

2

RECEIVED  
U.S. E.P.A.

7 1 07 - 7 4 19 18

ENVIRONMENTAL APPEALS BOARD  
R-78-13-07 (1151)  
October 6, 2005

**OVERNIGHT DELIVERY – ELECTRONIC SIGNATURE TRACKING**

Colorado Building  
1341 G. Street NW  
Suite 600  
Washington DC 20005

Docket Clerk  
Office of Administrative Appeals  
Commonwealth of Massachusetts  
Department of Environmental Protection  
1 Winter Street, 3<sup>rd</sup> Floor  
Boston, MA 02108

Re: Texon USA - Russell, MA  
NPDES No. MA0005282  
Permit Appeal  
Request for Adjudicatory Hearing

Dear Environmental Appeals Board and Office of Administrative Appeals:

On behalf of our client, Texon USA located at 1190 Huntington Road in Russell, Massachusetts, we are writing this letter for two purposes: 1) to file an appeal of the final NPDES Permit issued to Texon USA on September 9, 2005 with the Environmental Appeals Board; and 2) to file an appeal and request an adjudicatory hearing from the Massachusetts Department of Environmental Protection Office of Administrative Appeals.

Texon USA is concerned that certain conditions of the final NPDES Permit are unnecessarily stringent and are not applicable. Texon USA was issued a draft NPDES permit on April 15, 2005. The draft Permit and the September 2005 final NPDES permit contained virtually the same permit language except for the monitoring requirement for daily upstream and downstream temperature sampling. This language was added after the Draft permit and included with the issuance of the Final Permit.

We urge the Board of Environmental Appeals and the Office of Administrative Appeals to undertake full and independent reviews of this appeal.

**Requester Information**

This request is being filed by the Permit Holder:

Texon USA  
Mr. Bryan Ward - Technical Service Manager  
1190 Huntington Street, P.O. Box 365  
Russell, Massachusetts 01071  
(413) 862-3652 ext 224  
(413) 862-4530

The requestor is being represented by:

Tighe & Bond, Inc  
Consulting Engineers  
Jeffrey P. Bibeau  
53 Southampton Road  
Westfield, MA 01085  
(413) 572-3215  
(413) 562-5317 fax

A letter from Texon USA is attached authorizing Tighe & Bond, Inc. to represent the requestor.

**Service**

Simultaneous with the service of this appeal, the requestor's representative certifies that copies have been sent by United States Mail - Certified Mail to all parties addressed above as well as all parties listed as copied at the end of this letter.

**Statement of Interest - Specific Permit Conditions Under Appeal**

Texon USA, through this letter, requests appeal of the following NPDES Permit conditions.

**Footnotes - Number 5, Sentence 3 - Page 3 of 7**

Texon USA appeals the inclusion of the text "the permittee is required to monitor upstream and downstream of the discharge daily to determine any changes in river temperature from the discharge".

**Background Into Development Of The Permit**

Copies of previous NPDES Permits, Administrative Orders as well as supporting documentation are attached in the Appendices as listed below:

Appendix A - Authorization to Represent

Appendix B – September 9, 2005 Final NPDES Permit

Appendix C – October 3, 2005 Payment Documentation

Appendix D – April 15, 2005 Draft NPDES Permit

Appendix E – October 19, 1998 Temperature Limit Discussion

Appendix F – Actual Temperature Measurements Collected From Sept.29-Oct.5, 2005

Appendix G – Photographs of Current Upstream and Downstream Sample Locations

### **Documentation of Standing to File Appeal**

Regulations governing appeal of NPDES Permits (40 CFR 124.19) stipulate that "...any person who filed comments on that draft permit or participated in the public hearing may petition the Environmental Appeals Board to review any condition of the permit decision....Any person who failed to file comments or failed to participate in the public hearing may petition for administrative review only to the extent of the changes from the draft to the final permit decision....The petition shall include a statement of the reasons supporting the review, including a demonstration that any issues being raised were raised during the public comment period...".

The draft permit did not contain the language regarding daily upstream and downstream sampling, however, the final permit contained this language. Texon USA was not provided an opportunity to comment on the sampling requirement prior to the issuance of the final permit.

### **Comments on the Final Permit**

For reference, the comments on the final NPDES permit which are relevant to the items under appeal in this letter are restated below along with EPA's response and a more detailed discussion of the basis of appeal for each item.

### **Footnotes – Number 5, Sentence 3 – Page 3 of 7**

Westfield River Watershed Association Comment on Draft Permit: This Facility discharges untreated, non-contact cooling water and boiler water. The draft permit carries over the maximum temperature of 90°F from the existing permit. Presumably modeling was completed to determine this temperature maximum would not violate Massachusetts Class B water quality standards given the effluent flow rate and 7Q10 flow. Has it also been determined that this temperature limitation is adequate to prevent a change in water temperature in excess of 5°F as required in the State's water quality standards for Class B waters? If reasonable potential exists for a change in temperature of over 5°F above background than a limitation on temperature and determine the change in temperature after a reasonable assimilation zone. The Agency might also want to consider detailing a sampling methodology on how to capture the maximum daily

temperature reading given the temperature is sampled only once each day in a grab which has the potential to miss the maximum daily effluent temperature.

EPA Response: Inclusion of language in the final permit (Footnotes, Number 5) that states, "The discharge shall not result in a change in the receiving water temperature of greater than 5°F. The permittee is required to monitor effluent temperature daily at a time period when maximum thermal load is expected. In addition, the permittee is required to monitor upstream and downstream of the discharge daily to determine any changes in river temperature from the discharge.

Appeal: Texon USA has serious safety concerns with monitoring upstream and downstream discharges on a daily basis, especially during inclement weather. The slope along the Westfield River is extremely steep and overgrown with brush. Refer to the photographs provided in Appendix G of this document.

Comment B.5 from the Massachusetts Division of Fisheries, Wildlife, and Environmental Law Enforcement Riverways Program discussed that a monitoring requirement should be included IF it was determined that there was a reasonable potential to exceed the five degree delta. An analysis model dated October 19, 1998, attached in Appendix F of this document, provides strong support that there is not a reasonable potential to exceed the five degree delta. It is of the opinion of Tighe & Bond that the requirement for monitoring should not be included in the permit. Texon USA has included temperature modeling data (Provided in Appendix E) that illustrates theoretical temperature increases downstream from the outfall to be less than five degrees. For the mill to cause a 5°F increase at the recommended revised average daily flow of 2.17 MGD (2.07 cfs), assuming the critical low flow of the river at 32 cfs, mill effluent would need to be at least 115°F. This occurs when the river is at minimum temperature (32°F).

$$2.07\text{cfs}(x^{\circ}\text{F}) + 32\text{cfs}(32^{\circ}\text{F}) = 34.07\text{cfs}(32+5^{\circ}\text{F})$$
$$x = 115^{\circ}\text{F} \text{ (mill effluent temperature causing rise of } 5^{\circ} \text{ in river)}$$

When river temperatures are warmer, higher discharge temperatures could be allowed without changing the water temperature by more than 5°F. The maximum historic discharge temperature of Texon's effluent to date was 94°F. Based on this analysis, the mill does not have the potential to violate the first part of the water quality standard and, therefore, no numeric limit is required. This data was obtained through a model of the Westfield River.

Although the final NPDES permit did not determine upstream and downstream locations, Texon USA has recently conducted a battery of temperature sampling upstream and downstream of the outfall. The temperature sampling data indicates that the effluent discharge has minimum to no affect on the downstream temperature.

Conclusion: On behalf of Texon USA, we request that the Environmental Appeals Board and the Office of Administrative Appeals direct EPA Region 1 and the Massachusetts Department of Environmental Protection to delete the upstream and downstream sampling requirement for temperature.

**Request for Stay**

In requesting the appeal of the permit conditions as well as a formal hearing from the Office of Administrative Appeals on the above referenced NPDES Permit. If additional information, not already available, becomes available regarding this subject before such time as a hearing may be granted, we hereby request to be allowed to submit such additional information for purposes of conducting the hearing.

**Statement to Provide Testimony**

As required by 40 CFR 124.74(c)(4), the requester agrees to make available to appear and testify:

- (i) the requester
- (ii) all persons represented by the requester
- (iii) all officers, directors, employees, consultants and agents of the requester and the persons represented by the requester.

On behalf of Texon USA, we respectfully request that you grant the appeal and hearing on the above-referenced NPDES Permit. If you have any questions regarding this appeal or require additional information, please contact either Mr. Bryan Ward, Technical Service Manager, at (413) 862-3652 ext 224 or the undersigned at (413) 572-3243.

Very truly yours,  
TIGHE & BOND, INC.



