

STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



**NPDES PERMIT**  
issued to

Textron Inc.  
40 Westminster Street  
Providence, RI 02903

**Location Address:**  
215 South Main Street  
East Windsor, CT 06088

**Facility ID:** 047-030

**Permit ID:** CT0030040

**Receiving Stream:** Unnamed Tributary to the Connecticut River  
**Stream Segment I.D. No.:** CT4000-17

**Permit Expires:** August 24, 2015

**SECTION 1: GENERAL PROVISIONS**

- (A) This permit is reissued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and section 402(b) of the Clean Water Act, as amended, 33 USC 1251, *et. seq.*, and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer an N.P.D.E.S. permit program.
- (B) **Textron Inc.**, ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(10)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of section 22a-430-3.

**Section 22a-430-3 General Conditions**

- (a) Definitions
- (b) General
- (c) Inspection and Entry
- (d) Effect of a Permit
- (e) Duty
- (f) Proper Operation and Maintenance
- (g) Sludge Disposal
- (h) Duty to Mitigate
- (i) Facility Modifications; Notification
- (j) Monitoring, Records and Reporting Requirements
- (k) Bypass
- (l) Conditions Applicable to POTWs
- (m) Effluent Limitation Violations (Upsets)
- (n) Enforcement
- (o) Resource Conservation
- (p) Spill Prevention and Control
- (q) Instrumentation, Alarms, Flow Recorders
- (r) Equalization

PERMIT No. CT0030040

Section 22a-430-4 Procedures and Criteria

- (a) Duty to Apply
  - (b) Duty to Reapply
  - (c) Application Requirements
  - (d) Preliminary Review
  - (e) Tentative Determination
  - (f) Draft Permits, Fact Sheets
  - (g) Public Notice, Notice of Hearing
  - (h) Public Comments
  - (i) Final Determination
  - (j) Public Hearings
  - (k) Submission of Plans and Specifications. Approval.
  - (l) Establishing Effluent Limitations and Conditions
  - (m) Case by Case Determinations
  - (n) Permit issuance or renewal
  - (o) Permit Transfer
  - (p) Permit revocation, denial or modification
  - (q) Variances
  - (r) Secondary Treatment Requirements
  - (s) Treatment Requirements for Metals and Cyanide
  - (t) Discharges to POTWs - Prohibitions
- (C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.
- (D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under section 22a-438 or 22a-131a of the CGS or in accordance with section 22a-6, under section 53a-157b of the CGS.
- (E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Environmental Protection ("Commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner, at least 30 days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.
- (F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.
- (G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (H) An annual fee shall be paid for each year this permit is in effect as set forth in section 22a-430-7 of the Regulations of Connecticut State Agencies.

**SECTION 2: DEFINITIONS**

- (A) The definitions of the terms used in this permit shall be the same as the definitions contained in section 22a-423

of the CGS and section 22a-430-3(a) and 22a-430-6 of the RCSA, except for "No Observable Acute Effect Level (NOAEL)" which is redefined below.

(B) In addition to the above, the following definitions shall apply to this permit:

"-----" in the limits column on the monitoring table means a limit is not specified but a value must be reported on the DMR.

"Average Monthly Limit" means the maximum allowable "Average Monthly Concentration" as defined in section 22a-430-3(a) of the RCSA when expressed as a concentration (e.g. mg/l); otherwise, it means "Average Monthly Discharge Limitation" as defined in section 22a-430-3(a) of the RCSA.

"Critical Test Concentration (CTC)" means the specified effluent dilution at which the Permittee is to conduct a single-concentration Aquatic Toxicity test.

"Daily Concentration" means the concentration of a substance as measured in a daily composite sample, or, the arithmetic average of all grab sample results defining a grab sample average.

"Daily Composite" means a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than four (4) hours and combined proportionally to flow.

"Daily Quantity" means the quantity of waste discharged during an operating day.

"Instantaneous Limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

"In stream Waste Concentration (IWC)" means the concentration of a discharge in the receiving water after mixing has occurred in the allocated zone of influence.

"Maximum Daily Limit" means the maximum allowable "Daily Concentration" (defined above) when expressed as a concentration (e.g. mg/l); otherwise, it means the maximum allowable "Daily Quantity" as defined above, unless it is expressed as a flow quantity. If expressed as a flow quantity it means "Maximum Daily Flow" as defined in section 22a-430-3(a) of the RCSA.

"NA" as a Monitoring Table abbreviation means "not applicable".

"NR" as a Monitoring Table abbreviation means "not required".

