

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Crane & Company, Inc.

is authorized to discharge from the facility located at

**30 South Street
Dalton, MA 01226**

to receiving water named

East Branch of Housatonic River

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective 60 days after signature.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on September 29, 2000.

This permit consists of 5 pages in Part I including effluent limitations, monitoring requirements, Attachment A, and 35 pages in Part II including General Conditions and Definitions.

Signed this 30th day of September, 2005

/s/ SIGNATURE ON FILE

Linda M. Murphy, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through expiration the permittee is authorized to discharge from outfall serial number 001, treated industrial wastewaters to the East Branch of the Housatonic River. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average Monthly</u>	<u>Maximum Daily</u>	<u>Measurement Frequency</u>	<u>Sample Type²</u>
Flow, mgd ¹	Report	Report	Continuous	Recorder
BOD ₅ lbs/day (May 1 - Oct 31)	600	900	2/week	Composite
BOD ₅ lbs/day (Nov 1 - April 30)	1200	1800	2/week	Composite
TSS, lbs/day (May 1 - Oct 31)	864	1260	3/week	Composite
TSS, lbs/day (Nov 1 - April 30)	1200	1800	3/week	Composite
Total Residual Chlorine, ug/l ³	18	30	1/week	Grab
Total Aluminum, mg/l	0.14	1.2	1/month	Composite
Total Copper, ug/l	12.3	18.1	1/month	Composite
Total Phosphorous, mg/l (May 1 - October 31) (November 1 - April 30)	0.2 1.0	***** *****	1/week 1/week	Composite Composite
Ammonia Nitrogen as N, mg/l	*****	Report	1/week	Composite
Total Kjeldahl Nitrogen, mg/l	*****	Report	1/month	Composite
Nitrate & Nitrite Nitrogen, mg/l	*****	Report	1/month	Composite
pH, standard units	6.0 - 9.0		1/week	Grab
Dissolved Oxygen, mg/l	minimum 5.0		1/week	Grab
Color, platinum cobalt units ⁴	*****	Report	1/week	Grab
LC50, % ^{5,6}	*****	≥100	1/quarter	Composite
C-NOEC, % ^{5,6}	*****	63	1/quarter	Composite

Footnotes:

1. Record flow, report maximum and minimum daily rates and total flow for each operating date; report as required by Discharge Monitoring Forms and as required by the regulatory agencies.
2. All sampling shall be representative of the effluent that is discharged through outfall 001 to the East Branch of the Housatonic River. A routine sampling program shall be developed in which samples are taken at the same location, same time and same days of every month. Any deviations from the routine sampling program shall be documented in correspondence appended to the applicable discharge monitoring report that is submitted to EPA. Composite samples shall be comprised of at least 24 flow-weighted individual samples taken throughout one full operational day (e.g. 7:00 am Monday to 7:00 am Tuesday). In addition, all samples shall be analyzed using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136.
3. The minimum level (ML) for Total Residual Chlorine (TRC) is defined as 20 ug/l using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G, or USEPA Methods for Chemical Analysis of Water and Wastes, Method 330.5. One of these methods must be used to determine TRC. The ML is not the minimum level of detection, but rather the lowest point on the curve used to calibrate the test equipment for the pollutant of concern. If EPA approves a more sensitive method of analysis for TRC, the permit may be reopened to require the use of the new method with a corresponding lower ML. When reporting sample data at or below the ML, see the latest EPA Region NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs) for guidance.
4. Sampling for color shall coincide with the processing of pulp at the mills whenever possible.
5. LC50: The concentration of the effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than 50% mortality rate. C-NOEC is the chronic no observed effect concentration.
6. The permittee shall conduct chronic and modified acute toxicity tests on samples collected in the second week of January, April, July, and October of each year. The permittee shall test the fathead minnow, *Pimephales promelas*, in January and July and the daphnid, *Ceriodaphnia dubia*, in April and October. Toxicity testing reporting is due the last day of the month following the test. For example, a January toxicity test result shall be submitted by February 28th. See Permit Attachment A, Chronic and Modified Acute Toxicity Test Procedure and Protocol. After one year of testing, the permittee may request that the chronic testing frequency be reduced from quarterly to annually if test results merit such a change.

Part 1.A. 1 (continued):

- a. The discharge shall not cause a violation of the water quality standards (314 CMR 4.00 dated September 20, 1996) of the receiving water.
- b. The effluent shall contain no visible oil sheen, foam, or floating solids at any time.
- c. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location prior to mixing with any other stream: **Outfall 001**.

2. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

- (1) One hundred micrograms per liter (100 ug/l)
- (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol, and one milligram per liter (1 mg/l) for antimony;
- (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
- (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f).

b. That any activity has occurred or will occur which could result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

- (1) Five hundred micrograms per liter (500 ug/l)
- (2) One milligram per liter (1 mg/l) for antimony;
- (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
- (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f).

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

PART 1. B.

SPECIAL CONDITIONS AND REQUIREMENTS

1. This permit may be modified or revoked or reissued on the basis of new information in accordance with 40 CFR §122.62.
2. The permittee shall optimize the addition of nutrients to maintain its biological treatment facility and to minimize the discharge of phosphorous and nitrogen.

PART 1. C. MONITORING AND REPORTING

1. Reporting

- a. Monitoring results obtained during each calendar month shall be summarized and reported on Discharge Monitoring Report Form(s) postmarked **no later than the 15th day of the following month.**
- b. Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention
Western Regional Office
436 Dwight Street
Springfield, MA 01103

c. Signed and dated Discharge Monitoring Report Forms and toxicity test reports required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

PART 1. D. STATE PERMIT CONDITIONS

1. This discharge permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap. 21, §43.
2. Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.