Jeffrey P. Bibeau  
Project Manager, Industrial Services Group

J:\R\R0078\NPDES\NPDES-Appeal 2005.doc

Copy by Certified Mail:

Texon USA  
1190 Huntington Road

P.O. Box 365  
Russell, MA 01071

Robert W. Golledge, Jr., Commissioner  
Massachusetts Department of Environmental Protection  
1 Winter Street - 2<sup>nd</sup> Floor  
Boston, MA 02108

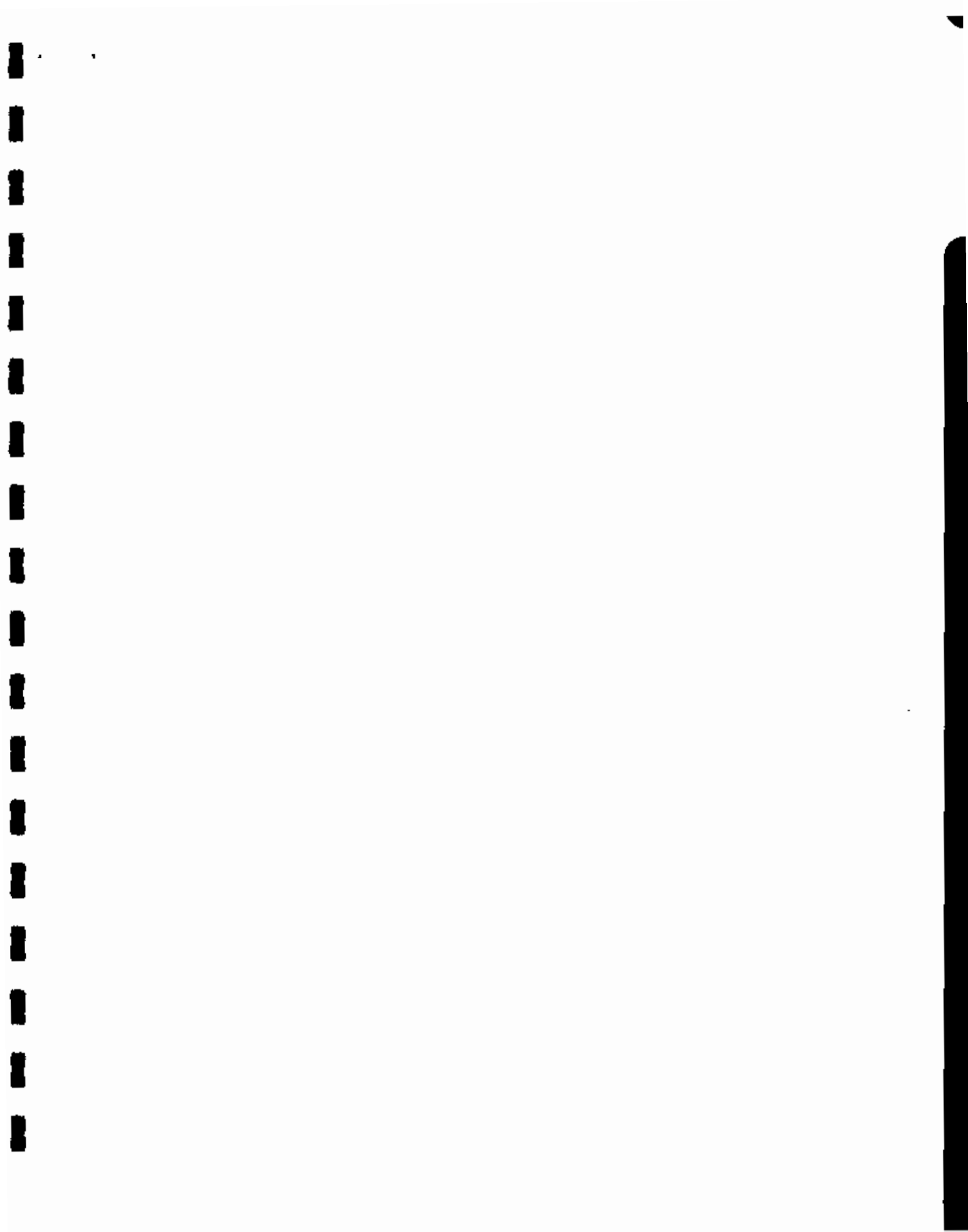
Arleen O'Donnell, Deputy Commissioner  
Massachusetts Department of Environmental Protection  
Bureau of Resource Protection  
1 Winter Street - 2<sup>nd</sup> Floor  
Boston, MA 02108

Paul Hogan,  
Massachusetts Department of Environmental Protection  
Central Regional Office - Bureau of Resource Protection  
627 Main Street  
Worcester, MA 01608

Paul Nietupski  
Massachusetts Department of Environmental Protection  
Western Regional Office  
436 Dwight Street  
Springfield, MA 01103

Brian Pit, Chief MA NPDES Permits Unit  
U.S. EPA Region I  
1 Congress Street Suite 1100  
Boston, MA 02114-2023

Victor Alvarez  
Massachusetts Office of Ecosystem Protection - CPE  
U.S. EPA Region I  
1 Congress Street Suite 1100  
Boston, MA 02114-2023





**Texon USA**

1190 Huntington Road  
P.O. Box 365  
Russell, MA 01071-0365  
Telephone: (413) 862-3652  
Facsimile: (413) 862-4543  
(413) 862-4590

Environmental Appeals Board  
MC1103B, U.S. EPA, Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

Docket Clerk  
Office of Administrative Appeals  
Commonwealth of Massachusetts  
Department of Environmental Protection  
1 Winter Street, 3<sup>rd</sup> Floor  
Boston, MA 02108


RE:  
Texon USA  
NPDES No. MA0005282  
Permit Appeal  
Request for Adjudicatory Hearing

Dear Environmental Appeals Board and Office of Administrative Appeals:

This letter is to authorize the firm of Tighe and Bond, Inc., Consulting Engineers to act on behalf of Texon USA to act as our representative in filing an appeal of the company's NPDES discharge permit.

If you need additional information regarding this authorization, please feel free to contact me at 413-862-3652 x224.

Regards,

  
Mark S. Stupak  
General Manager  
Texon USA

A Texon International company



AQUILINE

UNIFAST

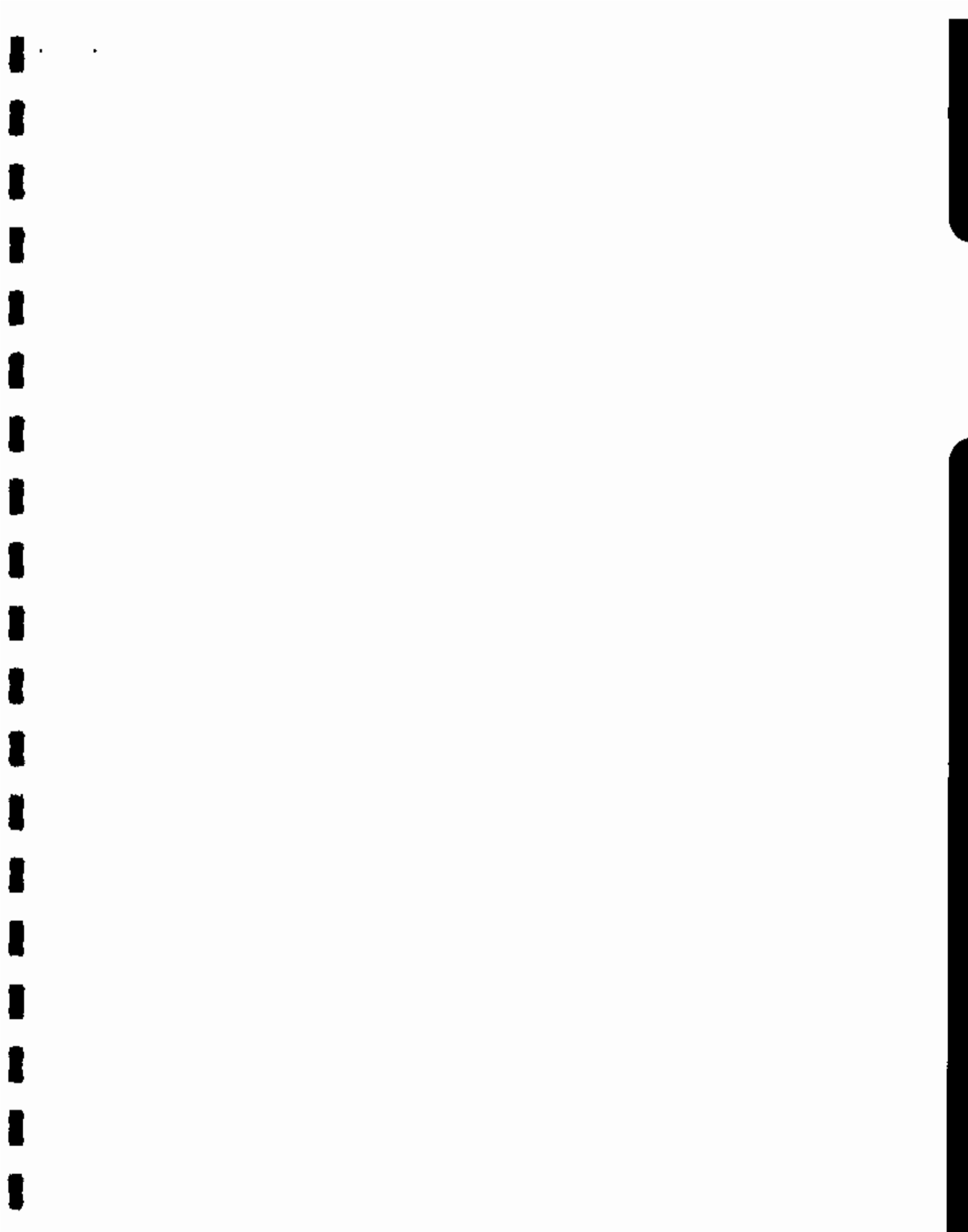
FORMO

TUFFLEX

IVI

The Texon logo is a stylized, cursive script of the word "Texon".





