NPDES PERMIT

issued to

United Technologies Corporation
Pratt & Whitney Division
Mail Stop #102-13
East Hartford, Connecticut 06108

Location Address:
United Technologies Corporation
Pratt & Whitney Division
400 Main Street
East Hartford, Connecticut 06108

Facility ID: 043-061

Permit ID: CT0001376

Receiving Streams: Connecticut River
Pewterpot Brook
Willow Brook

Permit Expires: January 12, 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) Pratt & Whitney ("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

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.

"Annual" in the context of any sampling frequency found in Section 5, shall mean the sample must be collected in the month of July.

"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.

"BATCH" means wastewater treated in a tank at the same time without any additional wastewater added.

"Benchmark" means a standard by which stormwater discharge quality is measured as identified in Section 10(C) of this permit.

"Composite", when used in Section 5(A) Table K, shall mean for each week of discharge, a grab sample shall be collected from each batch discharged during the day of sampling and combined into one sample for analysis.

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

"CWTP" refers to Concentrated Waste Treatment Plant at the Permittee's Main Street facility.

"CWS&TF" refers to the Centralized Waste Storage and Transfer Facility located at the Permittee's Main Street facility.

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

"Dry Weather Overflow" means any discharge to a surface water that is not comingled with precipitation, snow melt, or ice melt.

"Grab Sample Average" shall mean the arithmetic average of all grab sample analyses. Unless otherwise specified in this paragraph, grab samples shall be collected at least once every four hours over a full operating day for as long as a discharge exists on that day, with a minimum of two grab samples per day. Grab samples taken to analyze for Chlorine (total residual), 1-1 Dichloroethylene,

Hexavalent Chromium, Oil and Grease (total), Tetrachloroethylene and Trichloroethylene in discharges 002 thru 020 may be collected once every eight hours, with a minimum of three samples.

“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.

*“*Municipal separate storm sewer*”* means conveyances for stormwater (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels or storm drains) owned or operated by any municipality and discharging directly to surface waters of the state.

“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 or less than 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 greater than 50% survival of test organisms in 100% (undiluted) effluent and 90% or greater survival of test organisms at the CTC.

“Overflows” as used in this permit refers the discharges permitted in Tables G, H, I, and J.

"Quarterly", in the context of a sampling frequency, means sampling is required in the months of January, April, July, and October, except for Tables G, H, I and J, where “Quarterly” means that a representative sample of the discharge shall be collected at any time during <u>each</u> of the following periods: Nov-Jan; Feb-Apr; May-July: and Aug-Oct.

“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 of; 1) a Composite Sample, or, 2) a Grab Sample Average. For those Permittees with continuous monitoring and recording pH meters, Range During Sampling means the maximum and minimum readings recorded with the continuous monitoring device during the Composite or Grab Sample Average sample collection.

“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.

“Twice per Month” when used as a sample frequency shall mean two samples per calendar month collected no less than 12 days apart.

"ug/l" means micrograms per liter.

“Wet weather overflow” means any discharge to a surface water that is comingled with precipitation, snow melt, or ice melt.

SECTION 3: COMMISSIONER'S DECISION

(A) The Commissioner has issued a final determination and found that modification of the existing systems or installation of new systems for DSNs 001, 002, 003, 004, and 005 would protect the waters of the state from pollution, that continuance of the existing systems to treat DSNs 001-A, 001-B, and 001-D would protect the waters of the state from pollution., and that for continuance of the existing discharges DSNs 008, 015, 016, 018, 020, 021, 022, 023, and 024 will not cause pollution of the waters of the state. The Commissioner's decision is based on **Application No. 200500897** for permit reissuance received on April 1, 2005 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^{o}F, or, in any case, raise the normal temperature of the receiving stream more than 4^{o}F.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

(A) From the date of permit issuance to when Section 5(B) takes effect, the discharges shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharges are restricted by, and shall be monitored in accordance with, the tables below:

Table A

Discharge Serial Number: 001-1 | **Monitoring Location:** 1

Wastewater Description: Combined process wastewater from scrap metal/barrel rinsing operations, stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, contact cooling water from machining/metalworking/miscellaneous operations, dilute oily wastewater from machining/metalworking/miscellaneous operations, process wastewater from machining/metalworking/miscellaneous operations, non-contact cooling water from machining/metalworking/miscellaneous operations, process wastewater from chemical dip lines, steam condensate from chemical dip lines, process wastewater from fluorescent penetrant inspection, steam condensate from fluorescent penetrant inspection, dilute oily wastewater from powerhouse operations, non-contact cooling water from powerhouse operations, steam condensate from powerhouse operations, boiler blowdown from powerhouse operations, water production wastewater from powerhouse operations, process wastewater from powerhouse operations, blowdown from cooling towers, production wastewater from cooling towers, ground water from remediation/infiltration/dewatering/basement dewatering, process wastewater from abrasive blasting, non-contact cooling water from x-ray/photographic inspection, process wastewater from x-ray/photographic inspection, process wastewater from industrial washing, steam condensate from industrial washing, dilute oily wastewater from industrial washing, process wastewater from deburring vibratory slurry units, process wastewater from research/process control laboratories, non-contact cooling water from research/process control laboratories, non-contact cooling water from metalizing, process wastewater from metalizing, process wastewater from the battery wash area, vehicle wash water from the vehicle wash area, dilute oily wastewater from the experimental test area, process wastewater from the experimental test area, fire protection wastewater from fire department operations, process wastewater from the fire department operations, on site and off site wastewater from the CWTP & CWS&TF, testing of the proposed pump stations for DSNs 002, 003, and 004, and stormwater combined with non-stormwater wastewaters as described in Section (10(A)(5)(c)(viii) of this permit.

Monitoring Location Description: Final neutralization tank effluent at Colt Street wastewater treatment system prior to discharging to the Connecticut River.

Allocated Zone of Influence (ZOI): 4,016,700 gph | **In stream Waste Concentration (IWC):** 1%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [3]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [2]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [2]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex	%	NA	LC5 0≥ 20%	Quarterly	Daily Composite	LC50 ≥ 6.67%	NR	Grab	
Aquatic Toxicity, Pimephales promelas	%	NA	LC50≥20%	Quarterly	Daily Composite	LC50 ≥ 6.67%	NR	Grab	
Acetone	mg/l	NA	NA	NR	NA	----	Annually	Grab	
Aluminum, Total	mg/l	2.0	4.0	Weekly	Daily Composite	6.0	NR	NA	*
Biochemical Oxygen Demand (5 day)	mg/l	----	----	Weekly	Daily Composite	NA	NR	NA	
Bis(2-Ethylhexyl) Phthalate	mg/l	NA	NA	NR	NA	0.018	Monthly	Grab	*

Boron, Total	mg/l	NA	----	Annually	Daily Composite	NA	NR	NA	
Cadmium, Total	mg/l	0.1	0.4	Quarterly	Daily Composite	0.6	NR	NA	*
Cadmium, Total	kg/d	0.27	0.54	Quarterly	Daily Composite	NA	NR	NA	
Chemical Oxygen Demand	mg/l	----	----	Weekly	Daily Composite	NA	NR	NA	
Chlorine, Total Residual	mg/l	NA	----	Quarterly	Grab Sample Average	NA	NR	NA	*
Chromium, Hexavalent	mg/l	0.05	0.1	Weekly	Grab Sample Average	0.15	NR	NA	*
Chromium, Total	mg/l	0.5	1.0	Weekly	Daily Composite	1. 5	NR	NA	*
Copper, Total	mg/l	0.5	1.0	Weekly	Daily Composite	1.5	NR	NA	*
Cyanide, Amenable	mg/l	0.10	0.20	Quarterly	Grab Sample Average	0.3	NR	NA	
Cyanide, Total	mg/l	0.65	1.2	Weekly	Grab Sample Average	1.8	NR	NA	*
Cyanide, Total	kg/d	1.57	3.14	Weekly	Grab Sample Average	NA	NR	NA	
Flow, Instantaneous	gpm	NA	NA	NR	NA	4,500	NR	Instantaneous	
Flow, Total, (Day of Sampling)	gpd	NA	990,000	Weekly	Daily Flow	NA	NR	NA	
Flow, Average & Maximum [1]	gpd	740,000	990,000	Continuous// Monthly	See Remarks	NA	NR	NA	
Fluoride, Total	mg/l	10.0	20.0	Weekly	Daily Composite	30.0	NR	NA	
Hours of Discharge	hr.	NA	-----	Weekly	Total Hours	NA	NR	NA	
Iron, Total	mg/l	2.0	4.0	Quarterly	Daily Composite	6.0	NR	NA	
Lead, Total	mg/l	0.1	0.5	Annually	Daily Composite	0.75	NR	NA	*
Magnesium, Total	mg/l	NA	----	Quarterly	Daily Composite	NA	NA	NA	

Nickel, Total	mg/l	1.0	2.0	Weekly	Daily Composite	3.0	NR	NA	*
Nitrogen, Ammonia (total as N)	mg/l	NA	----	Quarterly	Daily Composite	NA	NA	NA	
Oil & Grease, Total	mg/l	10.0	----	Weekly	Grab Sample Average	20.0	NR	NA	
Organics, Total Toxic	mg/l	NA	NA	NR	NA	2.13	Weekly (See Section 8(D))	Grab	
pH,	S.U.	NA	NA	NR	NA	6.0 to 9.0	Weekly	Range During Sampling	
pH, Continuous	S.U.	NA	NA	NR	NA	6.0 to 9.0	Continuous// Monthly	Range During Month	
Silver, Total	mg/l	0.1	0.43	Monthly	Daily Composite	0.65	NR	NA	*
Silver, Total	kg/d	0.02	0.04	Monthly	Daily Composite	NA	NR	NA	
Solids, Total Suspended	mg/l	10.0	20.0	Weekly	Daily Composite	30.0	NR	NA	
Surfactants, Anionic (as MBAS)	mg/l	----	0.5	Weekly	Daily Composite	0.75	NR	NA	
Titanium, Total	mg/l	1.0	2.0	Weekly	Daily Composite	3.0	NR	NA	
Zinc, Total	mg/l	1.0	2.0	Weekly	Daily Composite	3.0	NR	NA	*

Table Footnotes:

1 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 for each month.

2 The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry 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'.

3 Minimum Level Test refers to Section 6(A)(3) of this permit.

Table B

Discharge Serial Number: 002-1 | **Monitoring Location:** 1

Wastewater Description: Combined stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, non-contact cooling water from powerhouse operations, non-contact cooling water from x-ray/photographic inspection, non-contact cooling water from research/process control laboratories, fire protection wastewater from fire department operations and incidental cooling tower overflows

Monitoring Location Description: Manhole in A2 parking lot

Allocated Zone of Influence (ZOI): 12,781gph | **In stream Waste Concentration (IWC):** 49.4%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [3]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [2]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [2]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex	%	NA	NOAEL = 100%	Quarterly	Daily Composite	NOAEL = 100%	NR	Grab	
Aquatic Toxicity, Pimephales promelas	%	NA	NOAEL = 100%	Quarterly	Daily Composite	NOAEL = 100%	NR	Grab	
Aluminum, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	*
Ammonia (as Nitrogen)	ug/l	2,340	4,680	Quarterly	Daily Composite	7,020	NR	NA	
Cadmium, Total	ug/l	1.52	3.04	Quarterly	Daily Composite	4.56	NR	NA	*
Chlorine, Total Residual	ug/l	16.8	33.6	Quarterly	Grab Sample Average	50.4	NR	NA	*
Chromium, Hexavalent	ug/l	12.8	25.6	Quarterly	Grab Sample Average	38.4	NR	NA	*
Chromium, Total	ug/l	56.7	113.4	Quarterly	Daily Composite	170.1	NR	NA	*
Copper, Total	ug/l	9.71	19.4	Quarterly	Daily Composite	29.1	NR	NA	*
1,1-Dichloroethylene	ug/l	19.4	38.8	Quarterly	Grab Sample Average	58.2	NR	NA	
Ethyl Benzene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Flow, Total, (Day of Sampling)	gpd	NA	600,000	Weekly	Daily Flow	NA	NR	NA	

Flow, Average & Maximum [1]	gpd	300,000	600,000	Continuous // Monthly	See Remarks	NA	NR	NA	
Hours of Discharge	hr.	NA	-----	Weekly	Total Hours	NA	NR	NA	
Iron, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	
Manganese, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	
Nickel, Total	ug/l	33.2	66.4	Quarterly	Daily Composite	99.6	NR	NA	*
pH	S.U.	NA	NA	NR	NA	6.0 to 9.0	Quarterly	Grab	
Solids, Total Suspended	mg/l	20.0	30.0	Quarterly	Daily Composite	45.0	NR	NA	
Temperature	^{o}F	NA	NA	NR	NA	85	Quarterly	Grab	
Tetrachloroethylene	ug/l	35.8	71.6	Quarterly	Grab Sample Average	107.4	NR	Grab	
1,1,1 Trichloroethane	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Trichloroethylene	ug/l	323	646	Quarterly	Grab Sample Average	969	NR	NA	
Zinc, Total	ug/l	42.8	85.6	Quarterly	Daily Composite	128.4	NR	NA	*

Table Footnotes:

1 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 for each month.

