STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF ADJUDICATIONS

IN THE MATTER OF	:	*NPDES PERMIT# CT0020398* *APPLICATION #200100816*
ANOCOIL CORPORATION	:	*NOVEMBER 1, 2010*

FINAL DECISION

Anocoil Corporation (Anocoil/applicant) has applied to the Department of Environmental Protection (DEP) to renew its 1996 National Pollutant Discharge Elimination System (NPDES) permit to withdraw and discharge water from and to the Hockanum River in Rockville. The discharge consists of once-through, non-contact cooling water used to cool acid tanks associated with the applicant's aluminum anodizing operation. This discharge and the requested NPDES permit are governed by General Statutes §22a-430, Regs., Conn. State Agencies §§22a-430-3 and 22a-430-4, and relevant provisions of the federal Clean Water Act.

Following a determination that continuance of the applicant's discharge will not cause pollution of the waters of the state, the department issued a renewal permit on November 20, 2006. Thereafter, the applicant requested a hearing, alleging it was aggrieved by specific new terms and conditions set forth in the 2006 permit.[1] General Statutes §22a-403(c). The parties to this proceeding are the applicant and DEP staff of the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcement Division (staff).

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[1] The applicant specifically alleged it was aggrieved by: (1) the location of discharge and intake sampling points; (2) the repetitive parameter analyses for toxicity testing; (3) the testing requirements for chemicals and chronic toxicity; (4) the chemical and toxicity parameters and effluent limits; (5) elimination of no-net increase limits; (6) use of a 10% statistical difference between intake and discharge test results; and (7) the frequency of acute aquatic toxicity testing. (Exs. DEP-4, 4a.)

Negotiations between the parties have resolved the applicant's claims and resulted in an agreement substantially modifying the 2006 permit terms and conditions. Staff has prepared the attached draft renewal permit, which incorporates the modified terms and conditions (Attachment A). Public notice of the renewal permit was published followed by a thirty-day public comment period. A hearing on the application and renewed permit was held on October 27, 2010. Prior to the hearing, the Commissioner delegated her authority to render a final decision in this matter to me. General Statutes §4-180; Regs., Conn. State Agencies §22a-3a-6(y). The record in this proceeding in now closed.

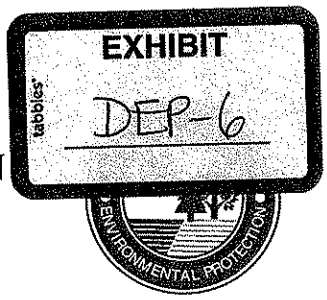
The evidence in this matter includes staff's written testimony, verified under oath, (Attachment B) and a comprehensive written explanation of the modified renewal permit terms and conditions (Attachment C).[2] I find, with the concurrence of the parties, that this evidence more than sufficiently establishes the relevant, essential facts of this case, which need not be repeated here.

I have reviewed the entire record and find that the applicant's discharge would not cause pollution of any waters of the state. The discharge, as regulated by the terms of the modified draft renewal permit, complies with relevant federal and state law and regulations. §22a-430; §§22a-430-3 and 22a-430-4; and 33 USC §§1342. I concur with the applicant and staff that the application for renewal of the applicant's NPDES discharge should be approved and that the draft renewal permit should be issued.

Jean F. Dellamarggio
Hearing Officer

[2] This evidence is contained in exhibits DEP-7 and DEP-18.

ATTACHMENT A



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NPDES PERMIT

issued to

DRAFT

Ano-coil Corporation
60 East Main Street
P.O. Box 1318
Rockville, CT 06066

Location Address:

60 East Main Street
Rockville, CT 06066

Facility ID: 146-031

Permit ID: CT0020389

Receiving Stream: Hockanum River

Permit Expires: DRAFT

SECTION 1: GENERAL PROVISIONS

(A) This permit is reissued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and 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) Anocoil 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 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 ("the Commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner, at least 30 days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.

(F) 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.

"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.

"Discharge", in the context of this permit, means the non-contact cooling water discharge, DSN 101-1, Monitoring Location 1.

"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.

"Intake", in the context of this permit, means the Hockanum River raw water intake, DSN 101-1, Monitoring Location 7.

"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.

"MGD", means millions of gallons per day.

"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 in the undiluted effluent.

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

"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.

"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 will not cause pollution of the waters of the state. The Commissioner's decision is based on Application No. 200100816 for permit reissuance received on March 12, 2001, 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 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 tables below:

Table A

Discharge Serial Number: 101-1 | **Monitoring Location:** 7

Wastewater Description: Hockanum River Water (raw water intake)

Monitoring Location Description: Intake pipe sample port

Allocated Zone of Influence (ZOI): NA | **In stream Waste Concentration (IWC):** NA

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[2]
		Average Monthly Limit	Maximum Daily Limit	Sample//Reporting Frequency [1]	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample// Reporting Frequency	Sample Type or measurement to be reported	
Aquatic Toxicity, Daphnia Pulex [3] NOAEL=100% (NOAEL STAT 48HR ACU D. PULEX)	%	NA	-----	Quarterly	Daily Composite	-----	NR	Grab	
Aquatic Toxicity, Pimephales promelas [3] NOAEL=100% (NOAEL STAT 48HR ACU PIMEPHALES)	%	NA	-----	Quarterly	Daily Composite	-----	NR	Grab	
Aluminum, Total	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*
Chlorine, Total Residual	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	*
Copper, Total	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*
Lead, Total	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*
Nickel, Total	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*
Oil and Grease, Total	mg/l	NA	-----	Quarterly	Grab Sample Average	NA	NR	Grab	
pH (Day of Sampling)	S.U.	NA	NA	NR	NA	-----	Quarterly	RDS	
pH, minimum (During Sampling Month)	S.U.	NA	NA	NR	NA	-----	Continuous// Quarterly	Continuous	
pH, maximum (During Sampling Month)	S.U.	NA	NA	NR	NA	-----	Continuous// Quarterly	Continuous	
Solids, Total Dissolved	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	
Solids, Total Suspended	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	
Temperature [4]	° F	NA	NA	NR	NA	-----	Hourly// Quarterly	Instantaneous	
Zinc, Total	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*

Table A Footnotes and Remarks:

Footnotes:

[1] 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'.

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

[3] The results of the Toxicity Tests shall be recorded in % survival on the DMR.

[4] The Permittee shall maintain at the facility a record of hourly temperature data for each day while a discharge exists on that day and shall report the maximum and minimum temperature values recorded for each day of sample collection.