**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

**TEXON USA**

is authorized to discharge from the facility located at

1190 Huntington Road, Russell, MA 01071

to receiving water named Westfield River

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

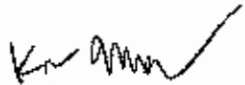
This permit shall become effective sixty (60) days from the date of signature.


This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on November 12, 1999.

This permit consists of 7 pages in Part I including effluent limitations, monitoring requirements, Attachment A, and 35 pages in Part II including General Conditions and Definitions.

Signed this 9<sup>th</sup> day of Sept. 2005

  
\_\_\_\_\_  
Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

  
\_\_\_\_\_  
Director  
Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

## PART I

A.1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial number 001, treated effluent to Westfield River. Such discharges shall be limited and monitored as specified below.

EFFLUENT CHARACTERISTICMONITORING REQUIREMENTS

PARAMETER	AVERAGE MONTHLY	MAXIMUM DAILY	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow <sup>2</sup>	0.8 MGD	1.3 MGD	Continuous	Recorder
BOD <sub>5</sub>	200 lbs/Day	400 lbs/Day	3/Week	24-Hour Composite <sup>4</sup>
TSS	250 lbs/Day	350 lbs/Day	3/Week	24-Hour Composite <sup>4</sup>
Total Aluminum	2.4 mg/l	Report	1/Week	24-Hour Composite <sup>4</sup>
Total Copper	Report	Report	1/Week	24-Hour Composite <sup>4</sup>
Ammonia, as NH <sub>3</sub> N	Report, mg/l	*****	1/Month	24-Hour Composite <sup>4</sup>
Nitrite + Nitrate Nitrogen	Report, mg/l	*****	1/Month	24-Hour Composite <sup>4</sup>
Total Kjeldahl Nitrogen	Report, mg/l	*****	1/Month	24-Hour Composite <sup>4</sup>
Temperature <sup>1,5</sup>	Report °F	90 °F	1/Day	Grab
pH Range <sup>1</sup>	6.5 - 8.3 S.U. See Paragraph I.A.1.b.		1/Day	Grab
Whole Effluent Toxicity {see footnotes 6, 7, and 8}	Acute LC <sub>50</sub> ≥ 100% Chronic C-NOEC: Report		4/Year	24-Hour Composite <sup>4</sup>

Sampling for effluent parameters shall be conducted after the discharge weir before effluent mixes with the Westfield River.

## Footnotes:

1. Required for State Certification.
2. For flow, report average and maximum daily discharged for each operating date.
3. All required effluent samples shall be collected at the point specified on Page 2 of this permit. Any change in sampling location must be reviewed and approved in writing by EPA and MADEP. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All samples shall be 24-hour composites unless specified as a grab sample in 40 CFR §136.
4. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one consecutive 24-hour period (e.g. 0700 Monday- 0700 Tuesday).
5. The discharge shall not result in a change in the receiving water temperature of greater than 5 degrees F. The permittee is required to monitor effluent temperature daily at a time period when maximum thermal load is expected. In addition, the permittee is required to monitor upstream and downstream of the discharge daily to determine any changes in river temperature from the discharge.
6. The permittee shall conduct chronic (and modified acute) toxicity tests four times per year. The chronic test may be used to calculate the acute LC<sub>50</sub> at the 48 hour exposure interval. The permittee shall test the Ceriodaphnia dubia (daphnid) and Pimephales promelas (Fathead minnow). Toxicity test samples shall be collected and processed in accordance with the schedule indicated below. The tests must be performed in accordance with test procedures and protocols specified in Attachment A of this permit.

Test Dates Second Week in	Submit Results By:	Test Species	Acute Limit LC <sub>50</sub>	Chronic Limit C-NOEC
January, April, July and October	February 28 <sup>th</sup> May 31 <sup>st</sup> August 31 <sup>st</sup> November 30 <sup>th</sup>	<u>Ceriodaphnia dubia</u> (daphnid) and <u>Pimephales</u> <u>promelas</u> (Fathead minnow) See Attachment A	≥ 100%	Report

7. The LC<sub>50</sub> is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate. The C-NOEC (chronic-no observed effect concentration) is defined as the highest concentration of toxicant or

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant (as defined at 40 CFR §122.2) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (1) One hundred micrograms per liter (100 ug/l);
  - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl- 4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
  - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21 (g) (7); or
  - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44 (f).
- b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit if that discharge will exceed the highest of the "following notification levels":
- (1) Five hundred microgram per liter (500 ug/l);
  - (2) One milligram per liter (1 mg/l) for antimony ;
  - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21 (g) (7) or
  - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44 (f).
- c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by product, any toxic pollutant which was not reported in the permit application.

#### Part IA.3. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

**C. STATE PERMIT CONDITIONS**

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap. 21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.

**RESPONSE TO COMMENTS FOR:  
TEXON USA WASTEWATER TREATMENT PLANT, RUSSELL, MA  
NPDES PERMIT #MA 0095282**

On April 20, 2005, the U.S. Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection ("MADEP") (together, the "Agencies") released for public notice and comment the draft for National Pollutant Discharge Elimination System ("NPDES") permit for the Texon USA Wastewater Treatment Plant. The permit authorizes the discharge from the wastewater treatment plant to the Westfield River.

The public comment period for the draft permit ended May 19, 2005.

Comments were received during the comment period from: 1. Westfield River Watershed Association and 2. Massachusetts Division of Fisheries, Wildlife and Environmental Law Enforcement [MAFW&ELE]-Riverways Program

The comments and responses are given below.

**A. Westfield River Watershed Association comments:**

*Comment A.1:*

*We support the EPA in not allowing increases in BOD, TSS and flow. The compliance record for this plant is problematic.*

Response A.1:

The Agencies agree that the BOD, TSS and flow should not be increased and thus it is so reflected in the final permit.

*Comment A.2:*

*The permit packet Fact Sheet says the plant has not had any exceedances of its BOD and TSS but this is certainly not true- particularly for BOD. The attachments provided in the packet clearly show many months with maximum and even monthly average load limits above the permitted amounts. More distressing is a fair number of acute toxicity test failures with both test species used. The permittee also looked at chronic (sub lethal) toxicity and the results were not great for many of the tests but there is no assigned chronic toxicity level because of the dilution afforded this discharge.*

Response A.2:

The Agencies acknowledge there have been exceedances of the BOD and limits. The information presented in the fact sheet was an evaluation of 13 years worth of data (which include high and low values) and an overview of the average values as related to the existing permit limits. BOD and TSS exceedances occurred during that time period. The fact sheet will not be changed but this clarification will be part of the administrative record.

*Comment A.3:*

*The Fact Sheet does not explain how the 7Q10 for the river was determined at the discharge point. The draft permit for the Huntington WWTP has a 7Q10 of 17.23 cfs at its upstream discharge location. The 7Q10 for the Texon discharge point is more than 50% larger though not that far downstream. We want to know how this 7Q10 was calculated and if it takes into account the discontinuation of the discharges from the other paper companies.*

*Response A.3:*

The MA DEP Division of Watershed Management reviewed the Huntington and Texon 7Q10 values. The discharge from the Huntington facility is actually via a diffuser located midstream in the West Branch Westfield River (WBWR) channel, 45 feet upstream of the confluence with the Westfield River (WR). The MA DEP determined that it would be appropriate to use the drainage area for both the rivers thus increasing the 7Q10 for the Huntington facility. Therefore, the new Huntington 7Q10 flow value based on approximately 320 square miles of drainage area was recalculated to be 30.3 cfs.

The dilution at the Texon discharge was recalculated at 31.4 cfs. The MA DEP recalculated the drainage area and the 7Q10 flow estimate using the low flow estimate watershed tools developed by USGS Streamstats program supported in MassGIS. Please see Figure 1 attached to these comments.

*Comment A.4 [related to temperature conditions in the permit]:*

*This facility discharges untreated, non-contact cooling water and boiler water. The permit allows a maximum temperature of 90° F. The Fact Sheet does not provide any information on how it was determined that this temperature could be assimilated in the river as to not cause unacceptable water temperatures.*

*The permit does not include the MA Water Quality Standard concerning temperature not causing a change in receiving water temperature of more than 5° F. We want to have a limitation of no temperature change in the river greater than 5 degrees F added to the permit.*

*Also the permit does not provide detail on how the temperature should be taken beyond once a day by grabbing a sample of water. This method might or might not produce results that reflect the maximum temperature of the water discharged that day. The permit should provide more detailed guidance on how to achieve a maximum daily temperature reading that truly captures the max T.*

*Response A.4:*

In October of 1998 Texon USA provided EPA with information on temperature modeling in response to a request by the Agencies (This modeling information is in the permit file). Texon provided an in-stream temperature analysis which demonstrated that the in-stream temperature of the receiving stream would not be negatively impacted due to Texon's discharges. Based on these findings, the company requested a 100° F temperature limit without a delta T requirement. However, the Agencies (for the permit issued 5 years ago) certified 90° F temperature limit and no more than 5° F delta T temperature rise in the receiving stream.



