

NPDES PERMIT

issued to

United Aluminum Corporation
100 United Drive
North Haven, CT 06473

Location Address:
100 United Drive
North Haven, CT 06473

Facility ID: 101-050

Permit ID: CT0030201

Receiving Stream: Muddy River

Permit Expires: August 16, 2012

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) **United Aluminum Corporation** ("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 section of the 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, 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.
- (I) This permitted discharge is consistent with the applicable goals and policies of the Connecticut Coastal Management Act (section 22a-92 of the Connecticut General Statutes).

SECTION 2: DEFINITIONS

- (A) The definitions of the terms used in this permit shall be the same as the definitions contained in section 22a-423 of the CGS and section 22a-430-3(a) and 22a-430-6 of the RCSA, except for "No Observable Acute Effect level (NOAEL)" which is redefined below.
- (B) In addition to the above, the following definitions shall apply to this permit:

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

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

"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.

"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".

"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.

"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 January, April, July, and October.

"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.

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

"mg/l" means milligrams per liter.

SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner has issued a final decision and found that continuance of the existing discharge will not cause pollution of the waters of the state. The Commissioner's decision is based on Application No. 200302057 for permit reissuance, received on July 21, 2003 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 agent for the discharges and/or activities authorized by, or associated with, this permit.
- (C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

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

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

Table A.

Discharge Serial Number: 001-1 **Monitoring Location: T**
Wastewater Description: Non- contact cooling water
Monitoring Location Description: The final outfall pipe catch basin for all parameters except pH and temperature. pH and temperature shall be collected from the V-notch weir in the United Aluminum drainage ditch to Muddy River
Allocated Zone of Influence (ZOI): 100,710 gph **In stream waste concentration (IWC): 16.74 %**

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test ³
		Average Monthly Limit	Maximum Daily Limit	Sample/Reporting Frequency ²	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample/Reporting Frequency ²	Sample Type or measurement to be reported	
Aquatic Toxicity, Daphnia pulex ⁴ NOAEL=100	%	NA	NA	NR	NA	≥ 90 % Survival	Quarterly	Grab	
Aquatic Toxicity, Pimephales promelas ⁴ NOAEL=100	%	NA	NA	NR	NA	≥ 90 % Survival	Quarterly	Grab	
Copper, Total ⁵	mg/l	NA	NA	NR	NA	0.029	Quarterly	Grab	*
Flow, Average and Maximum Daily ¹	gpd	480,000	486,000	Daily/Quarterly	Daily Flow	NA	NR	NA	
Flow, Day of Sampling	gpd	NA	486,000	Quarterly	Daily Flow	NA	NR	NA	
Lead, Total ⁵	mg/l	NA	NA	NR	NA	0.006	Quarterly	Grab	*
Manganese, Total ⁵	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
Oil & Grease, Total	mg/l	NA	NA	NR	NA	5.0	Semi-Annual	Grab	
pH	S.U.	NA	NA	NR	NA	6.0 – 9.0	Quarterly	RDS	
pH Continuous	S.U.	NA	NA	NR	NA	6.0 – 9.0	Continuous/ Quarterly	RDM	
Temperature, Continuous	⁰ F	NA	NA	NR	NA	107.0	Continuous/ Quarterly	RDM	

Table A 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(A)(3) of this permit.

⁴The results of the Toxicity Tests are recorded in % survival on the DMR based on criteria in Section 6(B) of this permit. Samples for compliance purposes shall be collected during dry weather conditions, and prior to combination with receiving waters.

⁵ Indicates that testing for this parameter shall be performed on the same sample used for aquatic toxicity testing.

- (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 Code of Federal Regulations, Part 136 of Title 40 (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 Table A. 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>
Aluminum	10.0 ug/L
Copper	5.0 ug/L
Lead	5.0 ug/L
Nickel	5.0 ug/L
Zinc	20.0 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) Aquatic Toxicity Test

