

NPDES PERMIT

issued to

Allegheny Ludlum Corporation
80 Valley Street
Wallingford, CT 06492

Location Address:
80 Valley Street
Wallingford, CT 06492

Facility ID: 148-022

Permit ID: CT0003701

Receiving Stream: Quinnipiac River
Stream Reach CT5200-00_02

Permit Expires: 6/25/2014

SECTION 1: GENERAL PROVISIONS

- (A) This permit is issued 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) Allegheny Ludlum 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 or prevent or abate pollution.
- (G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and

local law.

- (H) An annual fee shall be paid for each year this permit is in effect as set forth in section 22a-430-7 of the Regulations of Connecticut State Agencies.

SECTION 2: DEFINITIONS

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

- (B) In addition to the above, the following definitions shall apply to this permit:

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

“Annual” in the context of any sampling frequency found in Section 5, shall mean the sample must be collected in the month of September.

"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.

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

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

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

“NA” as a Monitoring Table abbreviation means “not applicable”.

“NR” as a Monitoring Table abbreviation means “not required”.

"No Observable Acute Effect Level (NOAEL)" means any concentration equal to or less than the critical test concentration in a single concentration (pass/fail) toxicity test conducted pursuant to section 22a-430-3(j)(7)(A)(i) RCSA demonstrating greater than 50% survival of test organisms in 100% (undiluted) effluent and 90% or greater survival of test organisms at the CTC.

"Quarterly", in the context of a sampling frequency, means sampling is required in the months of 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.

“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.

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

"ug/l" means micrograms per liter.

SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner has issued a final determination and found that 1) continuance of the existing discharge will not cause pollution of the waters of the state and 2) continuance of the existing system to treat the discharge will protect the waters of the state from pollution. The Commissioner’s decision is based on Application No. 200502665 for permit reissuance, received on December 28, 2005 and the administrative record established in the processing of that application.
- (B) The Commissioner hereby authorizes the Permittee to discharge in accordance with the provisions of this permit, the above referenced application, and all approvals issued by the Commissioner or the Commissioner’s authorized agent for the discharges and/or activities authorized by, or associated with, this permit.
- (C) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

- (A) No discharge shall contain, or cause in the receiving stream, a visible oil sheen or floating solids; or, cause visible discoloration or foaming in the receiving stream.
- (B) No discharge shall cause acute or chronic toxicity in the receiving water body beyond any zone of influence

specifically allocated to that discharge in this permit.

- (C) The temperature of any discharge shall not increase the temperature of the receiving stream above 85°F, or, in any case, raise the normal temperature of the receiving stream more than 4°F.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

Table A

Discharge Serial Number: 003-1

Monitoring Location: 1

Wastewater Description: Non-contact cooling water and filter backwash. Also, stormwater, which is covered by general permit.

Monitoring Location Description: Automatic sampler on outlet pipe outside of building

Allocated Zone of Influence (ZOI): 90,000 gph

In stream Waste Concentration (IWC): 5.5%

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	
Aluminum, Total	mg/l	NA	---	Quarterly	Daily Composite	NA	NR	Grab	
Ammonia-Nitrogen as N	mg/l	NA	---	Quarterly	Daily Composite	NA	NR	Grab	
Aquatic Toxicity, Invertebrate ⁴	%	NA	NOAEL>100	Semi-annually	Daily Composite	LC50>36.7	NR	Grab	
Aquatic Toxicity, Vertebrate ⁴	%	NA	NOAEL>100	Semi-annually	Daily Composite	LC50>36.7	NR	Grab	
Chlorine, Total Residual	mg/l	NA	---	Quarterly	Grab Sample Average ⁵	NA	NR	Grab	*
Copper, Total	mg/l	0.105	0.153	Monthly	Daily Composite	0.229	NR	Grab	*
Iron, Total	mg/l	NA	---	Quarterly	Daily Composite	NA	NR	Grab	
Flow, Average and Maximum ¹	gpd	125,000	300,000	Continuous/ Monthly	Daily Flow	NA	NR	Grab	
Flow, Total (day of sampling)	gpd	NA	300,000	Monthly	Daily Flow	NA	NR	Grab	
Lead, Total	mg/l	0.00806	0.0118	Monthly	Daily Composite	0.0171	NR	Grab	*
Nickel, Total	mg/l	0.433	0.862	Monthly	Daily Composite	1.293	NR	Grab	*
Oil & Grease, Total	mg/l	NA	NA	NR	NA	---	Quarterly	Grab	
pH	S.U.	NA	NA	NR	NA	6.0 – 9.0	Quarterly	RDS	
Surfactants	mg/l	NA	---	Quarterly	Daily Composite	NA	NR	Grab	
Suspended Solids, Total	mg/l	NA	---	Quarterly	Daily Composite	NA	NR	Grab	
Temperature	⁰ F	NA	NA	NR	NA	85	Quarterly	Grab	
Zinc, Total	mg/l	0.26	0.379	Monthly	Daily Composite	0.568	NR	Grab	*

