

PRETREATMENT PERMIT

issued to

TTM Printed Circuit Group, Inc.
4 Old Monson Road
Stafford, CT 06075

Location Address:

4 Old Monson Road
Stafford, CT 06075

Permit ID: SP0000069

Permit Expires: DRAFT

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 a modified Memorandum of Agreement (MOA) dated June 3, 1981, by the Administrator of the United States Environmental Protection Agency which authorizes the State of Connecticut to administer a Pretreatment Program pursuant to 40 CFR Part 403.
- (B) TTM Printed Circuit Group, Inc., ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(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
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- (m) Effluent Limitation Violations (Upsets)
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- (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. Specifically, civil penalties of up to twenty-five thousand dollars may be assessed per violation per day.
- (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 Energy and Environmental Protection ("the 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) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (G) 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.
- (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 a sampling frequency, means the sample must be collected in the month of June.
 - "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 a finite volume of wastewater that has been processed through the approved treatment system before being discharged.
 - "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 generated during an operating day.
 - "Instantaneous Limit" means the highest allowable concentration of a substance as measured by a grab sample, or the highest allowable measurement of a parameter as obtained through instantaneous monitoring.

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

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

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

"Quarterly", in the context of a sampling frequency, means sampling is required in the months of March, June, September and December.

"Range During Sampling" or "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 shall mean the maximum and minimum readings recorded with the continuous monitoring device during the Composite or Grab Sample Average sample collection.

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

"Semi-Annual" in the context of a sampling frequency, means the sample must be collected in the months of June and December.

"Sub-discharge" means a discharge described under Tables B, C and D (those representing for example DSN 002A, 003A) of this permit.

"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.

SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner has made a final determination and found that the continuance of the existing system to treat the discharge will protect the waters of the state from pollution. The Commissioner's decision is based on Application No. 200903773 for permit reissuance received on November 10, 2009 and the administrative record established in the processing of that application.
- (B) (1) From the issuance of this permit through and including [LAST DAY OF MONTH, MONTH OF PERMIT REISSUANCE], the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. SP0000069, issued by the Commissioner to the Permittee on May 10, 2005, the previous application submitted by the Permittee on August 21, 1998, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. SP0000069, issued by the Commissioner to the Permittee on May 10, 2005.

(2) From [FIRST DAY OF MONTH, MONTH FOLLOWING PERMIT REISSUANCE] until this permit expires or is modified or revoked, the Commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. SP0000069, issued by the Commissioner to the Permittee on [DATE OF PERMIT ISSUANCE], Application No. 200903773 received by the Department on November 10, 2009, and all modifications and approvals issued by the Commissioner or the Commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. SP0000069, issued by the Commissioner to the Permittee on [DATE OF PERMIT ISSUANCE].
- (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 that may be authorized under the Federal Clean Water Act or the Connecticut General Statutes 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 Connecticut General Statutes or regulations adopted thereunder which are then applicable.

SECTION 4: EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

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Table A

		FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
PARAMETER	UNITS	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
		Cadmium, Total	mg/l	0.07	0.11	Semi-Annual	Daily Composite	0.16
Chromium, Total	mg/l	1.0	2.0	Semi-Annual	Daily Composite	3.0	NR	Grab
Copper, Total	mg/l	1.0	2.0	Weekly	Daily Composite	3.0	NR	Grab
Cyanide, Total	mg/l	0.65	1.2	Weekly	Grab Sample Average ³	1.8	NR	Grab
Fluoride, Total	mg/l	20.0	30.0	Weekly	Daily Composite	45.0	NR	Grab
Flow Rate (Average Daily) ¹	gpd	139,000	NA	Continuous	Daily Flow	NA	NR	NA
Flow, Maximum during 24 hr period ¹	gpd	NA	166,800	Continuous	Daily Flow	NA	NR	NA
Flow (Day of Sampling)	gpd	139,000	166,800	Weekly	Daily Flow	NA	NR	NA
Gold, Total	mg/l	0.1	0.5	Monthly	Daily Composite	0.75	NR	Grab
Lead, Total	mg/l	0.1	0.5	Weekly	Daily Composite	0.75	NR	Grab
Nickel, Total	mg/l	1.0	2.0	Weekly	Daily Composite	3.0	NR	Grab
Oil petroleum total recoverable	mg/l	NA	100.0	Quarterly	Grab Sample Average ³	150.0	NR	Grab
Palladium, Total	mg/l	NA	----	Monthly	Daily Composite	NA	NR	NA
pH, Day of Sampling	S.U.	NA	NA	NR	NA	6.0 – 10.5	Monthly	RDS
pH, Minimum	S.U.	NA	NA	NR	NA	6.0	Continuous	Continuous
pH, Maximum	S.U.	NA	NA	NR	NA	10.5	Continuous	Continuous
Silver, Total	mg/l	0.1	0.43	Weekly	Daily Composite	0.64	NR	Grab
Tin, Total	mg/l	2.0	4.0	Weekly	Daily Composite	6.0	NR	Grab
Total Suspended Solids	mg/l	NA	----	Monthly	Daily Composite	NA	NR	NA
Total Toxic Organics	mg/l	NA	NA	NR	NA	1.42	Monthly	Grab
Zinc, Total	mg/l	1.0	2.0	Semi-Annual	Daily Composite	3.0	NR	Grab