2 The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry 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'.

3 Minimum Level Test refers to Section 6(A)(3) of this permit.

Table C

Discharge Serial Number: 003-1 | **Monitoring Location:** 1

Wastewater Description: Combined stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations and incidental cooling tower overflows

Monitoring Location Description: Outlet structure located on east portion of lower Willow Brook Pond

Allocated Zone of Influence (ZOI): 12,781gph | **In stream Waste Concentration (IWC):** 49.4%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [3]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [2]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [2]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex	%	NA	NOAEL = 100%	Quarterly	Daily Composite	NOAEL = 100%	NR	Grab	
Aquatic Toxicity, Pimephales promelas	%	NA	NOAEL = 100%	Quarterly	Daily Composite	NOAEL = 100%	NR	Grab	
Aluminum, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	*
Cadmium, Total	ug/l	1.91	3.82	Quarterly	Daily Composite	5.73	NR	NA	*
Chlorine, Total Residual	ug/l	13.6	27.2	Quarterly	Grab Sample Average	40.8	NR	NA	*
Chromium, Hexavalent	ug/l	NA	NA	NR	NA	38.4	Annually	Grab	*
Chromium, Total	ug/l	76.7	154	Quarterly	Daily Composite	230	NR	NA	*
Copper, Total	ug/l	9.71	19.4	Quarterly	Daily Composite	29.1	NR	A	*
1,1-Dichloroethylene	ug/l	19.4	38.8	Quarterly	Grab Sample Average	58.2	NR	NA	
Flow, Total, (Day of Sampling)	gpd	NA	600,000	Weekly	Daily Flow	NA	NR	NA	
Flow, Average & Maximum [1]	gpd	300,000	600,000	Continuous // Monthly	See Remarks	NA	NR	NA	
Hours of Discharge	hr.	NA	-----	Weekly	Total Hours	NA	NR	NA	

Iron, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	
Manganese, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	
Nickel, Total	ug/l	49.4	98.2	Quarterly	Daily Composite	147	NR	NA	*
pH	S.U.	NA	NA	NR	NA	6.0 to 9.0	Quarterly	Grab	
Solids, Total Suspended	mg/l	20.0	30.0	Quarterly	Daily Composite	45.0	NR	NA	
Temperature	^{o}F	NA	NA	NR	NA	85	Quarterly	Grab	
Tetrachloroethylene	ug/l	35.8	71.6	Quarterly	Grab Sample Average	107.4	NR	NA	
Trichloroethylene	ug/l	370	740	Quarterly	Grab Sample Average	1,110	NR	NA	
Zinc, Total	ug/l	78.5	157	Quarterly	Daily Composite	236	NR	NA	*

Table Footnotes:

1 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 for each month.

2 The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry 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'.

3 Minimum Level Test refers to Section 6(A)(3) of this permit.

Table D

Discharge Serial Number: 004-1 | **Monitoring Location:** 1

Wastewater Description: Combined stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations and incidental cooling tower overflows

Monitoring Location Description: manhole in GU-1 parking lot

Allocated Zone of Influence (ZOI): 10,651 gph | **In stream Waste Concentration (IWC):** 49.4%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [3]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [2]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [2]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex	%	NA	NOAEL = 100%	Quarterly	Daily Composite	NOAEL = 100%	NR	Grab	
Aquatic Toxicity, Pimephales promelas	%	NA	NOAEL = 100%	Quarterly	Daily Composite	NOAEL = 100%	NR	Grab	
Aluminum, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	*
Ammonia (as Nitrogen)	ug/l	1,090	2,180	Quarterly	Daily Composite	3,270	NR	NA	
Cadmium, Total	ug/l	1.51	3.02	Quarterly	Daily Composite	4.53	NR	NA	*
Chlorine, Total Residual	ug/l	14.2	28.4	Quarterly	Grab Sample Average	42.6	NR	NA	*
Chromium, Hexavalent	ug/l	NA	NA	NR	NA	38.4	Annually	Grab	*
Chromium, Total	ug/l	76.7	153	Quarterly	Daily Composite	230	NR	NA	*
Copper, Total	ug/l	9.71	19.4	Quarterly	Daily Composite	29.1	NR	NA	*
1,1-Dichloroethylene	ug/l	19.4	38.8	Quarterly	Grab Sample Average	58.2	NR	NA	
Flow, Total, (Day of Sampling)	gpd	NA	400,000	Weekly	Daily Flow	NA	NR	NA	
Flow, Average & Maximum [1]	gpd	250,000	400,000	Continuous // Monthly	See Remarks	NA	NR	NA	
Hours of Discharge	hr.	NA	-----	Weekly	Total Hours	NA	NR	NA	

Lead, Total	ug/l	1.93	3.86	Quarterly	Daily Composite	5.79	NR	NA	
Nickel, Total	ug/l	33.2	66.4	Quarterly	Daily Composite	99.6	NR	NA	*
Manganese, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	
Nitrate as Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
pH	S.U.	NA	NA	NR	NA	6.0 to 9.0	Quarterly	Grab	
Silver, Total	ug/l	1.30	2.60	Quarterly	Daily Composite	3.90	NR	NA	*
Solids, Total Suspended	mg/l	20.0	30.0	Quarterly	Daily Composite	45.0	NR	NA	
Temperature	^{o}F	NA	NA	NR	NA	85	Quarterly	Grab	
Tetrachloroethylene	ug/l	35.8	71.6	Quarterly	Grab Sample Average	107	NR	NA	
1,1,1-Trichloroethane	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Trichloroethylene	ug/l	269	538	Quarterly	Grab Sample Average	807	NR	NA	
Zinc, Total	ug/l	61.0	122	Quarterly	Daily Composite	183	NR	NA	*

Table Footnotes:

1 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 for each month.

2 The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry 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'.

3 Minimum Level Test refers to Section 6(A)(3) of this permit.

Table E

Discharge Serial Number: 005-1 | **Monitoring Location:** 1

Wastewater Description: Combined stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations and incidental cooling tower overflows

Monitoring Location Description: manhole located between the runway and Runway Road, south of Meade Road

Allocated Zone of Influence (ZOI): 0% gph | **In stream Waste Concentration (IWC):** 100%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [3]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [2]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [2]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex	%	NA	NOAEL = 100%	Quarterly	Daily Composite	NOAEL = 100%	NR	Grab	
Aquatic Toxicity, Pimephales promelas	%	NA	NOAEL = 100%	Quarterly	Daily Composite	NOAEL = 100%	NR	Grab	
Ammonia (as Nitrogen)	ug/l	1,020	2,040	Quarterly	Daily Composite	3,060	NR	NA	
Chemical Oxygen Demand	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	
Chlorine, Total Residual	ug/l	9.01	18.1	Quarterly	Grab Sample Average	27.2	NR	NA	*
Chromium, Hexavalent	ug/l	7.98	16.0	Annually	Grab Sample Average	24.0	NR	NA	*
Chromium, Total	ug/l	34.4	69.0	Quarterly	Daily Composite	104	NR	NA	*
Copper, Total	ug/l	4.80	9.63	Quarterly	Daily Composite	14.4	NR	NA	*
1,1-Dichloroethylene	ug/l	NA	NA	NR	NA	29.0	Annually	Grab	
Flow, Average & Maximum [1]	gpd	75,000	150,000	Continuous // Monthly	See Remarks	NA	NR	NA	
Flow, Total, (Day of Sampling)	gpd	NA	150,000	Weekly	Daily Flow	NA	NR	NA	
Hours of Discharge	hr.	NA	-----	Weekly	Total Hours	NA	NR	NA	
Nickel, Total	ug/l	23.7	47.5	Quarterly	Daily Composite	71.3	NR	NA	*

pH	S.U.	NA	NA	NR	NA	6.0 to 9.0	Quarterly	Grab	
Solids, Total Suspended	mg/l	20.0	30.0	Quarterly	Daily Composite	45.0	NR	NA	
Temperature	^{o}F	NA	NA	NR	NA	85	Quarterly	Grab	
Tetrachloroethylene	ug/l	NA	NA	NR	NA	53.3	Annually	Grab	
Zinc, Total	ug/l	32.4	65.0	Quarterly	Daily Composite	97.5	NR	NA	*

Table Footnotes:

1 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 for each month.

2 The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry 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'.

3 Minimum Level Test refers to Section 6(A)(3) of this permit.

(B) Effective September 1, 2010 or sooner, as determined in writing by the Commissioner, the discharges shall not exceed and shall otherwise conform to the specific terms and conditions listed below. The discharges are restricted by, and shall be monitored in accordance with, the tables below:

Table F

Discharge Serial Number: 001-1 | **Monitoring Location:**

Wastewater Description: Combined process wastewater from scrap metal/barrel rinsing operations, stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, contact cooling water from machining/metalworking/miscellaneous operations, dilute oily wastewater from machining/metalworking/miscellaneous operations, process wastewater from machining/metalworking/miscellaneous operations, non-contact cooling water from machining/metalworking/miscellaneous operations, process wastewater from chemical dip lines, steam condensate from chemical dip lines, process wastewater from fluorescent penetrant inspection, steam condensate from fluorescent penetrant inspection, dilute oily wastewater from powerhouse operations, non-contact cooling water from powerhouse operations, steam condensate from powerhouse operations, boiler blowdown from powerhouse operations, water production wastewater from powerhouse operations, process wastewater from powerhouse operations, blowdown from cooling towers, production wastewater from cooling towers, ground water from remediation/infiltration/dewatering/basement dewatering, process wastewater from abrasive blasting, non-contact cooling water from x-ray/photographic inspection, process wastewater from x-ray/photographic inspection, process wastewater from industrial washing, steam condensate from industrial washing, dilute oily wastewater from industrial washing, process wastewater from deburring vibratory slurry units, process wastewater from research/process control laboratories, non-contact cooling water from research/process control laboratories, non-contact cooling water from metalizing, process wastewater from metalizing, process wastewater from the battery wash area, vehicle wash water from the vehicle wash area, dilute oily wastewater from the experimental test area, process wastewater from the experimental test area, fire protection wastewater from fire department operations, process wastewater from the fire department operations, incidental cooling tower overflows, on site and off site wastewater from the CWTP & CWS&TF, and stormwater combined with non-stormwater wastewaters as described in Section (10(A)(5)(c)(viii) of this permit.

Monitoring Location Description: Final neutralization tank effluent at Colt Street wastewater treatment system prior to discharging to the Connecticut River.