"No Observable Acute Effect Level (NOAEL)" means any concentration equal to the critical test concentration in a single concentration (pass/fail) toxicity test conducted pursuant to section 22a-430-3(j)(7)(A)(i) RCSA demonstrating 90% or greater survival of test organisms at the CTC. If the specified CTC is less than 100% effluent then the discharge will also exhibit greater than 50% survival of test organisms in 100% (undiluted) effluent.

"Quarterly", in the context of a sampling frequency, means sampling is required in the months of February, May, August, and November.

"Range During Month" ("RDM"), as a sample type, means the lowest and the highest values of all of the monitoring data for the reporting month.

"Range During Sampling" ("RDS"), as a sample type, means the maximum and minimum of all values

recorded as a result of analyzing each grab sample.

" $\mu\text{g/l}$ " means micrograms per liter.

### **SECTION 3: COMMISSIONER'S DECISION**

- (A) The Commissioner has issued a final determination and found that continuance of the existing system to treat the discharge will protect the waters of the state from pollution. The Commissioner's decision is based on Application No. 200602815 for permit reissuance received on October 10, 2006 and the administrative record established in the processing of that application.
- (B) The Commissioner hereby authorizes the Permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or the Commissioner's authorized agent for the discharges and/or activities authorized by, or associated with, this permit.
- (C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

### **SECTION 4: GENERAL EFFLUENT LIMITATIONS**

- (A) No discharge shall contain, or cause in the receiving stream, a visible oil sheen or floating solids; or, cause visible discoloration or foaming in the receiving stream.
- (B) No discharge shall cause acute or chronic toxicity in the receiving water body beyond any zone of influence specifically allocated to that discharge in this permit.
- (C) The temperature of any discharge shall not increase the temperature of the receiving stream above 85°F, or, in any case, raise the normal temperature of the receiving stream more than 4°F.

### **SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

- (A) The discharge shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharge is restricted by, and shall be monitored in accordance with, the tables below:

**Table A**

**Discharge Serial Number: 101-1**

**Monitoring Location: 1**

**Wastewater Description:** Treated solvent contaminated groundwater

**Monitoring Location Description:** At the sampling port after the carbon unit No. 2 (V-140)

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test <sup>3</sup>
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency <sup>2</sup>	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency <sup>2</sup>	Sample Type or measurement to be reported	
Static 48Hr Acute D. Pulex NOAEL=100 <sup>4</sup>	%	NA	NA	NR	NA	≥ 90%	Quarterly	Grab	
Static 48Hr Acute Pimephales NOAEL=100 <sup>4</sup>	%	NA	NA	NR	NA	≥ 90%	Quarterly	Grab	
1,1 Dichloroethylene	ug/l	NA	NA	NR	NA	7.0	Quarterly	Grab	*
1,2-trans-Dichloroethylene	ug/l	NA	NA	NR	NA	100.0	Quarterly	Grab	*
1,2-cis-Dichloroethylene	ug/l	NA	NA	NR	NA	100.0	Quarterly	Grab	*
1,1-Dichloroethane	ug/l	NA	NA	NR	NA	70.0	Quarterly	Grab	*
Carbon Tetrachloride	ug/l	NA	NA	NR	NA	5.0	Quarterly	Grab	*
Chloroform	ug/l	NA	NA	NR	NA	6.0	Quarterly	Grab	*
Copper, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	*
Flow, Average Daily <sup>1</sup>	gpd	43,200	NA	Continuous/Quarterly	Daily Flow	NA	NR	NA	
Flow, Maximum Daily <sup>1</sup>	gpd	NA	72,000	Continuous/Quarterly	Daily Flow	NA	NR	NA	
Flow, Total (Day of Sample)	gpd	NA	72,000	Quarterly	Daily Flow	NA	NR	NA	
Iron, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Manganese, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Methylene Chloride	ug/l	NA	NA	NR	NA	5.0	Quarterly	Grab	*
Oil & Grease, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
pH (Day of Sample)	S.U.	NA	NA	NR	NA	6.0 – 9.0	Quarterly	RDS	
pH, Minimum	S.U.	NA	NA	NR	NA	6.0	Quarterly	Continuous	
pH, Maximum	S.U.	NA	NA	NR	NA	9.0	Quarterly	Continuous	
Tetrachloroethylene	ug/l	NA	NA	NR	NA	5.0	Quarterly	Grab	*
Total Suspended Solids	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Trichloroethylene	ug/l	NA	NA	NR	NA	5.0	Quarterly	Grab	*
Vinyl Chloride	ug/l	NA	NA	NR	NA	2.0	Quarterly	Grab	*
Zinc, Total	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	*

**Table A Footnotes:**

<sup>1</sup> For this parameter, the Permittee shall maintain at the facility a record of the total flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow during the quarterly sampling period.