Table Footnotes:**Footnotes:**

¹ For this parameter the Permittee shall maintain at the facility a record of the Total Daily 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 '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 Grab Sample Average for this discharge means the arithmetic average of all grab sample analyses. 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 (minimum of two grab samples per day).

Table B**Discharge Serial Number:** 001-A**Monitoring Location:** 1**Wastewater Description:** Cyanide bearing wastewaters from Tank #13 and 16 of the Gold Line and Tank #13A of the Planar Line**Monitoring Location Description:** Rinse collection tank (prior to discharge to TK-1 of DSN 001-1)**Discharge is to:** DSN 001-1

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
		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
Cyanide, Amenable	mg/l	0.1	0.2	Weekly	Grab Sample Average ²	0.3	NR	NA

Table Footnotes:

¹ The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' and the 'Sample Frequency' is more frequent than monthly then the 'Reporting Frequency' is monthly. If the 'Sample frequency' is specified as monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.

² Grab Sample Average for this discharge means the arithmetic average of all grab sample analyses. 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 (minimum of two grab samples per day).

Table C

Discharge Serial Number: 001-B **Monitoring Location:** 1
Wastewater Description: Batch treated electroplating wastewater including: electroless plating baths, cleaner and fill stripper baths.
Monitoring Location Description: In batch treatment monitoring tank TK-7 after treatment of electroless copper bath.
Discharge is to: DSN 001-1

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
		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
Cadmium, Total	mg/l	NA	NA	NR	NA	0.11	Semi-Annual	Grab ²
Chromium, Total	mg/l	NA	NA	NR	NA	2.0	Semi-Annual	Grab ²
Copper, Total	mg/l	NA	NA	NR	NA	2.0	Weekly	Grab ²
Fluoride, Total	mg/l	NA	NA	NR	NA	30.0	Semi-Annual	Grab ²
Flow (Day of Sampling)	gpd	NA	-----	Weekly	Daily Flow	NA	NR	NA
Lead, Total	mg/l	NA	NA	NR	NA	0.4	Weekly	Grab ²
Nickel, Total	mg/l	NA	NA	NR	NA	2.0	Weekly	Grab ²
pH, Day of Sampling	S.U.	NA	NA	NR	NA	6.0 – 10.5	Weekly	Grab ²
Silver, Total	mg/l	NA	NA	NR	NA	0.43	Weekly	Grab ²
Tin, Total	mg/l	NA	NA	NR	NA	4.0	Weekly	Grab ²
Total Suspended Solids	mg/l	NA	NA	NR	NA	-----	Monthly	Grab ²
Zinc, Total	mg/l	NA	NA	NR	NA	2.0	Semi-Annual	Grab ²

Table Footnotes:

¹ For this parameter the Permittee shall maintain at the facility a record of the Total Daily Flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each month.

² The grab sample shall be taken while batch treating electroless copper wastewaters unless these wastewaters are not scheduled for treatment in a sample week.

