

**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 a 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 from the date of signature.

This permit and the authorization to discharge expire at midnight, *four (4) years* from the effective date.

This permit supersedes the permit issued on September 28, 1989, became effective on October 28, 1989 and expired on October 28, 1994.

This permit consists of 6 pages in Part I including effluent limitations, monitoring requirements; Attachment A, Freshwater Chronic Toxicity Test Procedure & Protocol; etc., and 35 pages in Part II including General Conditions and Definitions.

Signed this 29th day of September, 2000

/Signature on file

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

Glenn Haas, 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</u> <u>Monthly</u>	<u>Maximum</u> <u>Daily</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Flow, MGD ¹	report	----	Continuous	Recorder
BOD5 lbs/day (May 1- Oct 31)	600	900	2/week	composite ²
BOD5 lbs/day (Nov 1- Apr 30)	1200	1800	2/week	composite
TSS lbs/day (May 1- Oct 31)	864	1260	2/week	composite
TSS lbs/day (Nov 1- Apr 30)	1200	1800	2/week	composite
Residual Chlorine, Total ug/l ³	18	30	1/week	grab
Aluminum, Total mg/l	0.14	1.2	1/month	composite
Copper, Total ug/l	12.3	18.1	1/month	composite
Total Phosphorus mg/l	1.0	2.0	1/month	composite
Total Nitrogen mg/l	----	report	1/month	composite
pH, standard units	6.5-9.0		1/week	grab
Dissolved Oxygen mg/l	>5.0 mg/l		1/week	grab
LC50 % ^{4,5}	----	100	1/qtr	composite
C-NOEC % ^{4,5}	----	63	1/qtr	composite

PART I. A.**Additional Conditions:**

- a. The discharge shall not cause a violation of the water quality standards (314 CMR 4.00: dated September 20, 1996) of the receiving waters.
- b. The effluent shall contain neither a visible oil sheen, foam, nor 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**.

PART I. A.**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. Composite samples shall be comprised of at least 24 flow weighted individual samples taken throughout one full operational day (e.g. 0700 Monday to 0700 Tuesday).
3. The minimum detection level (ML) for total residual chlorine is defined as 50 ug/l. This value is the minimum detection level for chlorine using EPA approved methods found in Standard Methods for the Examination of Water and Wastes, 20th Edition, Method 4500 CL-E and G, or USEPA Manual of Methods of Analysis of Water and Wastes, Method 330.5. One of these methods must be used to determine total residual chlorine. For effluent limitations less than 50 ug/l, compliance/non-compliance will be determined based on the ML. Sample results of 50 ug/l or less shall be reported as zero on the discharge monitoring report.
4. LC50: The concentration of 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 a 50% mortality rate. C-NOEC is the chronic no observed effect concentration.
5. The permittee shall conduct chronic and modified acute toxicity tests on samples collected on the second week of January, April, July and October of each year. The permittee shall test the daphnid, Ceriodaphnia dubia. Toxicity testing reporting is due the 15th day of the second month to follow the test. As an example, a January toxicity test result shall be submitted by March 15th. See Permit Attachment A, Chronic and Modified Acute Toxicity Test Procedure and Protocol.

PART I. A. (continued):

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 C.F.R. §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).
 - b. That any activity has occurred or will occur which would 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 C.F.R. §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. §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 I. B.**SPECIAL CONDITIONS AND REQUIREMENTS**

1. This permit may be modified, or revoked and reissued, on the basis of new information in accordance with 40 CFR §122.62.
2. The permittee shall develop a plan to assess the biological integrity and habitat conditions downstream from the discharge; such a plan shall be submitted to the agencies within 12 months of permit issuance; assessment shall be completed within 3 years of permit issuance
3. Phosphorus Loading Evaluation and Reduction Program

The permittee shall undertake the following steps during the duration of the permit to optimize reduction in phosphorus loading from the facility to the East Branch of the Housatonic River. The permittee is required to undertake the following:

- i. Within 12 months of the issuance of the permit, the permittee shall implement a phosphorus monitoring program and complete a loading analysis sufficient to characterize loadings and sources of phosphorus into the facility as well as loadings to the East Branch of the Housatonic River. The evaluation shall be such that variations in loadings can be determined with a high degree of confidence. The results of this analysis shall be submitted to EPA and MADEP within three months of the completion of the study.
- ii. If the the monitoring and loading analysis submitted under item 3.i. above indicates a need for further control of phosphorus discharges, EPA and MADEP may reopen the permit, using appropriate permit modification procedures, to modify the phosphorus effluent limitation or to require the permittee to further optimize phosphorus removal at the wastewater treatment facility.

PART I. C.

MONITORING AND REPORTING

1. Reporting:

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate **Discharge Monitoring Report** form(s) postmarked no later than the 15th day of the month following the effective date of the permit.

Signed and dated originals of these, **and all other reports required herein**, shall be **submitted to the Director and the Commonwealth of Massachusetts** at the following addresses:

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

The Commonwealth of Massachusetts agency location is:

**Massachusetts Department of Environmental Protection
Western Regional Office- Suite 402
Bureau of Waste Prevention
436 Dwight Street
Springfield, MA 01103**

Signed and dated **toxicity test reports and Discharge Monitoring Reports (DMRs)** required by this permit shall be submitted to the Massachusetts Department of Environmental Protection at:

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

PART I. 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 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 Massachusetts Department of Environmental Protection 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.