

NPDES PERMIT

issued to

GBC Metal, LLC
Dbal Somers Thin Strip Brass Group
215 Piedmont Street
Waterbury, CT 06706

Location Address:

215 Piedmont Street
Waterbury, CT 06706

Facility ID: 151-031

Permit ID: CT0021873

Receiving Stream: Naugatuck River

Permit Expires: December 17, 2014

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) GBC Metal, LLC, ("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 October.

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

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

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

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

"Dry weather conditions" for the purpose of monitoring under this permit is defined as a climatic condition prior to which less than 0.1 inches of precipitation has fallen and there has been no significant snowmelt for a 24 hour period prior to commencement of sampling. Flow measurements taken on the day of or the day after a 0.1 inch or greater rain event or significant snowmelt shall not be used when calculating the monthly average and daily maximum flows.

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

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

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

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

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

"No Observable Acute Effect Level (NOAEL)" means any concentration equal to 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 90% or greater survival of test organisms at the CTC.

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

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

"Range During Sampling" ("RDS"), as a sample type, means the maximum and minimum of all values recorded as a result of analyzing each grab sample 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.

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

"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 issued a final determination and found that continuance of the existing discharge 001-B will not cause pollution of the waters of the state and that continuance of the existing system to treat DSN 001-A would protect the waters of the state from pollution. The Commissioner's decision is based on **Application No. 200601930** for permit reissuance received on June 23, 2006 and the administrative record established in the processing of that application.
- (B) The Commissioner hereby authorizes the Permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or the Commissioner's authorized agent for the discharges and/or activities authorized by, or associated with, this permit.
- (C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

- (A) No discharge shall contain, or cause in the receiving stream, a visible oil sheen or floating solids; or, cause visible discoloration or foaming in the receiving stream.

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

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- (A) The 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: Treated Process Wastewater (DSN 001-A) and Non-Contact Cooling Water (DSN 001-B)									
Monitoring Location Description: see all footnotes and remarks below									
Allocated Zone of Influence (ZOI): 219,463 gph					In stream Waste Concentration (IWC): 3.7%				
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, <i>Daphnia pulex</i>	%	NA	LC ₅₀ > 74%	Quarterly	Composite ⁴	LC50 > 25%	NR	Grab ⁶	
Aquatic Toxicity, <i>Pimephales promelas</i>	%	NA	LC ₅₀ > 74%	Quarterly	Composite ⁴	LC50 > 25%	NR	Grab ⁶	
Ammonia as N, total	mg/l	NA	----	Quarterly	Composite ⁴	NA	NR	NA	
Cadmium, total	mg/l	0.027	0.058	Quarterly	Composite ⁴	0.087	NR	Grab ⁶	*
Chlorine, total residual	mg/l	0.224	0.489	Monthly	Grab Sample Average ⁵	0.734	NR	Grab ⁷	*
Chromium, hexavalent	mg/l	0.1	0.2	Quarterly	Grab Sample Average ⁵	0.3	NR	Grab ⁷	*
Chromium, total	mg/l	0.931	1.87	Quarterly	Composite ⁴	2.80	NR	Grab ⁶	*
Copper, total	mg/l	0.347	0.696	Monthly	Composite ⁴	1.044	NR	Grab ⁶	*
Flow, Average and Maximum ¹	gpd	202,000	328,000	Daily	See Footnote ¹	NA	NR	NA	
Flow, total	gpd	NA	328,000	Monthly	Daily Flow	NA	NR	NA	
Hardness, total	mg/l	NA	----	Quarterly	Composite ⁴	NA	NR	NA	
Iron, total	mg/l	3.0	5.0	Quarterly	Composite ⁴	7.5	NR	Grab ⁶	
Lead, total	mg/l	0.027	0.053	Monthly	Composite ⁴	0.0795	NR	Grab ⁶	*
Methylene Chloride	mg/l	NA	NA	NR	NA	----	Quarterly	Grab ⁷	
Molybdenum, total	mg/l	NA	----	Monthly	Composite ⁴	NA	NR	Grab ⁶	
Nickel, total	mg/l	0.641	1.29	Monthly	Composite ⁴	1.94	NR	Grab ⁶	*
Oil & Grease, total	mg/l	10.0	----	Monthly	Grab Sample Average ⁵	20.0	NR	Grab ⁷	
pH	S.U.	NA	NA	NR	NA	6.0 to 9.0	Monthly	RDS	
Silver, total	mg/l	NA	----	Quarterly	Composite ⁴	NA	NR	Grab ⁶	*
Solids, total dissolved	mg/l	NA	----	Quarterly	Composite ⁴	NA	NR	NA	
Solids, total suspended	mg/l	20.0	30.0	Quarterly	Composite ⁴	45.0	NR	Grab ⁶	
Surfactants, anionic (MBAS)	mg/l	NA	NA	NR	NA	----	Quarterly	Grab ⁷	
Zinc, total	mg/l	0.877	1.76	Monthly	Composite ⁴	2.64	NR	Grab ⁶	*