Table D

Discharge Serial Number: 001-C					Monitoring Location: 1			
Wastewater Description: Water rinses and spent solutions from reflow, developing, scrubbing, and aqueous stripping processes								
Monitoring Location Description: Effluent from TK-C3 prior to discharge to TK-5 of DSN 001-1.								
Discharge is to: DSN 001-1								
PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING		
		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
Copper, Total	mg/l	1.0	2.0	Weekly	Daily Composite	3.0	NR	Grab
Flow (Day of Sampling)	gpd	-----	-----	Weekly	Daily Flow	NA	NR	NA
Lead, Total	mg/l	0.1	0.5	Monthly	Daily Composite	0.75	NR	Grab
Nickel, Total	mg/l	1.0	2.0	Semi-Annual	Daily Composite	3.0	NR	Grab
pH, Day of Sampling	S.U.	NA	NA	NR	NA	6.0 – 10.5	Monthly	RDS
Silver, Total	mg/l	0.1	0.43	Weekly	Daily Composite	0.64	NR	Grab
Tin, Total	mg/l	2.0	4.0	Weekly	Daily Composite	6.0	NR	Grab
Zinc, Total	mg/l	1.0	2.0	Semi-Annual	Daily Composite	3.0	NR	Grab
Table Footnotes:								
¹ For this parameter the Permittee shall maintain at the facility a record of the Total Daily 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 ‘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’.								

- (B) All samples shall be comprised of only those wastewaters described in this schedule; therefore, samples shall be taken prior to combination with wastewaters of any other type and after all approved treatment units, if applicable. All samples taken shall be representative of the discharge during standard operating conditions.
- (C) In cases where limits and sample type are specified but sampling is not required, the limits specified shall apply to all samples which may be collected and analyzed by, the Department of Energy and Environmental Protection personnel, the Permittee, or other parties.

SECTION 5: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES AND REPORTING REQUIREMENTS

- (A) Chemical analyses to determine compliance with effluent limits and conditions established in this permit shall be performed using the methods approved by the Environmental Protection Agency pursuant to 40 CFR 136 unless an alternative method has been approved in writing in accordance with 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.
- (B) All metals analyses identified in this permit shall refer to analyses for Total Recoverable Metal as defined in 40 CFR 136 unless otherwise specified.
- (C) The results of chemical analysis 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 at the following address. Except for continuous monitoring, any monitoring required more frequently than monthly shall be reported on an attachment to the DMR, and any additional monitoring conducted in accordance with 40 CFR 136 or other methods approved by the Commissioner shall also be included on the DMR, or as an attachment, if necessary. 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 taken.

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

- (D) 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 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.

(E) NetDMR Reporting Requirements

1. Prior to one-hundred and eighty (180) days after the issuance of this permit, the Permittee may either submit monitoring data and other reports to the Department in hard copy form or electronically using NetDMR, a web-based tool that allows Permittees to electronically submit discharge monitoring reports (DMRs) and other required reports through a secure internet connection. Unless otherwise approved in writing by the Commissioner, no later than one-hundred and eighty (180) days after the issuance of this permit the Permittee shall begin reporting electronically using NetDMR. Specific requirements regarding subscription to NetDMR and submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

a. Submittal of *NetDMR Subscriber Agreement*

On or before fifteen (15) days after the issuance of this permit, the Permittee and/or the person authorized to sign the Permittee's discharge monitoring reports ("Signatory Authority") as described in RCSA Section 22a-430-3(b)(2) shall contact the Department at deep.netdmr@ct.gov and initiate the NetDMR subscription process for electronic submission of Discharge Monitoring Report (DMR) information. Information on NetDMR is available on the Department's website at www.ct.gov/deep/netdmr. On or before ninety (90) days after issuance of this permit the Permittee shall submit a signed and notarized copy of the **Connecticut DEEP NetDMR Subscriber Agreement** to the Department.

b. Submittal of Reports Using NetDMR

Unless otherwise approved by the Commissioner, on or before one-hundred and eighty (180) days after issuance of this permit, the Permittee and/or the Signatory Authority shall electronically submit DMRs and reports required under this permit to the Department using NetDMR in satisfaction of the DMR submission requirement of Section 5(C) of this permit.

DMRs shall be submitted electronically to the Department no later than the 30th day of the month following the completed reporting period. All reports required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Department as an electronic attachment to the DMR in NetDMR. Once a Permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to the Department. The Permittee shall also electronically file any written report of non-compliance described in Section 6 of this permit as an attachment in NetDMR. NetDMR is accessed from: <http://www.epa.gov/netdmr>.

c. Submittal of NetDMR Opt-Out Requests

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting DMRs and reports, the Commissioner may approve the submission of DMRs and other required reports in hard copy form ("opt-out request"). Opt-out requests must be submitted in writing to the Department for written approval on or before fifteen (15) days prior to the date a Permittee would be required under this permit to begin filing DMRs and other reports using NetDMR. This demonstration shall be valid for twelve (12) months from the date of the Department's approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department using NetDMR unless the Permittee submits a renewed opt-out request and such request is approved by the Department.