Remarks:

(1) Sampling shall be conducted concurrent with monitoring of the discharge and in accordance with Section 5 of this permit.

(2) "Daily Composite" shall mean a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of up to four (4) hours and combined proportionally to flow, or a composite sample continuously collected over a full operating day proportionally to flow.

(3) All analyses shall be performed on the same sample.

Table B

Discharge Serial Number: 101-1 | **Monitoring Location:** 1

Wastewater Description: Non-contact cooling water, freeze protection bypass water

Monitoring Location Description: At the 6-inch non-contact cooling water discharge pipe

Allocated Zone of Influence (ZOI): 280 gph | **In stream Waste Concentration (IWC):** 99.3%

PARAMETER	UNITS	FLOW/TIME BASED MONITORING				INSTANTANEOUS MONITORING			Minimum Level Test[2]
		Average Monthly Limit	Maximum Daily Limit	Sample//Reporting Frequency [1]	Sample Type or Measurement to be reported	Instantaneous limit or required range	Sample// Reporting Frequency	Sample Type or measurement to be reported	
Aquatic Toxicity, Daphnia Pulex [3] NOAEL=100% (NOAEL STAT 48HR ACU D. PULEX)	%	NA	See Section 5(A)(4)	Quarterly	Daily Composite	See Section 5(A)(4)	NR	Grab	
Aquatic Toxicity, Pimephales promelas [3] NOAEL=100% (NOAEL STAT 48HR ACU PIMEPHALES)	%	NA	See Section 5(A)(4)	Quarterly	Daily Composite	See Section 5(A)(4)	NR	Grab	
Aluminum, Total	mg/l	NA	See Section 5(A)(5)	Quarterly	Daily Composite	NA	NR	Grab	*
Chlorine, Total Residual [4]	mg/l	NA	NA	NR	NA	-----	Quarterly	Grab	*
Copper, Total [4]	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*
Flow (Day of Sampling)	MGD	NA	2.16	Quarterly	Daily Flow	NA	NR	NA	
Flow rate (Average Daily) [5]	MGD	1.0	NA	Continuous// Quarterly	Daily Flow	NA	NR	NA	
Flow, maximum during 24-hr period [5]	MGD	NA	2.16	Continuous// Quarterly	Daily Flow	NA	NR	NA	
Lead, Total [4]	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*
Nickel, Total [4]	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*
Oil and Grease, Total	mg/l	NA	-----	Quarterly	Grab Sample Average	NA	NR	Grab	
pH (Day of Sampling)	S.U.	NA	NA	NR	NA	6.5-8.0 [7]	Quarterly	RDS	
pH, minimum (During Sampling Month)	S.U.	NA	NA	NR	NA	6.5 [7]	Continuous // Quarterly	Continuous	
pH, maximum (During Sampling Month)	S.U.	NA	NA	NR	NA	8.0 [7]	Continuous // Quarterly	Continuous	
Solids, Total Dissolved	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	
Solids, Total Suspended	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	
Temperature [6]	° F	NA	NA	NR	NA	-----	Hourly// Quarterly	Instantaneous	
Zinc, Total [4]	mg/l	NA	-----	Quarterly	Daily Composite	NA	NR	Grab	*

Table B Footnotes and Remarks:

Footnotes:

[1] 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'.

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

[3] The results of the Toxicity Tests shall be recorded in % survival on the DMR.

[4] Refer to the condition described in Section 8(D) of this permit.

[5] For this parameter the Permittee shall maintain at the facility a record of the total daily flow for each day of discharge and shall report the Average Daily Flow and the Maximum Daily Flow for each sampling month.

[6] The Permittee shall maintain at the facility a record of hourly temperature readings for each day while a discharge exists on that day and shall report the maximum and minimum temperature values recorded for each day of sample collection.

[7] In the event that the pH of the intake is outside the allowable pH range of 6.5-8.0 S.U., the pH of the discharge shall be within +/- 0.5 S.U of the intake pH.

Remarks:

(1) Sampling shall be conducted concurrent with monitoring of the intake and in accordance with Section 5 of this permit.

(2) "Daily Composite" shall mean a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of up to four (4) hours and combined proportionally to flow, or a composite sample continuously collected over a full operating day proportionally to flow.

(3) All analyses shall be performed on the same sample.

(4) The discharge of freeze protection bypass water shall only occur when there is no discharge of non-contact cooling water. Table B monitoring requirements and effluent limitations apply only to the non-contact cooling water discharge.

(1) All samples shall be comprised of only the wastewater described in these tables. 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.

(4) The discharge shall not contribute to acute or chronic toxicity in the Hockanum River. Compliance with this condition shall be achieved when the average percent survival in the effluent is 90% or greater or the difference between the percent survival for the intake and the percent survival for the discharge is equal to or less than 10.

(5) The concentration of total aluminum reported for the discharge shall not exceed the concentration for total aluminum reported for the intake by greater than one-half the minimum level for total aluminum specified in Section 6(A)(3) of this permit.

(6) The Hockanum River shall be the only source water contributing to the discharge.

(7) No chemicals of any type shall be added to the discharge.

(8) The discharge system shall be completely segregated from any possible contaminant sources.

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 Tables A and B. Analyses for these parameters must include check standards within ten percent of the specified Minimum Level or calibration points equal to or less than the specified Minimum Level.

Parameter	Minimum Level
Aluminum	10.0 ug/L
Chlorine, total residual	20.0 ug/L
Copper	5.0 ug/L
Lead	5.0 ug/L
Nickel	5.0 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 Tables A and B shall be conducted on an aliquot of the same sample tested for Aquatic Toxicity.

(i) At a minimum, pH, specific conductance, total alkalinity, total hardness, and total residual chlorine shall be measured in the effluent sample and, during Aquatic Toxicity tests, in the highest concentration of test solution and in the dilution (control) water at the beginning of the test and at test termination. If Total Residual Chlorine is not detected at test initiation, it does not need to be measured at test termination. Dissolved oxygen, pH, and temperature shall be measured in the control and all test concentrations at the beginning of the test, daily thereafter, and at test termination.

(d) Tests for Aquatic Toxicity shall be initiated within 36 hours of sample collection.

(2) Monitoring for Aquatic Toxicity to determine compliance with the permit 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 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) For Aquatic Toxicity Limits 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 of 100% 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.

(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 according to Section 5(A)(4) of this permit.

(C) The Permittee shall annually monitor the chronic toxicity of the discharge 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 40CFR 136 for Ceriodaphnia 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, 75% effluent, 50% effluent, 25 % effluent, 12.5 % effluent, 0 % effluent).