Table Footnotes and Remarks:

Footnotes:

1 - From the date of issuance of this permit until September 30, 2011, 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. Beginning October 1, 2011, 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 under dry weather conditions for each month. Should dry weather conditions not occur during a given week, an asterisk shall be entered on the Discharge Monitoring Report for that week with a footnote indicating that dry weather conditions did not occur.

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 - see Section 6(A)(3) of this permit.

4 - From the date of issuance of this permit until September 30, 2011, composite samples for this discharge shall consist of a sample taken from DSN 001-A following the final clarifiers and four hour composite samples taken from DSN 001-B at the main non-contact cooling water recirculation tank. The composite samples collected from DSNs 001-A and 001-B shall be combined proportional to the measured daily flow of the respective discharges on the day of sample collection. Beginning October 1, 2011, composite samples for this discharge shall consist of daily composite samples as defined by section 22a-430-3(a)(3) of the RCSA taken at the sampling location approved by the Department in accordance with Section 9(B) of this permit.

5 - From the date of issuance of this permit until September 30, 2011, Grab Sample Average for this discharge shall mean the arithmetic average of grab samples taken from DSN 001- A taken over a full operating day at intervals of no more than four hours added proportional to flow to the arithmetic average of a minimum of two grab samples taken from DSNs 001- B. Beginning October 1, 2011, Grab Sample Average for this discharge shall be defined by section 22a-430-3(a)(3) of the RCSA and collected at the sampling location approved by the Department in accordance with Section 9(B) of this permit.

6 - From the date of issuance of this permit until September 30, 2011, a grab sample for monitoring DSN 001-1 of this permit for this parameter shall consist of three individual grab samples collected in less than fifteen minutes from DSN 001-A following the final clarifiers and from DSN 001-B at the main non- contact cooling water recirculation tank. The samples collected from DSNs 001-A and 001-B shall be combined proportional to the respective permitted average daily flows, 95% of sample from DSN 001-A and 5% of sample from DSN 001-B. Beginning October 1, 2011, a grab sample for this parameter shall be defined by section 22a-430-3(a)(3) of the RCSA and collected at the sampling location approved by the Department in accordance with Section 9(B) of this permit.

7 - From the date of issuance of this permit until September 30, 2011, a grab sample for monitoring DSN 001-1 of this permit for this parameter shall mean the arithmetic average of the analytical results obtained from a grab sample of DSN 001-A and DSN 001-B. The analytical results from each grab sample shall be combined based on the proportional measured daily flow of the respective discharges on the day of sample. Beginning October 1, 2011, a grab sample for this parameter shall be defined by section 22a-430-3(a)(3) of the RCSA and collected at the sampling location approved by the Department in accordance with Section 9(B) of this permit.