All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at deep.netdmr@ct.gov:

Attn: NetDMR Coordinator
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

- (F) Copies of all DMRs shall be submitted concurrently to the local Water Pollution Control Authority(ies) ("WPCA") involved in the treatment and collection of the permitted discharge.
- (G) For Total Toxic Organics (TTO) monitoring, in accordance with 22a-430-4(l) of the RCSA and, 40 CFR 413 (Electroplating), the Permittee may, in lieu of analyzing for TTO, include a statement on each DMR certifying compliance with its approved Solvent Management Plan. This certification statement shall be as follows:

"Based on my inquiry of the person or persons responsible for managing compliance with the permit limitation for Total Toxic Organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report which required such certification. I further certify that this facility is implementing the solvent management plan approved by the Commissioner."

SECTION 6: RECORDING AND REPORTING OF VIOLATIONS, ADDITIONAL TESTING REQUIREMENTS

- (A) If any sample analysis indicates that an effluent limitation specified in Section 4 of this permit has been exceeded, a second sample of the effluent shall be collected and analyzed for the parameter(s) in question and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) within 30 days of the exceedance.
- (B) The Permittee shall immediately notify the Bureau of Materials Management and Compliance Assurance and the local WPCA of all discharges that could cause problems to the Publicly Owned Treatment Works ("POTW"), including but not limited to slug loadings of pollutants which may cause a violation of the POTW's NPDES permit, or which may inhibit or disrupt the POTW, its treatment processes or operations, or its sludge processes, use or disposal.

- (C) In addition to the notification requirements specified in Section 1B of this permit, if any sampling and analysis of the discharge performed by the Permittee indicates a violation of limits specified in Section 4 of this permit, the Permittee shall notify the Bureau of Materials Management and Compliance Assurance within 24 hours of becoming aware of the violation.

SECTION 7: COMPLIANCE CONDITIONS

In accordance with 40 CFR §403.8(f)(2)(viii), the Commissioner may provide public notification, in a newspaper of general circulation in the area of the respective POTW, of permittees that at any time in the previous twelve months were in significant noncompliance with the provisions of this permit. For the purposes of this provision, a permittee that is a Significant Industrial User is in significant noncompliance if its violation(s) meet(s) one or more of the following criteria:

- **Chronic violations:** Those in which sixty-six (66%) percent or more of all measurements taken for the same pollutant parameter during a six-month period exceed (by any magnitude) the Average Monthly, Maximum Daily, or Maximum Instantaneous Limit(s).
- **Technical Review Criteria violations:** Those in which thirty-three (33%) or more of all of the measurements taken for the same pollutant parameter during a six-month period equal or exceed the Average Monthly, Maximum Daily, or Maximum Instantaneous Limit(s) multiplied by 1.4 for BOD, TSS, fats, oil, and grease, or 1.2 for all other pollutants except pH.
- **Monitoring Reports:** Failure to provide, within 45 days after the due date, required reports such as DMRs.
- **Compliance Schedule:** Failure to meet within 90 days after the schedule date, a compliance schedule milestone contained in or linked to a respective permit for starting construction, completing construction, or attaining final compliance.
- **Noncompliance Reporting:** Failure to accurately report noncompliance in accordance with provisions identified in Section 6 of this permit.
- **Discretionary:** Any other violation of an effluent limit that the Department determines has caused, alone or in combination with other discharges, a violation of the POTW's NPDES permit, inhibition or disruption of the POTW, its treatment processes or operations, or its sludge processes, use or disposal.
- **Imminent Endangerment:** Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment, or has resulted in the Department's exercise of its emergency authority under 40 CFR §403.8(f)(1)(vi)(B) to halt or prevent such a discharge.
- **BMPs:** Any other violation or group of violations, which may include a violation of Best Management Practices, which the Department determines will adversely affect the operation or implementation of the pretreatment program.