Comment B.4:

*The Fact Sheet did not show the calculations and support data used to determine the 7Q10 and associated dilution ratio for this facility. Did the curtailment of the wastewater flows from the other dischargers/paper companies in this section of the Westfield River change the flow characteristics and 7Q10? The 7Q10 flow provided in the attachments for the point of discharge is more than 50% greater than the 7Q10 of the Huntington WWTP. Without information on the drainage areas for these two discharge points, it is not possible to assess the 7Q10 figure used in to determine the dilution ratio.*

Response B.4:

See response A.3 above.

The reduction/elimination of the wastewater flows from facilities in the area would have resulted in a some decrease in base 7Q10 flow.

Comment B.5:

*This facility discharges untreated, non-contact cooling water and boiler water. The draft permit carries over the maximum temperature of 90<sup>0</sup> F from the existing permit. Presumably modeling was completed to determine this temperature maximum would not violate Massachusetts Class B water quality standards given the effluent flow rate and 7Q10 flow. Has it also been determined that this temperature limitation is adequate to prevent a change in water temperature in excess of 5<sup>0</sup> F as required in the State's water quality standards for Class B waters? If reasonable potential exists for a change in temperature of over 5<sup>0</sup> above background than a limitation on temperature change should be considered for this permit along with details on how to measure ambient water temperature and determine the change in temperature after a reasonable assimilation zone. The Agency might also want to consider detailing a sampling methodology on how to capture the maximum daily temperature reading given the temperature is sampled only once each day in a grab which has the potential to miss the maximum daily effluent temperature.*

Response B.5:

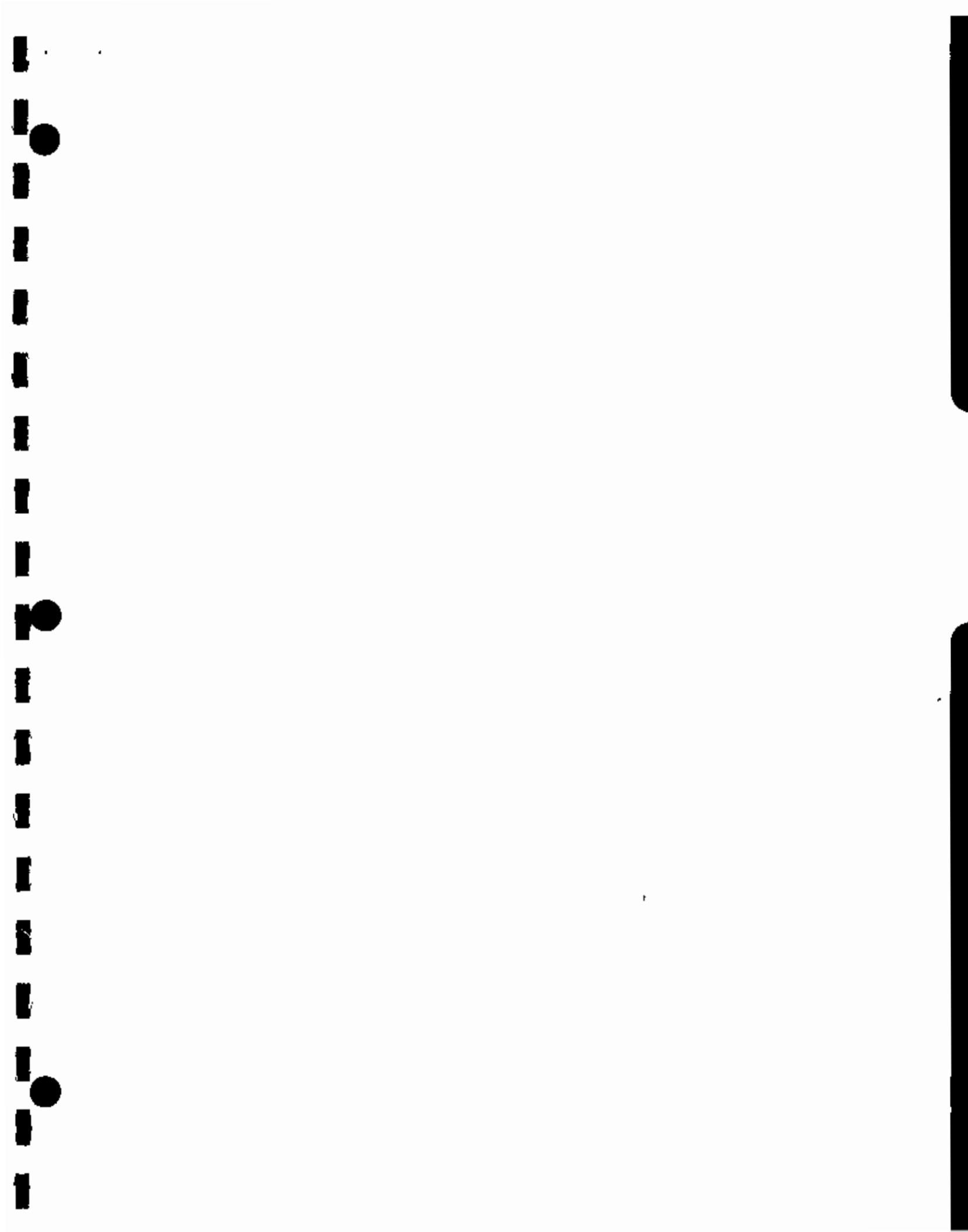
See response A.4 above.

Comment B.6:

*The Fact Sheet does not detail the plant operations but unless the facility is a three shift per day plant, the 24 hour composite sampling might better represent the effluent characteristics if the hourly samples are flow weighted. We would like to suggest this augmentation to the permit to do flow weighted sampling be added in footnote #4.*

Response B.6:

See response A.5 above.





Texon USA  
1190 Huntington Rd.  
Russell, MA 01071  
Telephone: 413-862-3632 x224  
Facsimile: 413-862-4530  
Email: bward@texon.com  
Website: www.texon.com

## MEMORANDUM

**To: Mass. DEP**

**From: Bryan Ward**

**Date: 10-3-05**

**Re: \$100 Check enclosed for appeal of NPDES Permit number  
MA0005282**

As detailed in earlier correspondence, Texon USA through its agent Tighe and Bond, plans to appeal the latest version of NPDES permit MA 0005282. In keeping with the instruction for filing an appeal, please find enclosed a check in the amount of \$100 payable to the Commonwealth.

If you have any questions, please feel free to contact me at the number above.

Regards

Bryan B. Ward

A handwritten signature in cursive script that reads "Bryan B. Ward".



Information for Filing an Adjudicatory Hearing Request with the Commonwealth of  
Massachusetts Department of Environmental Protection

Within thirty days of the receipt of this letter the adjudicatory hearing request should be sent to:

Docket Clerk  
Office of Administrative Appeals  
Department of Environmental Protection  
One Winter Street, Third Floor  
Boston, MA 02108

In addition, a valid check payable to the Commonwealth of Massachusetts in the amount of \$100  
must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

The hearing request to the Commonwealth will be dismissed if the filing fee is not paid, unless  
the appellant is exempt or granted a waiver.

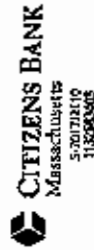
The filing fee is not required if the appellant is a city, town (or municipal agency), county, district  
of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may  
waive the adjudicatory hearing filing fee for a permittee who shows that paying the fee will  
create an undue financial hardship. A permittee seeking a waiver must file, along with the  
hearing request, an affidavit setting forth the facts believed to support the claim of undue  
financial hardship.

TEXON USA, INC.