(4) Hockanum 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) Flow for the Hockanum River at the East Hartford gauge will be reported for days of sample.

(6) 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.

(7) Daily composite samples of the discharge and grab samples of the Hockanum 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.

(8) All samples of the discharge and the Hockanum 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	Aluminum (Total Recoverable and dissolved)
Hardness	Copper (Total recoverable and dissolved)
Alkalinity	Lead (Total recoverable and dissolved)
Conductivity	Nickel (Total recoverable and dissolved)
Chlorine, (Total residual)	Nitrogen, Ammonia (total as N)
Solids, Total Suspended	Nitrogen, Nitrate (Total as N)
	Zinc, (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 flow day of sample, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and reported to the Bureau of Water Protection and Land Reuse (Attn: Aquatic Toxicity) 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) A comparative analysis, as specifically defined by this permit, comparing the concentration of aquatic toxicity, aluminum, total residual chlorine, copper, lead, nickel, pH, and zinc reported for the discharge with the respective concentration of each of these substances reported for the intake shall be provided with the ATMR and DMR.

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.

(D) If the results of the initial sample analysis, or the results of both the initial and duplicate sample[1] analysis indicates that the concentration of total residual chlorine, copper, lead, nickel, or zinc reported at the discharge exceeds the concentration reported at the intake by greater than one-half the minimum level, the Permittee shall:

(1) perform an investigation of the area adjacent to the discharge to determine if any spills, debris or other potential contaminants are or were present at the time of sampling and take corrective action as needed in response to the results of such investigation,

(2) perform a complete piping survey and examination of the non-contact cooling water system to determine compliance with the conditions set forth in Sections 5(A)(6) through 5(A)(8) of this permit and take corrective action as needed in response to the results of such survey and examination,

(3) submit a copy of the DMR, corresponding analysis, and results of the investigation performed in Sections 8(D)(1) and 8(D)(2) above for the Commissioner's review, and

(4) perform the actions required by Sections 8(E) and 8(F) of this permit.

If the results of a duplicate sample analysis of the intake and discharge do not confirm an exceedence of the above condition, the Permittee is not required to perform the actions specified in Section 8(D) paragraphs (1) through (4).

[1]For the purposes of compliance with Section 8(D), duplicate sample shall mean a separate sample collected at the same time and place and under identical circumstances as the initial sample and treated exactly the same as the initial sample through field and laboratory procedures.

(E) Within thirty (30) days of triggering the condition of Section 8(D) above, a second sample of the influent and effluent shall be collected and analyzed for the parameter(s) in question and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing).

(F) Within sixty (60) days of triggering the condition of Section 8(D) above, the Permittee shall submit, for the Commissioner's review, a report identifying all corrective actions taken to obtain compliance with this permit. All modifications made to the Permittee's non-contact cooling water and piping systems as part of the identified corrective actions shall be certified in compliance with this permit by a Connecticut licensed professional engineer.

(G) If any two consecutive test results or any three test results in a twelve month period triggers the condition in Section 8(D) above for which the Permittee, through its investigations performed under (D)(1) and (D)(2) of this Section, finds no definitive root cause, the Permittee shall: 1) retain the services of a Connecticut licensed professional engineer to perform and investigation into the source of the contamination and oversee any corrective actions, and 2) submit for the Commissioner's review a certified report detailing the results of the investigation and describing corrective actions taken to obtain compliance with the terms and conditions of this permit. Such report shall be submitted within sixty (60) days of the test result that triggers the requirements of this paragraph.

SECTION 9: COMPLIANCE SCHEDULE

(A) Within ninety (90) days of permit issuance, the Permittee shall perform a complete piping survey and examination of the non-contact cooling water system to determine compliance with the conditions set forth in Sections 5(A)(6) through 5(A)(8) of this permit and submit, for the Commissioner's review, a report certified by a Connecticut licensed professional engineer describing the results of such evaluation and identifying all corrective actions taken to obtain compliance with Sections 5(A)(6) through 5(A)(8) of this permit.

(B) Within one (1) year after the date of issuance of this permit, the Permittee shall submit for the review and written approval of the Commissioner a comprehensive and thorough report that describes and evaluates alternative actions which may be taken by the Permittee to reduce the amount of river water used for non-contact cooling. At a minimum such report shall:

(1) evaluate alternative water conservation measures for the non-contact cooling water system, including, but not limited to, process changes/innovations, total recycle of the discharge, and zero discharge systems;

(2) state in detail the most expeditious schedule to perform and implement each alternative;

(3) list all permits and approvals required for each water conservation alternative, including but not limited to any permits required under sections 22a-32, 22a-42a, 22a-342, 22a-361, 22a-368, 22a-430 or 22a-430b of the Connecticut General Statutes;

(4) propose a preferred alternative or combination of alternatives with supporting justification to achieve water conservation pursuant to section 22a-430-3(o) of the Regulations of Connecticut State Agencies; and

(5) propose a detailed program and schedule to perform all actions required by the preferred water conservation alternative including but not limited to a schedule for submission of engineering plans and specifications and applying for and obtaining all permits and approvals required for such actions.

(C) In accordance with the schedule approved under Section 9(B)(5) of this permit, the Permittee shall obtain all necessary approvals and permits and implement the approved actions. Within fifteen days after completing such actions, the Permittee shall certify to the Commissioner in writing that the actions have been completed as approved.

(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 notified 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 and Section 8(D) of the permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Enna Herrera
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 revises and supersedes the permit issued on November 20, 2006 and modified on December 15, 2006. This permit is hereby issued on

__DRAFT_____

Amey W. Marrella
Commissioner

AWM/mlg

EXHIBIT
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DEP-18

ATTACHMENT B

Hearing Statement: Public Hearing for NPDES Permit No. CT0020389
Michelle Gore, Sanitary Engineer 2
Department of Environmental Protection
Bureau of Materials Management and Compliance Assurance

I. Qualifications and Job Duties:

My name is Michelle Gore and I have been employed in the position of Sanitary Engineer by the Connecticut Department of Environmental Protection ("DEP"), Bureau of Materials Management and Compliance Assurance since September 2004. Prior to my employment by DEP, I worked as an engineer for an environmental consulting firm. I hold B.S. and M.S. degrees in Environmental Engineering and Science.

