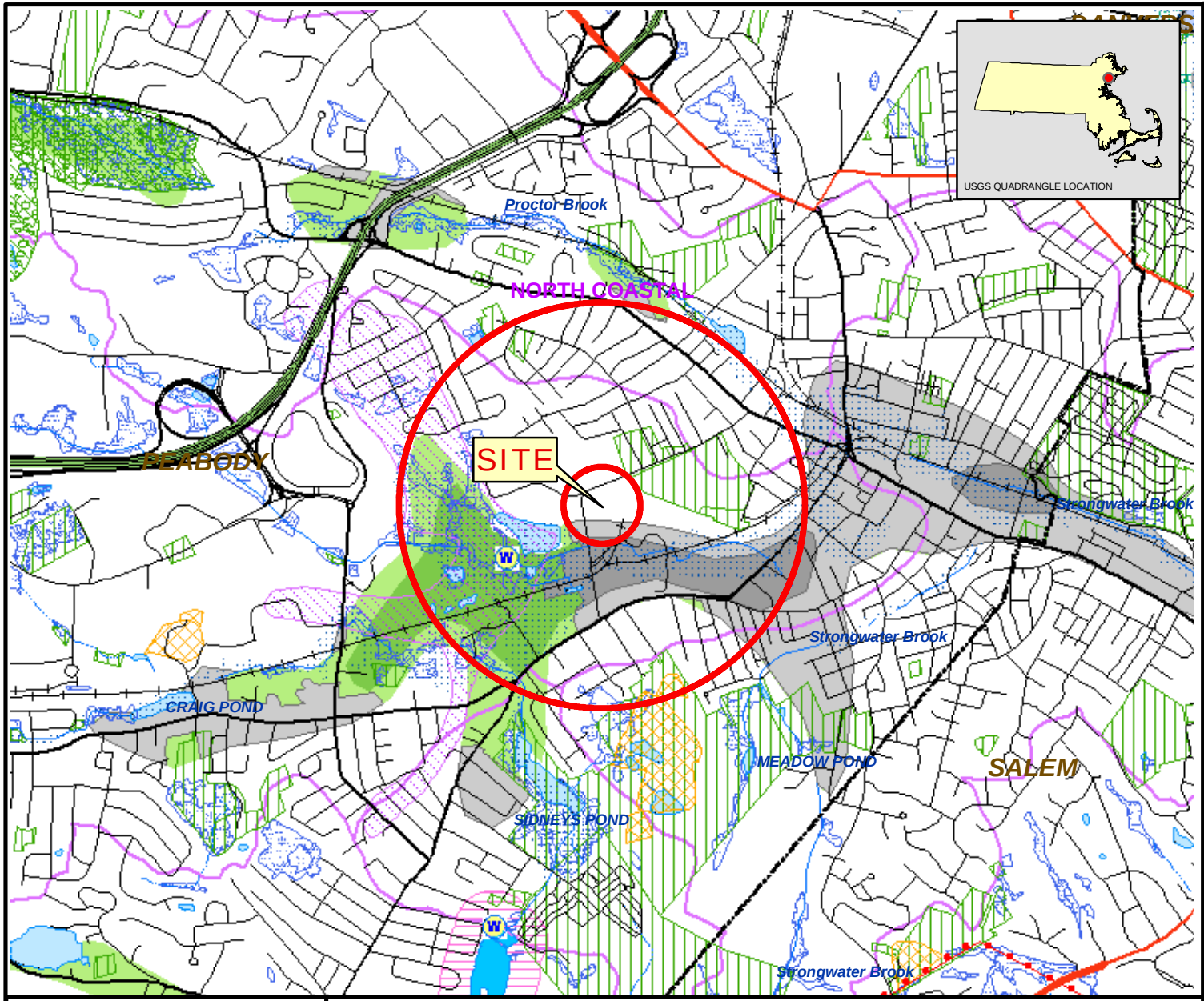
PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
ONE EDGEWATER DRIVE
NORWOOD, MASSACHUSETTS 02062
PHONE: (781) 278-3700

PREPARED FOR: EASTMAN GELATINE CORPORATION, A Kodak Company

PROJ MGR:	REVIEWED BY:	CHECKED BY:	FIGURE
CSS	CSS	SC	2
DESIGNED BY: DF/SC	DRAWN BY: GAS/EMD	SCALE: 1 INCH = 120 FEET	
DATE: 09-14-2010	PROJECT NO. 01.0014396.55	REVISION NO.	