This permit is hereby issued on

DRAFT
Macky McCleary
Deputy Commissioner
Department of Energy and Environmental Protection

MM/EMW

cc: Stafford POTW

IS THE PERMITTEE SUBJECT TO A PENDING ENFORCEMENT ACTION? NO YES
 The Permittee is subject to Stipulation for Judgement (No. CV-03-0829240S) with the Connecticut Department of Energy and Environmental Protection issued on August 23, 2004.

OWNERSHIP CODE

Private Federal State Municipal (town only) Other public

DEEP STAFF ENGINEER Ewa Wozniak

PERMIT FEES

Discharge Code	DSN Number	Annual Fee
501035Z	003-1	\$8,425.00

FOR SEWER DISCHARGES

Discharge to The Town of Stafford POTW via its collection system. The facility ID. of the POTW is 134-001.

NATURE OF BUSINESS GENERATING DISCHARGE

TTM Printed Circuit Group, Inc. manufactures printed circuit boards.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 001-1: This discharge is made up of a maximum flow of 166,800 gallons per day of wastewaters associated with DSN 001-A, DSN 001-B, DSN 001-C, electroplating rinses, board wash, and fume scrubber. Treatment consists of neutralization, flocculation and Memtek filtration.

DSN 001-A: This sub-discharge consists of cyanide bearing wastewaters from Tanks 13 and 16 on the Gold Line and Tank 13A on the Planar Line. The company uses an electrowinning process to plate out metals and remove cyanide after which the wastewater is directed to neutralization, flocculation and the Memtek filtration treatment.

DSN 001-B: This sub-discharge consists of electroplating wastewaters from electroless plating baths, cleaners, and film stripper baths. Treatment consists of neutralization, metals precipitation, and filtration.

DSN 001-C: This sub-discharge consists of water rinses and spent solutions from reflow, developing, scrubbing and aqueous stripping processes. Treatment consists of pH adjustment.

RESOURCES USED TO DRAFT PERMIT

- Federal Effluent Limitation Guideline 40 CFR 413, Subpart H
Electroplating
- Performance Standards
- Federal Development Document
- Treatability Manual name of category
- Department File Information
- Connecticut Water Quality Standards

- *Anti-degradation Policy*
- *Coastal Management Consistency Review Form (See Other Comments)*
- *Other - Explain*

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

- X *Case-by-Case Determination using Best Professional Judgement*
DSN 001-1: Total cadmium (MIL), cyanide (MIL), silver (MDL, MIL), palladium, pH, TTO (MIL), Oil Petroleum (total recoverable), Total Suspended Solids (TSS)

DSN 001-B: Total cadmium, chromium, copper, fluoride, lead, nickel, silver, tin, total suspended solids, zinc

DSN 001-C: Total silver (MDL)
- X *Section 22a-430-4(s) of the Regulations of Connecticut State Agencies*
DSN 001-1: Total cadmium (AML, MDL), chromium, copper, cyanide (AML, MDL), fluoride, gold, lead, nickel, silver (AML), tin, and zinc

DSN 001-A: Amenable cyanide

DSN 001-C: Total chromium, copper, cyanide, lead, nickel, silver (AML), tin, zinc

AML = Average Monthly Limit MDL = Maximum Daily Limit MIL = Maximum Instantaneous Limit

GENERAL COMMENTS

In developing the permit's concentration limits, EPA Electroplating Categorical Limits (40 CFR Part 413) and Section 22a-430-4(s)(2) of the Regulations of Connecticut State Agencies limits were compared. Except as noted above, the Connecticut limits were found to be more stringent and thus incorporated in the permit.

OTHER COMMENTS

The pH limits of 6.0 to 10.5 S.U. are transferred from the previous permit. These limits are considered to be protective of sanitary sewer systems. In addition, the company runs its treatment system at a higher pH (close to 10.0 S.U.) in order to ensure proper metals' removal.

Oil petroleum, total recoverable will be the permit parameter used in this permit, replacing oil and grease (hydrocarbon fraction) used in the previous permit. The maximum daily limit is based on a Case by Case Determination using the criteria of Best Professional Judgement. This limit was set using a report entitled "Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works", USEPA, Effluent Guidelines Division, EPA/440/1-75-066 (April 1975), and the medium strength concentration of oil and grease in typical domestic wastewaters (Metcalf & Eddy, Inc. (1991)). This limit is not expected to cause any problems in the sanitary sewer. In addition, the monitoring frequency for this parameter is changed from weekly to quarterly.

