NPDES PERMIT MODIFICATION

issued to

Permittee:  
Quality Rolling & Deburring Co., Inc.  
135 South Main Street  
Thomaston, CT 06787

Location Address:  
135 South Main Street  
Thomaston, CT 06787

Attention: Jim Murphy

Facility ID: 140-033  
Permit ID: CT0025305  
Permit Modification Expires: March 31, 2013

This permit modification is issued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes (“CGS”), section 22a-430-4(p)(5) of the 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 a N.P.D.E.S. permit program.

The Commissioner of Environmental Protection ("the Commissioner") has made a final determination on this permit modification 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. 201005593 for permit modification received on August 26, 2010 and the administrative record established in the processing of that application.

Quality Rolling & Deburring, Co., Inc, (“Permittee”), shall comply with all conditions of Permit No. CT0025305 issued on April 1, 2008 with the following modification:

1. Table E, associated with DSN 001-A, is removed from the permit due to the fact that the company has ceased all operations concerning the use of halogenated solvents and no longer has any wastewater flow to the solvent pretreatment system.

2. Table F, associated with DSN 001-B, is removed from the permit due to the fact that the company consolidated its two hexavalent chromium wastewater treatment systems into a single treatment system, DSN 001-C. All wastewaters, from Departments 14, 44 and 77, which were previously pretreated by a hexavalent chromium reduction system associated with DSN 001-B, are now being treated by the hexavalent chromium system associated with DSN 001-C.

3. In accordance with Section 10(F) of Permit No. CT0025305 issued on April 1, 2008, Quality Rolling & Deburring Company, Inc. (QRD) has demonstrated its ability to consistently achieve compliance with effluent limits listed in Table C prior to December 1, 2010. QRD is hereby authorized to forgo re-designing the automatic nickel line in the facility’s Department Thirteen (13). Section 10 (F) of Permit No. CT0025305 is hereby eliminated.

The Commissioner hereby authorizes the Permittee to discharge in accordance with the provisions of this permit modification, Permit No. CT0025305, 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.

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 Clean Water Act or the Connecticut General Statutes or regulations adopted thereunder, as amended. The permit as modified under this paragraph may also contain any other requirements of the Clean Water Act or Connecticut General Statutes or regulations adopted thereunder which are then applicable.
All other terms and conditions of Permit No. CT0025305 issued on April 1, 2008 shall continue in full force and effect.

This modification is hereby issued on 4/28/2011

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Kim E. Hudak
Assistant Director
Bureau of Materials Management and Compliance Assurance

KH/EMW
Permit No. CT0025305
Sent RRR
## PERMIT, ADDRESS, AND FACILITY DATA

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<table>
<thead>
<tr>
<th>Contact Name</th>
<th>DMR Contact</th>
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<tbody>
<tr>
<td>Jim Murphy</td>
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<table>
<thead>
<tr>
<th>Phone No.</th>
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<tbody>
<tr>
<td>(860) 283-0271</td>
<td>(860) 283-0271</td>
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## PERMIT INFORMATION

**DURATION**

- 5 YEAR X
- 10 YEAR __
- 30 YEAR __

**TYPE**

- New __
- Reissuance __
- Modification X

**CATEGORIZATION**

- POINT (X)
- NON-POINT ( )
- GIS # 3258

- 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 X YES
- NO

- POLLUTION PREVENTION, X TREATMENT REQUIREMENT__ WATER CONSERVATION

- WATER QUALITY REQUIREMENT X REMEDIGATION __ OTHER _____

**IS THE PERMITTEE SUBJECT TO A PENDING ENFORCEMENT ACTION?**

- NO X
- YES _
**OWNERSHIP CODE**

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

**DEP STAFF ENGINEER**  Ewa Wozniak

**PERMIT FEES**

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<tr>
<th>Discharge Code</th>
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<td>501035Z</td>
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Permit modification fee: $940.00

**FOR NPDES DISCHARGES**

Drainage basin Code:  6900  Present/Future Water Quality Standard: C/B

**NATURE OF BUSINESS GENERATING DISCHARGE**

The Permittee maintains a metal finishing job shop at this location.

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

DSN 001-1: The Permittee utilizes several metal finishing processes to finish metal goods provided by their customers. These processes include:

- Tumbling and cleaning;
- Chrome plating;
- Copper plating;
- Zinc plating;
- Nickel plating;
- Tin plating;
- Gold plating &
- Silver plating

Treatment:

- DSN 001-1: Equalization, pH adjustment, clarification, sand filtration, biological treatment and final polishing using additional filtration.
- DSN 001-A: Distillation.
- DSN 001-B: Chrome reduction.
- DSN 001-C: Chrome reduction.

**RESOURCES USED TO DRAFT PERMIT**

_X_  Federal Effluent Limitation Guideline  40 CFR 433

name of category
BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

DSN 001-1:

Table A: In order to meet in-stream water quality: Aquatic Toxicity, Copper (mass), Lead (mass) and Silver (AML- mass). Best Available Technology (as defined by 40 CFR 433.14): Cyanide (using the CWF ratio of 1,000/97,000 gpd). Section 22a-430-4(s) of the Regulations of Connecticut State Agencies: Aluminum (conc.), Chromium (conc.), Fluoride (conc.), Gold (conc.), Iron (conc.), Nickel (conc.), Tin (conc.) and TSS (conc.). Case by Case determination using Best Professional Judgement: Aluminum (mass) {previous permit}, BOD {previous permit}, Cadmium ((mass (AML & MDL)) and (conc. (MDL))) {previous permit}, Copper (conc.) {based on performance}, Lead (conc.) {based on performance}, Silver (mass and conc.-MDLs) {previous permit}, Total toxic organics {previous permit} and Zinc {previous permit, except for (conc., MDL) {based on performance}}.