<sup>2</sup> The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' and the 'Sample Frequency' is more frequent than monthly then the 'Reporting Frequency' is monthly. If the 'Sample frequency' is specified as monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.

<sup>3</sup> Minimum Level Test refers to Section 6(A)(3) of this permit.

<sup>4</sup> All analysis shall be on the same sample. The results of the Toxicity Tests are recorded in % survival on the DMR based on criteria in Section 6 (C) of this permit.

- (1) All samples shall be comprised of only the wastewater described in these tables. Samples shall be collected prior to combination with receiving waters or wastewater of any other type, and after all approved treatment units, if applicable. All discharge samples collected shall be representative of the discharge during standard operating conditions.
- (2) In cases where limits and sample type are specified but sampling is not required by this permit, the limits specified shall apply to all samples, which may be collected and analyzed by the Department of Environmental Protection personnel, the Permittee, or other parties.
- (3) The limits imposed on the discharges listed in this permit take effect on the issuance date of this permit, hence any sample taken after this date which, upon analysis, shows an exceedance of permit limits will be considered non-compliance.

The monitoring requirements begin on the date of issuance of this permit if the issuance date is on or before the 12th day of a month. For permits issued on or after the 13th day of a month, monitoring requirements begin the 1st day of the following month.

## SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

### (A) Chemical Analysis

- (1) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved pursuant to the 40 CFR 136 unless an alternative method has been approved in writing pursuant to 40 CFR 136.4 or as provided in section 22a-430-3(j)(7) of the RCSA. Chemicals which do not have methods of analysis defined in 40 CFR 136 shall be analyzed in accordance with methods specified in this permit.
- (2) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.
- (3) The Minimum Levels specified below represent the concentrations at which quantification must be achieved and verified during the chemical analyses for the parameters identified in Section 5 Tables B and C. Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

<u>Parameter</u>	<u>Minimum Level</u>
Carbon Tetrachloride	1.0 ug/l
Chloroform	1.0 ug/l
Copper, Total	5.0 ug/l
1,1 Dichloroethylene	1.0 ug/l
Trans-1,2 Dichloroethylene	1.0 ug/l
Cis-1,2 Dichloroethylene	1.0 ug/l
1,1 Dichloroethane	1.0 ug/l
Methylene Chloride	1.0 ug/l
1,1,1 Trichloroethane	1.0 ug/l
Trichloroethylene	1.0 ug/l
Tetrachloroethylene	1.0 ug/l
Vinyl Chloride	1.0 ug/l
Zinc, Total	10.0 ug/l

- (4) The value of each parameter for which monitoring is required under this permit shall be reported to the maximum level of accuracy and precision possible consistent with the requirements of this section of the permit.

- (5) Effluent analyses for which quantification was verified during the analysis at or below the minimum levels specified in this section and which indicate that a parameter was not detected shall be reported as "less than x" where 'x' is the numerical value equivalent to the analytical method detection limit for that analysis.
- (6) Results of effluent analyses which indicate that a parameter was not present at a concentration greater than or equal to the Minimum Level specified for that analysis shall be considered equivalent to zero (0.0) for purposes of determining compliance with effluent limitations or conditions specified in this permit.

(B) Acute Aquatic Toxicity Test

- (1) Samples for monitoring of Aquatic Toxicity shall be collected and handled as prescribed in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012).
  - (a) Grab samples shall be chilled immediately following collection. Samples shall be held at 4 degrees Centigrade until Aquatic Toxicity testing is initiated.
  - (b) Effluent samples shall not be dechlorinated, filtered, or modified in any way, prior to testing for Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.
  - (c) Chemical analyses of the parameters identified in Section 5 Table A shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.
    - (i) At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Aquatic Toxicity tests, in the highest concentration of test solution and in the dilution (control) water at the beginning of the test and at test termination. Dissolved oxygen, pH, and temperature shall be measured in the control and all test concentrations at the beginning of the test, daily thereafter, and at test termination.
  - (d) Tests for Aquatic Toxicity shall be initiated within 24 hours of sample collection.
- (2) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (invertebrate) above shall be conducted for 48-hours utilizing neonatal Daphnia pulex (less than 24-hours old)
- (3) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (vertebrate) above shall be conducted for 48-hours utilizing larval Pimephales promelas (1-14 days old with no more than 24-hours range in age).
- (4) Tests for Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012), except as specified below.
  - (a) For Aquatic Toxicity Limits and for monitoring only conditions, expressed as an NOAEL value, Pass/Fail (single-concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity Limit, or 100% in the case of monitoring only conditions, as prescribed in section 22a-430-3(j)(7)(A)(I) of the Regulations of Connecticut State Agencies, except that five replicates of undiluted effluent and five replicates of effluent diluted to the CTC shall be included.