Table Footnotes and Remarks:

Footnotes:

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

² The first entry in this column is the 'Sample Frequency'. If this entry is not followed by a 'Reporting Frequency' and the 'Sample Frequency' is more frequent than monthly then the 'Reporting Frequency' is monthly. If the 'Sample frequency' is specified as monthly, or less frequent, then the 'Reporting Frequency' is the same as the 'Sample Frequency'.

³ Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

⁴ The results of the Toxicity Tests are recorded in % survival, however, the Permittee shall report pass/fail on the DMR based on criteria in Section 6(B) of this permit.

⁵ For Total Residual Chlorine, the sample type "Grab Sample Average" may consist of two grab samples, taken at least 4 hours apart. Both may be taken during the first operating shift.

Remarks:

All analyses shall be on the same sample and shall be taken during dry weather.

Table B

Discharge Serial Number: 005-1

Monitoring Location:

Wastewater Description: Iron and Steel Manufacturing Wastewater, boiler blowdown and process wastewater at the Wastewater Treatment Plant

Monitoring Location Description: Automatic sampler on outlet pipe following clarifier

Allocated Zone of Influence (ZOI): 148,738 gph

In stream Waste Concentration (IWC): 6.5%

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, Invertebrate ⁴	%	NA	NOAEL>43.3	Quarterly	Daily Composite	LC50>43.3	NR	Grab	
Aquatic Toxicity, Vertebrate ⁴	%	NA	NOAEL>43.3	Quarterly	Daily Composite	LC50>43.3	NR	Grab	
Chlorine, Total Residual	mg/l	NA	---	Monthly	Grab Sample Average ⁵	NA	NR	Grab	*
Chromium, Total	mg/l	0.31	0.763	Weekly	Daily Composite	1.14	NR	Grab	*
Chromium, Total	lb/d	0.64	1.59	Weekly	Daily Composite	NA	NR	Grab	
Chromium, Hexavalent	mg/l	0.1	0.2	Weekly	Grab Sample Average	0.3	NR	Grab	*
Copper, Total	mg/l	0.165	0.332	Weekly	Daily Composite	0.5	NR	Grab	*
Copper, Total	lb/d	0.27	0.54	Weekly	Daily Composite	NA	NR	Grab	
Flow, Average and Maximum ¹	gpd	250,000	300,000	Continuous/ Monthly	Daily Flow	NA	NR	Grab	
Flow, Total (day of sampling)	gpd	NA	300,000	Weekly/Monthly	Daily Flow	NA	NR	Grab	
Fluoride, Total	mg/l	18.0	25.0	Weekly/Monthly	Daily Composite	37.5	NR	Grab	
Iron, Total	mg/l	3.0	5.0	Weekly/Monthly	Daily Composite	7.5	NR	Grab	
Lead, Total	mg/l	0.0127	0.025	Weekly/Monthly	Daily Composite	0.037	NR	Grab	*
Lead, Total	lb/d	0.03	0.06	Weekly/Monthly	Daily Composite	NA	NR	Grab	
Nickel, Total	mg/l	0.23	0.69	Weekly/Monthly	Daily Composite	2.25	NR	Grab	*
Nickel, Total	lb/d	0.48	1.43	Weekly/Monthly	Daily Composite	NA	NR	Grab	
Oil & Grease, Hydrocarbon Fraction	mg/l	2.42	7.23	Weekly/Monthly	Grab Sample Average	10.0	NR	Grab	