My duties within the bureau's Water Permitting and Enforcement Division ("WPED") consisted of regulating commercial and industrial wastewater discharges to the waters of the State of Connecticut as required by state and federal law. As part of those duties, I reviewed the wastewater discharge permit application to renew National Pollutant Discharge Elimination System ("NPDES") Permit No. CT0020389 submitted by Anocoil Corporation ("Anocoil"), the applicant, to continue its discharge of non-contact cooling water and associated wastewaters to the Hockanum River from operations at its 60 East Main Street, Rockville, CT facility.

In this statement I will describe the process that led to DEP's Notice of Tentative Determination and Public Hearing regarding NPDES Permit No. CT0020389 that was published in the Hartford Courant on August 20, 2010 (Exhibit No. DEP-5).

II. Administrative Overview of Wastewater Discharge Permit Application & Permit:

All facilities which create a discharge from any point source into the waters of the State are required to obtain a NPDES permit. Pursuant to US EPA's approval, DEP is authorized by the federal Clean Water Act, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") to issue NPDES permits.

An application to renew NPDES Permit No. CT0020389 was submitted, reviewed by WPED, and found to be technically sufficient (Exhibit No. DEP-2). Based on that technical review, the administrative record generated as part of that review, and Anocoil's acceptance of the proposed permit, DEP renewed the permit on November 20, 2006. Per Anocoil's request, DEP modified the renewed permit on December 15, 2006 to correct typographical errors. (Exhibit No. DEP-3)

On December 19, 2006, Anocoil requested a hearing on its application, claiming it was aggrieved by specific terms and conditions of the renewed permit (Exhibit No. DEP-4). In general, Anocoil questioned DEP's authority to regulate pollutants present in its non-contact cooling water discharge which are solely contributed to the discharge by the river (Exhibit No. DEP-4a). Anocoil also petitioned DEP to change its intake sampling location from the river to inside its building for the purpose of compliance monitoring.

The renewed permit has been held in abeyance in response to Anocoil's request for hearing on its application and the application was re-opened for continued technical review. As a result of that review, WPED is proposing modifications be made to the permit. Until DEP makes a final decision on the contested permit and the modifications proposed for that permit, Anocoil continues to operate under its previous NPDES permit issued September 9, 1996 and modified October 17, 1996 (Exhibit No. DEP-1).

III. Permit Application Technical Review Considerations and Discussion of Permit and Proposed Permit Modifications:

Anocoil's discharge of once-through non-contact cooling water is a non-categorical, non-process discharge for which no federal or state effluent limitations are established. Therefore, any limits imparted on the discharge are based on DEP's best professional judgment and, because the discharge is to surface water, the Connecticut Water Quality Standards. In addition, as is characteristic of high volume, continuous discharges of non-contact cooling water, the source water contributing to the discharge is the same as its receiving water, in this case, the Hockanum River.

DEP has designated the Hockanum River as an impaired surface water – meaning that segments of the river do not meet state water quality standards. DEP is in the process of assessing possible sources of the Hockanum River's impairment and is developing a plan for the river's restoration (Exhibit Nos. DEP-13, DEP-14).

In general, NPDES permits utilize water quality-based limits to regulate pollutants that have a reasonable potential to exceed water quality criteria for the receiving water. However, because Anocoil takes in water from and discharges to a segment of the river that does not meet state water quality standards, Anocoil's NPDES permit has historically utilized "no-net increase" limits, essentially requiring that Anocoil discharge no more of a pollutant than exists in the river at its point of intake to the facility. As DEP had been discontinuing the use of "no-net increase" limits in NPDES permits in recent years, water quality-based limits replaced "no-net increase" limits for some parameters in the renewed permit.

To determine which pollutants in Anocoil's discharge exist at concentrations triggering the application of water quality-based limits, DEP's Bureau of Water Protection and Land Reuse, Planning & Standards Division performed a reasonable potential analysis in accordance with statistical procedures outlined in US EPA's *Technical Support Document for Water Quality-Based Toxics Control (March 1991)* (Exhibit Nos. DEP-15, DEP-16). The analysis was performed for each chemical pollutant identified in Anocoil's 1996 permit and did not account for the levels of those pollutants in the river water Anocoil uses as source water nor did it consider Anocoil's ability to contribute those pollutants to its discharge. This resulted in the application of water quality-based limits to some chemical parameters that were previously regulated by "no-net increase" limits due to the river's impairment.

In direct response to Anocoil's appeal of the renewed permit, WPED reconsidered this methodology and has determined that in order to correctly evaluate the need to apply water quality-based limits in a NPDES permit, two analyses needed to be performed as part of its reasonable potential analysis: (1) an engineering analysis evaluating the discharger's potential to contribute to or cause pollution in a receiving stream through its process operations, and (2) a statistical analysis, as outlined in US EPA's technical support document, evaluating the potential for a pollutant found in a discharge to exist at levels which exceed water quality criteria for the receiving stream. In the case of the renewed permit, if the engineering analysis had been performed first the need to assess the discharge for any pollutant determined to not be contributed by Anocoil would have been unwarranted and the need to apply water quality-based limits for such pollutants not evaluated.

Both analyses were performed in determining the modified monitoring and discharge limits and conditions proposed for this permit. To summarize, WPED proposes the following:

- No monitoring or limitation of pollutants that Anocoil does not demonstrate a reasonable potential to contribute to its discharge and which are not a water quality concern for the river;

- Monitoring and use of a "no-net increase" condition to assess pollutants that Anocoil does not demonstrate a reasonable potential to contribute to its discharge, but that either exist in the river at levels which exceed water quality criteria or are a water quality concern for the river;

- Monitoring and use of a "no-net increase" limit to regulate pollutants that Anocoil demonstrates a reasonable potential to contribute to its discharge and which exist in the river at levels that exceed water quality criteria. In this case, a "not-net increase" limit would be applied until a remediation plan is established for the river;

- Monitoring and use of a "no-net increase" limit to regulate pollutants that Anocoil demonstrates a reasonable potential to contribute to its discharge, but for which additional data collection is required to determine the need for a water quality-based limit;

- Monitoring and use of a water quality-based limit to regulate pollutants that Anocoil demonstrates a reasonable potential to contribute to its discharge and for which the river currently meets water quality criteria.