Remarks:

1 - Beginning October 1, 2011, monitoring of this discharge for compliance with this permit shall be conducted during dry weather conditions at the monitoring location approved in accordance with Section 9(B) of this permit. Should dry weather conditions not occur during a given week, an asterisk shall be entered on the Discharge Monitoring Report for that week with a footnote indicating that dry weather conditions did not occur.

Table B

Discharge Serial Number: 001-A

Monitoring Location: 1

Wastewater Description: Treated wastewater from copper forming operations, metal finishing operations, de-ionized water regeneration and laboratories

Monitoring Location Description: Effluent of final clarifier

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	
Ammonia as N, total	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	NA	
Biochemical Oxygen Demand (5- day)	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	NA	
Cadmium, total	mg/l	0.1	0.5	Quarterly	Daily Composite	0.75	NR	Grab	*
Chlorine, total residual	mg/l	0.180	0.361	Monthly	Grab Sample Average	0.542	NR	Grab	*
Chloroform	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Chromium, hexavalent	mg/l	0.1	0.2	Monthly	Grab Sample Average	0.3	NR	NA	*
Chromium, total	mg/l	0.95	1.89	Weekly	Daily Composite	2.84	NR	Grab	*
Copper, total	mg/l	0.96	1.92	Weekly	Daily Composite	2.88	NR	Grab	*
Cyanide, total	mg/l	NA	-----	Annually	Grab Sample Average	1.2	NR	Grab	*
Flow, Instantaneous	gpm	NA	NA	NR	NA	-----	Hourly	Instantaneous	
Flow, Average and Maximum ¹	gpd	192,000	288,000	Continuous/ Monthly	See Footnote 1	NA	NR	NA	
Flow, total	gpd	192,000	288,000	Weekly/Monthly	Daily Flow	NA	NR	NA	
Fluoride, total	mg/l	20.0	30.0	Quarterly	Daily Composite	45.0	NR	Grab	
Iron, total	mg/l	3.0	5.0	Weekly	Daily Composite	7.5	NR	Grab	

Lead, total	mg/l	0.1	0.4	Monthly	Daily Composite	0.6	NR	Grab	*
Methylene Chloride	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Nickel, total	mg/l	0.97	1.92	Weekly	Daily Composite	2.88	NR	NA	*
Oil & Grease, total	mg/l	10.0	15.0	Weekly	Grab Sample Average	20.0	NR	Grab	
pH	S.U	NA	NA	NR	NA	6.0 – 9.0	Weekly	RDS	
pH Continuous	S.U	NA	NA	NR	NA	6.0 – 9.0	Continuous /Monthly	RDM	
Silver, total	mg/l	0.1	0.43	Monthly	Daily Composite	0.645	NR	Grab	*
Solids, total dissolved	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	NA	
Solids, total suspended	mg/l	20.0	30.0	Weekly	Daily Composite	45.0	NR	Grab	
Surfactants, anionic (MBAS)	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Total Toxic Organics ⁴	mg/l	NA	NA	NR	NA	0.06	Monthly	Grab	
Zinc, total	mg/l	0.96	1.91	Weekly	Daily Composite	2.87	NR	Grab	*

Table Footnotes:

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.

4 - See Section 7(D) of this permit.

Table C

Discharge Serial Number: 001-B						Monitoring Location:1			
Wastewater Description: Non-contact Cooling Water									
Monitoring Location Description: Non-contact cooling water recirculation tank									
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	Sample Type or measurement to be reported	
Chlorine, total residual	mg/l	NA	-----	Monthly	Grab Sample Avg ⁵	NA	NR	NA	*
Chloroform	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Chromium, hexavalent	mg/l	NA	-----	Quarterly	Grab Sample Avg ⁵	NA	NR	NA	*
Copper, total	mg/l	NA	-----	Monthly	Composite ⁴	NA	NR	NA	*
Flow, average and maximum ¹	gpd	10,000	40,000	Continuous/ Monthly	See below	NA	NR	NA	
Flow, total	gpd	----	40,000	Monthly	Daily Flow	NA	NR	NA	
Lead, total	mg/l	NA	-----	Monthly	Composite ⁴	NA	NR	NA	*
Methylene chloride	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Oil & Grease, total	mg/l	10.0	15.0	Monthly	Grab Sample Avg ⁵	20.0	NR	Grab	
pH	S.U.	NA	NA	NR	NA	6.0 – 9.0	Monthly	RDS	
Surfactants, anionic (MBAS)	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	
Zinc, total	mg/l	NA	-----	Monthly	Composite ⁴	NA	NR	NA	*