Oil & Grease, Hydrocarbon Fraction	lb/d	5.0	14.9	Weekly/Monthly	Grab Sample Average	NA	NR	Grab	
pH, Continuous	S.U.	NA	NA	NR	NA	6.0 – 9.0	Continuous/Monthly	RDM	
Suspended Solids, Total	mg/l	10.0	20.0	Weekly	Daily Composite	30.0	NR	Grab	
Suspended Solids, Total	lb/d	14.9	34.7	Weekly/Monthly	Daily Composite	NA	NR	Grab	
Zinc, Total	mg/l	0.40	0.82	Weekly/Monthly	Daily Composite	1.23	NR	Grab	*
Zinc, Total	lb/d	0.69	1.38	Weekly/Monthly	Daily Composite	NA	NR	Grab	

Table Footnotes and Remarks:

Footnotes:

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

² The first entry in this column is the ‘Sample Frequency’. If this entry is not followed by a ‘Reporting Frequency’ and the ‘Sample Frequency’ is more frequent than monthly then the ‘Reporting Frequency’ is monthly. If the ‘Sample frequency’ is specified as monthly, or less frequent, then the ‘Reporting Frequency’ is the same as the ‘Sample Frequency’.

³ Minimum Level Test refers to Section 6 Paragraph (A)(3) of this permit.

⁴ The results of the Toxicity Tests are recorded in % survival, however, the Permittee shall report pass/fail on the DMR based on criteria in Section 6(B) of this permit.

⁵ For Total Residual Chlorine, the sample type “Grab Sample Average” may consist of two grab samples, taken at least 4 hours apart. Both may be taken during the first operating shift.

Remarks:

All analyses shall be on the same sample.

- (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 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.

<u>Parameter</u>	<u>Minimum Level</u>
Chlorine, total residual	20.0 ug/L
Chromium	5.0 ug/l
Chromium, hexavalent	10.0 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/600/4-90/027F).
 - (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. 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 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/600/4-90/027F), except as specified below.

- (a) Definitive (multi-concentration) testing, with LC50 as the endpoint, shall be conducted to determine compliance with limits on Aquatic Toxicity and monitoring conditions and shall incorporate, at a minimum, the following effluent concentrations:
 - (i) For Aquatic Toxicity Limits expressed as LC50 values of 33% or greater: 100%, 75%, 50%, 25%, 12.5%, and 6.25%
 - (b) For Aquatic Toxicity Limits and for monitoring only conditions, expressed as an NOAEL value, Pass/Fail (single-concentration) tests shall be conducted at a specified Critical Test Concentration (CTC) equal to the Aquatic Toxicity Limit, or 100% in the case of monitoring only conditions, as prescribed in section 22A-430-3(j)(7)(A)(i) of the Regulations of Connecticut State Agencies, except that five replicates of undiluted effluent and five replicates of effluent diluted to the CTC shall be included.
 - (c) Organisms shall not be fed during the tests.
 - (d) Copper nitrate shall be used as the reference toxicant in tests with freshwater organisms.
 - (e) Synthetic freshwater prepared with deionized water adjusted to a hardness of 50 mg/L (plus or minus 5 mg/L) as CaCO₃ shall be used as dilution water in tests with freshwater organisms.
- (5) Compliance with limits on Aquatic Toxicity shall be determined as follows:
 - (a) For limits expressed as a minimum LC50 value compliance shall be demonstrated when the results of a valid definitive Aquatic Toxicity test indicates that the LC50 value for the test is greater than the Aquatic Toxicity Limit.
 - (b) For limits expressed as an NOAEL value, compliance shall be demonstrated when the results of a valid pass/fail Aquatic Toxicity test indicates there is greater than 50% survival in the undiluted effluent and 90% or greater survival in the effluent at the specified CTC.
- C) The Permittee shall annually monitor the chronic toxicity of the DSN 005-1 in accordance with the following specifications.
 - (1) Chronic toxicity testing of the discharge shall be conducted annually during September of each year.
 - (2) Chronic toxicity testing shall be performed on the discharge in accordance with the test methodology established in "Short term Methods For Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms" (EPA-821-R-02-012) as referenced in 40 CFR 136 for Cerio daphnia survival and reproduction and Fathead Minnow larval survival and growth.
 - (3) Chronic toxicity tests shall utilize a minimum of five effluent dilutions prepared using a dilution factor of 0.5 (100% effluent, 50% effluent, 25 % effluent, 12.5 % effluent, 6.25 % effluent, 0 % effluent).
 - (4) Quinnipiac River water collected immediately upstream of the area influenced by the discharge shall be used as site water control (0% effluent) and dilution water in the toxicity

tests.