- (b) Organisms shall not be fed during the tests.
  - (c) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.
  - (d) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (plus or minus 5 mg/L) as CaCO<sub>3</sub> shall be used as dilution water in tests with freshwater organisms.
- (5) Compliance with limits on Aquatic Toxicity shall be determined as follows:
- (a) For limits expressed as an NOAEL value, compliance shall be demonstrated when the results of a valid pass/fail Aquatic Toxicity test indicates there is greater than 50 % survival in the undiluted effluent and 90% or greater survival in the effluent at the specified CTC.
- (C) The Permittee shall annually monitor the chronic toxicity of the DSN 101-1 in accordance with the following specifications.
- (1) Chronic toxicity testing of the discharge shall be conducted annually during July, August, or September of each year.
  - (2) Chronic toxicity testing shall be performed on the discharge in accordance with the test methodology established in "Short term Methods For Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms" (EPA-821-R-02-012) as referenced in 40 CFR 136 for Cerio daphnia survival and reproduction and Fathead Minnow larval survival and growth.
  - (3) Chronic toxicity tests shall utilize a minimum of five effluent dilutions prepared using a dilution factor of 0.5 (100% effluent, 50% effluent, 25% effluent, 12.5% effluent, 6.25% effluent, 0% effluent).
  - (4) Laboratory water shall be used as control and dilution water (0% effluent) for the toxicity test.
  - (5) A laboratory water control consisting of synthetic freshwater prepared in accordance with EPA-821-R-02-012 at a hardness of 50±5 mg/l shall be included in the test protocol in addition to the site-water control.
  - (6) Grab samples of the discharge and samples of the laboratory water for use as dilution water shall be collected on: day 0, for test solution renewal on day 1 and day 2 of the test; day 2, for test solution renewal on day 3 and day 4 of the test; and day 4, for test solution renewal on day 5, 6, and 7 of the test. Samples shall not be dechlorinated, pH or hardness adjusted, or chemically altered in any way.
  - (7) All samples of the discharge and each batch of the laboratory water used in the chronic toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in section 6(A) of this permit for the following parameters:
 

pH	Copper (Total recoverable and dissolved)
Hardness	Oil & Grease, Total
Alkalinity	Nitrogen, Ammonia (total as N)
Conductivity	Nitrogen, Nitrite (Total as N)
Chlorine, (Total residual)	Manganese, Total
Solids, Total Suspended	Zinc, (Total recoverable and dissolved)



## SECTION 7: REPORTING REQUIREMENTS

- (A) The results of chemical analyses and any aquatic toxicity test required above shall be entered on the Discharge Monitoring Report (DMR), provided by this office, and reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) at the following address. The report shall also include a detailed explanation of any violations of the limitations specified. The DMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Materials Management and Compliance Assurance  
Water Permitting and Enforcement Division (Attn: DMR Processing)  
Connecticut Department of Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

- (B) Complete and accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber,  $LC_{50}$  values and 95% confidence intervals for definitive test protocols, and all supporting chemical/physical measurements performed in association with any aquatic toxicity test, including measured daily flow and hours of operation for the 30 consecutive operating days prior to sample collection if compliance with a limit on Aquatic Toxicity is based on toxicity limits based on actual flows described in Section 7, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Water Protection and Land Reuse at the following address. The ATMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity)  
Connecticut Department of Environmental Protection  
79 Elm St.  
Hartford, CT 06106-5127

- (C) If this permit requires monitoring of a discharge on a calendar basis (e.g. Monthly, quarterly, etc.), but a discharge has not occurred within the frequency of sampling specified in the permit, the Permittee must submit the DMR and ATMR, as scheduled, indicating "NO DISCHARGE". For those Permittees whose required monitoring is discharge dependent (e.g. per batch), the minimum reporting frequency is monthly. Therefore, if there is no discharge during a calendar month for a batch discharge, a DMR must be submitted indicating such by the end of the following month.
- (D) A complete and thorough report of the results of the chronic toxicity monitoring specified in Section 6 (C) shall be prepared as outlined in Section 10 of EPA-821-R-02-013 and submitted to the Department for review on or before 60 days after test completion to the address specified in Section 7(B) of this permit.