Table Footnotes:

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 sampling 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 - Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.
- 4 - Composite for this discharge means a sample taken over a four-hour period within one operating day, consisting of grab samples collected at equal intervals of no more than sixty (60) minutes and combined in equal aliquots.
- 5 - Grab Sample Average for this discharge means the arithmetic average of all grab sample analyses. Grab samples shall be collected at least every two hours over a four-hour period within one operating day.

- (1) 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.
- (2) In cases where limits and sample type are specified but sampling is not required by this permit, the limits specified shall apply to all samples which may be collected and analyzed by the Department of Environmental Protection personnel, the Permittee, or other parties.
- (3) The limits imposed on the discharges listed in this permit take effect on the issuance date of this permit, hence any sample taken after this date which, upon analysis, shows an exceedance of permit limits will be considered non-compliance.

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

SECTION 6: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

(A) Chemical Analysis

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

<u>Parameter</u>	<u>Minimum Level</u>
Cadmium	0.5 ug/L
Chlorine, total residual	20.0 ug/L
Chromium, hexavalent	10.0 ug/L
Chromium, total	5.0 ug/L
Copper, total	5.0 ug/L
Lead	5.0 ug/L
Nickel	5.0 ug/L
Silver	1.0 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 4 degrees Centigrade until Aquatic Toxicity testing is initiated.
 - (b) Effluent samples shall not be dechlorinated, filtered, or, modified in any way, prior to testing for Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.
 - (c) Chemical analyses of the parameters identified in Section 5 Table A shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.
 - (i) At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Aquatic Toxicity tests, in the highest concentration of test solution and in the dilution (control) water at the beginning of the test and at test termination. 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.
 - (ii) For tests with saltwater organisms that require salinity adjustment of the effluent, chemical analyses shall be conducted on an aliquot of the effluent sample collected for Aquatic Toxicity testing and on an aliquot of the effluent following salinity adjustment. Both sets of results shall be reported on the Aquatic Toxicity Monitoring Report (ATMR).
 - (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 [condition] 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 [condition] 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) Naugatuck 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 Naugatuck 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 Naugatuck 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:

Chlorine, (Total residual)
 Copper (Total recoverable and dissolved)
 Nickel (Total recoverable and dissolved)
 Zinc, (Total recoverable and dissolved)
 Chromium (Total recoverable and dissolved)
 Iron (Total recoverable and dissolved)
 Lead (Total recoverable and dissolved)
 Silver (Total recoverable and dissolved)
 Fluoride (Total recoverable and dissolved)
 Solids, Total Suspended
 Nitrogen, Ammonia (Total as N)
 Nitrogen, Nitrate (Total as N)
 Nitrogen, Nitrite (Total as N)
 Surfactant, anionic
 Biochemical Oxygen Demand

SECTION 7: REPORTING REQUIREMENTS

- (A) The results of chemical analyses and any aquatic toxicity test required above shall be entered on the Discharge Monitoring Report (DMR), provided by this office, and reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) at the following address. The report shall also include a

detailed explanation of any violations of the limitations specified. The DMR shall be received at this address by the last day of the month following the month in which samples are collected.

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

- (B) Complete and accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, 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 in the month of October.