- (1) Samples for monitoring of Aquatic Toxicity shall be collected and handled as prescribed in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012).
 - (a) Grab samples shall be chilled immediately following collection. Samples shall be held at 4 degrees Centigrade until Aquatic Toxicity testing is initiated.
 - (b) Effluent samples shall not be dechlorinated, filtered, or, modified in any way, prior to testing for Aquatic Toxicity unless specifically approved in writing by the Commissioner for monitoring at this facility.
 - (c) Chemical analyses of the parameters identified in Section 5 Table A shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.
 - (d) At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Aquatic Toxicity tests, in the highest concentration of test solution and in the dilution (control) water at the beginning of the test and at test termination. Dissolved oxygen, pH, and temperature shall be measured in the control and all test concentrations at the beginning of the test, daily thereafter, and at test termination.
 - (e) Tests for Aquatic Toxicity shall be initiated within 24 hours of sample collection.
- (2) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (invertebrate) above shall be conducted for 48-hours utilizing neonatal Daphnia pulex (less than 24-hours old).
- (3) Monitoring for Aquatic Toxicity to determine compliance with the permit limit on Aquatic Toxicity (vertebrate) above shall be conducted for 48-hours utilizing larval Pimephales promelas (1-14 days old with no more than 24-hours range in age).
- (4) Tests for Aquatic Toxicity shall be conducted as prescribed for static non-renewal acute tests in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (EPA/821-R-02-012), except as specified below.
 - (a) For Aquatic Toxicity Limits and for monitoring only conditions, expressed as an NOAEL value, Pass/Fail (single-concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity Limit to 100%, as prescribed in section 22a-430-3(j)(7)(A)(i) of the Regulations of Connecticut State Agencies.
 - (b) Organisms shall not be fed during the tests.
 - (c) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.
 - (d) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (plus or minus 5 mg/L) as 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 an NOAEL value, compliance shall be demonstrated when the results of a valid pass/fail Aquatic Toxicity test indicates there is 90% or greater survival in the undiluted effluent.

(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-02-013) 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 single concentration test of 100% effluent.
- (4) Muddy River water collected immediately upstream of the area influenced by the discharge shall be used as site water control (0% effluent) for the toxicity tests.
- (5) A laboratory water control consisting of synthetic freshwater prepared in accordance with EPA-821-R-02-013 at a hardness of 50±5 mg/l shall be included in the test protocol in addition to the site-water control.
- (6) Grab samples of the discharge and grab samples of the Muddy River for use as site water control 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 Muddy River water used in the chronic toxicity test shall, at a minimum, be analyzed and results reported in accordance with the provisions listed in Section 6(A) of this permit for the following parameters:

pH	Copper (Total recoverable and dissolved)
Hardness	Nickel (Total recoverable and dissolved)
Alkalinity	Nitrogen, Ammonia (total as N)
Conductivity	Nitrogen, Nitrite (Total as N)
Chlorine, (Total residual)	Solids, Total Suspended
Lead, (Total recoverable and dissolved)	Iron (Total recoverable and dissolved)
Manganese, (Total recoverable and dissolved)	Zinc (Total recoverable and dissolved)
Aluminum, (Total recoverable and dissolved)	

SECTION 7: REPORTING REQUIREMENTS

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

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

- (B) Complete and accurate aquatic toxicity test data, including percent survival of test organisms in each replicate test chamber, 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 day of sample collection, 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.

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

- (A) If any sample analysis indicates that an Aquatic Toxicity effluent limitation in Section 5 of this permit has been exceeded, or that the test was invalid, another sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.
- (B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity) for the review and approval of the Commissioner in accordance with section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body. Such a report shall include a proposed time schedule to accomplish toxicity reduction and the Permittee shall comply with any schedule approved by the Commissioner.
- (C) The Permittee shall notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division, within 72 hours and in writing within thirty days of the discharge of any substance listed in the application but not listed in the permit if the concentration or quantity of that substance exceeds two times the level listed in the application.

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-02-013 and submitted to the Department for review on or before 60 days after test completion to the address specified in Section 7(B) of this permit.

This permit is hereby issued on August 17, 2007.

/s/GINA McCARTHY
Gina McCarthy
Commissioner

GM/EH

DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: *United Aluminum Corporation*

PAMS Company ID: 22339

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: *CT0030201* APPLICATION #: *200302057* FACILITY ID *101-050*

<p><u>Mailing Address:</u> Street: <i>100 United Drive</i> City: <i>North Haven</i> ST: <i>CT</i> Zip: <i>06473</i> Contact Name: <i>George Hennessey.</i> <i>Facility/Maintenance Manager</i> Phone No.: <i>(203) 239-5881</i></p>	<p><u>Location Address:</u> Street: <i>100 United Drive</i> City: <i>North Haven</i> ST: <i>CT</i> Zip: <i>06473</i> DMR Contact <i>George Hennessey.</i> <i>Facility/Maintenance Manager</i> Phone No.: <i>(203) 239-5881</i></p>
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PERMIT INFORMATION