Allocated Zone of Influence (ZOI): 4,016,700 gph | **In stream Waste Concentration (IWC):** 1%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [3]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [2]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [2]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex	%	NA	LC50 ≥ 20%	Quarterly	Daily Composite	LC50 ≥ 6.67%	NR	Grab	
Aquatic Toxicity, Pimephales promelas	%	NA	LC50 ≥ 20%	Quarterly	Daily Composite	LC50 ≥ 6.67%	NR	Grab	
Acetone	ug/l	NA	NA	NR	NA	----	Annually	Grab	
Aluminum, Total	mg/l	1.88	3.76	Weekly	Daily Composite	5.64	NR	NA	*

Biochemical Oxygen Demand (5 day)	mg/l	----	----	Weekly	Daily Composite	NA	NR	NA	
Bis(2-Ethylhexyl) Phthalate	mg/l	NA	NA	NR	NA	0.018	Monthly	Grab	*
Boron, Total	mg/l	NA	----	Annually	Daily Composite	NA	NR	NA	
Cadmium, Total	mg/l	0.094	0.38	Quarterly	Daily Composite	0.57	NR	NA	*
Cadmium, Total	kg/d	0.28	0.56	Quarterly	Daily Composite	NA	NR	NA	
Chemical Oxygen Demand	mg/l	----	----	Weekly	Daily Composite	NA	NR	NA	
Chlorine, Total Residual	mg/l	NA	----	Quarterly	Grab Sample Average	NA	NR	NA	*
Chromium, Hexavalent	mg/l	0.047	0.094	Weekly	Grab Sample Average	0.141	NR	NA	*
Chromium, Total	mg/l	0.47	0.94	Weekly	Daily Composite	1. 41	NR	NA	*
4-chloro-3 methyl phenol	mg/l	NA	NA	NR	NA	----	Monthly	Grab	
Copper, Total	mg/l	0.47	0.94	Weekly	Daily Composite	1.41	NR	NA	*
Cyanide, Amenable	mg/l	0.094	0.188	Quarterly	Grab Sample Average	0.28	NR	NA	
Cyanide, Total	mg/l	0.611	1.13	Weekly	Grab Sample Average	1.70	NR	NA	*
Cyanide, Total	kg/d	1.57	3.14	Weekly	Grab Sample Average	NA	NR	NA	
1,1 dichloroethene	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	
Flow, Instantaneous	gpm	NA	NA	NR	NA	4,500	NR	Instantaneous	
Flow, Total, (Day of Sampling)	gpd	NA	1,250,000	Weekly	Daily Flow	NA	NR	NA	
Flow, Average & Maximum [1]	gpd	1,000,000	1,250,000	Continuous //Monthly	See Remarks	NA	NR	NA	
Fluoride, Total	mg/l	9.8	18.8	Weekly	Daily Composite	28.2	NR	NA	
Formaldehyde	mg/l	NA	NA	NR	NA	2.67	Monthly	Grab	
Hours of Discharge	hr.	NA	-----	Weekly	Total Hours	NA	NR	NA	

Iron, Total	mg/l	2.0	4.0	Quarterly	Daily Composite	6.0	NR	NA	
Lead, Total	mg/l	0.094	0.47	Annually	Daily Composite	0.71	NR	NA	*
Lead, Total	kg/d	0.35	0.7	Annually	Daily Composite	NA	NR	NA	
Magnesium, Total	mg/l	NA	----	Quarterly	Daily Composite	NA	NA	NA	
Nickel, Total	mg/l	0.94	1.88	Weekly	Daily Composite	2.88	NR	NA	*
Nitrogen, Ammonia (total as N)	mg/l	NA	----	Quarterly	Daily Composite	NA	NA	NA	
Oil & Grease, Total	mg/l	9.4	----	Weekly	Grab Sample Average	18.8	NR	NA	
Organics, Total Toxic	mg/l	NA	NA	NR	NA	2.0	Weekly (See Section 8(D))	Grab	
pH,	S.U.	NA	NA	NR	NA	6.0 to 9.0	Weekly	Range During Sampling	
pH, Continuous	S.U.	NA	NA	NR	NA	6.0 to 9.0	Continuous // Monthly	Range During Month	
Silver, Total	mg/l	0.094	0.41	Monthly	Daily Composite	0.61	NR	NA	*
Silver, Total	kg/d	0.02	0.04	Monthly	Daily Composite	NA	NR	NA	
Solids, Total Suspended	mg/l	9.4	18.8	Weekly	Daily Composite	28.8	NR	NA	
Surfactants, Anionic (as MBAS)	mg/l	----	0.5	Weekly	Daily Composite	0.75	NR	NA	
Tetrachloroethylene	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	
Titanium, Total	mg/l	1.0	2.0	Weekly	Daily Composite	3.0	NR	NA	
1,1,1 Trichloroethane	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	
Trichloroethylene	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	

Zinc, Total	mg/l	0.94	1.88	Weekly	Daily Composite	2.88	NR	NA	*

Table Footnotes:

1 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 for each month.

2 The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry 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'.

3 Minimum Level Test refers to Section 6(A)(3) of this permit.

Table G

Discharge Serial Number: 002-1 | **Monitoring Location:** 1

Wastewater Description: This discharge is a wet weather overflow from the collection system. The overflow consists of water from these wet weather events combined with incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, non-contact cooling water from x-ray/photographic inspection, non-contact cooling water from research/process control laboratories, fire protection wastewater from fire department operations, incidental cooling tower overflows and non-stormwater wastewaters as described in Section (10(A)(5)(c)(viii) of this permit.

Monitoring Location Description: DSN 002 Pump Station Overflow Manhole

Allocated Zone of Influence (ZOI): 12,781gph | **In stream Waste Concentration (IWC):** 49.4%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [2]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [1]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex (LC50)	%	NA	NA	NR	NA	----	Quarterly	Grab	
Aquatic Toxicity, Pimephales promelas (LC50)	%	NA	NA	NR	NA	----	Quarterly	Grab	
Aluminum, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Ammonia (as Nitrogen)	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Cadmium, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chemical Oxygen Demand	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Chlorine, Total Residual	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chromium, Hexavalent	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chromium, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Copper, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
1,1-Dichloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Ethyl Benzene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Iron, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Kjeldahl Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Lead, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Manganese, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Nickel, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*

Nitrate as Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Number of Overflow Days[4]	No.	NA	----	Once per Occurrence	Total	NA	NA	NR	
Oil and Grease, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	
Phosphorous, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Solids, Total Suspended	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Temperature	^{o}F	NA	NA	NR	NA	----	Quarterly	Grab	
Tetrachloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
1,1,1 Trichloroethane	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Trichloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Zinc, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*

Table Footnote/Remarks:

1 "Quarterly" means that a representative sample of the discharge shall be collected at any time during each of the following periods: Nov-Jan; Feb-Apr; May-July: and Aug-Oct. Analytical results shall be reported in the January, April, July, and October DMRs.

2 Minimum Level Test refers to Section 6(A)(3) of this permit.

3 See Section 10(B)

4 "Number of Overflow Days" means the number of days in a sampling month that a wet weather overflow occurred from this outfall.

5 This table does not authorize dry weather overflows.

Table H

Discharge Serial Number: 003-1 | **Monitoring Location:** 1

Wastewater Description: This discharge is a wet weather overflow from the collection system. The overflow consists of water from these wet weather events combined with incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations, incidental cooling tower overflows, and non-stormwater wastewaters as described in Section (10(A)(5)(c)(viii) of this permit.

Monitoring Location Description: DSN 003 Pump Station Overflow Manhole

Allocated Zone of Influence (ZOI): 12,781gph | **In stream Waste Concentration (IWC):** 49.4%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [2]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [1]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex (LC50)	%	NA	NA	NR	NA	----	Quarterly	Grab	
Aquatic Toxicity, Pimephales promelas (LC50)	%	NA	NA	NR	NA	----	Quarterly	Grab	
Aluminum, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Ammonia (as Nitrogen)	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Cadmium, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chemical Oxygen Demand	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Chlorine, Total Residual	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chromium, Hexavalent	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chromium, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Copper, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
1,1-Dichloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Iron, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Kjeldahl Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Lead, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Manganese, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Nickel, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*

Nitrate as Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Number of Overflow Days[4]	No.	NA	----	Once per Occurrence	Total	NA	NA	NR	
Oil and Grease, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	
Phosphorous, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Solids, Total Suspended	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Temperature	^{o}F	NA	NA	NR	NA	----	Quarterly	Grab	
Tetrachloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Trichloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Zinc, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*

Table Footnote/Remarks:

1 "Quarterly" means that a representative sample of the discharge shall be collected at any time during each of the following periods: Nov-Jan; Feb-Apr; May-July: and Aug-Oct. Analytical results shall be reported in the January, April, July, and October DMRs.

2 Minimum Level Test refers to Section 6(A)(3) of this permit.

3 See Section 10(B)

4 "Number of Overflow Days" means the number of days in a sampling month that a wet weather overflow occurred from this outfall.

5 This table does not authorize dry weather overflows.

Table I

Discharge Serial Number: 004-1 | **Monitoring Location:** 1

Wastewater Description: This discharge is a wet weather overflow from the collection system. The overflow consists of water from these wet weather events combined with incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations, incidental cooling tower overflows, and non-stormwater wastewaters as described in Section (10(A)(5)(c)(viii) of this permit.

Monitoring Location Description: DSN 004 Pump Station Overflow Manhole

Allocated Zone of Influence (ZOI): 10,651 gph | **In stream Waste Concentration (IWC):** 49.4%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [2]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [1]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex (LC50)	%	NA	NA	NR	NA	----	Quarterly	Grab	
Aquatic Toxicity, Pimephales promelas (LC50)	%	NA	NA	NR	NA	----	Quarterly	Grab	
Aluminum, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Ammonia (as Nitrogen)	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Cadmium, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chemical Oxygen Demand	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Chlorine, Total Residual	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chromium, Hexavalent	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chromium, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Copper, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
1,1-Dichloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Kjeldahl Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Lead, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Manganese, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Nickel, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Nitrate as Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Number of Overflow Days[4]	No.	NA	----	Once per Occurrence	Total	NA	NA	NR	

Oil and Grease, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	
Phosphorous, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Silver, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Solids, Total Suspended	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Temperature	^{o}F	NA	NA	NR	NA	----	Quarterly	Grab	
Tetrachloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
1,1,1-Trichloroethane	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Trichloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Zinc, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*

Table Footnote/Remarks:

1 "Quarterly" means that a representative sample of the discharge shall be collected at any time during each of the following periods: Nov-Jan; Feb-Apr; May-July: and Aug-Oct. Analytical results shall be reported in the January, April, July, and October DMRs.

2 Minimum Level Test refers to Section 6(A)(3) of this permit.

3 See Section 10(B)

4 "Number of Overflow Days" means the number of days in a sampling month that a wet weather overflow occurred from this outfall.

5 This table does not authorize dry weather overflows.

Table J

Discharge Serial Number: 005-1 | **Monitoring Location:** 1

Wastewater Description: This discharge is a wet weather overflow from the collection system. The overflow consists of water from these wet weather events combined with incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations, incidental cooling tower overflows, and non-stormwater wastewaters as described in Section (10(A)(5)(c)(viii) of this permit.

Monitoring Location Description: DSN 005 Pump Station Overflow Manhole

Allocated Zone of Influence (ZOI): 0% gph | **In stream Waste Concentration (IWC):** 100%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test [2]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [1]	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex (LC50)	%	NA	NA	NR	NA	----	Quarterly	Grab	
Aquatic Toxicity, Pimephales promelas (LC50)	%	NA	NA	NR	NA	----	Quarterly	Grab	
Ammonia (as Nitrogen)	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Chemical Oxygen Demand	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Chlorine, Total Residual	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chromium, Hexavalent	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Chromium, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Copper, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
1,1-Dichloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Kjeldahl Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Lead, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Nitrate as Nitrogen	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Nickel, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*
Number of Overflow Days[4]	No.	NA	----	Once per Occurrence	Total	NA	NA	NR	
Oil and Grease, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
pH	S.U.	NA	NA	NR	NA	----	Quarterly	Grab	

Phosphorous, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Solids, Total Suspended	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Temperature	^{o}F	NA	NA	NR	NA	----	Quarterly	Grab	
Tetrachloroethylene	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	
Zinc, Total	ug/l	NA	NA	NR	NA	----	Quarterly	Grab	*

Table Footnote/Remarks:
1 "Quarterly" means that a representative sample of the discharge shall be collected at any time during each of the following periods: Nov-Jan; Feb-Apr; May-July: and Aug-Oct. Analytical results shall be reported in the January, April, July, and October DMRs.
2 Minimum Level Test refers to Section 6(A)(3) of this permit.
3 See Section 10(B)
4 "Number of Overflow Days" means the number of days in a sampling month that a wet weather overflow occurred from this outfall.
5 This table does not authorize dry weather overflows.

(C) Beginning from permit issuance until expiration, the Permittee shall comply with the following:

Table K

Discharge Serial Number: 001-A | **Monitoring Location:** 1

Wastewater Description: Concentrated Wastewater Pretreatment Facility - this discharge consist of both onsite and limited offsite concentrated waste

Monitoring Location Description: DWW sump located in the basement of the concentrated Wastewater Pretreatment Facility

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [2]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency [2]	Sample Type or Measurement to be Reported	
Chromium, Hexavalent[4]	mg/l	NA	NA	NR	NA	0.1	Weekly [5]	Grab	
Chromium, Total	mg/l	-----	-----	Weekly	Composite	NA	NR	NA	
Cyanide, Amenable	mg/l	NA	NA	NR	NA	0.1	per Batch// Monthly [3]	Grab	
Cyanide, Total	mg/l	-----	-----	Weekly	Composite	NA	NR	NA	
Flow, Average & Maximum [1]	gpd	20,000	40,000	Batch/Monthly	Total Flow	NA	NR	NA	

Table Footnotes and Remarks:

1 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 for each month.

2 The first entry in this column is the `Sample Frequency'. If this entry is not followed by a `Reporting Frequency' and the `Sampling 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'

Analysis for amenable cyanide shall be required on each batch where this constituent is known or suspected present. The Permittee shall attach the analytical results from each grab sample taken to the monthly DMR and report on the DMR the single highest concentration of amenable cyanide during the month. For any month in which sampling and analysis for amenable cyanide was not done because the parameter was not suspected present, the Permittee shall submit a statement certifying that no waste processed contained amenable cyanide and report "not present" on the DMR.