In addition to re-examining the application of water quality-based limits in the renewed permit, WPED also reviewed and is proposing for modification the following permit conditions:

- Relocation of the intake monitoring location from the intake pond to inside Anocoil's facility. This proposed change in monitoring location will address employee safety and accessibility concerns Anocoil has in implementing the monitoring requirements of the renewed permit and is based on additional data collected and provided by Anocoil during WPED's continued technical review (Exhibit No. DEP-8);

- Elimination of monitoring and reporting for the discharge sump. This proposed change reflects Anocoil's discontinuance of its raw river water bypass during WPED's continued technical review and registration of its storm water discharge under the general permit. As a result of this proposed change, pollutants previously scheduled to be monitored at the sump will be monitored at the non-contact cooling water discharge;

- Clarification of the term "no-net increase" as applied to chemical pollutants and aquatic toxicity, as well as clarification of the reporting requirements for triggering the "no-net increase" condition or exceeding the "no-net increase" limit;

- Inclusion of two additional discharges: freeze protection bypass water and non-contact cooling water from Anocoil's electrochemical graining process (Exhibit Nos. DEP-9, DEP-11). The discharge of freeze protection bypass water historically existed at the facility, but was not previously identified in the permit application. The discharge of non-contact cooling water began in 2008 when Anocoil added an electrochemical graining line to its anodizing process and accounts for approximately 10% of the facility's total permitted maximum daily flow.

A detailed discussion of each modification proposed for the permit, including the re-assignment of discharge serial numbers and re-formatting of monitoring tables, can be found in the permit fact sheet (Exhibit No. DEP-7).

IV. Tentative Determination

Based on a review of the permit application and supplemental information submitted to support that application (Exhibit Nos. DEP-8, DEP-9, DEP-10, DEP-11, DEP-12), the DEP made a tentative determination (Exhibit No. DEP-5) pursuant to section 22a-430 of the CGS and RCSA sections 22a-430-3 and 4, in particular RCSA sections 22a-430-4(e) and(p), that, with respect to the proposed modifications to the contested permit, continuance of Anocoil's existing discharge would not cause pollution of the waters of the state. If issued by the Commissioner, the proposed modified permit will revise and supersede the contested permit.

The proposed modified permit maintains the enforceable compliance schedule of the contested permit, which requires Anocoil perform a water conservation study, and extends that schedule to require that Anocoil perform a complete piping survey and investigation of its non-contact cooling water system to ensure that the "no-net increase" limit and condition will be met.

WPED and Anocoil agree to the terms and conditions of the proposed modified permit presented as Exhibit No. DEP-6 and request that the Commissioner consider the permit for issuance.

EXHIBIT
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DEP-7

ATTACHMENT C

DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: Ano-coil Corporation PAMS Company ID: 105521

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0020389 APPLICATION #: 200100816 FACILITY I.D. 146-031

Mailing Address:						**Location Address:**					
Street:	60 East Main St., P.O. Box 1318					**Street:**	60 East Main St.				
City:	Rockville	**ST:**	CT	**Zip:**	06066	**City:**	Rockville	**ST:**	CT	**Zip:**	06066
Contact Name:	Michael Perlman					**DMR Contact:**	Michael Perlman				
Phone No.:	(860) 871 – 1200 ext. 524					**Phone No.:**	(860) 871 – 1200 ext. 524				

PERMIT INFORMATION

DURATION 5 YEAR _x_ 10 YEAR __ 30 YEAR _____

TYPE New __ Reissuance _x_ Modification ____

CATEGORIZATION POINT (x) NON-POINT ( ) GIS # __

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

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

PRETREAT SIGNIFICANT INDUS USER (SIU) _____
PRETREAT CATEGORICAL (CIU) _____

POLLUTION PREVENTION MANDATE __ ENVIRONMENTAL EQUITY ISSUE ____

COMPLIANCE ISSUES

COMPLIANCE SCHEDULE X YES __ NO

POLLUTION PREVENTION X TREATMENT REQUIREMENT___ WATER CONSERVATION X

WATER QUALITY REQUIREMENT __ 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 Michelle L. Gore

PERMIT FEES

Discharge Code	DSN	Annual Fee
102000b	101-1	$2,290.00

FOR NPDES DISCHARGES

Drainage basin Code: 4500 Present/Future Water Quality Standard: C/Bc

NATURE OF BUSINESS GENERATING DISCHARGE

Ano-coil Corporation ("Ano-coil") anodizes coil sheet aluminum used in the lithographic printing industry. Once-through non-contact cooling water taken from the Hockanum River is used to cool acid tanks involved in the aluminum anodizing process.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 101-1: Monitoring Location 7 - Hockanum River intake water from Ano-coil Pond. This is the sole source of Ano-coil's non-contact cooling water and freeze protection bypass water.

DSN 101-1: Monitoring Location 1 - This continuous discharge is comprised of an average flow of 1.0 MGD and a maximum flow of 2.16 MGD of non-contact cooling water associated with aluminum finishing and anodizing to the Hockanum River. No treatment is required for this non-process discharge. Unused intake water is discharged through this same pipe at a rate of 10 gpm during winter shutdown of the non-contact cooling water system to protect intake piping from breakage due to freezing. No monitoring or treatment of freeze protection bypass water is required.

RESOURCES USED TO DRAFT PERMIT

__ Federal Effluent Limitation Guideline_____
name of category

__ Performance Standards

__ Federal Development Document _____
name of category

__ Treatability Manual

_x_ Department File Information

_x_ Connecticut Water Quality Standards

__ Anti-degradation Policy

__ Coastal Management Consistency Review Form

__ Other – Explain

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

_x_ Case by Case Determination based on Best Professional Judgment (See OtherComments)
Intake: all parameters
Discharge: TRC, copper, lead, nickel, total dissolved solids, total oil & grease, TSS, zinc

_x_ In order to meet in-stream water quality (See General and Other Comments)
Discharge: acute and chronic toxicity, aluminum, temperature, pH

GENERAL COMMENTS

Discussion of the Basis for Effluent Limitations, Monitoring Requirements, and Conditions

Below is a discussion of the basis for effluent limitations, monitoring requirements, and conditions applied to Ano-coil's intake and discharge as compared with those of the existing permit issued 9/9/96 and modified 10/17/96.

Once-through non-contact cooling water is a non-categorical, non-process discharge for which no federal or state effluent limits are established. Therefore, any limits imparted on this type of discharge are based on DEP's best professional judgment and, because the discharge is to surface water, the CT Water Quality Standards.

The DEP's *2008 State of Connecticut Integrated Water Quality Report (August 2008)* identifies the Hockanum River as an impaired surface water. Ano-coil draws from and discharges to a segment of the river identified in the report as impaired for recreation and as habitat for fish, other aquatic life, and wildlife due to channelization and upstream impacts from hydrostructure flow regulation/modification, impoundments, and unknown sources. DEP has identified the Hockanum River as a priority waterbody for development of a watershed-based plan and restoration activities in FY2010.