22078

INVOICE NO.	INVOICE DATE	DESCRIPTION	GROSS AMOUNT	DISCOUNT	NET AMOUNT
092905	09-29-2005		100.00	0.00	100.00
CHECK NUMBER		22078	TOTALS	0.00	100.00

TEXON USA, INC.  
P.O. BOX 365  
1190 HUNTINGTON ROAD  
RUSSELL, MA 01071



22078

CHECK DATE	CHECK NO.
------------	-----------

09-30-05	22078
CHECK AMOUNT	

\*ONE HUNDRED AND 00/100\*

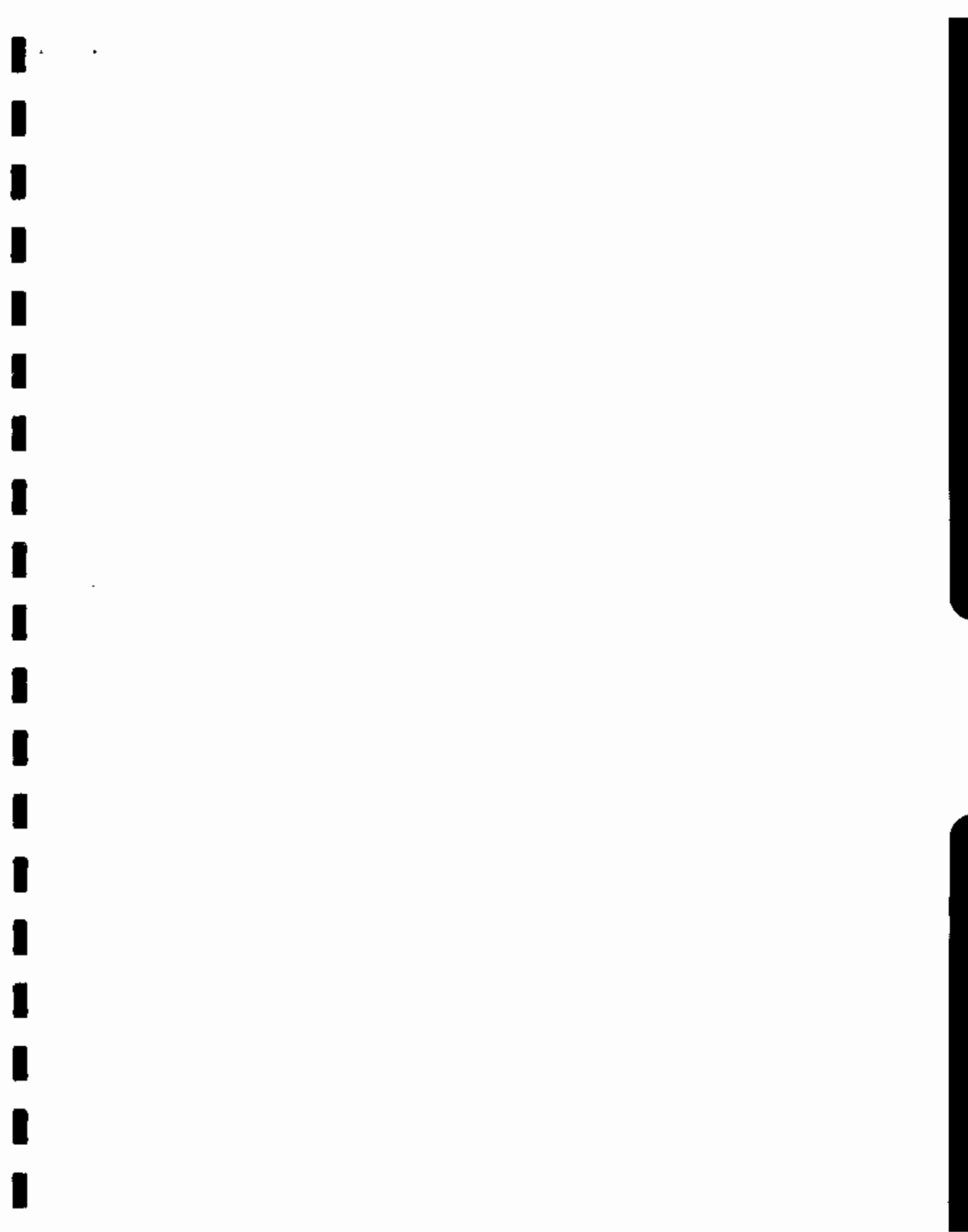
100.00

TO THE ORDER OF  
COMMONWEALTH OF MASSACHUSETTS  
DEP  
PO BOX 4062

*[Signature]*  
AUTHORIZED SIGNATURE

BOSTON, MA 02211

⑆022078⑆ ⑆211070175⑆ 1132583405⑆





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1  
1 CONGRESS STREET, SUITE 1100  
BOSTON, MASSACHUSETTS 02114-2023

R-78  
DRAFT NPDES  
PERMIT

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

April 15, 2005

Mr. Philip C. Bouldin, President  
Texon USA  
1190 Huntington Road  
P.O. Box 365  
Russell, MA 01071

Re: Public Notice  
NPDES Permit No. MA0005282  
Texon USA Wastewater Treatment Plants

Dear Mr. Bouldin:

In accordance with Section 402 of the Clean Water Act, as amended, the Environmental Protection Agency (EPA), New England Region intends to issue a National Pollutant Discharge Elimination System (NPDES) permit to your facility in the near future.

The enclosed draft permit, developed by this office and the Massachusetts Department of Environmental Protection, Division of Watershed Management, (MA DEP) contains effluent limitations and conditions to assure that the discharge receives adequate treatment and will not violate State water-quality standards. Also enclosed is the Fact Sheet which briefly describes the basis for the permit conditions. You are encouraged to closely review all terms and conditions contained in this draft.

If you have any questions or concerns regarding this draft permit or if you believe the draft permit does not accurately describe your discharge or contain a reasonable compliance schedule (where appropriate), you should notify each office, in writing, no later than the last day of the public comment period.

The law requires public notice to be given of the preparation of a draft permit to allow opportunity for public comments and, if necessary, a public hearing. Concurrently with this letter EPA and the MA DEP have proceeded to publish the public notice of the proposed issuance of this permit.

In order to preserve the right to contest provisions in a final permit, all persons, including the applicant, who believe any condition of the draft is inappropriate must raise all reasonably ascertainable issues and submit all reasonable available arguments supporting their position by the close of the public comment period (40 C. F. R. §124.13).

Toll Free • 1-888-372-7341

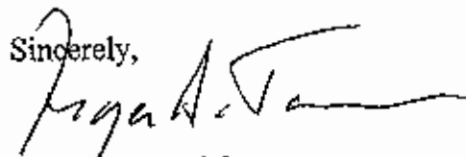
Internet Address (URL) • <http://www.epa.gov/region1>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 30% Postconsumer)

Following the close of the public comment period, your final permit will be issued provided no new substantial questions are raised. If new questions develop during the comment period, it may be necessary to draft a new permit, revise the Statement of Basis or Fact Sheet, and/or reopen the public comment period.

If you have any questions or would like to discuss any of the conditions contained in this draft permit, do not hesitate to contact Victor Alvarez (617) 918-1572.

Sincerely,



Roger Janson, Manager  
Municipal NPDES Permits Branch  
Office of Ecosystem Protection

Enclosures: Draft Permit and Fact Sheet with related Attachments

cc: Paul Hogan, MADEP



## EPA New England NPDES Permitting Staff

Listed below are the names and telephone numbers for EPA New England NPDES permitting staff. If you have questions on the enclosed permit, please call the permit writer indicated below. If you have a question on a specific permitting issue, feel free to contact the appropriate permit specialist.

Toll Free Number: (888) 372-7341  
ask for extension number listed below

Questions on your permit? Please contact the permit writer.

### Senior Managers

Roger Janson, Associate Director,  
Surface Water Branch (617) 918-1621

Brian Pitt, NPDES Permit Unit Team  
Leader (617) 918-1875

### NPDES Permit Writers

Victor Alvarez (617) 918-1572  
Michele Barden (617) 918-1539  
Jon Britt (617) 918-1563  
Hosur Chikkalingalah (617) 918-1574  
Doug Corb (617) 918-1565  
Betsy Davis (617) 918-1576  
Austine Frawley (617) 918-1065  
Fred Gay (617) 918-1297  
John Paul King (617) 918-1295  
Janet LaBonte (617) 918-1667

Mike O'Brien (617) 918-1649  
George Papadopoulos (617) 918-1579  
Soupy Sarker (617) 918-1693  
Bill Wandle (617) 918-1605

### Power Plant Permits

Damlen Houllhan (617) 918-1054  
John Nagle, Biologist (617) 918-1054  
George Papadopoulos (617) 918-1579  
Sharon Zaya (617) 918-1995

### Specialists

#### Alternative Dilution Water

Joy Hilton (617) 918-1877

#### Analytical - Minimum Levels Reporting

Doug Corb (617) 918-1565

#### DMR Reporting

Diane Bolsclair (617) 918-1762

#### General Permits & Exclusions

John Hackler (617) 918-1551

#### Permit Applications

Olga Vergara (MA) (617) 918-1519

Shelley Puleo (NH) (617) 918-1545

#### Permit Modifications

Contact The Individual Permit Writer

#### Public Notice of Draft Permits

Olga Vergara (MA) (617) 918-1519

Shelley Puleo (NH) (617) 918-1545

#### Pretreatment Issues

Jay Pimpore (617) 918-1531

#### Sludge Guidance

Thelma Murphy (617) 918-1615

#### Stormwater General Permits

Thelma Murphy (617) 918-1615

David Gray (617) 918-1577

#### Total Maximum Daily Load (TMDL)

Allison Simcox (617) 918-1684

#### Toxicity Test Protocol & Procedures

Joy Hilton (617) 918-1877

#### Water Quality Issues

Dave Pincumbe (617) 918-1695

MASSACHUSETTS DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
COMMONWEALTH OF MASSACHUSETTS  
1 WINTER STREET  
BOSTON, MASSACHUSETTS 02108

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY  
OFFICE OF ECOSYSTEM PROTECTION  
REGION I  
BOSTON, MASSACHUSETTS 02203

PUBLIC NOTICE OF A DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION  
SYSTEM (NPDES) PERMIT TO DISCHARGE INTO THE WATERS OF THE UNITED STATES  
UNDER SECTION 301 AND 402 OF THE CLEAN WATER ACT (THE "ACT"), AS AMENDED,  
AND REQUEST FOR STATE CERTIFICATION UNDER SECTION 401 OF THE ACT.