4 Samples for hexavalent chromium shall be taken from only batches that are known or suspected to contain hexavalent chromium. For any month in which sampling and analysis for hexavalent chromium was not done because the parameter was not suspected present, the Permittee shall submit a statement certifying that no waste processed contained hexavalent chromium and report "not present" on the DMR.

5 The Permittee shall quarterly attach a statement to the DMR confirming that the wastewaters that contribute to the discharge are as described in the July 2009 Process Descriptions, July 2009 CWTP Plan of Operation, and the May 27, 1999 correspondence, Appendix A, Summary of Wastewaters Treated at CWTP. Any change to this waste stream must be made in accordance with section 22a-430-3(i)(2) of the Regulations of Connecticut State Agencies.

Table L

Discharge Serial Number: 001-B | **Monitoring Location:** 1

Wastewater Description: Groundwater Remediation

Monitoring Location Description: Effluent from the Chrome Reduction Treatment System prior to mixing in the DWW Wet Well

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency	Sample Type or Measurement to be Reported	
Chromium, Hexavalent	mg/l	0.1	0.2	Quarterly	Grab Sample Average	0.3	NR	NA	
Volatile Organic Compounds (EPA Method 624)	mg/l	NA	NA	NR	NA	1.0	Quarterly	Grab	

Table Footnotes and Remarks:

1 The first entry in this column is the `Sample Frequency'. If this entry is not followed by a `Reporting Frequency' and the `Sampling 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'

2 The Permittee shall not exceed the design hydraulic capacity of 65 gpm.

Table M

Discharge Serial Number: 001-D | **Monitoring Location:** 1

Wastewater Description: Dilute Oily Wastewater Pretreatment Facility

Monitoring Location Description: Discharge from the oil/water separator located next to the Colt Street wastewater treatment system rapid mix tank

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency	Sample Type or Measurement to be Reported	
Oil & Grease, Total	mg/l	NA	NA	NR	NA	----	Quarterly	Grab	
Flow, Total	gpd	NA	50,000	NR	NA	NA	NR	NA	

Table Footnotes and Remarks:

1 The first entry in this column is the `Sample Frequency'. If this entry is not followed by a `Reporting Frequency' and the `Sampling 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'

Table N

Discharge Serial Number: 008-1 | **Monitoring Location:** NA

Wastewater Description: Ambient air condensate from air conditioners to the ground, Museum and Conference Hall

Monitoring Location Description: No monitoring required. (See compliance schedule in Section 11 of this permit.)

Table O

Discharge Serial Number: 015-1 | **Monitoring Location:** 1

Wastewater Description: Combined non-contact cooling water from the ECS lab/fuel control lab, ambient air condensate from HVAC/comfort cooling, non-contact cooling water from HVAC/comfort cooling, steam condensate from HVAC/comfort cooling, incidental ground water from infiltration, and stormwater

Monitoring Location Description: manhole located north of Willgoos X236 test cell on the northwest corner of the facility

Allocated Zone of Influence (ZOI): 35,000 gph | **In stream Waste Concentration (IWC):** 4.0%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[3]
		Average Monthly Limit	Maximum Daily Limit	Sample/ Reporting Frequency [1]	Sample Type or Measurement to be Reported	Instantaneous Limit or Required Range	Sample// Reporting Frequency	Sample Type or Measurement to be Reported	
Aquatic Toxicity, Daphnia pulex	%	NA	LC50 ≥ 80%	Quarterly	Daily Composite	LC50 ≥ 27%	NR	Grab	
Aquatic Toxicity, Pimephales promelas	%	NA	LC50 ≥ 80%	Quarterly	Daily Composite	LC50 ≥ 27%	NR	Grab	
Aluminum, Total	ug/l	NA	----	Quarterly	Daily Composite	NA	NR	NA	*
Ammonia (as Nitrogen)	ug/l	NA	----	Annually	Daily Composite	NA	NR	NA	
Chlorine, Total Residual	ug/l	NA	452	Quarterly	Grab Sample Average	678	NR	NA	*
Copper, Total	ug/l	NA	241	Quarterly	Daily Composite	362	NR	NA	*
1,1-Dichloroethylene	ug/l	NA	NA	NR	NA	----	Annually	Grab	
Flow, Total, (Day of Sampling)	gpd	NA	230,000	Weekly	Daily Flow	NA	NR	NA	
Flow, Average & Maximum [1]	gpd	35,000	230,000	Continuous // Monthly	See Remarks	NA	NR	NA	
Lead, Total	ug/l	NA	49.3	Quarterly	Daily Composite	74.0	NR	NA	*
Oil & Grease, Total	ug/l	NA	----	Quarterly	Grab Sample Average	NA	NR	NA	
pH	S.U.	NA	NA	NR	NA	6.0 to 9.0	Quarterly	Grab	
Solids, Total Suspended	mg/l	20.0	30.0	Quarterly	Daily Composite	45.0	NR	NA	
Temperature	^{o}F	NA	NA	NR	NA	----	Quarterly	Grab	
Zinc, Total	ug/l	NA	1,630	Quarterly	Daily Composite	2,450	NR	NA	*

Table Footnotes:

1 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 for each month.

2 The first entry in this column is the 'Sample Frequency'. If a 'Reporting Frequency' does not follow this entry 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'.

3 Minimum Level Test refers to Section 6(A)(3) of this permit.

Table P	
Discharge Serial Number: 016-1	**Monitoring Location:** NA
Wastewater Description: Ambient air condensate from air conditioners to the ground, Museum and Conference Hall	
Monitoring Location Description: No monitoring required.(See compliance schedule in Section 11 of this permit.)	

Table Q	
Discharge Serial Number: 018-1	**Monitoring Location:** NA
Wastewater Description: Discharge from the testing of on-site fire protection systems to the ground, Main Street Facility	
Monitoring Location Description: No monitoring required.(See compliance schedule in Section 11 of this permit.)	

Table R	
Discharge Serial Number: 019-1	**Monitoring Location:** NA
Wastewater Description: Incidental **a**mbient air condensate from air conditioning units from machining/metalworking/miscellaneous operations to the ground, Main Street Facility	
Monitoring Location Description: No monitoring required.(See compliance schedule in Section 11 of this permit.)	

Table S	
Discharge Serial Number: 020-1	**Monitoring Location:** NA
Wastewater Description: Drips to the ground at the Main Street facility of water from the fire protection pump seals, Main Street Facility	
Monitoring Location Description: No monitoring required.(See compliance schedule in Section 11 of this permit.)	

Table T	
Discharge Serial Number: 021-1	**Monitoring Location:** NA
Wastewater Description: Steam condensate from heating/ventilation/air conditioners to the ground, Main Street Facility	
Monitoring Location Description: No monitoring required.(See compliance schedule in Section 11 of this permit.)	

Table U	
Discharge Serial Number: 022-1	**Monitoring Location:** NA
Wastewater Description: Testing of on-site fire protection systems to the ground, Willgoos Laboratory	
Monitoring Location Description: No monitoring required.(See compliance schedule in Section 11 of this permit.)	

Table V	
Discharge Serial Number: 023-1	**Monitoring Location:** NA
Wastewater Description: Incidental **a**mbient air condensate from air conditioning units to the ground, Willgoos Laboratory	
Monitoring Location Description: No monitoring required.(See compliance schedule in Section 11 of this permit.)	

Table W	
Discharge Serial Number: 024-1	**Monitoring Location:** NA
Wastewater Description: Steam condensate from heating/ventilation/air conditioners to the ground, Willgoos Laboratory	
Monitoring Location Description: No monitoring required.(See compliance schedule in Section 11 of this permit.)	

(D) Sampling:

(1) For Tables B, C, D, E and O.

(a) DSNs 002, 003, 004, 005, and 015, where flow measurements are taken manually, the flow measurements may not be collected during a 0.1 inch or greater rain event and the day after such rain event. For those discharges listed above that have continuous flow monitoring, flow measurements taken by the flow meters on the day of, and the day after, a 0.1 inch or greater rain event shall not be used in calculating the monthly average and daily maximum flows.

(b) With the exception of flow and pH monitoring, sampling of DSNs 002, 003, 004, 005 and 015, flow/time based monitoring shall not be performed during or within 24 hours following the end of a 0.1 inch or greater rain event.

(c) Monitoring results for pH in DSNs 002, 003, 004, 005 and 015 on days with a rain event of 0.1 inch or greater and the day after such rain event shall not be used to determine the monthly minimum pH.

(d) The Permittee shall maintain an onsite rain gauge and a log documenting the amount of precipitation for each day of discharge at the facility.

(2) All samples shall be comprised of only the wastewater described in this table. 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 samples collected shall be representative of the discharge during standard operating conditions.

(3) 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.

(4) 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. 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.

Parameter	Minimum Level
Aluminum	10.0 ug/l
Bis(2-Ethylhexyl) Phthalate	10.0 ug/l
Cadmium	0.5 ug/l
Chlorine, total residual	20.0 ug/l
Chromium	5.0 ug/l
Chromium, hexavalent	10.0 ug/l
Cyanide	10.0 ug/l
Copper	5.0 ug/L
Lead	5.0 ug/L
Nickel	5.0 ug/L
Silver	2.0 ug/L
Zinc	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) Composite samples shall be chilled as they are collected. Grab samples shall be chilled immediately following collection. Samples shall be held at equal to or less than 6 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 Tables 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. If Total Residual Chlorine is not detected at test initiation, it does not need to be measured 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 36 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) Definitive (multi-concentration) testing, with LC50 as the endpoint, shall be conducted to determine compliance with limits on Aquatic Toxicity and monitoring conditions and shall incorporate, at a minimum, the following effluent concentrations:

(i) For Aquatic Toxicity Limits expressed as LC50 values of 33% or greater: 100%, 75%, 50%, 25%, 12.5%, and 6.25%

(ii) For Aquatic Toxicity Limits expressed as LC50 values between 15% and 33% and for monitoring only conditions: 100%, 50%, 25%, 12.5%, and 6.25%

(iii) For Aquatic Toxicity Limits expressed as LC50 values of 15% or less: 100%, 50%, 25%, 12.5%, 6.25%, and 3%

(b) 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.

(c) Organisms shall not be fed during the tests.

(d) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.

(e) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (plus or minus 5 mg/L) as CaCO3 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 a minimum LC50 value, compliance shall be demonstrated when the results of a valid definitive Aquatic Toxicity test indicates that the LC50 value for the test is greater than the Aquatic Toxicity Limit.

(b) 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 001-1 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) Connecticut River water collected immediately upstream of the area influenced by the discharge shall be used as site water control (0% effluent) and dilution water in the toxicity tests.

(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) Daily composite samples of the discharge and grab samples of the Connecticut River for use as site water control and 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 the Connecticut River 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	Nickel (Total recoverable and dissolved)
Alkalinity	Nitrogen, Ammonia (total as N)
Conductivity	Nitrogen, Nitrate (Total as N)
Chlorine, (Total residual)	Solids, Total Suspended
BOD_5	Volatile Organic Compounds
Iron (Total)	Aluminum (Total)
Magnesium (Total)	Chromium (Total)

Cadmium Zinc, (Total recoverable and dissolved)

SECTION 7: LIMITATIONS FOR AQUATIC TOXICITY BASED ON ACTUAL FLOWS

(A) In lieu of demonstrating compliance with the specific Maximum Daily Toxicity Limits in Section 5 Tables, the Permittee may recalculate the IWC based on actual flows provided:

(1) the Permittee maintains an accurate record of measured discharge flows and hours of operation for all days on which a discharge occurs; and

(2) the total daily flow for any single operating day does not exceed the average of the daily flows for the thirty consecutive operating days prior to the sampling date by more than 25 per cent.

(B) The Instream Waste Concentration (IWC) shall be calculated as follows:

(1) The measured average daily flow in gallons per hour shall be tabulated for each of the prior 30 operating days and the arithmetic average for the 30 day period calculated.

(2) The IWC (in gallons per hour) specific for the thirty consecutive operating days prior to the sampling date shall be calculated by dividing the 30 day average hourly flow by the sum of the 30-day average flow and the zone of influence (ZOI) allocated to the discharge:

$$\text{IWC (\%)} = \frac{\text{30 day average hourly flow}}{\text{30 day average hourly flow + ZOI}} \times 100$$

(3) The alternative Maximum Daily Toxicity Limit shall be determined by the IWC calculated above:

(a) For IWC equal to or less than 5%, the LC50 value shall be greater than or equal to the IWC times 20.