J:\13,000-14,999\14396.0M4114396-55.BPM\FIGURES\GIS\MXDs\14396-55_IRA-Status-Rpt_Exploration-Location-Plan-v1_FIG2.mxd

 J:\13,000-14,999\14396.0M4\14396-55.BPM\FIGURES\GIS\MXDs\14396-55_PH1-DEP21e-SCORING_10-2009data_FIG-3.mxd



DEP MCP 21e LEGEND

- Public Water Supplies
- Zone II's
- Interim Wellhead Protection Areas (IWPA's)
- Zone A
- Sole Source Aquifers
- Solid Waste Sites
- Protected Openspace
- Areas of Critical Environmental Concern
- NHESP 2008 Estimated Habitats of Rare Wildlife: Use with MA Wetlands Protection Act (310 CMR 10.00)
- NHESP 2008 Priority Habitats of State-Listed Rare Species: Use with MA Wetlands Protection Act (310 CMR 10.00)
- NHESP 2008 Massachusetts Certified Vernal Pools
- Subbasins
- Mass Major Basins
- DEP Regions
- Town Boundaries
- County Boundaries

Aquifers, By Yield
- High Yield - Potential Source
- Medium Yield - Potential Source
- Low Yield - Potential Source

Non-Potential Drinking Water Souce Area
- High Yield - Non Potential Source
- Medium Yield - Non Potenital Source

FEMA Floodplains
- 100 Year Floodplain

Hydrography
- Lake, Pond, Wide River, Impoundment
- Reservoir (with PWSID)
- Wetland, Marsh, Swamp, Bog
- Saltwater Wetlands
- Tidal Flats, Shoals

Rivers and Streams
- Stream
- Intermittent Stream
- Shoreline
- Man-Made Shoreline
- Dam

EOT-OTP Roads, Transmission Lines
- Limited Access Highway
- Multi-Lane Highway, Unlimited Access
- Other Numbered Highway
- Major Road - Connector
- Minor Street or Road
- Railroad Lines
- Aqueducts
- Powerline
- Pipeline
- Airport
- Track
- Trail

Source Data Supplied by MassGIS (October 2009)

N W E S

0 1,000 2,000

SCALE IN FEET

SITE SCORING MAP SHOWING 500 FOOT & 1/2 MILE RADII

EASTMAN GELATINE COMPANY
227 WASHINGTON STREET
PEABODY, MASSACHUSETTS

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
(P) 781-278-3700

JOB NO. 14396.55

PROJ. MGR.: BPM
DESIGNED BY.: SC
REVIEWED BY.: CSS
OPERATOR.: EMD
DATE: NOVEMBER 24, 2009

FIGURE NO. 3

EEGLXX-003-100A

MACHINE PARTS LIST NO. H

REFERENCE DWGS.

SYM	REVISIONS	DATE
A	UPDATE DRAWING	9-08-04 D. WARD

CUSTOMER APPROVALS | DATE

ENGINEERING APPROVALS | DATE

ENGINEER

FILE NAME: XX003100.DGN

QUANTITY | BLDG. | OPER. | SERIAL | ORDER NUMBER

SCALE-ORIGINAL: 1" = 60'