DATE OF NOTICE: April 20, 2005

PERMIT NUMBER: MA0005282

PUBLIC NOTICE NUMBER: MA-026-05

NAME AND MAILING ADDRESS OF APPLICANT:

Texon USA  
P.O. Box 365  
Russell, MA 01071

NAME AND ADDRESS OF THE FACILITY WHERE DISCHARGE OCCURS:

Texon USA  
1190 Huntington Road  
Russell, MA 01071

RECEIVING WATER NAME: Westfield River - Westfield River Basin Code 32 WEST

RECEIVING WATER CLASSIFICATION: B

PREPARATION OF THE DRAFT PERMIT:

The U.S. Environmental Protection Agency, (EPA) and the Massachusetts Department of Environmental Protection (MADEP) have cooperated in the development of a permit for the above identified facility. The effluent limits and permit conditions imposed have been drafted to assure that State Water Quality Standards and provisions of the Clean Water Act will be met. EPA has formally requested that the State certify this draft permit pursuant to Section 401 of the Clean Water Act and expects that the draft permit will be certified.

AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

TEXON USA

is authorized to discharge from the facility located at

1190 Huntington Road, Russell, MA 01071

to receiving water named Westfield River. Westfield River Basin (CODE 32 -WEST).

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on (See \*\* below)

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on November 12, 1999.

This permit consists of 7 pages in Part I including effluent limitations, monitoring requirements, Attachment A, and 35 pages in Part II including General Conditions and Definitions.

Signed this     day of

\_\_\_\_\_  
Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

**draft**

\_\_\_\_\_  
Director  
Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

\*\* This permit will become effective on the date of signature if no comments are received during public notice. If comments are received during public notice, this permit will become effective 60 days after signature.

## Footnotes:

1. Required for State Certification.
2. For flow, report average and maximum daily discharged for each operating date.
3. All required effluent samples shall be collected at the point specified on Page 2 of this permit. Any change in sampling location must be reviewed and approved in writing by EPA and MADEP. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All samples shall be 24 hour composites unless specified as a grab sample in 40 CFR §136.
4. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one working day.
5. The permittee shall conduct chronic (and modified acute) toxicity tests four times per year. The chronic test may be used to calculate the acute LC<sub>50</sub> at the 48 hour exposure interval. The permittee shall test the Ceriodaphnia dubia, daphnid and Pimephales promelas, Fathead minnow. Toxicity test samples shall be collected and processed in accordance with the schedule indicated below. The tests must be performed in accordance with test procedures and protocols specified in Attachment A of this permit.

Test Dates Second Week in	Submit Results By:	Test Species	Acute Limit LC <sub>50</sub>	Chronic Limit C-NOEC
January, April, July and October	February 15 <sup>th</sup> May 15 <sup>th</sup> August 15 <sup>th</sup> November 15 <sup>th</sup>	<u>Ceriodaphnia dubia</u> (daphnid) and <u>Pimephales promelas</u> (Fathead minnow) See Attachment A	≥ 100%	Report

6. The LC<sub>50</sub> is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.
7. C-NOEC (chronic-no observed effect concentration) is defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction at a specific time of observation as determined from hypothesis testing where the test results exhibit a linear dose-response relationship. However, where the test results do not exhibit

which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- (1) One hundred micrograms per liter (100 ug/l);
  - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4- dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
  - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21 (g) (7); or
  - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44 (f).
- b. That any activity has occurred or will occur which would result in the discharge, on a non routine or infrequent basis, of any toxic pollutant which is not limited in the permit if that discharge will exceed the highest of the " following notification levels":
- (1) Five hundred microgram per liter (500 ug/L);
  - (2) One milligram per liter (1 mg/l) for antimony ;
  - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21 (g) (7) or
  - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44 (f).
- c. That they have began or expect to begin to use or manufacture as an intermediate or final product or by product, any toxic pollutant which was not reported in the permit application.

Part I.A.3.

This permit may be modified and reissued, on the basis of new information in accordance with 40 CFR §122.62.

**C. STATE PERMIT CONDITIONS**

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap. 21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION I  
ONE CONGRESS STREET, SUITE 1100 (CMP)  
BOSTON, MASSACHUSETTS 02114 - 2023

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PERMIT TO DISCHARGE TO THE WATERS OF THE UNITED STATES

NPDES PERMIT NO.: MA0005282

NAME AND ADDRESS OF APPLICANT:

Texon USA  
P.O. Box 365  
Russell, MA 01071

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Texon USA  
1190 Huntington Road  
Russell, MA 01071

RECEIVING WATER: Westfield River, Westfield River Basin (Code 32 -WEST)

CLASSIFICATION: B (warm water )

I. Proposed Action, Type of Facility, and Discharge Location.

The above named applicant has applied to the U.S. Environmental Protection Agency for reissuance of the NPDES permit to discharge into the designated receiving waters. The facility is engaged in the manufacture of elastomeric saturated fiber (cellulose) materials. The discharge consists of treated process wastewater, floor drainage, boiler condensate and non-contact cooling water. See Figure 1 with the site location and Figure 2 with the flow diagram of the treatment system.

II. Description of Discharge.

A quantitative description of the discharge in terms of significant effluent parameters based on Discharge Monitor Reports (DMR) is shown on Attachment D. A review of this data shows that over the past year the permittee has consistently achieved its effluent limits with the exception of whole

EPA criteria established pursuant to Section 304(a) of the CWA to be used unless site specific criteria are established. The state will limit or prohibit discharges of pollutants to surface waters to assure that surface water quality standards of the receiving waters are protected and maintained or attained. EPA may not issue a permit unless the Massachusetts Department of Environmental Protection (MADEP) certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate state water quality standards.

### 3. Antidegradation

In accordance with 40 CFR 131.12, the State has developed an antidegradation policy to ensure that existing in-stream uses and water quality are maintained and protected. Limitations and conditions in the permit must meet the requirements of the policy. MADEP's antidegradation regulations may be found at 314 CMR 4.04. MADEP has established antidegradation review procedures in a policy document titled Antidegradation Review Procedure for Discharge Requiring a Permit Under 314 CMR 3.03.

### 4. Antibacksliding

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) each contain a general prohibition on establishing less stringent effluent limitations in NPDES permits. When a permit is reissued, effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, and conditions in the previous permit unless certain, specific exceptions apply. The general prohibition applies to technology-based limitations, water quality based limitations, and limitations based on state certification.

The exceptions to this general prohibition are found in Section 402 (o)(2) of the CWA and 40 CFR Section 122.44(l)(2)(i), but in no case may a limitation be made less stringent than required to achieve a water quality standard under Section 303 of the CWA.

A further explanation of antibacksliding may be found in Section 10.3.1 of the USEPA Permit Writers' Manual. This Section also includes a flow chart of the antibacksliding rules relating to water quality-based effluent limitations, which has been attached to this fact sheet. (See Attachment A)

### B. Permit Application

On July 24, 2003 the permitted submitted its application for renewal of its NPDES permit. In its application the permittee requested the following increases to its effluent limitations:

- an increase of the monthly average biochemical oxygen demand (BOD) limit from 200 lbs per day to 375 lbs per day and an increase of the maximum daily BOD limits from 400 lbs per day to 880 lbs per day.



Subpart L. In its application, Texon reported that it produces Filter and Non-woven Paper from Purchased Pulp. BPT and BCT limitations are shown below. BAT limits are not shown, since the only pollutants limited in the BAT guidelines, pentachlorophenol and trichlorophenol, are not used by the permittee, and their use has been prohibited in the draft permit.

BPT/BCT Limitations - Filter and Nonwoven

	<u>lbs/1000 lbs of product</u>	
	<u>Maximum for any one day</u>	<u>Average of daily values for 30 consecutive days</u>
BOD	16.3	29.6
TSS	13.0	26.6

The permittee reported a production rate of 92,800 pounds per day. Calculation of applicable technology-based limits are shown on Attachment B and show that the existing water quality -based permit limits are more stringent than the technology-based limits.

In its application, the permittee has submitted a water quality analysis, using a model to demonstrate that the requested increase in BOD limitations are protective of the environment and that there is a substantially greater assimilative capacity available in the river to sustain it. Texon conducted a Streeter-Phelps analysis using DEP's kinetic coefficients and conservative assumptions for critical low stream flow, maximum wastewater discharge, temperature and upstream BOD, all occurring simultaneously. This theoretical model predicts that up to 2,230 lbs/day of BOD could be discharged without violating DO criteria in the Westfield River (5 mg/l minimum). At this BOD load the model does show a significant change in dissolved oxygen as compared to the current conditions (6.96 minimum). The company then ran the model at a effluent load of 500 lbs per day and their model showed a minimum DO downstream of the discharge of 6.69 mg/l.

The permittee also notes in its application that there has been a significant reduction in pollutant loads discharged into the Westfield River due to the elimination of discharges from other companies which have gone out of business or have upgraded the treatment systems, including the Huntington municipal facility POTW located downstream from Texon's discharge, which is discharging less BOD and TSS, and the Westfield River Paper Company and Strathmore Paper Mill, which are no longer discharging.

