

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 Water Act, as amended, (M.G.L. Chap. 21, §§ 26-53)

**Algonquin Gas Transmission Company  
HubLine Pipeline Project  
5 Batchelder Road, Suite 200  
Seabrook, NH 03874**

is authorized to discharge from the facilities located at

<b>Weymouth Fore River Mouth Weymouth, Massachusetts</b>	<b>Massachusetts Bay East of Winthrop, MA</b> Latitude - 42 <sup>B</sup> 23' 35" Longitude -70 <sup>B</sup> 52' 26"
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to receiving waters named

<b>Weymouth Fore River</b> (Weymouth and Weir River Basin -MA74)	<b>Massachusetts Bay East of Winthrop, MA</b> Latitude - 42 <sup>B</sup> 23' 35" Longitude -70 <sup>B</sup> 52' 26" (Basin MA93)
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in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective (30) thirty days from the date of signature.

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

This permit consists of 8 pages in Part I including effluent limitations, monitoring requirements; Attachment A, THPS testing protocol (NOT PROVIDED ELECTRONICALLY); state permit conditions, and 35 pages in Part II including General Conditions and Definitions.

Signed this 26<sup>th</sup> day of April, 2003

/Signature on File/

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Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

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

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge through **outfall serial numbers 001 and 002: Neutralized Floodwater**. Discharge shall be limited and monitored by the permittee as specified below:

**OUTFALL 001(a) Weymouth Fore River**

Effluent Characteristic	Monitoring Requirements		
	Maximum Daily	Measurement Frequency	Sample Type <sup>1</sup>
Flow Rate (gallons per minute)	Report	Continuous	Estimate
Total Suspended Solids (TSS)	100 mg/l	2/Discharge	Grab
THPS	4.4 mg/l <sup>2</sup>	1/Hour	Grab
Hydrogen Peroxide	Report mg/l <sup>2</sup>	1/Discharge	Measured
Dissolved Oxygen	5.0 mg/l	1/Discharge	Grab
pH range (SU)	6.5 to 8.5 SU	1/Discharge	Grab

**OUTFALL 002(a) Massachusetts Bay East of Winthrop, MA** Latitude 42<sup>B</sup> 23' 35" Longitude -70<sup>B</sup> 52' 26"

Effluent Characteristic	Monitoring Requirements		
	Maximum Daily	Measurement Frequency	Sample Type <sup>1</sup>
Flow Rate (gallons per minute)	Report	Continuous	Estimate
Total Suspended Solids (TSS)	100 mg/l	2/Discharge	Grab
THPS	4.4 mg/l <sup>2</sup>	1/Hour	Grab
Hydrogen Peroxide	Report mg/l <sup>2</sup>	1/Discharge	Measured
Dissolved Oxygen	6.0 mg/l	1/Discharge	Grab
pH range (SU)	6.5 to 8.5 SU	1/Discharge	Grab

2. During the period beginning on the effective date of the permit and lasting through expiration, the permittee is authorized to discharge through **outfall serial numbers 001 and 002: Hydrostatic test water**. Discharge shall be limited and monitored by the permittee as specified below:

**OUTFALL 001 (b) Hydrostatic test water Weymouth Fore River**

Effluent Characteristic	Monitoring Requirements		
	Maximum Daily	Measurement Frequency	Sample Type <sup>1</sup>
Flow Rate (million gallons per day)	Report	Continuous	Estimate
Total Suspended Solids (TSS)	100 mg/l	1/Discharge	Grab
Dissolved Oxygen	5.0 mg/l	1/Discharge	Grab
pH range	6.5 to 8.5 SU	1/Discharge	Grab

**OUTFALL 002 (b) Hydrostatic test water Massachusetts Bay East of Winthrop, MA Latitude 42<sup>B</sup> 23' 35" Longitude -70<sup>B</sup> 52' 26"**

Effluent Characteristic	Monitoring Requirements		
	Maximum Daily	Measurement Frequency	Sample Type <sup>1</sup>
Flow Rate (million gallons per day)	Report	Continuous	Estimate
Total Suspended Solids (TSS)	100 mg/l	1/Discharge	Grab
Dissolved Oxygen	6.0 mg/l	1/Discharge	Grab
pH range	6.5 to 8.5 SU	1/Discharge	Grab

**The permittee shall notify EPA and DEP at the conclusion of hydrostatic testing for the segments of the pipeline regulated herein, to initiate the termination of this NPDES permit.**

**Footnotes:**

1. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. The permittee shall submit the results to EPA of any additional testing done to that required herein if it is conducted in accordance with EPA approved methods, consistent with the provisions of 40 CFR §122.41(l)(4)(ii).