Until a TMDL or comparable assessment and remediation plan is established to achieve water quality standards in the Hockanum River, the proposed permit utilizes "no-net increase" limits for those chemical pollutants which Ano-coil has demonstrated a reasonable potential to contribute to its discharge. A "no-net increase" limit that allows a maximum net difference of ½ the minimum level for a given chemical pollutant between intake and discharge samples was established based on best professional judgment, taking into account a review of twelve years of monitoring data for Ano-coil's intake and discharge and the limitations of testing instrumentation at low levels of quantification (e.g., in the one tenth of a part per billion range). "No-net increase" limits applied to aquatic toxicity and pH are discussed below (see "*Aquatic Toxicity*" and "*pH*").

In addition, the proposed permit applies a "no-net increase" condition defined with the same constraints as the "no-net increase" limit to situations in which the intake water: (1) exceeds water quality criteria for any chemical pollutant not contributed to the discharge by Ano-coil, and (2) does not exceed water quality criteria for any pollutant not contributed to the discharge by Ano-coil, but the chemical pollutant is a water quality concern for the river.

In the event the "no-net increase" limit or condition is exceeded, the proposed permit requires Ano-coil to investigate the cause of the exceedance and perform remedial actions which include resampling the intake and discharge, completing a piping survey and examination of the non-contact cooling water system, and performing corrective actions as necessary to eliminate the source of the contamination.

The sample type for monitoring the intake and discharge was changed from grab to daily composite to allow for a more accurate comparison between discharge and intake water quality, and is the preferred sample type for high-volume, 24-hour discharges. The alternate definition of daily composite may be applied as the river and non-contact cooling water discharge are expected to exhibit thorough mixing.

The minimum frequency of sampling required by the proposed permit for all parameters, except chronic aquatic toxicity, is quarterly. Quarterly sample frequency is required by Section 22a-430-3(j) of the RCSA for this type of discharge. Sample frequency for aquatic toxicity is discussed below (see "*Aquatic Toxicity*").

DSN 101-1: Monitoring Location 7 –

The proposed permit is consistent with the 1996 permit in that it requires monitoring of the intake, as needed, to determine compliance with "no-net increase" limits and reporting conditions applied to the discharge. To address employee safety concerns, the intake sampling location was moved from immediately upstream of the intake structure (i.e., from Ano-coil Pond) to the intake pipe at the point where the intake enters Ano-coil's building. Data collected from the new monitoring location was determined to be representative of the composition of the river at its point of intake from Ano-coil Pond.

DSN 101-1: Monitoring Location 1 –

Aluminum: Monitoring with a "no-net increase" limit for aluminum was added to the proposed permit because aluminum is the primary raw material used in manufacturing operations at this facility and there exists a reasonable potential for Ano-coil to contribute aluminum to the discharge should a leak in the heat exchanger system allow aluminum-bearing anodizing solution to enter the non-contact cooling water. Limited data collected by DEP suggests aluminum can exist in the river upstream of Ano-coil's intake at concentrations exceeding federal water quality criteria (CT's current Water Quality Standards do not provide state criteria for aluminum). Additional data collection is necessary to determine the presence of aluminum in the river and Ano-coil's discharge.

Aquatic Toxicity: Monitoring with a limit for aquatic toxicity was applied consistent with that of the 1996 permit because Ano-coil demonstrates a reasonable potential to contribute to the toxicity of its discharge. Typically, a discharge with this IWC would warrant a water quality based limit of no kill at 100% effluent. However, because the river upstream of Ano-coil's intake has been shown to exhibit the characteristic of toxicity in violation of this limit; a "no-net increase" limit was applied. The 1996 permit's definition of "no-net increase" as a "statistically significant difference" between paired intake and discharge survival rates was further defined as an absolute detectable difference in percent survival between intake and discharge. The new limit is consistent with DEP's interpretation of the 1996 permit's narrative limit and the test parameters required by RCSA Section 22a-430-3(j)(7)(A)(i). Requirements to monitor the discharge for acute toxicity on a quarterly basis and for chronic toxicity on an annual basis were added to the proposed permit due to the magnitude of the IWC of this discharge and existing degraded water quality of the Hockanum River. Previously, the discharge was monitored semi-annually for acute toxicity only.

Copper: Ano-coil does not demonstrate a reasonable potential to contribute copper to its non-contact cooling water discharge; therefore, a water quality based limit for copper is not applicable. However, paired intake and discharge monitoring for total copper with a "no-net increase" reporting condition remains a requirement of the proposed permit based on best professional judgment as Ano-coil draws from and discharges to an impaired segment of the Hockanum River. Monitoring data collected by both Ano-coil and DEP shows copper exists in the river upstream of Ano-coil's intake at concentrations that exceed state water quality criteria.

Flow: Flow monitoring requirements are consistent with those of the 1996 permit. However, the average monthly flow limit was lowered from 1.244 MGD to 1 MGD (by 244,000 gpd) as a review of the past twelve years of DMR data shows the average monthly flow rate of the non-contact cooling water discharge to be consistently less than 1 MGD. As a requirement of the proposed permit, Ano-coil must review its use of Hockanum River water to determine further flow reductions.

Lead: Ano-coil does not demonstrate a reasonable potential to contribute lead to its non-contact cooling water discharge; therefore, a water quality based limit for lead is not applicable. However, paired intake and discharge monitoring for total lead with a "no-net increase" reporting condition remains a requirement of the proposed permit based on best professional judgment as Ano-coil draws from and discharges to an impaired segment of the Hockanum River. Monitoring data collected by both Ano-coil and DEP shows lead exists in the river upstream of Ano-coil's intake at concentrations that exceed state water quality criteria.

Nickel: Ano-coil does not demonstrate a reasonable potential to contribute nickel to its non-contact cooling water discharge; therefore, a water quality based limit for nickel is not applicable. However, paired intake and discharge monitoring for total nickel with a "no-net increase" reporting condition remains a requirement of the proposed permit based on best professional judgment as Ano-coil draws from and discharges to an impaired segment of the Hockanum River. Monitoring data collected by both Ano-coil and DEP shows nickel exists in the river upstream of Ano-coil's intake at concentrations which are below state water quality criteria, but of water quality concern for the river.

pH: Instantaneous limits for pH were changed from "no-net increase" to water quality criteria for Class B surface waters and continuous pH monitoring with limits were established because (1) due to its process operations, a reasonable potential exists for Ano-coil to contribute to pH excursions in the discharge, and (2) given the magnitude

of the intake and discharge, the discharge can theoretically make up the total flow of the river during 7Q10 conditions (IWC=99.3%). In addition to the water quality criteria, the "no-net increase" limit of the 1996 permit was maintained to address only those instances in which pH of the river upstream of Ano-coil's intake does not meet water quality criteria for pH. The proposed permit requires discharge pH to be monitored at the 6-inch non-contact cooling water discharge pipe. pH was previously monitored at the discharge sump, where it was combined with unused river intake water and storm water.