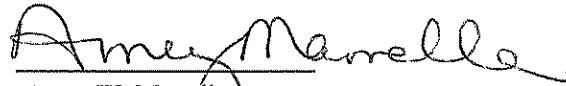
## SECTION 8: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

- (A) If any sample analysis indicates that an Aquatic Toxicity effluent limitation in Section 5 of this permit has been exceeded, or that the test was invalid, another sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.
- (B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity) for the review and approval of the Commissioner in accordance with section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body.

Such a report shall include a proposed time schedule to accomplish toxicity reduction and the Permittee shall comply with any schedule approved by the Commissioner.

- (C) The Permittee shall notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division, within 72 hours and in writing within thirty days of the discharge of any substance listed in the application but not listed in the permit if the concentration or quantity of that substance exceeds two times the level listed in the application.

This permit is hereby issued on August 25, 2010.

  
Amey W. Marrella  
Commissioner

AM/EH

## DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: *Textron Inc.*

**PERMIT, ADDRESS, AND FACILITY DATA**

PERMIT #: CT0030040

APPLICATION #: 200602815

FACILITY ID. 047-030

<b><u>Mailing Address:</u></b>					<b><u>Location Address:</u></b>						
<b>Street:</b>	40 Westminster Street				<b>Street:</b>	215 South Main Street					
<b>City:</b>	Providence	<b>ST:</b>	RI	<b>Zip:</b>	02903	<b>City:</b>	East Windsor	<b>ST:</b>	CT	<b>Zip:</b>	06088
<b>Contact Name:</b>	Gregory L. Simpson				<b>DMR Contact</b>	Michael E. Miller					
<b>Phone No.:</b>	(401) 457-2635				<b>Phone No.:</b>	(617) 452-6295					

**PERMIT INFORMATION**

**DURATION**    5 YEAR X                      10 YEAR                          30 YEAR    

**TYPE**            New                Reissuance X            Modification    

**CATEGORIZATION**    POINT (X)    NON-POINT ( )    GIS #    

NPDES (X)    PRETREAT ( )    GROUNDWATER(UIC) ( )    GROUNDWATER (OTHER) (X)

NPDES MAJOR (MA)    

NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI)    

NPDES or PRETREATMENT MINOR (MI) X

PRETREAT SIGNIFICANT INDUS USER (SIU)    

PRETREAT CATEGORICAL (CIU)    

POLLUTION PREVENTION MANDATE        ENVIRONMENTAL EQUITY ISSUE    

**COMPLIANCE ISSUES**

COMPLIANCE SCHEDULE     YES                      NO X (If yes check off what it is in relation to.)

POLLUTION PREVENTION        TREATMENT REQUIREMENT        WATER CONSERVATION

WATER QUALITY REQUIREMENT        REMEDIATION        OTHER    

**IS THE PERMITTEE SUBJECT TO A PENDING ENFORCEMENT ACTION?** NO X YES

**OWNERSHIP CODE**

Private X Federal \_\_\_ State \_\_\_ Municipal (town only) \_\_\_ Other public \_\_\_

**DEP STAFF ENGINEER:** Enna Herrera

**PERMIT FEES**

<i>Discharge Code</i>	<i>DSN Number</i>	<i>Annual Fee</i>
1090000	101-1	\$ 4,337.50

**FOR NPDES DISCHARGES**

**Drainage basin Code:** 4000

**Present/Future Water Quality Standard:** A/A

**NATURE OF BUSINESS GENERATING DISCHARGE**

*Textron Inc. is conducting groundwater remediation at the site.*

**PROCESS AND TREATMENT DESCRIPTION (by DSN)**

*DSN 101-1: Existing groundwater pump-and-treat system. Groundwater is withdrawn from two horizontal recovery wells (HW-1, HW-2) and one vertical recovery well (RW-1). Extracted groundwater receives settling, filtration, and air stripping and granular activated carbon filtration treatment. The treated groundwater is discharged to an unnamed tributary of the Connecticut River south of the site via the outfall pipe on the east side of the treatment building.*

**RESOURCES USED TO DRAFT PERMIT**

- Federal Effluent Limitation Guideline \_\_\_\_\_  
Performance Standards
- Federal Development Document \_\_\_\_\_  
name of category
- Treatability Manual
- Department File Information
- Connecticut Water Quality Standards
- Anti-degradation Policy
- Coastal Management Consistency Review Form
- Other – Explain (See General Comments)