(b) For IWC greater than 5%, and less than 15%, the NOAEL value shall be an NOAEL equal to the IWC times 6.7.

(c) For IWC equal to or greater than 15%, the NOAEL value shall be an NOAEL equal to 100%.

(d) Demonstration of compliance with these alternative Maximum Daily Limits shall be performed as specified in Section 6(B) of this permit.

(C) Compliance with the alternative Maximum Daily Toxicity Limits based on actual flows shall be determined as follows:

(1) For alternative limits expressed as a Minimum LC50 value in accordance with Section (7)(B)(3)(a) above, compliance shall be demonstrated when the LC50 value for a valid definitive Aquatic Toxicity Test, conducted pursuant to the requirements specified in Section (6)(B) of this permit, is greater than the alternative limit.

(2) For alternative limits expressed as an NOAEL value in accordance with Section (7)(B)(3)(b) above, compliance shall be demonstrated when the results of a valid pass/fail Aquatic Toxicity Test, conducted pursuant to the requirements specified in Section (6)(B) of this permit, indicates greater than 50% survival in the undiluted effluent and 90% or greater survival in the effluent at a CTC equal

to the alternative limit.

SECTION 8: 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, LC50 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) For any table above that requires Total Toxic Organics (TTO) monitoring, the Permittee may, in lieu of analyzing for Total Toxic Organics, include a statement on the DMR, at the frequency required, certifying compliance with your Solvent Management Plan if such plan has been approved by the Commissioner in accordance with 22a-430-4(l) of the RCSA and by 40 CFR 433 (Metal Finishing). If such approval has been granted and the reports include the compliance statement, the minimum frequency of sampling shall be reduced to annually.

SECTION 9: 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 Materials Management and Compliance Assurance (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.

SECTION 10: OVERFLOW EVENTS

Beginning September 1, 2010, the Permittee shall at all times assure that DSNs 002, 003, 004 and 005 are in compliance with the following conditions:

*(*A*)* Stormwater Pollution Prevention Plan

(1) Development of Plan

The Permittee shall develop a Stormwater Pollution Prevention Plan ("Plan") by no later than September 1, 2010. The Plan shall be prepared in accordance with sound engineering practices. The Permittee shall perform all actions required by the Plan in accordance with the schedule set forth below. The Permittee shall maintain compliance with the Plan thereafter.

(2) Signature and Plan Review

(a) The Plan shall be signed by a responsible corporate officer or a duly authorized representative thereof, as those terms are defined in Section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies. Should the Plan be signed by a duly authorized representative, a statement of authorization shall be included in the Plan. The Plan shall also be certified, in accordance with this Section, by a professional engineer licensed in the State of Connecticut or a Certified Hazardous Materials Manager. The Plan shall be retained on site at the facility.

(b) The Permittee shall make a copy of the Plan available to the Commissioner immediately upon request:

Should the Commissioner request that the Permittee submit the Plan, a plan review fee of $500.00 established by Section 22a-430-6 of the Regulations of Connecticut State Agencies shall be submitted with the plan.

(c) The Commissioner may notify the Permittee at any time that the Plan does not meet one or more of the requirements of this Section. Within 60 days of such notification, unless otherwise specified by the Commissioner in writing, the Permittee shall revise the plan, perform all actions required by the revised plan, and shall submit to the Commissioner in writing that the requested changes have been made and implemented, and such other information as the Commissioner requires.

(3) Keeping the Plan Current

The Permittee shall amend the Plan whenever; (1) there is a change which has an effect on the potential of DSNs 002, 003, 004, and 005 to cause pollution of the waters of the state; (2) the actions required by the Plan fail to ensure or adequately protect against pollution of the waters of the state; (3) the average of four consecutive monitoring values exceeds the benchmark for any parameter (Section 10(C)), or (4) the Commissioner requests modification of the plan. The Permittee shall amend the Plan as necessary to address any sources or potential sources of pollution identified as a result of a Comprehensive Site Compliance Evaluation or as a result of monitoring conducted pursuant to this permit. The amended Plan shall be completed and all actions required by the Plan shall be completed within 60 days of the date the Permittee becomes aware or should have become aware that any of the conditions listed above has occurred.

(4) Failure to Prepare or Amend Plan

In no event shall failure to complete or update a Plan in accordance with this permit relieve the Permittee of responsibility to implement actions required to protect the waters of the state, complete any actions that would have been required by such plan, and to comply with all conditions of the permit.

(5) Contents of Plan

The Plan shall include, at a minimum, the following items:

(a) Pollution Prevention Team

The Plan shall identify a specific individual or individuals for the site who shall serve as members of a Stormwater Pollution Prevention Team ("team"). The team shall be responsible for developing the Stormwater Pollution Prevention Plan and assisting the Permittee in the implementation, maintenance, and revision of the plan. The Plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the plan.

(b) Description of Potential Pollutant Sources

The Plan shall describe the potential sources of pollutants that may reasonably be expected to affect stormwater quality at the site or that may result in the discharge of pollutants during dry weather from the site. Each Plan shall identify all activities and materials that may be a source of stormwater pollution at the site. In addition, each Plan shall include, but not be limited to the following:

(i) Drainage

1) A site map (at a defined or approximate scale) showing an outline of the drainage area of each stormwater outfall, existing structural control measures installed to reduce pollutants in stormwater runoff, receiving surface water body, location where materials are exposed to precipitation, location where major spills or leaks identified under this Section of this permit have occurred, and each location of the following activities where such activities are exposed to precipitation: fueling stations, vehicle and equipment maintenance and/or cleaning areas, loading/unloading areas, locations used for the treatment, storage or disposal of wastes, liquid storage tanks, processing areas and storage areas.

2) For each area of the site that generates stormwater discharges, the direction of flow, and the types of pollutants which are present or likely to be present in the discharge, including but not limited to discharges with a potential for causing erosion in the area of the receiving water.

(ii) Inventory of Exposed Materials and Summary of Potential Pollutant Sources

A tabular inventory of the types of non-gaseous materials handled at the site that may be exposed to precipitation, followed by a narrative description of the potential pollutant sources at the following areas: loading and unloading operations; roof areas; outdoor storage activities; outdoor manufacturing or processing activities; dust or particulate generating processes; and on-site waste disposal practices. Such inventory shall include a list of materials that have been handled, treated, stored or disposed in a manner to allow exposure to stormwater between the time of three years prior to the date of the issuance of this permit and the present; method and location of on-site storage or disposal; materials management practices employed to minimize contact of materials with stormwater runoff between the time of three years prior to the date of the issuance of this permit and the present; the location and a description of existing structural and non-structural control measures to reduce pollutants in stormwater runoff; and a description of any treatment the stormwater receives. The description shall specifically list any potential source of pollutants at the site and, for each potential source, any pollutants associated with the potential source.

(iii) Spills and Leaks

A list of spills and leaks of five gallons or more of toxic or hazardous substances which could affect stormwater, as those terms are defined in Section 22a-430-4 Appendix B Tables II, III and V, and Appendix D of the Regulations of Connecticut State Agencies, and 40 CFR 116.4, that occurred at the facility after the date of three years prior to the effective date of this permit.

(iv) Monitoring Program

The Plan shall contain a description of the monitoring program and sampling data for DSNs 002, 003, 004 and 005, in accordance with this permit.

(c) Measures and Controls

Each Plan shall describe the stormwater management controls appropriate for the facility. The Permittee shall implement such controls. The appropriateness and priorities of controls in a Plan shall reflect identified potential sources of pollutants at the site. The Plan shall include but not be limited to a schedule for implementing such controls and the following components:

(i) Good Housekeeping

The Plan shall provide for the maintenance of a clean, orderly facility.

(ii) Vehicle or Equipment Washing

The Plan shall provide, at a minimum, that no washing of equipment, buildings or vehicles shall be allowed at the site which would allow wash waters to enter any storm drainage system or receiving water, and that all floor drains connected to storm sewers have been sealed or permitted in accordance with (viii) below.

(iii) Roof Areas

The Plan shall identify roof areas which may be subject to drippage, dust or particulates from exhausts or vents or other sources of pollution, shall include an inspection program of such areas to determine if any potential sources of stormwater pollution are present, and shall contain steps to be taken to eliminate such sources or potential sources of pollution and a schedule for performing such steps.

The Plan shall also identify any additional areas of the site where it may be appropriate to construct a permanent roof or cover over exposed materials identified.

(iv) Sediment and Erosion Control

The Plan shall identify areas, which, due to topography, activities, or other factors, have a potential for soil erosion, and shall identify measures to limit erosion. All construction activities on site shall be conducted in accordance with this section.

(v) Preventive Maintenance

The Plan shall include a preventive maintenance program, which shall include but not be limited to, the inspection and maintenance of stormwater management devices (e.g., cleaning oil/water separators, catch basins); the inspection and testing of equipment and systems on the site to identify conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and the appropriate maintenance of such equipment and systems.

(vi) Spill Prevention and Response Procedures

Areas where potential spills can occur and their accompanying drainage points shall be identified clearly in the Plan. Procedures for cleaning up spills shall be identified in the Plan and made available to the appropriate personnel. The necessary equipment to implement a cleanup shall be available to personnel.

The Plan shall provide that all areas in which chemicals or previously used chemical containers are stored are provided with impermeable containment which will hold at least the volume of the largest chemical container, or 10% of the total volume of all containers in the area, whichever is larger, without overflow from the containment area. For industrial activities initiated after October 1, 1992, all chemicals and their containers shall be stored under a roof which minimizes stormwater entry to the containment area, except for those chemicals stored in containers of 100 gallon capacity or more, in which case a roof is not required.

The Plan shall also provide that all dumpsters, trash compactors, and "roll-off" containers used to store waste materials are in sound watertight condition and supplied with attached covers and drain plugs intact, or are in roofed areas that will not allow dumpster leakage to enter any stormwater drainage system. All covers must be closed when dumpsters are not being loaded or unloaded.

The Plan shall provide that for all industrial activities initiated after July 15, 2003, loading docks shall be protected with a permanent roof or other structure that protects the loading dock from direct rainfall. Stormwater collection and drainage facilities adjacent to the loading dock shall be designed and maintained in a way that prevents any materials spilled or released at the loading dock from discharging to the storm sewer system.

(vii) Employee Training

The Plan shall provide for employee training programs designed to inform all appropriate personnel of the components and goals of the Stormwater Pollution Prevention Plan. Training shall address topics such as spill response, good housekeeping and material management practices. The Plan shall identify periodic dates for such training at intervals no greater than once per year.

(viii) Non-Stormwater Discharges

The Plan shall include the following certification, signed by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager:

"I certify that in my professional judgment, the discharge from the site consists only of stormwater, or of stormwater combined with wastewater authorized by an effective permit issued under section 22a-430 or section 22a-430b of the Connecticut General Statutes, or of stormwater combined with any of the following discharges provided they do not contribute to a violation of water quality standards:

- landscape irrigation or lawn watering;
- uncontaminated groundwater discharges such as pumped groundwater, foundation drains, water from crawl space pumps and footing drains;
- discharges of uncontaminated air conditioner or refrigeration condensate;
- water sprayed for dust control or at a truck load wet-down station;
- naturally occurring discharges such as rising groundwaters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20)), springs, and flows from riparian habitats and wetlands.

This certification is based on testing and/or evaluation of the wet weather overflows from the site. I further certify that all potential sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test have been described in detail in the Stormwater Pollution Prevention Plan prepared for the site. I further certify that no interior building floor drains exist unless such floor drain connection has been approved and permitted by the commissioner or otherwise authorized by a local authority for discharge as domestic sewage to sanitary sewer. I am aware that there may be significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

(ix) Management of Runoff

The Plan shall contain a discussion of the need for stormwater management or treatment practices other than those which control the source of pollutants which practices shall be used to divert, infiltrate, reuse, or treat stormwater runoff in a manner that reduces pollutants in stormwater discharges from the site. The Plan shall provide that management or treatment measures determined to be reasonable and appropriate to prevent pollution of the waters of the state shall be implemented and maintained at the site. The Permittee shall consider the potential of various sources at the facility to contribute pollutants to stormwater discharges associated with industrial activity when determining reasonable and appropriate measures. Appropriate measures may include but are not limited to: vegetative swales or buffer strips, reuse of collected stormwater (such as for process water, cooling water or as an irrigation source), oil/water separators, snow management activities, infiltration devices, and wet detention/retention basins. The Permittee shall ensure that such measures are properly implemented and maintained.

(x) Inspections

In addition to the Comprehensive Site Compliance Evaluation required, the Plan shall identify qualified personnel to inspect designated equipment and areas of the site more frequently than those inspections required under the Comprehensive Site Evaluation. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections shall be maintained at the site.