EASTMAN KODAK COMPANY
KODAK PARK DIVISION

IG C.G. D DATE

SEAL WHEN REQUIRED

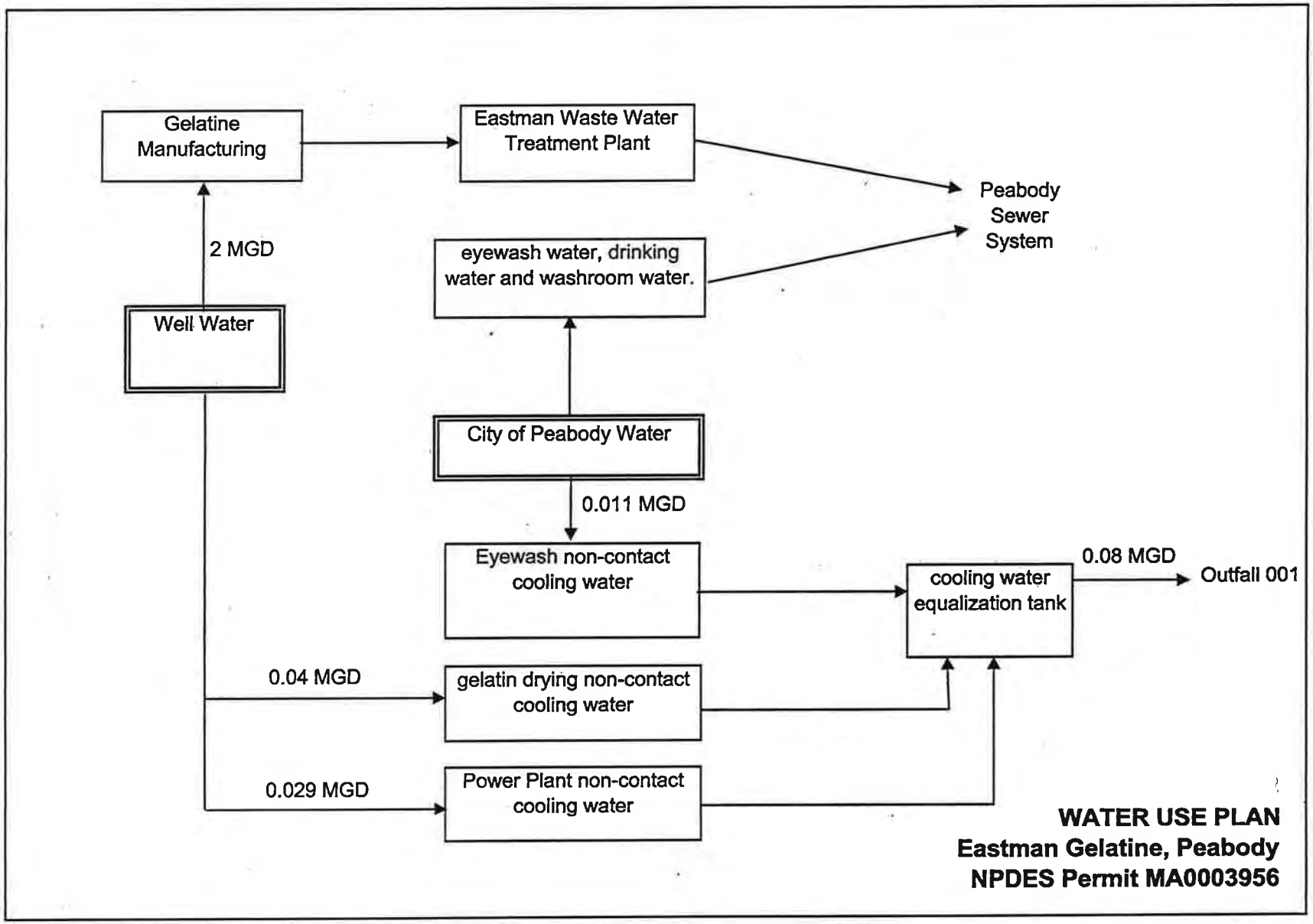
DRAWN DAVID WARD
DATE 12-21-99
CHECKED
DATE
DESIGN S.O.
DES.SUPVR.

EASTMAN GELATINE SITE PLAN
PEABODY, MASSACHUSETTS

BLDG/NO. SITE
LOCATION EGL

EEGLXX-003-100A

...\XX003100A.dgn 3/27/2009 1:04:32 PM


Gelatine Manufacturing
Eastman Waste Water Treatment Plant
Peabody Sewer System
2 MGD
eyewash water, drinking water and washroom water.
Well Water
City of Peabody Water
0.011 MGD
Eyewash non-contact cooling water
0.08 MGD
cooling water equalization tank
Outfall 001
0.04 MGD
gelatin drying non-contact cooling water
0.029 MGD
Power Plant non-contact cooling water
WATER USE PLAN
Eastman Gelatine, Peabody
NPDES Permit MA0003956

APPENDIX A

Appendix A – Non-Contact Cooling Water General Permit NOI

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: Eastman Gelatine Corporation		**Type of Business:** Gelatin Manufacturing Facility
Facility Location Address : 227 Washington Street, Peabody, MA 01960 **longitude:** -70.9388805 W **latitude:** 42.5201702 N	**Facility SIC codes:** 2899	**Facility Mailing Address (if not location address)**
b) Name of facility owner: Eastman Gelatine Corporation		**Email address of owner:**
Owner's Tel #: (978) 573-7000 **Owner's Fax #** (978) 573-3876		**Owner is (check one): 1. Federal____ 2. State _____ 3.Tribal_____** **4. Private__✔__ 5. Other _____(Describe)**
Address of owner (if different from facility address)		

Legal name of Operator, if not owner: _____

Operator Contact Name: Edward Hurley

Operator Tel Number: (978) 573-3807 **Fax Number:** (978) 573-3876

Operator's email: edward.hurley@kodak.com

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? __✔__

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:** MA0003956
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** MA0003956
4. **Is there a pending application on file with EPA for this discharge? Yes _✔_ No _____ If Yes, date of submittal:** 7/28/11