Temperature: Ano-coil demonstrates a reasonable potential to contribute heat to its non-contact cooling water discharge; therefore, seasonal temperature limits are applicable to ensure Ano-coil's non-contact cooling water discharge is compliant with the temperature criteria of the CT Water Quality Standards. As insufficient data exists to support the derivation of such limits, a requirement for Ano-coil to monitor and report hourly instantaneous temperature data for both its intake and discharge was added to the proposed permit. DEP is continuing its acquisition of thermal data for the Hockanum River and expects to use that information, in combination with Ano-coil's intake and discharge temperature data, to develop temperature limits for the discharge by next permit term.

Total Dissolved Solids: Ano-coil does not demonstrate a reasonable potential to contribute total dissolved solids to its non-contact cooling water discharge; therefore, limits for total dissolved solids are not applicable. However, paired intake and discharge monitoring for total dissolved solids remains a requirement of the proposed permit based on best professional judgment as Ano-coil draws from and discharges to an impaired segment of the Hockanum River.

Total Oil and Grease: Ano-coil does not demonstrate a reasonable potential to contribute total oil and grease to its non-contact cooling water discharge; therefore, limits for total oil and grease are not applicable. However, paired intake and discharge monitoring for total oil and grease remains a requirement of the proposed permit based on best professional judgment as Ano-coil draws from and discharges to an impaired segment of the Hockanum River.

Total Residual Chlorine: Ano-coil does not demonstrate a reasonable potential to contribute chlorine to its non-contact cooling water discharge; therefore, a water quality based limit for total residual chlorine is not applicable. However, paired intake and discharge monitoring for total residual chlorine with a "no-net increase" reporting condition remains a requirement of the proposed permit based on best professional judgment as Ano-coil draws from and discharges to an impaired segment of the Hockanum River. Data collected by both Ano-coil and DEP shows chlorine exists in the river upstream of Ano-coil's intake at concentrations that exceed state water quality criteria.

Total Suspended Solids: Ano-coil does not demonstrate a reasonable potential to contribute total suspended solids to its non-contact cooling water discharge; therefore, limits for total suspended solids are not applicable. However, paired intake and discharge monitoring for total suspended solids was added to the proposed permit based on best professional judgment as Ano-coil draws from and discharges to an impaired segment of the Hockanum River.

Zinc: Ano-coil does not demonstrate a reasonable potential to contribute zinc to its non-contact cooling water discharge; therefore, a water quality based limit for zinc is not applicable. However, paired intake and discharge monitoring for total zinc with a "no-net increase" reporting condition remains a requirement of the proposed permit based on best professional judgment as Ano-coil draws from and discharges to an impaired segment of the Hockanum River. Monitoring data collected by both Ano-coil and DEP shows zinc exists in the river upstream of Ano-coil's intake at concentrations which are below state water quality criteria, but of water quality concern for the river.

Special Conditions

The no-net increase condition defined in Section 8 of the permit allows Ano-coil the option to obtain and use the results of duplicate samples for the purpose of demonstrating compliance with the condition. Duplicate samples are not required to determine compliance with the no-net increase condition, but have been included in the permit to address the Permittee's concern that sample contamination not trigger non-compliance with the no-net increase condition.

A compliance schedule is included as Section 9 of the proposed permit requiring Ano-coil to perform an initial piping survey to ensure no means exist for cross-contamination of the non-contact cooling water discharge and to evaluate alternative water conservation measures to replace the once-through non-contact cooling water system currently in place at the facility.

Other Wastewater Discharge Permits

Ano-coil is also subject to the terms and conditions of Pretreatment Permit No. SP0001242, General Permit for the Discharge of Sewer Compatible Miscellaneous Wastewater (GMI000072), and General Permit for the Discharge of Stormwater Associated with Industrial Activity (GSI000944).

OTHER COMMENTS

Based on Permit Application No. 200100816 and the administrative record established in processing that application, NPDES Permit No. CT0020389 was reissued on November 20, 2006. Per Ano-coil's request, a minor modification to that permit was issued December 15, 2006 to correct typographical errors.

On December 19, 2006, Ano-coil requested a hearing pursuant to CGS Sections 22a-430(b) and 22a-436, claiming it was aggrieved by specific permit terms and conditions. In general, Ano-coil questioned DEP's authority to regulate pollutants present in its non-contact cooling water discharge which are solely contributed to the discharge by the river. Ano-coil also petitioned to change its intake sampling location from the river to inside its building in response to the replacement of grab with daily composite as the sample type specified in the permit for compliance monitoring. As a result of Ano-coil's request for hearing, Ano-coil asserts that the November 2006 permit did not take effect and continues to operate under its 1996 permit until the Commissioner makes a final decision on their appeal.

For the permit issued November 20, 2006, the Department performed a reasonable potential analysis in accordance with statistical procedures outlined in US EPA's *Technical Support Document for Water Quality-Based Toxics Control (March 1991)* to determine which pollutants in Ano-coil's non-contact cooling water discharge exist at concentrations that trigger the application of water quality-based effluent limits. This analysis was performed for each chemical pollutant identified in Ano-coil's 1996 permit. However, since, and in direct response to, Ano-coil's appeal of the November 2006 permit, DEP reconsidered this methodology and has determined that in order to correctly evaluate the need to provide water quality-based effluent limits in an NPDES permit, two analyses needed to be performed as part of a reasonable potential analysis, as discussed in the EPA Technical Support Document cited above: (1) an engineering analysis which evaluates the discharger's potential to contribute to or cause pollution in a receiving stream through its process operations, and (2) a statistical analysis which evaluates the potential for a pollutant found in a discharge to exist at levels which exceed water quality criteria for the receiving stream.

As described above in the case of the November 2006 permit, a statistical analysis of pollutants found to be present in Ano-coil's discharge was performed to determine permit limits without consideration of Ano-coil's potential to contribute the pollutants to its discharge. If the engineering analysis had been performed first, then the need to assess the discharge for any pollutant determined to not be contributed by Ano-coil would have been unwarranted and the need to apply water quality-based effluent limits for such pollutants not evaluated. Both analyses were performed in determining the effluent limits of this proposed permit.