(d) Comprehensive Site Compliance Evaluation

The Plan shall provide that qualified personnel shall conduct site compliance evaluations at appropriate intervals specified in the Plan, but in no event less frequently than twice a year. Such evaluations shall include:

(i) Visual inspection of material handling areas and other potential sources of pollution identified in the Plan for evidence of, or the potential for, pollutants entering the stormwater drainage system. Structural stormwater management measures, erosion control measures, and other structural pollution prevention measures identified in the Plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made. Inspections should be made during rainfall events if possible.

(ii) Preparation of a report summarizing the scope of the inspection, personnel making the inspection, the date(s) of the inspection, major observations relating to the Plan, actions taken, and updates made to the Plan shall be made and retained as part of the Stormwater Pollution Prevention Plan for at least five years. The report shall be signed by the Permittee.

(e) Additional Requirements for Stormwater Discharges Associated with Industrial Activity through municipal separate storm sewer systems as may be required by the municipality.

In addition to the applicable requirements of this permit, the Plan must show that the site authorized by this permit shall comply with applicable requirements in municipal stormwater management programs developed under NPDES permits issued for the discharge from the municipal separate storm sewer system that receives the industrial facility's discharge, provided such discharger has been notified of such conditions.

(f) Consistency with other plans

The Stormwater Pollution Prevention Plan may reference requirements contained in Spill Prevention Control and Countermeasure (SPCC) plans and other plans required by state, federal or local law for the prevention or control of spillage.

(g) Additional Requirements for Salt Storage

The Plan shall provide that storage piles of salt (including pure salt or salt mixed with other materials) used for deicing or other commercial or industrial purposes and which generate a stormwater discharge associated with industrial activity that is discharged to waters of the state, shall be enclosed or covered by structural means. A waterproof canvas, polyethylene cover or other waterproof material may be used to prevent exposure to precipitation (except for exposure necessary to add or remove materials from the pile) until a structure can be provided. In areas with a groundwater classification of GA or GAA, an impervious liner shall be utilized under the pile to prevent infiltration to groundwater. In addition, on or after October 1, 1995 no new road salt storage facilities shall be located within a 100-year floodplain as defined and mapped for each municipality under 44 CFR 59 et seq. or within 250 feet of a well utilized for potable drinking water supply or within a Level A aquifer protection area as defined by mapping pursuant to Section 22a-354c of the General Statutes.

(h) Future Construction

The Permittee shall ensure that oil and sediment control structures or other devices are used within the drainage system for all construction that (i) may impact the drainage system and (ii) occurs on site on or after the effective date of this permit. The Plan must state that a goal of 80 percent removal of total suspended solids from the stormwater discharge shall be used in designing and installing stormwater management measures. Note that any construction activity that disturbs greater than five acres must be registered and conducted in accordance with the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. However, all construction activities, regardless of size, shall comply with the Connecticut Guidelines for Soil Erosion and Sediment Control (DEP Bulletin 34). In addition, the Permittee shall avoid, wherever possible, the use of copper or galvanized roofing or building materials for any new construction where these materials will be exposed to stormwater.

(7) Plan Certification

The Plan shall contain the following certification, signed by a professional engineer licensed to practice in the State of Connecticut or a Certified Hazardous Materials Manager:

"I certify that I have thoroughly and completely reviewed the Stormwater Pollution Prevention Plan prepared for this site. I further certify, based on such review and site visit by myself or my agent and on my professional judgement, that the Stormwater Pollution Prevention Plan meets the criteria set forth in this permit. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

(B) Monitoring Requirements

(1) Parameters to Be Monitored

(a) Monitoring of DSNs 002, 003, 004 and 005 shall be conducted in accordance with Section 5, Tables G, H, I, and J of this permit.

(b) In addition to the list of parameters in Section 5, uncontaminated rainfall pH shall be measured at the time the runoff sample is taken.

(2) Stormwater Monitoring Procedures

(a) Sample Collection

(i) Samples shall be collected from discharges resulting from a storm event that is greater than 0.1 inch in magnitude and that occurs at least 72 hours after any previous storm event of 0.1 inch or greater.

(ii) Runoff events resulting from snow or ice melt cannot be used to meet monitoring requirements.

(iii) Grab samples shall be used for all monitoring.

(iv) Collection of grab samples shall begin during the first 30 minutes of a storm event discharge and shall be completed as soon as possible. Samples shall be taken at the outfall structure.

(v) The uncontaminated rainfall pH measurement shall also be taken at this time.

(vi) Samples of DSNs 002, 003, 004 and 005 must be collected during the same storm event, if feasible.

(b) Storm Event Information

The following information shall be collected for the storm events monitored:

(i) The date, temperature, time of the start of the discharge, time of sampling, and magnitude (in inches) of the storm event sampled.

(ii) The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event.

(C) Benchmarks

(i) Benchmark Concentrations:

Total Oil and Grease (mg/l)	5
Chemical Oxygen Demand (mg/l)	75
Total Suspended Solids (mg/l)	90
Total Phosphorous (mg/l)	0.40
Total Kjeldahl Nitrogen (mg/l)	2.30
Nitrate as Nitrogen (mg/l)	1.1
Total Copper (mg/l)	0.059
Total Lead (mg/l)	0.076
Total Zinc (mg/l)	0.160
Aquatic Toxicity	$LC_{50} \geq 50\%$

(ii) In accordance with "Keeping Plan Current" ((Section 10(A)(3)), should the average of four consecutive monitoring values exceeds the benchmark for any parameter, then the Permittee must review the selection, design, installation and implementation of the control measures to determine if modifications are necessary to meet the benchmarks in this permit, and either:

- Make the necessary modifications to the control measures and Plan; or
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to implement additional control measures or meet the benchmarks. The Permittee must also document the rationale for concluding that no further pollutant reductions are achievable and submit this documentation to the Commissioner for written approval. The Permittee must retain all records related to this documentation with the Plan.

If an exceedance of the four event average is mathematically certain, then the Permittee must review the control measures and perform any required corrective action immediately (or document why no corrective action is required), without waiting for the full four monitoring events, in accordance with the "Keeping Plan Current" (Section 10(A)(3)) section. If after modifying the control measures and conducting additional monitoring, the average of the most recent 4 monitoring events still exceeds the benchmark (or if an exceedance of the benchmark by the 4 event average is mathematically certain for the most recent 4 monitoring events), the Permittee must again review the control measures and take one of the two actions above.

SECTION 11: COMPLIANCE SCHEDULE

(A) On or before 365 days after the date of issuance of this permit, the Permittee shall conduct wastewater analyses of two representative samples of each of these wastestreams: air conditioning condensate, steam condensate, and fire protection wastewater and submit for the Commissioner's review a completed "Attachment O, Part B

Form" (DEP-PERD-APP-107) for each category of wastewater sampled. Analyses shall be conducted for all parameters known or suspected to be present in the wastewater. All samples shall be analyzed using methods specified in 40 CFR Part 136. All results shall be generated from representative samples of the discharges. Samples may be collected over a time period necessary to gather an adequate amount for analyses.

(B) The Permittee shall use best efforts to submit to the Commissioner all documents required by this section of the permit in a complete and approvable form. If the Commissioner notifies the Permittee that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and the Permittee shall correct the deficiencies and resubmit it within the time specified by the Commissioner or, if no time is specified by the Commissioner, within thirty days of the Commissioner's notice of deficiencies. In approving any document or other action under this Compliance Schedule, the Commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the Commissioner deems necessary to carry out the purposes of this section of the permit. Nothing in this paragraph shall excuse noncompliance or delay.

(C) Dates. The date of submission to the Commissioner of any document required by this section of the permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this section of the permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" as used in this section of the permit means calendar day. Any document or action which is required by this section only of the permit, to be submitted, or performed, by a date which falls on, Saturday, Sunday, or, a legal Connecticut or federal holiday, shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or legal Connecticut or federal holiday.

(D) Notification of noncompliance. In the event that the Permittee becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this section of the permit or of any document required hereunder, the Permittee shall immediately notify the Commissioner and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the Commissioner, the Permittee shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Permittee shall comply with any dates that may be approved in writing by the Commissioner. Notification by the Permittee shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing.

(E) Notice to Commissioner of changes. Within fifteen days of the date the Permittee becomes aware of a change in any information submitted to the Commissioner under this section of the permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the Commissioner.

(F) Submission of documents. Any document, other than a discharge monitoring report, required to be submitted to the Commissioner under this section of the permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Stephen Edwards
Department of Environmental Protection
Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division79 Elm Street
Hartford, CT 06106-5127

This permit is hereby issued on January 13, 2010.

/s/AMEY W. MARRELLA
Amey W. Marrella
Commissioner

GM/SCE

DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: United Technologies, Pratt & Whitney Division

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0001376 APPLICATION #: 200500897 FACILITY ID. 043-061

Mailing Address:						**Location Address:**					
Street:	M/S 102-21					**Street:**	400 Main Street				
City:	East Hartford	**ST:**	CT	**Zip:**	06108	**City:**	East Hartford	**ST:**	CT	**Zip:**	06108
Contact Name:	Virginia Young					**DMR Contact**	Virginia Young				
Phone No.:	(860) 565-4622					**Phone No.:**	(860) 565-4622				

PERMIT INFORMATION

DURATION 5 YEAR _X_ 10 YEAR ___ 30 YEAR _____

TYPE New _ Reissuance _X_ Modification ___

CATEGORIZATION POINT (X) NON-POINT ( ) GIS # 157, 165 and 170

NPDES (X) PRETREAT ( ) GROUND WATER(UIC) ( ) GROUND WATER (OTHER) ( )

NPDES MAJOR (MA) ___X_
NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI) _____
NPDES or PRETREATMENT MINOR (MI) _____

PRETREAT SIGNIFICANT INDUS USER (SIU) _____
PRETREAT CATEGORICAL (CIU) _____
Note: If it's a CIU then check off SIU

POLLUTION PREVENTION MANDATE _ ENVIRONMENTAL EQUITY ISSUE ____

COMPLIANCE ISSUES

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

POLLUTION PREVENTION ___ TREATMENT REQUIREMENT____WATER CONSERVATION___

WATER QUALITY REQUIREMENT _X_ REMEDIATION __ OTHER _____

IS THE PERMITTEE SUBJECT TO A PENDING ENFORCEMENT ACTION? NO__ YES _X_

At the time of permit reissuance, Consent Order WC5437, issued on January 2, 2007, was still in effect. Under this order the Permittee is required to relocate dry weather flows and initial stormwater flushes from DSNs 002, 003, 004 to the DSN 001 wastewater treatment system and DSN 005 to the City of East Hartford Sanitary Sewer System.

OWNERSHIP CODE

Private _X_ Federal __ State __ Municipal (town only) __ Other public ____

DEP STAFF ENGINEER Stephen Edwards and Ken Major

PERMIT FEES

DSN NUMBER	DISCHARGE CODE	CATEGORY	ANNUAL FEE
001-1	1170000	Blow Down from Heating and Cooling Equipment	$4,337.50
	1090000	Ground Water Recovery	$4,337.50
	101032Y	Laboratory Wastewater	$250.00
	101035Z	Metal Finishing	$8,425.00
	102000a	Non-Contact Cooling Water	$775.00
	101050Y	Photographic Wastewater	$4,337.50
	101600Y	Steam Electric	$4,337.50
	1080000	Stormwater	$2,912.50
	1150090	Vehicle/Battery Wash Water	$775.00
	1060000	Water Production Wastewater	$775.00
001-A	110000r	Hazardous Waste Treatment	$8,175.00
001-B	109000n	Ground Water Recovery	$0.00
001-D	101035n	Metal Finishing	$0.00
002-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
	109000n	Ground Water Recovery	$0.00
	102000n	Non-Contact Cooling Water	$0.00
	101600n	Steam Electric	$0.00
	108000n	Stormwater	
003-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
	109000n	Ground Water Recovery	$0.00
	102000n	Non-Contact Cooling Water	$0.00
	108000n	Stormwater	
004-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
	109000n	Ground Water Recovery	$0.00
	102000n	Non-Contact Cooling Water	$0.00
	108000n	Stormwater	
005-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
	109000n	Ground Water Recovery	$0.00
	102000n	Non-Contact Cooling Water	$0.00
	108000n	Stormwater	

DSN NUMBER	DISCHARGE CODE	CATEGORY	ANNUAL FEE
008-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
015-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
	109000n	Ground Water Recovery	$0.00
	102000n	Non-Contact Cooling Water	$0.00
	108000n	Stormwater	
016-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
018-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
	108000n	Stormwater	
019-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
020-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
021-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
022-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
023-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
024-1	117000n	Blow Down from Heating and Cooling Equipment	$0.00
		Total:	$39,437.50