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

a) Name of receiving water into which discharge will occur: Goldthwait Brook
State Water Quality Classification: Impaired **Freshwater:** X **Marine Water:** _____

b) Describe the discharge activities for which the owner/applicant is seeking coverage: Once-Through Non-Contact Cooling Water Discharged to Outfall 001

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

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 28,000 **GPD Average Flow** 23,000 **GPD**

f) What is the maximum daily and average monthly temperature of the discharge (in degrees F)? Max Temp. 83 **Average Temp.** 52

g) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 7.5 **Min pH** 6.5

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)** _____
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. -70*56'15" W **lat.** 42*31'20" N**; 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 0.124 **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** ✔
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:** Surface Water Withdrawal / Municipal Water **Name of Source Water:** Sidney Pond/City of Peabody 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:** 9P-3-18-229.02	**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** 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** ✔ **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

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:

Provide the following information for each CWIS to support your attached facility-specific BTA description.
Design capacity of the of the CWIS 0.165 **MGD**
Maximum monthly average intake of the CWIS during the previous five years 0.028 **MGD Month in which this flow occurred** January
Maximum through-screen design intake velocity ~0.50 **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 N/A **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 N/A **Attach calculations if equal to or less than 5% of annual mean flow.**
The source water's 7Q10 N/A **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 N/A

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)).

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** ☐
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? 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

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: Eastman Gelatine Corporation

Operator signature: 

Title: President & General Manager

Date: 11/15/11

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.


Outfall 001
Power Plant
Allens Ln
Washington St
A
Eastman Gelatine Corporation
Hingston St
Wheeler St
Dane St
Washington St
Goodridge St
Hourihan St
Lincoln St
Lynnfield St
Granite St
Mary St
Lynn St
Lynn St Ct
Trolin Ln
Joy Rd
B
Sidneys Pond
Margaret Rd
Joy Rd
Lynn St

Northeast Environmental Laboratory, Inc.

18 Riverside Avenue, Danvers, MA 01923
978-777-4442 DEP #MA123

Eastman Gelatine Corporation
227 Washington Street
Peabody, MA 01960

Report Number 33766
Report Date 07/26/11

84991 Outfall 001, 26.0°C, field pH 6.55
Collected 7/18/11 at 13:00 by JL
Received 7/18/11 at 15:10 by JRT

Preservation 4°C, HNO3, H2SO4

Parameter	Result	MDL	Units	Method	Analyzed	By	Lab	Cert.*
Ammonia as N	1.2	0.02	mg/L	350.1	07/25/11	DDD	CT008	N
Biochemical Oxygen Demand	10	2	mg/L	5210B	07/19/11	ZSH	MA123	N
Chemical Oxygen Demand	42	5	mg/L	5220-D	07/20/11	DCH	CT008	N
Copper	0.038	0.001	mg/L	3113B	07/22/11	JL	MA123	P, N
Lead	0.025	0.001	mg/L	3113B	07/25/11	JL	MA123	P, N
Nitrate	0.6	0.02	mg/L	300.0	07/19/11	JL	MA123	P, N
Nitrite	< 0.01	0.01	mg/L	300.0	07/19/11	JL	MA123	P
Oil & Grease	< 2	1	mg/L	1664A	07/22/11	JHF	CT008	N
Total Kjeldahl Nitrogen	2.4	0.5	mg/L	351.1	07/21/11	DCH	CT008	N
Total Organic Carbon	9.8	0.5	mg/L	5310C	07/21/11	KH	CT008	N
Total Phosphorous	0.25	0.02	mg/L	365.1	07/22/11	DDD	CT008	N
Total Suspended Solids	6	1	mg/L	2540D	07/19/11	PT	MA123	N
Zinc	0.35	0.01	mg/L	3111B	07/22/11	ZTL	MA123	N