As discussed previously, effluent limitations in NPDES permits are subject to antibacksliding and antidegradation requirements. The permittee believes that the proposed increases are allowable because the increased production and process changes at the facility are material and substantial alterations, and that the reduction of pollutant loads from other sources is new information which would support less stringent limits, however the permittee's analysis did not consider antidegradation.

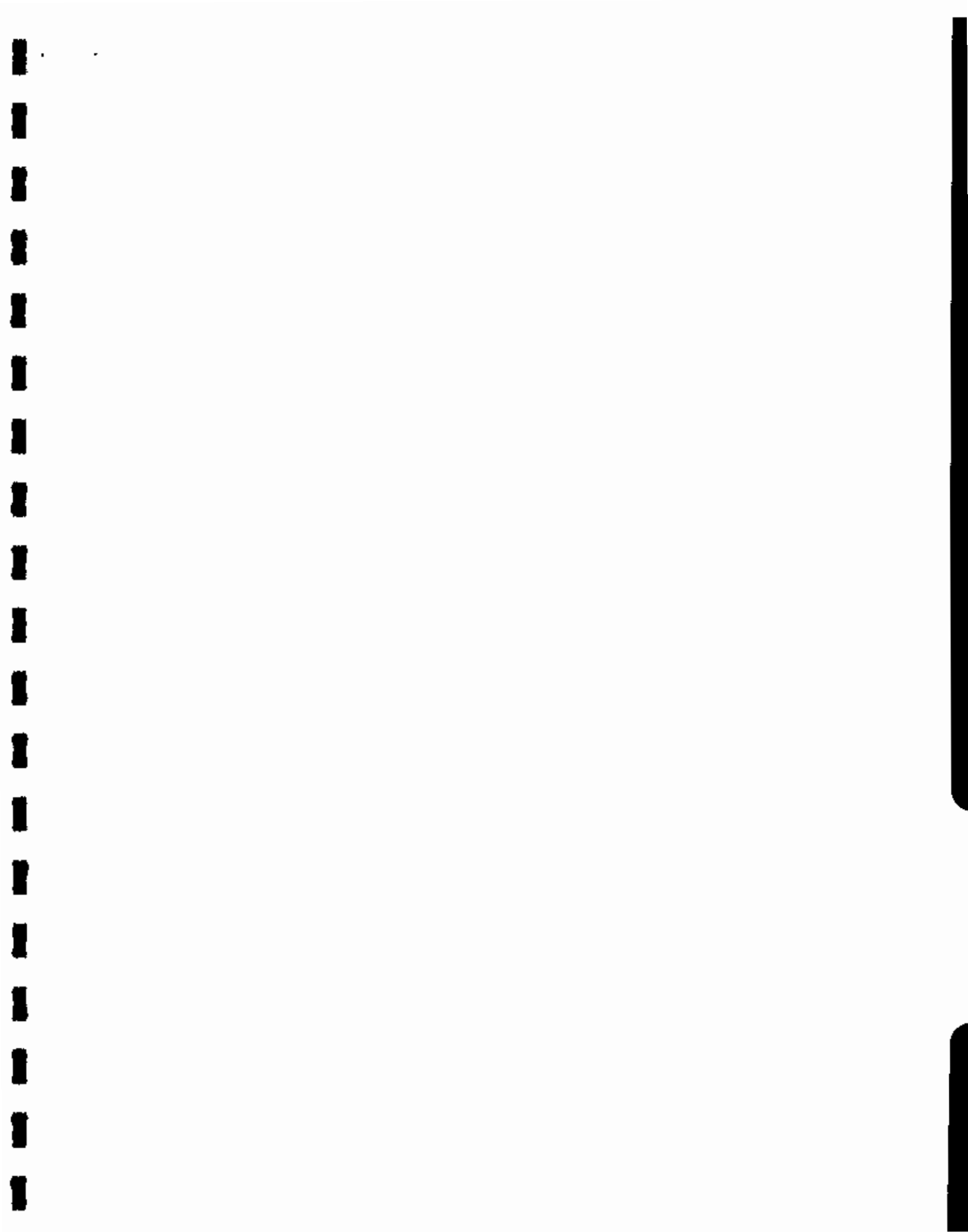
## V. State Certification Requirements.

EPA may not issue a permit unless the Department of Environmental Protection with jurisdiction over the receiving waters certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards. The staff of the Department of Environmental Protection has reviewed the draft permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State and expects that the draft permit will be certified.

## VI. Public Comment Period, Public Hearing, and Procedures for Final Decision

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, Office of Ecosystem Protection (CMP), One Congress Street Boston, Massachusetts 02114 -2023. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit decision, any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of 40 CFR 124.74, 48 Fed. Reg. 14279-14280 (April 1, 1983).



R-78-4-390  
October 19, 1998

Mr. David Pincumbe - CMA  
U.S. Environmental Protection Agency  
Massachusetts State Program Unit  
J.F. Kennedy Federal Building  
Boston, MA 02203

Re: USM Texon  
NPDES Permit Renewal Application

Dear Mr. Pincumbe:

This letter is to provide additional information on temperature modeling in response to our September 24, 1998 meeting at Texon. The following discussion has been presented to EPA in the past and is represented here, showing calculations and providing additional discussion relating to actual impact on the river.

### Temperature Limits

Compliance with temperature limits has become increasingly difficult since the mill has implemented the re-use of non-contact cooling water. While this practice has met the objective of reducing total discharge flows, the same amount of heat must be dissipated in a smaller volume of water resulting in an increased temperature. The current discharge permit limits appear to be based on historic maximum discharge temperatures before re-use was implemented. They do not appear to be calculated based on water quality standards and there are no Categorical Standards for temperature.

The State's water quality standards for temperature are expressed in two parts. The first part requires that a discharge not result in an increase of more than 5°F in the in-stream water temperature. For the mill to cause a 5°F increase at the recommended revised average daily flow of 2.17 MGD (2.07 cfs), assuming the critical low flow of the river at 32 cfs, mill effluent would need to be at least 115°F. This occurs when the river is at minimum temperature (32 °F).

$$2.07\text{cfs}(x^{\circ}\text{F}) + 32\text{cfs}(32^{\circ}\text{F}) = 34.07\text{cfs}(32+5^{\circ}\text{F})$$

$x = 115^{\circ}\text{F}$  (mill effluent temperature causing rise of 5° in river)

When river temperatures are warmer, higher discharge temperatures could be allowed without changing the water temperature by more than 5°F. The maximum historic discharge temperature of Texon's effluent to date was 94°F. Based on this analysis, the mill does not have the potential to violate the first part of the water quality standard and, therefore, no numeric limit is required.

The second part of the water quality standard is an in-stream standard of 83°F. A review of upstream water temperature was presented in Tighe & Bond's March 22, 1996 memorandum. Based on data collected by USM Texon, the upstream water temperature frequently exceeds the State's numeric water quality standard of 83°F. This has also resulted in USM Texon frequently exceeding their discharge limit of 81°F.

We have also calculated the discharge temperature that would result in a downstream temperature of 83°F under different upstream water temperature conditions. Assuming the upstream water temperature to be 82°F (one degree less than the standard), the mill discharge would need to be 98.5°F to result in a downstream water temperature of 83°F. Based on a historic maximum discharge temperature of 94°F, the mill does not have the potential to cause a violation of the in-stream water quality standard of 83°F unless the upstream temperature already exceeds the standard due to other causes over which USM Texon has no control. Therefore, no numeric limit is required. Understand that this analysis is not dependent on upstream temperature monitoring, as the analysis is based on assumed in-stream water temperatures.

$$2.07\text{cfs}(x^{\circ}\text{F}) + 32\text{cfs}(82^{\circ}\text{F}) = 34.07\text{cfs}(83^{\circ}\text{F})$$
$$x = 98.5^{\circ}\text{F}$$

It is also worthwhile to consider the flow characteristics of the river at the discharge point and the area immediately downstream. The discharge pipe is located beneath the water, approximately 30 feet from the bank (under low flow conditions). The pipe is located on the inside of a corner, out of the main river flow. Approximately 250 feet downstream of the outfall, the river passes over a shallow, rocky section where excellent mixing occurs. The drop over the rapids also affords an opportunity for convective and evaporative cooling. The result is that in less than 500 feet from the outfall, Texon's effluent is likely completely mixed with the river flow, supporting the simple model presented above.

Based on this, we recommend that USM Texon's NPDES discharge permit be revised as follows:

1. Delete specific numeric limits on temperature to allow continued re-use of non-contact cooling water.
2. Add narrative prohibition on discharges which cause a violation of the State's water quality standards as follows:

*"The discharge shall not cause a violation of the State's Water Quality Standard for Temperature. The discharge shall not result in an increase in water temperature of more than 5 degrees Fahrenheit nor shall it cause the receiving water temperature to exceed 83 degrees Fahrenheit."*

### **Upstream Temperature Measurements**

In our meeting, you also requested additional data to compare actual river temperature with the influent temperature that Texon measures at their influent screens. Texon will be gathering this information as soon as they purchase an appropriate temperature probe. They have purchased a unit, but it is currently back ordered.