Pre-hearing negotiation meetings with Ano-coil and discussions between DEP-MMCA's Water Permitting and Enforcement Division, DEP-WPLR's Planning and Standards Division, DEP legal staff, and US EPA Region 1, as well as DEP's review of the CT Water Quality Standards, RCSA Sections 22a-430-3 and 22a-430-4, federal NPDES regulations, intake and discharge monitoring data from 1997 through 2009, and the permit application, led to the following proposed revisions of the November 2006 permit. A detailed explanation for the basis of each permit limit, monitoring requirement, and condition in the proposed permit is included under the "General Comments" section of this fact sheet.

Summary of revisions to the November 2006 permit:

- Per Ano-coil's request, aquatic toxicity monitoring requirements for the intake and discharge were combined with chemical monitoring and reporting requirements in Tables A and B, respectively.

- Discharge serial numbers were re-assigned as follows:

Discharge	1996 Permit	2006 Permit	**Proposed Permit**
Intake river water	DSN 101-1 Monitoring Site No. 1	DSN 101-1 Monitoring Location G	DSN 101-1 Monitoring Location 7
Non-contact cooling water (NCCW) discharge	DSN 101-1 Monitoring Location 1	DSN 101-A Monitoring Location 1	DSN 101-1 Monitoring Location 1
Sump (NCCW & bypass water)	---	DSN 101-1 Monitoring Location 1	---

- Water quality based limits for aquatic toxicity were replaced with "no-net increase" limits for the discharge, consistent with the 1996 permit.

- Chronic toxicity of the discharge is assessed at the non-contact cooling water discharge rather than at the discharge sump, where the discharge commingles with storm water.

- Water quality based limits for nickel and zinc were replaced with monitoring and a "no-net increase" reporting condition at the discharge. Ano-coil does not demonstrate a reasonable potential to contribute these pollutants to the discharge. Both metals exist in the Hockanum River at levels below water quality criteria, but are a water quality concern for the river.

- "No-net increase" limits for total residual chlorine, copper, and lead were replaced with monitoring and a "no-net increase" reporting condition at the discharge. Ano-coil does not demonstrate a reasonable potential to contribute these pollutants to the discharge, however, these pollutants exist in the river upstream of Ano-coil's intake at concentrations that exceed state water quality criteria.

- Monitoring with limits for ammonia nitrogen at the discharge was removed from the permit as Ano-coil does not demonstrate a reasonable potential to contribute this pollutant to the discharge, ammonia is not a water quality concern in the Hockanum River, and a review of the past twelve years of discharge monitoring data shows a history of no-net change in intake versus discharge sampling for this pollutant.

- Limits for total oil and grease and total suspended and dissolved solids were replaced with monitoring-only at the discharge as Ano-coil does not exhibit reasonable potential to contribute these pollutants to the discharge.

- The term "no-net increase" was re-defined for chemical pollutants and further defined for aquatic toxicity.

- For parameters with a "no net increase" condition, should comparison of the paired influent and effluent data reveal that the "no net increase" condition is not met; a requirement for Ano-coil to investigate their facility for a possible source of the parameter is triggered. Specifically, the permit requires Ano-coil to perform an investigation of the area adjacent to the discharge to determine if any spills, debris or other potential contaminants are or were present at the time of sampling and resample to determine if the discharge and intake have returned to within the "no-net increase" condition. Ano-coil must also perform a complete piping survey and examination of the non-contact cooling water system and have a CT licensed professional engineer certify all modifications made as a result of corrective actions taken in response to such investigations are compliant with the terms and conditions of the permit. In the case that any two consecutive test results or any three test results in a 12 month period trigger the no-net increase condition and no root cause for the exceedences is found by Ano-coil, the permit requires Ano-coil to retain the

services of a CT licensed PE to investigate and correct the non-compliance.

- Seasonal temperature limits are applicable to ensure Ano-coil's non-contact cooling water discharge is compliant with the temperature criteria of the CT Water Quality Standards. As insufficient data exists to support the derivation of such limits, a requirement for Ano-coil to monitor and report hourly instantaneous temperature data for the intake and the discharge was added to the proposed permit.

- Per Ano-coil's request and review of supplemental monitoring data collected for both locations, the intake monitoring location was moved from the intake pond to the intake pipe at the point where the intake pipe enters Ano-coil's building prior to cooling operations. This change in monitoring location addresses employee safety and accessibility concerns Ano-coil had in implementing daily composite sampling for the intake. Continuous pH monitoring and reporting was added to Table A as a result of this change in monitoring location.

- The raw river water bypass previously identified as DSN 101-1 (sump) in the November 2006 permit was discontinued in an effort to reduce the amount of water taken into the facility. Therefore, monitoring and reporting for DSN 101-1 (sump) was removed from the proposed permit. The only wastewaters currently directed to the sump upon discontinuance of the bypass are storm water, which is registered and sampled under the GSI, non-contact cooling water, and freeze protection bypass water. Contamination of the sump from floor spills is of low concern as the sump is bermed and covered.

- The discharge of freeze protection bypass water was added to the proposed permit. This discharge historically existed at the facility, but was not previously identified in the permit application. Since its appeal of the 2006 permit, Ano-coil identified the discharge and re-routed it so that it enters the discharge sump through the 6-inch non-contact cooling water pipe. The discharge of freeze protection bypass water occurs only during winter months at times when the non-contact cooling water system is shut-down to protect the intake pipe from freezing. Because the source of the freeze protection bypass water is the discharge receiving stream (the Hockanum River) and the bypass does not come into contact with process operations or the non-contact cooling water system, no monitoring of the freeze protection bypass is required.

- The proposed permit includes non-contact cooling water generated by Ano-coil's electrochemical graining process line which was added to the facility's operations in 2008. The electrochemical graining line is expected to contribute a maximum of 200,000 gpd of non-contact cooling water to the discharge during times of operation. Ano-coil is actively investigating its ability to eliminate this discharge through the use of its existing chiller and cooling tower system.

Notice of DEP's tentative determination regarding this proposed permit and intent to hold a public hearing to address specific terms and conditions of the November 2006 permit contested by Ano-coil will be published in *The Hartford Courant* on August 20, 2010.

PARTY LIST

Final Decision In the Matter of Anocoil Corporation
NPDES Permit No. CT0020389

PARTY	REPRESENTED BY
The Applicant	
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Department of Environmental Protection	
Bureau of Materials Management and Compliance Assurance Water Permitting and Enforcement Division 79 Elm Street Hartford, CT 06106	Michelle Gore