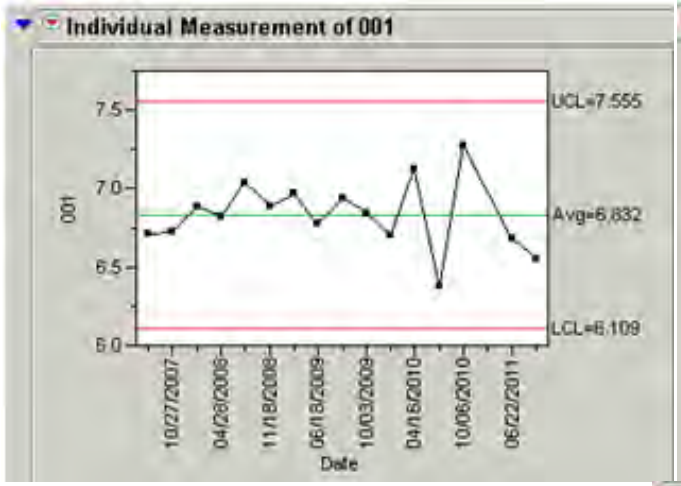
84986 Upstream, 24.7°C, field pH 6.78
Collected 7/18/11 at 12:30 by JL
Received 7/18/11 at 15:10 by JRT

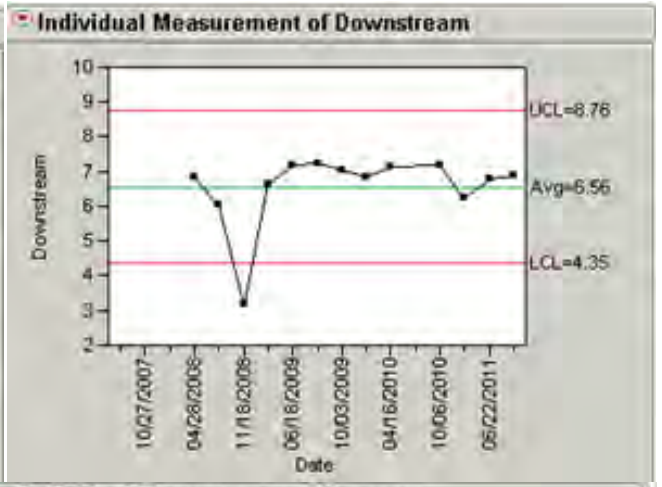
84996 Downstream, 24.3°C, field pH 6.88
Collected 7/18/11 at 14:40 by JL
Received 7/18/11 at 15:10 by JRT

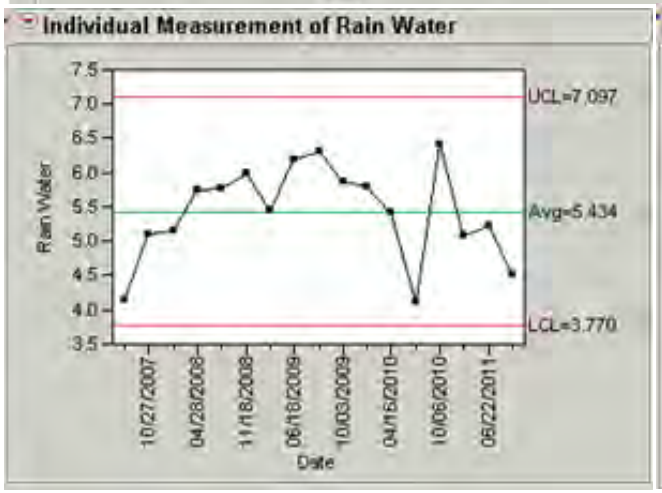
85001 Rain water, 24.2°C, field pH 4.52
Collected 7/18/11 at 17:20 by JL
Received 7/18/11 at 18:15 by JL