**BASIS FOR LIMITATIONS, STANDARDS, OR CONDITIONS**

- Case-by-Case Determination and Best Professional Judgment (See General Comments)

*DSN 101-1: Total copper, iron, manganese, oil & grease, pH, TSS, and zinc, 1,1*

dichloroethylene, 1,2-trans-dichloroethylene, 1,2-cis-dichloroethylene, 1,1-dichloroethane, vinyl chloride, chloroform, methylene chloride, tetrachloroethylene, trichloroethylene, carbon tetrachloride

X In order to meet in-stream water quality (See General Comments)  
DSN101-1: Aquatic Toxicity (NOAEL)

X Anti-degradation policy

## GENERAL COMMENTS

The need to include water quality based discharge limitations in this permit was evaluated to be consistent with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). Each parameter was evaluated for consistency with the available aquatic life criteria considering the zone of influence allocated to the facility where appropriate. The statistical procedures outlined in the EPA Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) were employed to calculate these limits. The calculated limits were then compared to the available effluent data. A comparison of the calculated limits to the effluent data suggests a low statistical probability of exceeding such limits. The resulting limits were found to be less restrictive than those appearing in the existing permit. Since the Permittee has demonstrated the ability to comply with these more restrictive limits, those limits were incorporated into the renewed permit as required pursuant to the anti-backsliding provisions of the permitting regulations at 22a-430-4(l)(4)(xxiii). The proposed effluent limitations and conditions specified in Tables A footnotes and remarks are consistent with the requirements specified in the existing permit issued on April 26, 2002. These limitations and conditions are based on a case-by-case determination using the criteria of best professional judgment pursuant to Section 22a-430-4(m) of the RCSA and 40 CFR 125.3(d).

### Antidegradation Review

The Permittee did not request any changes to the treatment system or discharge flow permitted. Based on a review of activities at the facility and discharge information in the application, the permit renewal contains sufficient requirements to insure that the discharges will be consistent with the Water Quality Standards including existing and designated uses of the receiving water.

### Groundwater Remediation Background

Site investigations conducted in 1996 identified soil and ground water contamination resulting from former land use at the former Textron Airfoil site located at 215 South Main Street, East Windsor, CT. Common industrial solvents, including trichloroethene (TCE) and tetrachloroethene (PCE)--chloroethenes, were found to have been released to the soil in areas located beneath and around the current site building. The vadose zone was treated by a soil vapor extraction (SVE) system that ran from July 1997 to September 1999. Starting in May 1997, groundwater was originally treated by a pump-and-treat (P&T) system designed to achieve two primary objectives:

1. Physically remove contaminant mass from the groundwater plume, and
2. Minimize/control off-site migration of groundwater contamination.

Textron Inc.'s existing NPDES permit was issued on August 22, 1996 and renewed in 2002 for the discharge of the P&T system effluent wastewater.

In July 2004, Textron implemented an active *in situ* enhanced anaerobic bioremediation (EAB) program to treat chloroethenes. The chemicals of concern at this site are PCE, TCE, cis-1,2-dichloroethene (cDCE), and vinyl chloride (VC). Since August 2006, EAB treatment has been conducted continuously, with sufficient concentrations of carbon source maintained in the aquifer to support the ongoing bioremediation. EAB has been successful in reducing chloroethene concentrations within the plume and at the downgradient site boundary to levels that make P&T system

*shutdown consistent with groundwater remediation goals. By summer 2005, the P&T system was extracting groundwater only from the vertical recovery well, RW-1, to control off-site migration. The two horizontal wells (HW-1 and HW-2) were previously shut down to minimize carbon source removal and allow anaerobic bacteria to degrade the source area chloroethenes. Maurice Hamel, from DEP's Remediation Division, Bureau of Water Protection and Land Reuse (WPLR), approved shutdown of the P&T operations on 4/29/08, placing it in stand-by mode. Textron Inc. has not used the P&T system or discharged since 3/30/2008. However, the Applicant has asked that the permit be renewed so that they could discharge if necessary.*

*The differences between the effluent limitations and monitoring requirements of the existing permit and this permit renewal are as follows:*

*During the technical review of Textron Inc.'s renewal application and supporting analytical results, manganese was listed as being at a concentration up to 5,290 ug/l. DEP staff is recommending new quarterly monitoring requirements for manganese in Table A of this permit renewal.*