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

- (A) If any sample analysis indicates that an Aquatic Toxicity effluent limitation in Section 5 of this permit has been exceeded, or that the test was invalid, another sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.
- (B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of 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 9: COMPLIANCE SCHEDULE

- (A) A complete and thorough report of the results of the chronic toxicity monitoring specified in Section 6 (C) shall be prepared as outlined in section 10 of EPA-821-R-02-012 and submitted to the Department for review on or before December 31 of each calendar year to the address specified in Section 7(B) of this permit.
- (B) On or before April 30, 2011, the Permittee shall submit for the review and written approval of the Commissioner a proposal for a new sample location which includes DSNs 001-A and 001-B for the monitoring DSN 001-1. The proposal shall also include plans and specifications for a meter to continuously monitor and record the flow and pH of DSN 001-1.
- (C) The Permittee shall perform all actions approved in accordance Section 9(B) no later than September 20, 2011. The Permittee shall certify to the Commissioner in writing that the actions have been completed as approved within fifteen days after completing such actions.
- (D) 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.
- (E) 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.
- (F) 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.

- (G) 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.
- (H) 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 Division
79 Elm Street
Hartford, CT 06106-5127

This permit is hereby issued on 12/18/2009

/S/AMEY W. MARELLA
ACTING COMMISSIONER

GM/SCE

Private X Federal ___ State ___ Municipal (town only) ___ Other public ___

DEP STAFF ENGINEER Stephen Edwards

PERMIT FEES

Discharge Code	Discharge Category	DSN Number	Annual Fee
101035Z	Metal Finishing	001-A	\$8,175.00
101017R	Copper Forming	001-A	\$1,635.00
101031N	Iron and Steel Manufacturing	001-A	\$0
1060000	Water Production Wastewater	001-A and 001-D	\$525.00
101032X	Laboratory Wastewaters	001-A	\$525.00
102000b	Non-Contact Cooling Water	001-B	\$525.00
1080000	Stormwater	001-C	\$2,662.50

FOR NPDES DISCHARGES

Drainage basin Code: 6900

Present/Future Water Quality Standard: C/B

NATURE OF BUSINESS GENERATING DISCHARGE

Somers Thin Strip is a re-roll mill engaged in the manufacture of various thin gauge metals (stainless steel, copper, copper alloy, nickel and nickel alloy) strips to customer specifications. Somers is authorized to discharge up to 328,000 gallons a day of wastewater to the Naugatuck River under the terms and conditions of this permit. The company is also permitted to discharge up to 22,564 gallons a day of wastewater to the City of Waterbury's sanitary sewer system under State Permit No. SP0001332. In addition, Somers maintains discharges to the City of Waterbury's sanitary sewer system under the Boiler Blowdown, Non-Contact Cooling Water and Miscellaneous general permits.

The company previously did business as Olin Corporation, Somers Thin Strip. Global Brass and Copper Acquisition Company purchased the facility in 2007 (see DEP letter dated December 21, 2007 authorizing the transfer of the individual discharge permits). Global Brass and Copper Acquisition Company later changed its name to GBC Metal, LLC.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 001-1 consists of the combined flow of DSNs 001-A and 001-B. As of the issuance of this permit, DSN 001-1 is not an actual physical location. It has been provided in this permit to allow samples from DSNs 001-A and 001-B to be combined to represent the discharge from the facility to the Naugatuck River as a method to determine the Permittee's compliance with aquatic toxicity requirements, conditions and limitations. This permit requires the Permittee to modify their piping system to allow for an actual combined sampling location for DSN 001 on or before October 1, 2011.

DSN 001-A consists of up to 288,000 gallons a day of wastewater from acid pickling, electroplating, related metal finishing processes, as well as, de-ionized water regeneration and laboratory wastewaters. The effluent is treated via a two-stage pH adjustment system, a clarifier, and two iron co-precipitation units.

DSN 001-B consists of up to 40,000 gallons a day of cooling water. This effluent is not treated.