FOR NPDES DISCHARGES

River	Drainage Basin Code	Present/Future Water Quality Standard
Connecticut River	4000	SC/SB
Pewterpot Brook	4000	A/A
Willow Brook	4000	B/B
Ground	4000	GB

NATURE OF BUSINESS GENERATING DISCHARGE

Pratt & Whitney designs and manufactures jet engines and jet engine parts. The East Hartford facility also tests both jet engines and jet engine components.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 001 - This is the primary process discharge consisting of combined process wastewater from scrap metal/barrel rinsing operations, stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, contact cooling water from

machining/metalworking/miscellaneous operations, dilute oily wastewater from machining/metalworking/miscellaneous operations, process wastewater from machining/metalworking/miscellaneous operations, non-contact cooling water from machining/metalworking/miscellaneous operations, process wastewater from chemical dip lines, steam condensate from chemical dip lines, process wastewater from fluorescent penetrant inspection, steam condensate from fluorescent penetrant inspection, dilute oily wastewater from powerhouse operations, non-contact cooling water from powerhouse operations, steam condensate from powerhouse operations, boiler blowdown from powerhouse operations, water production wastewater from powerhouse operations, process wastewater from powerhouse operations, blowdown from cooling towers, production wastewater from cooling towers, ground water from remediation/infiltration/dewatering/basement dewatering, process wastewater from abrasive blasting, non-contact cooling water from x-ray/photographic inspection, process wastewater from x-ray/photographic inspection, process wastewater from industrial washing, steam condensate from industrial washing, dilute oily wastewater from industrial washing, process wastewater from deburring vibratory slurry units, process wastewater from research/process control laboratories, non-contact cooling water from research/process control laboratories, non-contact cooling water from metalizing, process wastewater from metalizing, process wastewater from the battery wash area, vehicle wash water from the vehicle wash area, dilute oily wastewater from the experimental test area, process wastewater from the experimental test area, fire protection wastewater from fire department operations, process wastewater from the fire department operations, on site and off site wastewater from the CWTP & CWS&TF, incidental cooling tower overflows, and stormwater combined with non-stormwater wastewaters as described in Section (10(A)(5)(c)(viii) of this permit.. All wastewater receives lime and polymer addition, passes through a clarifier and is pH adjusted. This discharge is directed to the Connecticut River through a diffuser after treatment utilizing equalization, pH adjusted, chemical addition and gravity settling. By no later than September 1, 2010, DSNs 002, 003 and 004 are to be redirected to the DSN 001 wastewater treatment system. With the relocation of these discharges the flow of DSN 001 will increase from an average flow of 740,000 gallons per day to 1,000,000 gallons per day with a maximum flow of 990,000 gallons per day to 1,250,000 gallons per day.

DSN 001A - Up to 40,000 gallons per day of concentrated metal finishing wastewater from the East Hartford facility and other Pratt & Whitney facilities are batch treated for pH and chemical characteristics (e.g. chromium reduction and cyanide destruction).

DSN 001B - Historically, the facility directed hexavalent chromium bearing rinse waters to the dilute wastewater pretreatment facility for chromium reduction. Presently, the only process still using hexavalent chromium is closed looped. In 2009, the Permittee rebuilt the hex chrome reduction system to treat groundwater contaminated with hexavalent chromium and VOCs. The new treatment system consists of an air stripper and hexavalent chromium reduction. With the reissuance of this permit, the maximum flow will increase from 50,000 gallons per day to 100,000 gallons per day.

DSN 001C - NLD (No Longer Discharging) – Oily wastewaters from the *Production Test Area* was previously treated at the Gale oil/water separator before mixing with DSN 001.

DSN 001D - Up to 50,000 gallons a day of oily wastewaters from shop processes, the CWTP, and the CWS&TF are pretreated at the Colt Street oil/water separator prior to mixing with DSN 001.

DSN 002 - This discharge consists of combined stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, non-contact cooling water from x-ray/photographic inspection, non-contact cooling water from research/process control laboratories, fire protection wastewater from fire department operations, and incidental cooling tower overflows. It has an average flow of 300,000 gallons per day with a

maximum flow of 600,000 gallons per day and discharges to Willow Brook. By no later than September 1, 2010**,** this discharge is to be redirected to the DSN 001 wastewater treatment system, with an overflow to Willow Brook during certain rain events.

DSN 003 - With an average daily flow of 300,000 gallons and a maximum daily flow of 600,000 gallons, this discharge consists of combined stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations, and incidental cooling tower overflows. This discharge is directed to Willow Brook. By no later than September 1, 2010**,** this discharge is to be redirected to the DSN 001 wastewater treatment system, with an overflow to Willow Brook during certain rain events.

DSN 004 - This discharge consists of combined stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, steam condensate from machining/metalworking/miscellaneous operations, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations, and incidental cooling tower overflows. The discharge, which is piped to Willow Brook, has an average flow of 250,000 gallons per day and a maximum flow of 400,000 gallons per day. By no later than September 1, 2010**,** this discharge is to be redirected to the DSN 001 wastewater treatment system, with an overflow to Willow Brook during certain rain events.

DSN 005 - Wastewater from this pipe is sent to Pewterpot Brook. The discharge consists of combined stormwater, incidental ambient air condensate (air conditioning condensate), steam condensate from incidental process/equipment heating, non-contact cooling water from incidental process/equipment cooling, ambient air condensate from machining/metalworking/miscellaneous operations, ground water from infiltration, fire protection wastewater from fire department operations and has an average daily flow of 75,000 gallons with a maximum flow of 150,000 gallons. By no later than September 1, 2010**,** this discharge is to be redirected to the City of East Hartford sanitary sewer system, with an overflow to Pewterpot Brook during certain rain events.

DSN 008 - This discharge consist of Ambient Air Condensate from air conditioners located in the Museum and Conference Hall. The discharge is directed to Willow Brook.

DSN 010 - NLD - This discharge previously consisted of combined non-contact cooling water, steam condensate, jet exhaust cooling water, water production wastewater and fire system testing, maintenance and training wastewater to the Connecticut River. The discharge had an average daily flow of 60,000,000 gallons and a maximum daily flow of 90,000,000 gallon a day.

DSN 011 - NLD - This discharge was previously directed to the Connecticut River. The discharge had an average daily flow of 92,000,000 gallons and a maximum daily flow of 110,000,000 gallons. It had consisted of combined non-contact cooling water, steam condensate, jet exhaust cooling water, boiler blowdown, water production wastewater and fire system testing, maintenance and training wastewater.

DSN 012 - NLD - This discharge previously consisted of combined non-contact cooling water, steam condensate, jet exhaust cooling water, water production wastewater and fire system testing, maintenance and training wastewater and is directed to the Connecticut River. It had a maximum daily flow of 6,000,000 gallons.

DSN 013 NLD – Previously this discharge consisted of the batch discharge of jet exhaust cooling water from the Recirculation Pits to the Connecticut River. It had a maximum daily flow of 400,000 gallons.

DSN 015 - Combined non-contact cooling water from the ECS lab/fuel control lab, ambient air condensate from HVAC/comfort cooling, non-contact cooling water from HVAC/comfort cooling, steam condensate from HVAC/comfort cooling, incidental ground water from infiltration, and stormwater. It has an average daily flow of 35,000 gallons and a maximum daily flow of 230,000 gallons. This waste stream is directed to the Connecticut River.

DSN 016 - This discharge consist of Ambient Air Condensate from air conditioners located in the Museum and Conference Hall.

DSN 017 - NLD - This discharge previously consisted of rinsewater from the intake screen on the Connecticut River pump house. It had an average daily flow of 200,000 gallons and a maximum daily flow of 450,000 gallons. This discharge consisted of three pipes: south pit pipe, north pit pipe and main pump header pipe.

DSN 018 - Wastewaters from testing of on-site fire protection systems at the Main Street facility to ground.

DSN 019 - The wastewaters consist of incidental **a**mbient air condensate from air conditioning units from machining/metalworking/miscellaneous operations to ground around the Main Street facility.

DSN 020 - This discharge consists of drips to the ground at the Main Street facility of water from the fire protection pump seals.

DSN 021 - Steam condensate from heating/ventilation/air condition to the ground at the Main Street facility.

DSN 022 - Wastewaters from testing of on-site fire protection systems at the Willgoos Laboratory to ground.

DSN 023 - The wastewaters consist of incidental **a**mbient air condensate from air conditioning units to ground around the Willgoos Laboratory.

DSN 024 - Steam condensate from heating/ventilation/air condition to the ground around the Willgoos Laboratory.

RESOURCES USED TO DRAFT PERMIT

_X_ Federal Effluent Limitation Guideline 40CFR 433 Metal Finishing
name of category

___ Performance Standards

___ Federal Development Document _____
name of category

___ Treatability Manual

_X_ Department File Information

_X_ Connecticut Water Quality Standards

_X_ Anti-degradation Policy

___ Coastal Management Consistency Review Form

_X_ Other - Explain

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

___ Pretreatment Standards for Existing Sources (PSES)

___ Pretreatment Standards for New Sources (PSNS)

___ New Source Performance Standards (NSPS)

_X_ Best Available Technology (BAT)
001 - Organics (Total Toxic), pH and Silver (max and inst mg/l)

___ Best Practicable Technology (BPT)

___ Best Conventional Technology (BCT)

___ Secondary Treatment

_X_ Case-by-Case Determination using Best Professional Judgment (See Other Comments)
001 -1-Chloro 3-Methyl Phenol (Table F), Cyanide (Total inst.), 1,1 Dichloroethene, Surfactants (Anionic as MBAS), 111 Tetrachloroethylene, and Trichloroethylene;
002 – Ethyl Benzene, Iron, Manganese, pH, Solids (Total Suspended), and 1,1,1 Trichloroethylene;
003 – Aluminum, Iron, Manganese, pH and Solids (Total Suspended);
004 – Aluminum, Nitrate, Manganese, Silver pH, and Solids (Total Suspended);
005 – Chemical Oxygen Demand, pH and Solids (Total Suspended); and
015 - Solids (Total Suspended);

_X_ Section 22a-430-4(s) of the Regulations of Connecticut State Agencies
001 - Aluminum, Cadmium (ave mg/l), Cyanide (Amenable & Total mg/l), Lead, Nickel, Oil & Grease, Silver (ave mg/l), Solids (Total Suspended) and Zinc;
001A - Chromium (Hexavalent) and Cyanide (Amenable);
001B - Chromium (Hexavalent).

_X_ In order to meet in-stream water quality (See General Comments)
001 - Aquatic Toxicity (Vertebrate & Invertebrate), Bis(2-Ethylhexyl) Phthalate, Cadmium (mass), Cyanide (mass), Formaldehyde (Table F), Mercury, Silver (mass) and Temperature;
002 - Aquatic Toxicity (Vertebrate & Invertebrate), Aluminum, Ammonia, Chlorine (Total Residual), Cadmium, Chromium (Hexavalent & Total), Copper, 1,1-Dichloroethylene, Nickel, Temperature, Tetrachloroethylene, Trichloroethylene and Zinc;
003 - Aquatic Toxicity (Vertebrate & Invertebrate), Cadmium, Chlorine (Total Residual), Chromium (Hexavalent & Total), Copper, 1,1-Dichloroethylene, Nickel, Temperature, Tetrachloroethylene, Trichloroethylene and Zinc;
004 - Aquatic Toxicity (Vertebrate & Invertebrate), Ammonia, Cadmium, Chlorine (Total Residual), Chromium (Hexavalent & Total), Copper, 1,1-Dichloroethylene, Nickel, Silver, Temperature, Tetrachloroethylene, Trichloroethylene and Zinc;
005 - Aquatic Toxicity (Vertebrate & Invertebrate), Ammonia, Chlorine (Total Residual), Chromium (Hexavalent & Total), Copper, 1,1-Dichloroethylene, Nickel, Silver, Temperature, Tetrachloroethylene and Zinc;
015 - Aquatic Toxicity (Vertebrate & Invertebrate), Chlorine (Total Residual), Copper, Lead, pH, Temperature and Zinc;

_X_ Anti-degradation policy

001 – Cadmium (max and inst mg/l), Chromium (Hexavalent & Total), Copper, Fluoride (see Other Comments), Iron, Solids (Total Suspended) and Titanium.

GENERAL COMMENTS

As applicable, EPA Metal Finishing Categorical limits (40 CFR 433) were compared to Section 22a-430-4(s)(2) of the Regulations of Connecticut State Agencies limits. The more stringent limits were incorporated into the permit.

