RESPONSE TO COMMENTS FOR:
TEXON USA WASTEWATER TREATMENT PLANT, RUSSELL, MA
NPDES PERMIT #MA 0005282

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 90^0 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 5^0 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.

The 5° F delta T will be included in the final permit.

The final permit will require the permittee to test daily the river temperature at the time of the day when it is estimated that the effluent will cause the maximum temperature (delta T) increase due to the effluent discharged, and to report results the highest temperature detected above the point of discharge, at the discharge plume and below the point of discharge.

Comment A.5:

The facility is required to do 24 hour composite sampling for several parameters. Is this really possible- is this a three shift a day plant or is the discharge some how metered to discharge evenly over 24 hours? Is the discharge constant throughout the 24 hours? If not the samples should be flow weighted so the true nature of the effluent is captured in the testing.

Response A.5:

The company has reported the possibility of having two or even three shifts per day depending on product demand. The permit stipulates 24 hour sampling during a 24 hour shift; a 16 or 8 hour sampling will be accepted by the Agencies if the company operates a 16 or 8 hour shifts. Texon records the 24 hour. plant flow with a 24 composite sampler.

Part II Section E of the NPDES regulations requires the permittee to conduct flow proportional composite sampling. For companies like Texon with relatively low flows, 24 hour (equal volume) composite sampling is accepted to the Agencies.

Comment A.6:

The draft permit does not contain a Toxics Control clause. We would like to see one added. (The standard one is (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)

Response A.6:

This was an oversight, as this is typical permit language. Therefore, the final permit will have a Toxics Control clause similar to the one you have suggested at Part I.A.3, on Page 5 of 7.

B. MAFW&ELE- Riverways Program comments: [note: The Riverways Program comments and the Westfield River Watershed Association comments are found to be synonymous, therefore, in some instances the responses to the Riverways Program comments will be found in the responses to the comments by the Westfield River Watershed Association]

Comment B.1:

Texon USA is requesting an increase in effluent limitations for BOD and TSS. We support the decision by the Agencies not to grant an additional increase. The company recently received permit limitations, associated with the current permit's issuance, granting increased BOD, TSS and flow discharges. The Fact Sheet explained during the current permit's renewal, the Agencies specifically indicated additional increases for BOD and TSS would be unlikely given antidegradation provisions. The increases requested by the Permittee would result in a significant increase over the loadings allowed under the 1991 permit and clearly fails to meet the anti-degradation and back sliding provisions of the Agencies.

Response B.1:

See response A.1 above.

Comment B.2:

The permittee also requested the elimination of the permit's ammonia and zinc limits. Given the problems the facility has had in meeting acute toxicity limits, the elimination of any limits may be premature until the cause(s) of the acute toxicity are identified and remediated.

Response B.2:

The Agencies do not believe that there is the potential for Water Quality Standards violations regarding zinc or nitrogen. Five years of reported average data showed these parameters to have been always below the permit limits. This demonstrates that these parameters have very little or no influence for the toxicity non-compliance.

Comment B.3:

The Fact Sheet for this current permit renewal contains a statement concerning the BOD and TSS record of this facility not supported by the available monthly monitoring data. The BOD and TSS compliance for this plant is not without problems as the Fact Sheet suggests. Both the daily maximum and monthly average for BOD and to a lesser extent TSS have failed to meet permit limits with some regularity, (e.g. 7 BOD exceedances in 2003). Add to this the record provided for its Whole Effluent Toxicity testing. It is distressing to see a number of acute toxicity test failures for both test species used in the WET tests. The chronic toxicity testing also produced less than notable results. The permit does not assign a limitation for chronic toxicity due to the dilution afforded this discharge so the results are within permit requirements. Still the WET testing and the other permit parameters exceedances suggest this facility has the potential to impact water quality and aquatic life and the permit requirements may not be sufficient to protect the receiving water. The plant's compliance records does not support the relaxation or increase in any permit parameters.

Response B.3:

See response A.2 above.

Toxicity requirements are based on the dilution at 7Q10 flow conditions. The dilution results in an acute toxicity limit in accordance with the Toxics Policy developed by the Agencies.

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 90^0 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 5^0 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 5^0 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.

Comment B.7:

The draft permit does not contain a Toxics Control clause as appears in most permits including the recently released draft NPDES permits for the Woronoco Village, Russell and Huntington wastewater treatment facilities which also discharge into the Westfield River. We would like to recommend the Texon USA permit contain the same or a comparable clause to the one found in these other Westfield River basin: (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.

Response B.7:

See response A.6 above.