DSN 001-C consists of wastewaters from 001-B, as well as stormwater. This is the monitoring location used to determine the quality of the stormwater from the site.

RESOURCES USED TO DRAFT PERMIT

- Federal Effluent Limitation Guideline 40 CFR 433 & 468
(metal finishing and copper forming)
- Performance Standards
- Federal Development Document _____
name of category
- Treatability Manual
- Department File Information
- Connecticut Water Quality Standards
- Anti-degradation Policy
- Coastal Management Consistency Review Form
- Other - Explain

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

- Pretreatment Standards for Existing Sources (PSES)
- Pretreatment Standards for New Sources (PSNS)
- New Source Performance Standards (NSPS)
- Best Available Technology (BAT)
001-A Chromium, Copper, Nickel, and Zinc (conc. combined waste stream 40CFR468 + 22a-430-4(s).) and Silver (MDL-conc. 40CFR433)
- Best Practicable Technology (BPT)
- Best Conventional Technology (BCT)
- Best Professional Judgment (See Other Comments)
- Secondary Treatment
- Case-by-Case Determination (See Other Comments)
001-1 Ammonia, Chromium (hex), Hardness, Iron, Methylene Chloride, Molybdenum, Oil and Grease, Silver, Solids (total dissolved and suspended), and Surfactants
001-A Ammonia, Biochemical Oxygen Demand (5-day), Chlorine (total residual),

Chloroform, Methylene Chloride, pH, Solids (total dissolved), and Surfactants (anionic MBAS)

001-B Chlorine (total residual), Chloroform, Chromium (hexavalent), Copper, Lead, Methylene Chloride, Oil & Grease, Surfactants (anionic) and Zinc

001-C Aquatic Toxicity (*Daphnia pulex* and *Pimephales promelas*), Biochemical Oxygen Demand (5-day), Cadmium, Chlorine (total residual), Chemical Oxygen Demand, Chromium (total), Copper, Cyanide, Fluoride, Hardness, Iron, Lead, Methylene Chloride, Nickel, Nitrogen (Ammonia as total N, Nitrate as total N and Nitrite as total N), Oil & Grease, pH, Phosphorus, Silver, Solids (total dissolved and suspended), Surfactants (anionic MBAS), and Zinc

X Section 22a-430-4(s) of the Regulations of Connecticut State Agencies

001-A Cadmium, Cyanide (Instantaneous), Hex-chrome, Fluoride, Iron, Lead (AML), Oil & Grease, Silver (AML) and Solids (total suspended)

X In order to meet in-stream water quality (See General Comments)

001-A Aquatic Toxicity (*Daphnia pulex* and *Pimephales promelas*), Cadmium, Chlorine (total residual), Chromium (total), Copper, Lead, Nickel, pH, and Zinc

X Anti-degradation policy

001-A Organics (total toxic),

GENERAL COMMENTS

Limits for DSN 001-A were developed by proportioning using the combine waste stream formula (EPA Metal Finishing Categorical Limits (40 CFR Part 433) and EPA Copper Forming Categorical Limits (40 CFR 468)) and Section 22a-430-4(s)(2) of the Regulations of Connecticut State Agencies limits were compared. The more stringent limits were included in the permit.

The need for inclusion of water quality based discharge limitations in this permit was evaluated consistent with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). Each parameter was evaluated for consistency with the available aquatic life criteria (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 need for such limits. Comparison of monitoring data and its inherent variability with the calculated water quality based limits indicates a statistical probability of exceeding such limits. Therefore, water quality based limits for Aquatic Toxicity (*Daphnia pulex* and *Pimephales promelas*), Cadmium, Chlorine (total residual), Chromium (total), Copper, Lead, Nickel, pH, and Zinc were included in the permit for DSN 001 at this time.

Water Quality limits were calculated using the Water Quality Spreadsheet with an allocated zone on influence (ZOI) of 219,453 gallons per hour.