Water quality based discharge limitations were included in this permit for consistency 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 (acute and chronic) and human health (fish consumption only) 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 the limits. The most restrictive of the water quality limitations, aquatic life acute, aquatic life chronic, and human health, was compared with limitations developed according to State and Federal Best Available Technology (BAT). Where the water quality based limitations were more restrictive than BAT, the water quality based limitation was included in the permit as a mass limit in addition to the BAT concentration limit.

OTHER COMMENTS

Though analyses of the discharges failed to detect the following parameters, the Attachment O of the previous permit application (89-055) indicated they were known or suspected present. A statistical analysis to determine the reasonable potential of these parameters to violated water quality criteria was performed using available data. This analysis determine that, though these parameters had not been detected, given their characteristics and the limited data available at the time, there was a reasonable potential for them to cause the river to exceed water quality criteria, Consequently, monitoring requirements for these parameters were included in the previous permit. A similar reasonable potential analysis was performed when the permit was reissued using the monitoring data collected from 2000 to 2009. The additional data changed the statistical probability of these parameters demonstrating that they are unlikely to cause an exceedance of the water quality criteria in the river and therefore the monitoring requirements were eliminated.
DSN 001 - Arsenic and Mercury;
DSN 002 - Arsenic, Beryllium, Cadmium, Cyanide (Total), Lead, Mercury, Selenium and Silver;
DSN 003 – Ammonia, Arsenic, Beryllium, Cyanide (Total), Lead, Mercury, O&G, Selenium and Silver;
DSN 004 - Arsenic, Beryllium, Cadmium, Cyanide (Total), Lead, Mercury, O&G and Selenium;
DSN 005 - Arsenic, Beryllium, Cadmium, Cyanide (Total), Lead, Mercury, O&G and Selenium;
DSN 015 - 1,1-Dichloroethylene and Silver.

Monitoring for the following parameters was included in the previous permit based on the Best Professional Judgment. Using recent monitoring data, the need to continue sampling for these parameters was evaluated during the permit reissuance process. It was determined that these parameters are no longer present in the discharge at a concentration that warrants continued monitoring. Therefore, the monitoring requirements for the following parameters were eliminated with this permit reissuance:
DSN 001 - P-Chloro-M-Cresol
DN 002 - O&G

Monitoring for the following parameters was added to DSN 001 in Table F because they are known or suspected present in DSNs 002, 003 or 004:
1-Chloro 3-Methyl Phenol (Table F), 1,1 Dichloroethene, Formaldehyde, 111 Tetrachloroethene, Tetrachloroethylene, and Trichloroethylene

Though believed absent, the following parameters were included in the permit to meet federal categorical monitoring

requirements.
DSN 001 - lead and silver

Categorical or water quality limits were not included for the following parameters, however, using best professional judgment, it was determined that they are present in the discharge at a concentration that warrants monitoring:
DSN 001 - Acetone, BOD5, Boron, COD, Magnesium and Titanium;
DSN 015 - Aluminum, Ammonia, Chlorine, Chromium (Total), Iron, Mercury, Nickel, O&G and Zinc;

The fluoride limit for DSN 001 was modified on June 6, 1996. The limit modification was done in accordance with Section 22a-430-4(l)(4)(xxiii)(1) of the RCSA after the Permittee demonstrated that it was not able to consistently meet the original limit. The new limit was calculated using historical data to reflect the level of treatment the Permittee had been able to consistently achieve, yet is still more stringent than both the State and Federal categorical limits.

The limit for surfactants in DSN 001 was determined by the concentration at which surfactants will cause foaming in a discharge.

The permit includes quarterly sampling of DSN 001D (Colt Street o/w separator) to verify the pretreatment system's effectiveness.

Though 1,1-Dichloroethylene has not been detected in DSN 003 since regular monitoring for this parameter began in 2000, it has been detected in DSNs 002 and 004. Given that the source of 1,1-Dichloroethylene in these discharges is contaminated groundwater and the close proximity of DSN 003 to DSNs 002 and 004, it was determined that, along with DSNs 002 and 004, DSN 003 should continue to be monitored for 1,1-Dichloroethylene to confirm its compliance with water quality standards.

The requirement to monitor DSNs 004 and 005 for silver was removed after a review of five years of monitoring data showed the concentration of silver to be consistently non-detect.

The pH limits for DSNs 002, 003, 004, and 015 were determined on a case-by-case base for consistency with the limits given for similar discharges.

Though the Connecticut River has a coastal water quality classification goal of SB in Hartford, all water quality and toxicity limits where calculated using fresh water criteria. The limits were calculated using an inland water quality classification goal of B given that the river at this location consists of fresh water and contains fresh water aquatic species. The classification of the Connecticut River in Hartford as coastal was established based on tidal influences.

The requirement to monitor DSNs 002, 003, 004 and 005 for total oil and grease, chemical oxygen demand, total phosphorous, total kjeldahl nitrogen and total lead was added to Tables J, K, L, and M for consistency with the **General Permit for the Discharge of Stormwater Associated with Industrial Activity**.

The limits and ZOI for DSN 001 were recalculated in Table F to account for the additional flows from DSNs 002, 003 and 004. Also, BAT limits for the metal finishing wastewaters were reduced by 6% to adjust for the commingling with non-metal finishing wastewaters. The percent reduction was calculated using average daily flows.

The Zones of Influences (ZOI) were calculated as follows:

- DSN 001 - The ZOI for this discharge was back-calculated from an IWC of 1%. This was done in consideration that the discharge passes through a diffuser before entering the Connecticut River; 1% is the lowest IWC the Department will use to calculate limits.
- DSNs 002, 003 and 004 - The 7Q10 of Willow Brook (36,214 gph) was flow proportioned between these discharges.
- DSN 005 - Since Pewterpot Brook has a water quality classification of A/A, no zone of influence was assigned for this discharge. Under Connecticut Water Quality Standards any discharge to a class A stream must consist of clean water and be able to meet class A standards.
- DSN 015 – The ZOI for this discharge was calculated using historical data to be 35,000 gph and is performance based assuming an IWC of 4%. Based on the past performance of the aquatic toxicity at the discharge, it was

determined that, though additional ZOI is available in the Connecticut River, the Permittee only required an IWC of 4% to consistently meet permitted limits.

The benchmarks for listed in Section 10 of this permit were taken from the General Permit for Stormwater Associated with Industrial Activities as proposed in the June 2009 reissuance Hearing. With the exception of metals and aquatic toxicity, the benchmarks are based upon 80th percentiles of the cumulative relative frequency graphs developed from stormwater results reported under the General Permit for the Discharge of Stormwater Associated with Industrial Activity for the sampling years 2003 to 2007. The benchmarks for copper, lead and zinc are based upon state Water Quality Standards and have been determined to be protective of water quality at typical dilution rates (IWC 20%). The Benchmark for aquatic toxicity is based upon 80th percentiles of the cumulative relative frequency graphs developed from stormwater results reported under the General Permits for the Discharge of Stormwater Associated with Industrial Activity, issued October 1, 1992 (modified October 1, 1995) and October 1, 1997. However, regardless of the benchmarks, discharge monitoring data or other site specific information is being required to verify that the discharges are protective of water quality**.** If not, the Department requires additional measures to reduce the discharge of pollutants for any discharge specifically found to be causing or contributing to an exceedance of Water Quality Standards in the receiving water. Provided the Permittee complies with all requirements of the Benchmarks subsection, exceedance of the benchmarks is not, in itself, a violation of this permit. Section 10 of the permit contains a number of requirements that are equivalent to or more stringent than the requirements contained in the General Permit for the Discharge of Stormwater Associated with Industrial Activity, as issued on April 14, 2009. The industrial stormwater general permit, however, is current being reissuance. Should the general permit incorporate new requirements when reissued, then the Commissioner may require that this permit be modified to reflect such changes.

A requirement to perform an annual chronic toxicity analysis of DSN 001 was included in the permit. This requirement was incorporated to verify that the acute to chronic aquatic toxicity ratio (20:1) assumed in calculating the limits for this permit was correct. This requirement is similar to those given in other permits for comparable discharges.

The permit includes discharges of ambient air condensate from air conditioner (DSNs 008, 016, 019, and 023), steam condensate (DSNs 021 and 024) and wastewaters from the testing of fire protection system (DSNs 018, 020, and 022) to the ground. Based on the available data, the quantity of the discharges and the wastewater descriptions, it was determined that these discharges will not cause pollution of the waters of the state. The permit requires that the Permittee analyze representative samples of these wastewaters and submit completed Attachment O Part Bs to demonstrate that they do not cause pollution.

The public notice for this permit was published in the Hartford Courant on November 10, 2009. On December 10, 2009, the Department subsequently received from the Applicant written comments and a request for a hearing on the proposed action. The Bureau of Materials Management and Compliance Assurance staff reviewed the written comments and recommended the following:

- Tables G, H, I, and J refer to "Dry Weather Overflow" and "Wet Weather Events." The Applicant requested that these terms be more clearly defined. Staff added definitions for the terms "Dry Weather Overflow" and "Wet Weather Overflow" to Section 2 of the permit.
- The Applicant requested that a number of limits for DSN 001 be eliminated. Staff explained to the Applicant that the limits are required under 40 CFR 433 and therefore would not be removed.
- The Applicant requested that all limits for DNSs 002 through 015 that do not have a "reasonable potential" to violate be removed. Staff explained to the Applicant that these limits had been included on a case-by-case basis using best professional judgment to assure that the discharges maintain compliance with water quality standards. The limits will remain in the permit.
- That Applicant requested that they be allowed to perform the quarterly monitoring required under Tables G, H, I, and J only for a three-month period. Staff agrees that this was a reasonable request due to the difficulty of sampling these discharges and has made the change accordingly. Note that quarterly sampling of these discharges will still be performed.
- Staff agreed with the Applicant's request to rename the parameter "Number of Overflows" to "Number of

Overflow Days", and have revised the permit accordingly.

- The Applicant requests that the monitoring location descriptions for DSNs 002, 003, 004 and 005 in Tables G, H, I, and J be modified for clarification. Staff agrees with this recommendation and has revised the permit accordingly.
- Staff agrees with the Applicant's requested to change "Total Toxic Organics" to "Volatile Organic Compounds" in Table L and has revised the permit accordingly.
- Staff revised the flow limit for DSN 001-B from 100,000 gallons per day to 65 gallons per minute (93,600 gpd). The limit was based on the design flow capacity of this pretreatment system and the Applicant stated it would be easier to verify compliance with the limit in gpm.
- The Applicant provided a more accurate description of the monitoring location for DSN 001-B. Staff agrees with the description and has revised the permit accordingly.
- The Applicant requested that the monitoring requirements for DSNs 008, 016, 018, 019, 020, 021, 022, 023, and 024 be removed due to the difficulty of collecting representative samples of these discharges. Staff explained to the Applicant that these discharges must be monitored in order to assure they meet water quality standards. In recognition of the difficulty of sampling these discharges, staff replaced the annual monitoring requirement with a compliance schedule to collect two representative samples of the discharges within a year of the permit being issued (proposed Section 11). The proposed compliance schedule would require that the samples be analyzed more extensively.
- DSNs 002, 003, 004, 005 and 015 are discharged through the facility's stormwater system. Section 5(D)(1) of the draft permit addresses when and how to monitor these discharge for compliance with the permit. The applicant requested that pH be added to Section 5(D)(1)(b) and that "the day after" be changed to "24 hours following". Staff agrees that these changes would clarify the sampling procedures and has revised the permit accordingly.
- The Applicant requested, and Staff agreed to revise Section 10(A)(3) to refer to DSNs 002, 003, 004 and 005 instead of "the site".
- The Applicant requested that the word "management" be deleted from Section 10(A)(5)(b)(iv) for clarity. Staff agrees and has revised the permit accordingly.
- The Applicant asked that the description of "non-storm water discharges" in Section 10(A)(5)(c)(viii) of the permit be changed to match the current General Permit for Stormwater Associated with Industrial Activity. Staff agrees the language should be modified to clarify the section, which it has been modified to match the proposed General Permit for Stormwater Associated with Industrial Activity.
- The Applicant requested that the benchmarks in Section 10(C) match those in the current General Permit for Stormwater Associated with Industrial Activity. Staff explained that the benchmarks in the current general permit were performance based while the limits in the draft permit were water quality based using best professional judgment and therefore no changes have been made to the permit.
- The Applicant noted typos discovered during their review of the proposed permit. Staff has made the corrections to the permit accordingly.

On January 8, 2010, the Applicant submitted confirmation that they have accepted the Staff's response to their comments and the recommended revisions to the draft permit noted above, and also stated their intention to withdraw their request for a hearing on the matter.