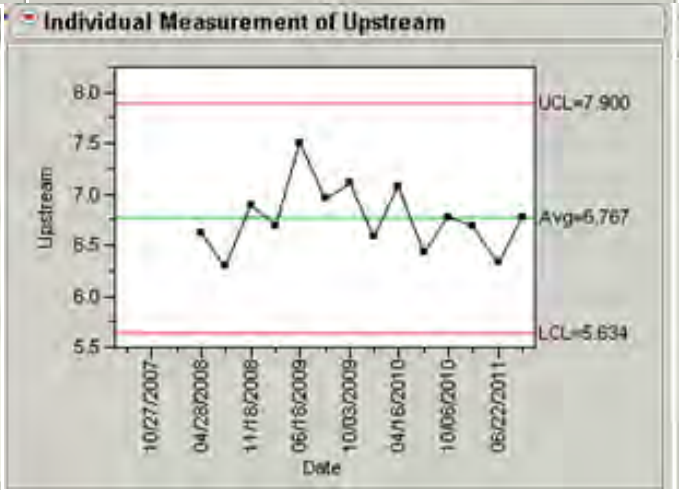
Outfall-001 pH Data

Outfall	7/30/07	10/27/07	1/18/08	4/28/08	9/6/08	11/18/08	3/4/09	6/18/09	8/29/09	10/3/09	3/22/10	4/16/10	9/16/10	10/6/10	3/11/11	6/22/11	7/18/11
001	6.71	6.72	6.89	6.82	7.04	6.89	6.97	6.78	6.94	6.84	6.70	7.12	6.38	7.28	-	6.68	6.55
Downstream	-	-	-	6.85	6.03	3.19	6.66	7.18	7.21	7.04	6.82	7.15		7.17	6.26	6.81	6.88
Rain Water	4.15	5.11	5.16	5.75	5.78	6.00	5.45	6.20	6.31	5.87	5.80	5.43	4.11	6.42	5.07	5.24	4.52
Upstream	-	-	-	6.62	6.30	6.89	6.68	7.50	6.96	7.11	6.58	7.08	6.43	6.78	6.69	6.34	6.78









NCCW General Permit
Receiving Water Temperature Engineering Calculation

The basic equations used for the calculation of river temperature rise are as follows:

$Q_{plant} = C_p m_p \Delta T_p$

$Q_{river} = C_p m_r \Delta T_r$

$C_p m_p \Delta T_p = C_p mr \Delta T_r$

$\Delta T_r = m_p / m_r \times \Delta T_p$

Where:

Q_{plant} = heat load discharged from plant (btu)

C_p = heat capacity of water = 1.0 °F x btu/lb

m_p = mass of effluent, lbs (gal. or cubic feet per second if volume is used)

ΔT_p = change in temperature, effluent – influent, °F

m_r = mass of river, lbs (gal. or cubic feet per second if volume is used)

ΔT_r = change in river temperature, °F

Since all of the heat rejected by the plant is assumed to be absorbed by the river:

Qp = Qr and Qr = CpMrΔTr or ΔTr = Qr/CpMr

Qr = 100 btu/hr

m_r = 0.023 mgd

ΔT_r = (100 btu/hr)/(1 btu/lbs °F) x (24 hrs/day) x (gal/8.34 lbs) / 2.3 x 10^2 gal/day = 0.870 °F

Therefore facility has demonstrated that the receiving water will be protected and no in-stream monitoring is required.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087
http://www.fws.gov/northeast/newenglandfieldoffice

January 12, 2009

Reference:	Project	Location
	NPDES stormwater discharge general permit	Norwood, MA
	NPDES stormwater discharge general permit	New Bedford, MA
	NPDES stormwater discharge general permit	Fall River, MA
	NPDES stormwater discharge general permit	Peabody, MA

David Fradette
GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062

Dear Mr. Fradette:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the proposed activities referenced above.

Based on information currently available to us, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project areas. Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes our review of listed species and critical habitat in the project locations and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

In order to curtail the need to contact this office in the future for updated lists of federally-listed or proposed threatened or endangered species and critical habitats, please visit the Endangered Species Consultation page on the New England Field Office's website:

www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm

In addition, there is a link to procedures that may allow you to conclude if habitat for a listed species is present in the project area. If no habitat exists, then no federally-listed species are present in the project area and there is no need to contact us for further consultation. If the above conclusion cannot be reached, further consultation with this office is advised. Information describing the nature and location of the proposed activity that should be provided to us for further informal consultation can be found at the above-referenced site.

Thank you for your coordination. Please contact Anthony Tur at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

Commonwealth of Massachusetts

Division of Fisheries & Wildlife

MassWildlife

Wayne F. MacCallum, *Director*

1/14/2009

David Fradette
GZA GeoEnvironmental
1 Edgewater Drive
Norwood MA 02062

RE: Project Location: Eastman Gelatine, 227 Washington Street
Town: PEABODY
NHESP Tracking No.: 06-20198

Mr. Fradette:

Thank you for contacting the Natural Heritage and Endangered Species Program ("NHESP") of the MA Division of Fisheries & Wildlife for information regarding state-listed rare species in the vicinity of the above referenced site.

Based on the information provided, the NHESP has determined that at this time the site is not mapped as Priority or Estimated Habitat. The NHESP database does not contain any state-listed species records in the immediate vicinity of this site.

This evaluation is based on the most recent information available in the NHESP database, which is constantly being expanded and updated through ongoing research and inventory. If you have any questions regarding this letter please contact Emily Holt, Endangered Species Review Assistant, at (508) 389-6361.

Sincerely,

Thomas W. French

Thomas W. French, Ph.D.
Assistant Director

Rare Species by Town: Peabody

MESA (Massachusetts Endangered Species Act) and Federal Status

E = Endangered T = Threatened SC = Special Concern

Most Recent Observation

This field represents the most recent observation of that species in a town. However, because they are rare, many MESA-listed species are difficult to detect even when they are present. Natural Heritage does not have the resources to be able to conduct methodical species surveys in each town on a regular basis. Therefore, the fact that the 'Most Recent Observation' recorded for a species may be several years old should not be interpreted as meaning that the species no longer occurs in a town. However, Natural Heritage regards records older than twenty-five years historic.