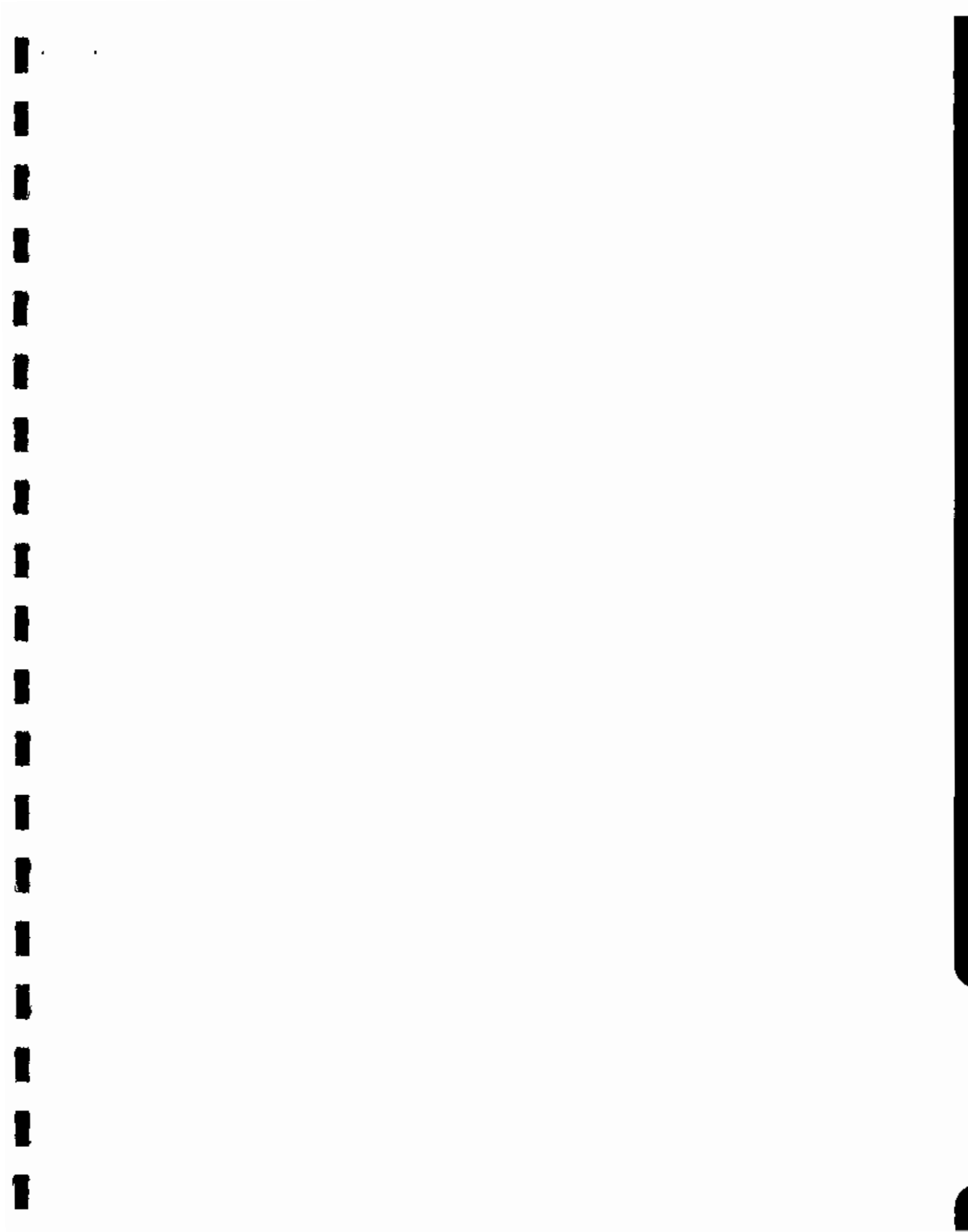
If you have any further questions, don't hesitate to contact Doris Atkinson at (413) 572-3238 or me at (413) 572-3230.

Very truly yours,

Todd M. Brown, P.E.  
Director of Industrial Services

\\engr\data\data\wp\78\temperature clarification.doc

cc: Jack Dempsey, Texon USA

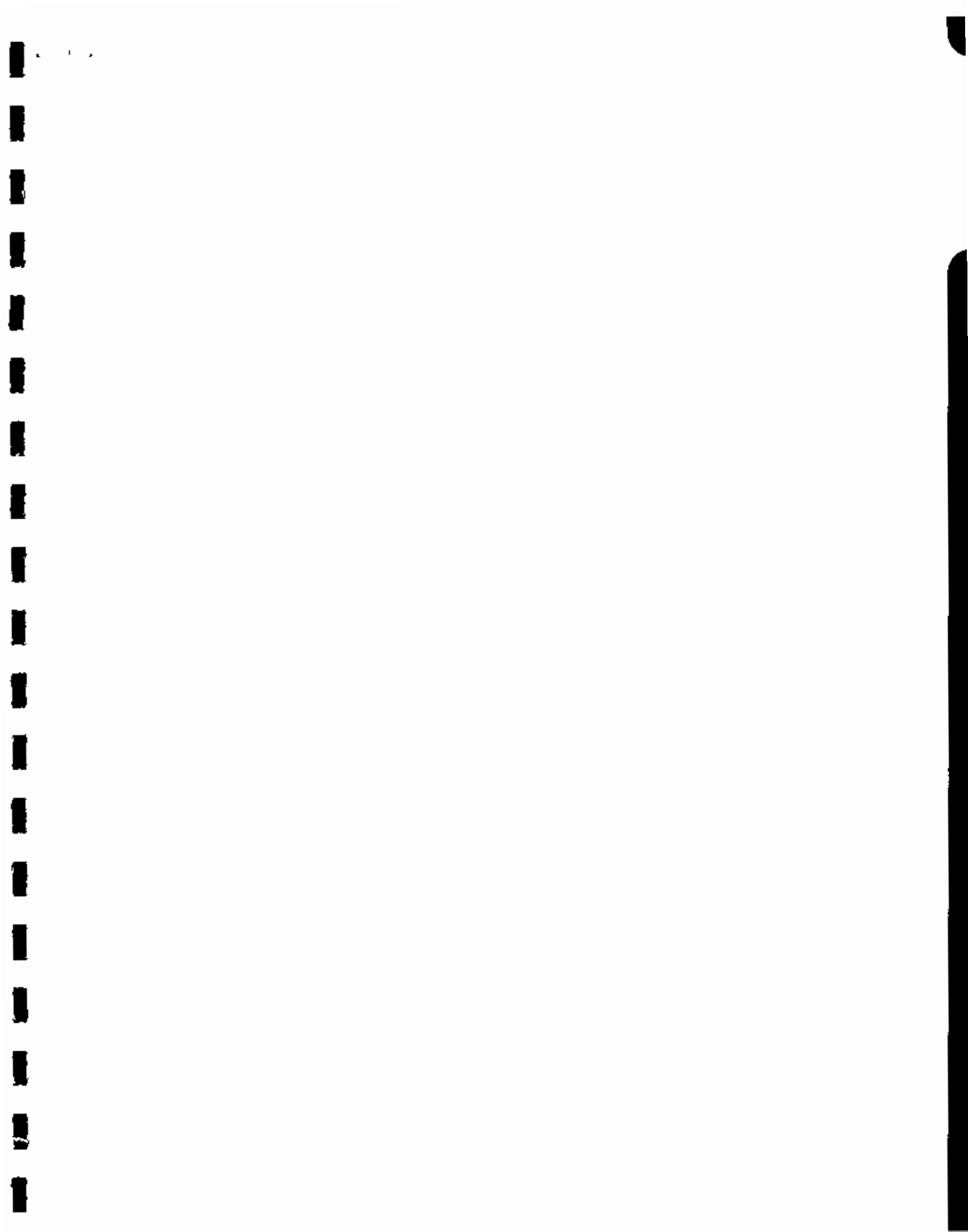


**Texon USA - Westfield River Temperature Sampling**

**Tighe & Bond**

<b>Dates</b>	<b>Effluent Temperature</b>	<b>Upstream Temperature</b>	<b>Downstream Temperature</b>	<b>Temperature Delta</b>
29-Sep	77	63	61	-2
30-Sep	76	64	62	-2
3-Oct	79	56	57	1
4-Oct	77	63	63	0
5-Oct	77	63	63	0





**APPENDIX G SITE PHOTOGRAPHS**

**Tighe & Bond**



Photo #	Location	Photo #	Location
001	Texon USA	002	Texon USA
Top of embankment looking at Westfield River upstream of discharge point.		Top of embankment looking at Westfield River downstream of discharge point.	

**APPENDIX G SITE PHOTOGRAPHS**

**Tighe & Bond**



Photo #:	003	Location:	Texon USA	Photo #:	004	Location:	Texon USA
Top of embankment looking at Westfield River downstream of discharge point.				Top of embankment looking at Westfield River downstream of discharge point.			

J:\RIR\0078\NPDES\Photos Appendix.doc