Total nitrogen Average Monthly Limit (AML), effective August 1, 2009 – This limit was developed consistent with the document prepared by the Connecticut Department of Environmental Protection and the New York State Department of Environmental Conservation titled “A Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in the Long Island Sound”. This TMDL requires a 63.5% nitrogen reduction from all point sources in the state by 2014, based on 1990 baseline data. It also requires intermediate goals, which include a 47.6% reduction by August of 2009. Baseline data provided by the Permittee shows DSN 001-1 was averaging approximately 28.4 kg/day during the earliest monitoring period for total nitrogen (1995 – 1997). Internal discussions with Department personnel concluded the baseline for this facility should be equal to 28.4 kg/day. Therefore, an AML for total nitrogen equal to 14.9 kg/day (52.4% of 28.4 kg/day) has been included in this permit reissuance, effective August 1, 2009.

Table B: Same as Table A, except limits associated with Lead (mass) effective on the second anniversary of permit issuance – These limits were developed consistent with the Upper Naugatuck River TMDL, memo from Lee Dunbar to Oswald Inglese and Bill Hogan dated June 7, 2006 and a memo from Kevin Barrett to Melissa Blais dated 8/29/06.

Table C: Same as Table B, except limits associated with Copper (mass) and Nickel (mass) effective on the fourth anniversary of permit issuance – These limits were developed consistent with the Upper Naugatuck River TMDL, memo from Lee Dunbar to Oswald Inglese and Bill Hogan dated June 7, 2006 and a memo from Kevin Barrett to Melissa Blais dated 8/29/06.
Table D: Same as Table C, except limits associated with Aquatic Toxicity effective one day before the fifth anniversary of permit issuance – These limits were developed consistent with the Upper Naugatuck River TMDL.

GENERAL COMMENTS

In developing the permit's concentration limits, EPA Metal Finishing Categorical Limits (40 CFR Part 433), Section 22a-430-4(s)(2) of the Regulations of Connecticut State Agencies limits and performance-based limits (copper, lead and zinc only) were compared. The most stringent of the three sets of 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), as well as, performance-based limits (copper, lead and zinc only). Where the water quality based limitations were more restrictive, the water quality based limitation was included in the permit as a mass limit in addition to the BAT concentration limit.

On August 17, 2005, EPA approved a Total Maximum Daily Load (TMDL) for the Upper Naugatuck River near Thomaston, CT. The TMDL reallocated the wasteloads of four facilities in the study area (Thomaston POTW, Quality Rolling and Deburring, Whyco, Inc., and Summit Corporation) for whole effluent toxicity. The permit limits provided in Table D for toxicity are consistent with the requirements of this TMDL. Water quality-based mass-loading limits provided in Table B for lead and Table C for copper and nickel were calculated according to the allocation methodology outlined in the June 7, 2006 interdepartmental memo regarding “Final Recommendations/Metals Allocations” and the corresponding August 29, 2006 interdepartmental memo regarding “Naugatuck TMDL – MOS Allocation”. The permit contains an enforceable compliance schedule, which requires the Permittee to become compliant with limits in Tables B and C on the second and fourth anniversary of permit issuance, respectively.

Performance-based concentration limits were developed for copper, lead and zinc (zinc - MDL only) utilizing analytical results provided by QRD on respective discharge monitoring reports for the time period (1/2002 – 4/2007). The limits were calculated according to: \(95^{th}\) percentile of the distribution of average monthly concentrations (AML) and \(99^{th}\) percentile of the distribution of maximum monthly concentrations (MDL) over a six-month rolling average. A six-month rolling average was utilized because the Permittee is a job-shop facility and their wastewater characteristics change periodically due to a shifting customer base. The highest \(95^{th}\) and \(99^{th}\) percentile value experienced throughout the time period evaluated was applied as the respective performance-based concentration limit for each pollutant parameter.

OTHER COMMENTS

On August 26, 2010 the Department of Environmental Protection received a permit modification request from Jim Murphy of Quality Rolling and Deburring Co., Inc (QRD) asking to eliminate internal monitoring locations associated with DSN 001-A and DSN 001-B, increase the average monthly and maximum daily flows by 50,000 gallons per day, and eliminate compliance sections 10 (F) and 10 (G) from the current permit.

The Department agreed to eliminate internal monitoring locations associated with DSN 001-A and DSN001-B because the company no longer has any wastewater flowing through these pretreatment systems. In addition, the Department also decided to eliminate compliance section 10 (F) from the current permit because the company demonstrated its ability to comply with the nickel effluent limits presented in Table C and thus re-designing the automatic nickel line in the facility’s Department Thirteen (13) appears unnecessary. The Department is precluded from granting an increase in the average monthly and maximum daily flow of 50,000 gallons per day because the
limitations set forth in Table C of the permit are based on an allocation to QRD established pursuant to the TMDL for the Upper Naugatuck River. An increase in the discharge flow would require the TMDL to be revised and approved by EPA.

Because Connecticut Fund for the Environment (CFE) was a key proponent in having Section 10: Compliance Schedule included in QRD’s permit, the Department contacted CFE about the Department’s intention to modify QRD’s permit.

Since Section 10 (F) of QRD’s permit specifically states that the Permittee may request a modification to the permit in accordance with section 22a-430-4(p) of the RCSA, a 30 Day Notice of Tentative Determination is not necessary. In addition, this permit modification is considered to be a minor modification because it falls under Section 22a-430-4(p)(5)(B)(v) and (vi).