Click on a town below to view MESA-listed species for that town. To print the species for a particular town, highlight the species using your mouse, go to Print under the File Menu, click on 'Selection' under 'Print Range' and click OK.

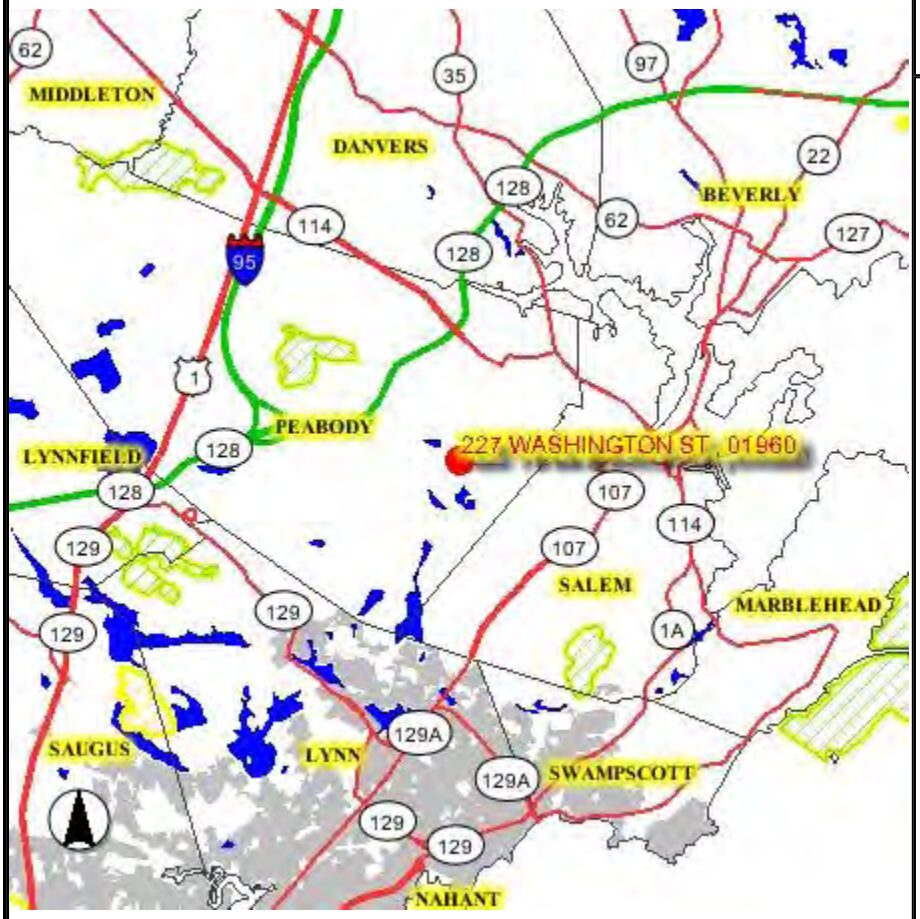
For more information about a particular species, view the list of Natural Heritage Fact Sheets.

These data were extracted from the database of the Natural Heritage and Endangered Species Program in September 2009.

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
PEABODY	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2002
PEABODY	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		1896
PEABODY	Bird	Gallinula chloropus	Common Moorhen	SC		1970s
PEABODY	Fish	Notropis bifrenatus	Bridle Shiner	SC		1961
PEABODY	Reptile	Glyptemys insculpta	Wood Turtle	SC		1996
PEABODY	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1995
PEABODY	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1879
PEABODY	Vascular Plant	Gentiana andrewsii	Andrews' Bottle Gentian	E		1933
PEABODY	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		1933
PEABODY	Vascular Plant	Ranunculus micranthus	Tiny-flowered Buttercup	E		1912
PEABODY	Vascular Plant	Scheuchzeria palustris	Pod-grass	E		1886

Source: http://www.mass.gov/dfwele/dfw/nhesp/species_info/town_lists/town_p.htm#peabody

2008 Priority Habitat and Estimated Habitat Natural Heritage & Endangered Species Program



Legend

Major EOT-OTP Roads
Alternate Route Numbers

Major EOT-OTP Roads
- Limited Access Highway
- Multi-lane Hwy, Not Limited Access
- Other Numbered Hwy