For DSN 001-1, the maximum instantaneous limit for cadmium was changed during this permit reissuance. The new limit was derived by multiplying the maximum daily limit by a factor of 1.5. This limit is also consistent with the ratios used in section 22a-430-4(s)(2) of the Regulations of Connecticut State Agencies (RCSA) as well as section 22a-430-4(l)(4)(D)(vi).

All limits for total copper, chromium, fluoride, gold, lead, nickel, tin and zinc are consistent with section 22a-430-4(s)(2) of the Regulations of Connecticut state Agencies (RCSA) and the previous permit.

The limit for total silver (MDL) is based on a Case by Case Determination using the criteria of Best Professional Judgement.

On August 23, 2004 a Stipulated Judgement was filed in court for past violations. This Judgement required the company to do annual Environmental Audits in the three years following the date of the Judgement. In addition, the company was required to do a flow reduction project which entailed reducing the metal bearing wastewater flows from discharges DSN 001 and DSN 003 of Permit No. SP0000069 and Permit No. SP0001229 by seventy-five percent (75%) from the established baseline. The company submitted the relevant documents to the Department. Currently, the Department is reviewing said submittals.

The sampling method for amenable cyanide, at DSN 001-A, was changed during this permit reissuance. Historically, the company has collected individual grab samples for amenable cyanide by taking equal amounts of spray rinse from the Electrolytic Gold Line (Tanks 13 and 16) and the running rinse from the Planar Line (Tank #13A). The company decided to divert all of the amenable cyanide bearing rinses to a common collection point and use an auto-sampler to collect a representative sample of this sub-discharge prior to discharge to TK-1 at DSN 001-1.

During this permit reissuance, the company requested to have DSN 001-1 and DSN 002-1 combined into one discharge location. DSN 002-1 wastewater comprises of water rinses and spent solutions from reflow, developing, scrubbing and aqueous stripping processes. This discharge will combine with DSN 001-1 effluent after the Memtek treatment system but prior to DSN 001-1 monitoring location. Thus, DSN 002-1 from the previous permit is now DSN 001-C.

**NOTICE OF TENTATIVE DETERMINATION
INTENT TO RENEW A STATE PERMIT
FOR THE FOLLOWING DISCHARGE
INTO THE WATERS OF THE STATE OF CONNECTICUT**

TENTATIVE DETERMINATION

The Commissioner of Energy and Environmental Protection hereby gives notice of a tentative determination to renew permits based on applications submitted by **TTM Printed Circuit Group, Inc.** ("the applicant") under section 22a-430 of the Connecticut General Statutes for permits to discharge into the waters of the state.

In accordance with applicable federal and state law, the Commissioner has made a tentative determination that continuance of the existing systems to treat the discharges would protect the waters of the state from pollution and the Commissioner proposes to renew permits for the discharge to the sanitary sewer.

The proposed permits, if issued by the Commissioner, will require that all wastewater be treated to meet the applicable effluent limitations and periodic monitoring to demonstrate that the discharge will not cause pollution.

APPLICANT'S PROPOSAL

TTM Printed Circuit Group, Inc. presently discharges a maximum flow of 216,800 gallons per day of metal finishing wastewaters to the Town of Stafford Water Pollution Control Facility from two printed circuit board manufacturing facilities.

The name and mailing address of the permit applicant are: TTM Printed Circuit Group, Inc., 4 Old Monson Road, Stafford, CT 06075

The activities take place at: 228 Upper Road and 4 Old Monson Road, Stafford, CT.

REGULATORY CONDITIONS

Type of Treatment

All wastewaters go through final pH adjustment prior to discharge. The more concentrated waste streams are treated for cyanide removal, pH adjusted, treated for metals removal using chemical precipitation and filtered using various filtration technologies.

Effluent Limitations

The permits contain effluent limitations consistent with a Case by Case Determination using the criteria of Best Professional Judgement, Pretreatment Standards for Existing Sources, Section 22a-430-4(s) of the Regulations of Connecticut State Agencies and which will protect the waters of the state from pollution when all the conditions of this permit have been met.

In accordance with section 22a-430-4(l) of the Regulations of Connecticut State Agencies the permits contain effluent limitations for the following types of toxic substances: heavy metals, cyanides, volatile organic compounds, acid organic compounds, and base/neutral organic compounds.

These permits contain effluent limitations on internal waste streams.