DURATION 5 YEAR X 10 YEAR ____ 30 YEAR ____

TYPE New ____ Reissuance X Modification ____

CATEGORIZATION POINT (X) NON-POINT () GIS # 4577

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

NPDES MAJOR(MA) ____

NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI) ____

NPDES or PRETREATMENT MINOR (MI) X

PRETREAT SIGNIFICANT INDUS USER(SIU) ____

PRETREAT CATEGORICAL (CIU) ____

POLLUTION PREVENTION MANDATE ____ ENVIRONMENTAL EQUITY ISSUE ____

COMPLIANCE ISSUES

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

POLLUTION PREVENTION ____ TREATMENT REQUIREMENT ____ WATER CONSERVATION ____

WATER QUALITY REQUIREMENT X REMEDIATION ____ OTHER ____

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

OWNERSHIP CODE

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

DEP STAFF ENGINEER Enna Herrera

PERMIT FEES

<i>Discharge Code</i>	<i>DSN Number</i>	<i>Annual Fee</i>
<i>102000b</i>	<i>001-1</i>	<i>\$ 8,175.00</i>

FOR NPDES DISCHARGES

Drainage basin Code: 5208

Present/Future Water Quality Standard: B/A

NATURE OF BUSINESS GENERATING DISCHARGE

Cold rolling, annealing and slitting of aluminum coils.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 001-1: No treatment is required.

RESOURCES USED TO DRAFT PERMIT

- Federal Effluent Limitation Guideline 40 CFR*
name of category
- 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

- Case-by-Case Determination and Best Professional Judgment (See General Comments)*
DSN 001-1: Total oil/grease and manganese, and temperature.
- In order to meet in-stream water quality (See General Comments)*
DSN 001-1: NOAEL, total copper and lead, and pH.

GENERAL COMMENTS

The need to include water quality based discharge limitations in this permit was evaluated to be consistent with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). Each parameter was evaluated for consistency with the available aquatic life criteria considering the zone of influence allocated to the facility where appropriate. The statistical procedures outlined in the EPA Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) were employed to calculate these limits. The calculated limits were then compared to the available effluent data. A comparison of the calculated limits to the effluent data suggest a statistical probability of exceeding lead and copper limits. Therefore, the following water quality based limits were included in this permit: lead-0.006 mg/l and copper- 0.029 mg/l.

OTHER COMMENTS

DEP staff proposes in this permit renewal to allow grab sample compliance monitoring. The grab sample is appropriate for this discharge since 1) this discharge is composed of well water used for non-contact cooling and 2) the quality and flow of the wastestream is not variable during daily operations.

The differences between the effluent limitations and monitoring requirements in the last permit and this permit renewal are as follows:

The reporting frequency requirements for toxicity tests and all listed parameters, except for oil/grease total, in Section 5, Table A are changed from semi-annual to quarterly in this permit renewal because of the high Instream Waste Concentration (IWC of 16.74 %).

Quarterly monitoring requirements for manganese were added to this permit renewal due to the potential for this constituent to be present in the discharge.

A review of the results of a thermal study conducted in April 2007 as well as the past nine years of upstream and downstream temperature monitoring indicates that the UAC's discharge is in compliance with Section 4(C), and it has not caused an exceedance of the CT Water Quality Standard. Also, a maximum daily temperature of 107°F at the V-notch weir should not cause an exceedance of the CT Water Quality Standard or Section 4(C). Therefore, it is the DEP staff's recommendation to impose a maximum daily temperature limit at the V-notch weir of 107°F and eliminate temperature-monitoring requirements for up and downstream locations in this permit. It is also the opinion of DEP field staff that the thermal component of this discharge does not affect more than 25% of the cross-sectional area of the receiving stream.

Instantaneous limits for total oil/grease and temperature were included in the permit renewal based on a case-by-case determination using criteria of best professional judgment.

*The current permit requires only *Daphnia pulex* toxicity testing. However, EPA recommends that NPDES permits include a minimum of two species to be tested quarterly. As a result, DEP staff is recommending that *Pimephales promelas* toxicity testing and a limit be added to this permit renewal. An annual chronic test is also included in this permit renewal because of the high Instream Waste Concentration (IWC of 16.74 %).*

Based on the DEP staff review of the United Aluminum Corporation's DMRs for the last five (5) years, effluent results for nickel and zinc revealed that these parameters have been consistently below detection levels. As such, it is the DEP staff's recommendation to eliminate monitoring requirements for these parameters in this permit renewal.