Surrounding States Labels

- Surrounding States
- NHESP 2008 Priority Habitats of Rare Species and also Estimated Habitats of Rare Wildlife
- NHESP 2008 MA Priority Habitats of Rare Species
- Major Lakes and Ponds
- Major Urban Area
- Town Boundary

The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

December 26, 2008

David Fradette
GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062

Re: 227 Washington St, Peabody, MA. MHC# RC.40311

Dear Mr. Wierbonics:

Thank you for your inquiry to the Massachusetts Historical Commission for the project referenced above. Staff of the MHC have reviewed the information you submitted and our files. The project consists of the application for coverage under a US Environmental Project Agency Multi Sector General Permit to discharge stormwater from an industrial facility located at 227 Washington Street in Peabody.

Since there is no new construction or demolition, the project has "no potential to cause effects" (36 CFR 800.3(a)(1)) to historic properties.

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800) and the Massachusetts General Laws, Chapter 9, Section 26-27C (950 CMR 71). If you have any questions or require further information, please contact Tim Hollis at this office.

Sincerely,

Jonathan K. Patton
Archaeologist/Preservation Planner
Massachusetts Historical Commission

xc: Jean Brochi, EPA

220 Morrissey Boulevard, Boston, Massachusetts 02125
(617) 727-8470 • Fax: (617) 727-5128
www.sec.state.ma.us/mhc

APPENDIX B

MASSDEP BWP IW-36 APPLICATION, TRANSMITTAL FORM, AND FEE

A Kodak Company
227 Washington Street
Peabody, MA 01960

August 19, 2011

MassDEP
P.O. Box 4062
Boston, MA 02211

Re: Eastman Gelatine Corporation
Transmittal Number X239313
Form BRP WM 11
NPDES Permit Renewal

Dear MassDEP:

Eastman Gelatine Corporation (Eastman Gelatine) is submitting the attached MassDEP Transmittal Form for Permit Application and Payment (Transmittal Number X239313), along with the BRP WM 11 General Permit for Non-Contact Cooling Water and check in the amount of $385 to cover the application fee for noncontact cooling water (NCCW) discharges from the facility's lone industrial storm water discharge (currently permitted under National Pollutant Discharge Elimination System (NPDES) Permit No. MA0003956).

Very truly yours,
Eastman Gelatine Corporation

Edward Hurley
President & General Manager

Attachments: MassDEP Transmittal Form for Permit Application and Payment
Check ($385)

Enter your transmittal number → X239313 (Transmittal Number)

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml or call MassDEP'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:

MassDEP
P.O. Box 4062
Boston, MA
02211

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

A. Permit Information

1. Permit Code: 7 or 8 character code from permit instructions	2. Name of Permit Category
BRP WM 11	Non-Contact Cooling Water General Permit

3. Type of Project or Activity: NPDES Permit Renewal

B. Applicant Information – Firm or Individual

1. Name of Firm - Or, if party needing this approval is an individual enter name below: Eastman Gelatine Corporation

2. **Last Name** of Individual	3. **First Name** of Individual	4. MI

5. Street Address: 227 Washington Street

6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #
Peabody	MA	01960		

11. Contact Person	12. e-mail address (optional)
Edward Hurley	edward.hurley@kodak.com

C. Facility, Site or Individual Requiring Approval

1. Name of Facility, Site Or Individual: Eastman Gelatine Corporation

2. Street Address: 227 Washington Street

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Peabody	MA	01960		

8. DEP Facility Number (if Known)	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: GZA GeoEnvironmental, Inc.

2. Address: 1 Edgewater Drive

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Norwood	MA	02062	(781) 278-5852	

8. Contact Person	9. LSP Number (BWSC Permits only)
David Fradette	N/A

E. Permit - Project Coordination

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

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

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).

Check Number	Dollar Amount	Date
223813	$385	8/19/2011

223813

GZA GEOENVIRONMENTAL, INC.
ONE EDGEWATER DR.
NORWOOD, MA 02062

KeyBank National Association
Salt Lake City, Utah 84115
1-800-KEY2YOU®
31-300-1243

August 1, 2011
CHECK DATE

PAY Three Hundred Eighty Five and 00/100 Dollars

TO Commonwealth of Massachusetts

AMOUNT 385.00

NOT VALID IN EXCESS OF $10,000 UNLESS COUNTERSIGNED

Daniel Brewer

AUTHORIZED SIGNATURE - NOT VALID AFTER 90 DAYS

Details on back.

⑈223813⑈ ⑆124303007⑆ 440991900109⑈