- (5) A laboratory water control consisting of synthetic freshwater prepared in accordance with EPA-821-R-02-012 at a hardness of 50±5 mg/l shall be included in the test protocol in addition to the site-water control.
- (6) Daily composite samples of the discharge and grab samples of the Quinnipiac River for use as site water control and dilution water shall be collected on: day 0, for test solution renewal on day 1 and day 2 of the test; day 2, for test solution renewal on day 3 and day 4 of the test; and day 4, for test solution renewal on day 5, 6, and 7 of the test. Samples shall not be dechlorinated, pH or hardness adjusted, or chemically altered in any way.
- (7) All samples of the discharge and the Quinnipiac 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, Nitrate (Total as N)
Chlorine, (Total residual)	Solids, Total Suspended
Fluoride	Zinc, (Total recoverable and dissolved)
Chromium, Total	
Lead (Total recoverable and dissolved)	
Iron, Total	

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 (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, shall be entered on the Aquatic Toxicity Monitoring Report form (ATMR) and sent to the Bureau of Materials Management and Compliance Assurance 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)
Assurance (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 ATMR must be submitted indicating such by the end of the following month. Chronic toxicity test report shall be submitted within 60 days following test completion.

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, a second sample of the effluent shall be collected and tested for Aquatic Toxicity and associated chemical parameters, as described above in Section 5 and Section 6, and the results reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing), at the address listed above, within 30 days of the exceedance or invalid test. Results of all tests, whether valid or invalid, shall be reported.
- (B) If any two consecutive test results or any three test results in a twelve month period indicates that an Aquatic Toxicity Limit has been exceeded, the Permittee shall immediately take all reasonable steps to eliminate toxicity wherever possible and shall submit a report to Bureau of Materials Management and Compliance Assurance (Attn: Aquatic Toxicity) for the review and approval of the Commissioner in accordance with section 22a-430-3(j)(10)(c) of the RCSA describing proposed steps to eliminate the toxic impact of the discharge on the receiving water body. Such a report shall include a proposed time schedule to accomplish toxicity reduction and the Permittee shall comply with any schedule approved by the Commissioner.
- (C) The Permittee shall notify the Bureau of Materials Management and Compliance Assurance, Water Permitting and Enforcing 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.

This permit is hereby issued on 6/26/2009

/S/AMEY MARRELLA
ACTING COMMISSIONER

DATA TRACKING AND TECHNICAL FACT SHEET

Permittee: Allegheny Ludlum Corporation

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0003701 APPLICATION #: 200502665 FACILITY ID. 148-022

<p><u>Mailing Address:</u> Street: 100 River Road City: Brackenridge ST: PA Zip: 15690 Contact Name: Deborah L. Calderazzo Phone No.: (724) 226-5947</p>	<p><u>Location Address:</u> Street: 80 Valley Street City: Wallingford ST: CT Zip: 06492 Contact Name: Deborah L. Calderazzo Phone No.: (724) 226-5947</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 # None assigned

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

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

PRETREAT SIGNIFICANT INDUS USER(SIU)
 PRETREAT CATEGORICAL (CIU)
 Note: If it's a CIU then check off SIU

POLLUTION PREVENTION MANDATE ___ ENVIRONMENTAL EQUITY ISSUE ___

COMPLIANCE SCHEDULE YES ___ NO X

POLLUTION PREVENTION ___ TREATMENT REQUIREMENT ___ WATER CONSERVATION X

WATER QUALITY REQUIREMENT ___ REMEDIATION ___ OTHER ___

OWNERSHIP CODE

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

DEP STAFF ENGINEER Kim Kisilis

PERMIT FEES

<i>Discharge Code</i>	<i>DSN Number</i>	<i>Annual Fee</i>
<i>102000b</i>	<i>003-1</i>	<i>\$2,040.00</i>
<i>101031z</i>	<i>005-1</i>	<i>\$8,175.00</i>

FOR NPDES DISCHARGES

Drainage basin Code: 5200

Present/Future Water Quality Standard: C/B

NATURE OF BUSINESS GENERATING DISCHARGE

Specialty stainless steel finishing and cold forming.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 003: Once-through non-contact cooling water (NCCW) from various operations, including non contact cooling water from Z-25 heat exchanger and stormwater runoff which is covered by general permit

DSN 005: The wastewater treatment plant receives process wastewater from furnace lines #30 and #31 (iron and steel manufacturing wastewater), including rinsewater, spent acidic and alkaline solutions, strip cleaning line wastewater, boiler blowdown and contact process wastewater. Treatment for acid rinse wastewaters includes equalization, hexavalent chrome reduction, neutralization, flocculation and clarification. Sludge is recirculated to improve flocculation, or is thickened and vacuum filtered prior to off-site disposal.

RESOURCES USED TO DRAFT PERMIT

X *Federal Effluent Limitation Guideline 40CFR 420 Subparts I and K
Iron and Steel Manufacturing*

- name of category*
- X *Department File Information*
- X *Connecticut Water Quality Standards*
- X *Anti-degradation Policy*

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

- X ***Best Available Technology (BAT)***
- DSN 005: 40 CFR420.93(c)(3)- Subpart I: Chromium, Total (lb/d)Nickel, Total (lb/d) and pH
- 40 CFR. 420.82(a)((4)-Subpart H: Suspended Solids, Total (lb/d); Chromium, Total (lb/d); Nickel, Total (lb/d) and pH
- X ***Best Professional Judgement/Case by Case Determination (See Other Comments)***
- DSN 003: total aluminum, total iron, temperature
- X ***Section 22a-430-4(l)(4)(xxiii) of the Regulations of Connecticut State Agencies***
- DSN 003: ammonia, total oil and grease-hydrocarbon fraction, total copper, total lead, surfactants, total suspended solids, total zinc, total chlorine residual
- DSN 005: total chlorine residual; chromium, hexavalent; total copper (mg/l and lb/d); total fluoride; total iron; total lead (mg/l and lb/d); total oil and grease-hydrocarbon fraction (lb/d); total suspended solids (mg/l and lb/d); total zinc (mg/l and lb/d)
- X ***Section 22a-430-4(s) of the Regulations of Connecticut State Agencies***
- DSN 005: hexavalent chromium and total iron
- X ***In order to meet in-stream water quality (See General Comments)***
- DSN 003: total nickel

GENERAL COMMENTS

Water quality based discharge limitations were included in this permit for consistency with Connecticut Water Quality Standards and criteria, pursuant to 40 CFR 122.44(d). Each parameter was evaluated for consistency with the available aquatic life criteria (acute and chronic) and human health (fish consumption only) criteria, considering the zone of influence allocated to the facility where appropriate. The statistical procedures outlined in the EPA Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) were employed to calculate the limits. The most restrictive of the water quality limitations, aquatic life acute, aquatic life chronic, and human health, was compared with

limitations developed according to State and Federal Best Available Technology (BAT), water quality based limits were included in the permit at this time.

OTHER COMMENTS

Allegheny Ludlum Corporation was issued Consent Order WC5462 on January 28, 2008 for violations of permitted effluent limitations in NPDES Permit No. CT0003701. Allegheny Ludlum Corporation paid a penalty of \$32,000, and agreed to install a cooling tower to eliminate discharges of non-contact cooling water from DSNs 006A and 006B by no later than May 31, 2008. Allegheny Ludlum Corporation has complied with Order No. WC5462. The previous permit had a compliance schedule requiring Allegheny Ludlum Corporation to evaluate methods to eliminate the discharges of non-contact cooling water, DSNs 006A and 006B.

DSN 003: Based on DEP samples of this discharge collected and analyzed for aluminum and iron, the permit has quarterly monitoring requirements for these parameters in Table A.

A temperature limit and monitoring is included in Table A for DSN 003 because the discharge has thermal component.