Outfalls 001 (a) and 002 (a)

Parameter	Sample Location	Report
Flow	Determine the maximum flow rate from pump capacity	Maximum flow rate (gallons/minute) and total volume of discharge
TSS	At point of discharge to receiving water	Once during the first hour of discharge and during the last hour of discharge
THPS	At point of discharge to receiving water	Highest effluent concentration using the attached protocol (Permit Attachment A)
Hydrogen Peroxide	At point of addition to biocide treated seawater	Highest concentration added
Dissolved oxygen	At point of discharge to receiving water	Once during the first hour of discharge
pH	From last ballast tank	Once prior to discharge to receiving water

Outfalls 001 (b) and 002 (b)

Parameter	Sample Location	Report
Flow	Determine the maximum flow rate from pump capacity	Maximum flow rate (MGD) and total volume of discharge [GPM]
TSS	At point of discharge to receiving water	Once during the first hour of discharge and during the last hour of discharge
Dissolved oxygen	At point of discharge to receiving water	Once during the first hour of discharge
pH	Prior to discharge to receiving water	Once during the first hour of discharge

Any change in sampling location(s) must be reviewed and approved in writing by EPA and MADEP.

2. See Part 1.B. Floodwater Dewatering and Neutralization Procedure on page 6 of the permit.

Part I.A. (Continued)

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. Pollutants which are not limited by this permit, but which have been specifically disclosed in the permit application, may be discharged up to the frequency and level disclosed in the application, provided that such discharge does not violate Section 307 or 311 of the Clean Water Act (CWA) or applicable state water quality standards.
- c. The effluent shall not contain materials in concentrations or in combinations which are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving waters.
- d. Discharges to the Fore River and Massachusetts Bay shall be adequately treated to insure that the surface water remains free from pollutants in concentrations or combinations that settle to form harmful deposits, float as foam, debris, scum or other visible pollutants. They shall be adequately treated to insure that the surface waters remain free from pollutants which produce odor, color, taste, or turbidity in the receiving water which is not naturally occurring and would render it unsuitable for its designated uses.
- f. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR §122.42):
  - (1) 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:"
    - (a) One hundred micrograms per liter (100 ug/l);
    - (b) 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
    - (c) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.
  - (2) 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:"
    - (a) Five hundred micrograms per liter (500 ug/l);
    - (b) One milligram per liter (1 mg/l) for antimony;

- (c) 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
  - (d) Any other notification level established by the Director in accordance with 40 CFR §122.44(f) and Massachusetts regulations.
- (3) 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.
- g. The permittee shall use multiple chamber barge(s) with sufficient capacity for re-cycling and testing to assure that the treated effluent is not discharged above required permit limits.
- h. The permittee shall insure that the discharge will meet the dissolved oxygen standard of the receiving water. (See permit limit pages 2 and 3)
- i. The permittee shall conduct visual observations at least hourly (when collecting samples for testing) to check for fish kills, sheens or other perceived operational problems and have in place mechanism to halt the discharge if problems develop. If a fish kill occurs, the discharge will be stopped until the cause of the fish kill can be determined and remedied. Notification will be made to Massachusetts Department of Marine Fisheries at (978) 282-0308, within 24 hours of a fish kill.
- l. The permittee shall cause to be conducted an “on-charter survey” of each floodwater containment barge prior to its use to insure that it is free of contamination that might cause harm to the receiving waters.

### **1.B. Floodwater Dewatering and Neutralization Procedure**

#### Steps:

1. Set up dewatering spread at both the Salem and Deer Island Lateral onshore ends of the pipeline. Insert dewatering pig trains.
2. Set up equipment and piping manifolds at the offshore end of the Deer Island Lateral and the Weymouth Fore River end of the pipeline.
3. Advance the pig train propelled by compressed air forcing the biocide treated water from the pipeline into barge based ballast tanks for pre-sampling prior to neutralization.
4. Take pre-neutralization sample to establish initial injection rate for hydrogen peroxide (neutralizing agent). The rate of hydrogen peroxide injection shall be set to a ratio of at least four parts 3% hydrogen peroxide to one part THPS. The hydrogen peroxide shall be injected into the pipe prior to discharge to holding tanks. The holding tanks shall have a minimum capacity sufficient to capture and retain all THPS treated flood waters until the THPS has been neutralized to a confirmed concentration of 4.4 mg/l or less.



**No flood water shall be discharged to the receiving waters until it has been analyzed using the attached sampling protocol and the concentration determined to be at or below 4.4 mg/l THPS.**

5. A sample of treated (neutralized) pipe flood water shall be sampled from the ballast tank prior to the first overboard discharge to insure that the concentration of THPS is at or below the permit limit of 4.4 mg/l. If the concentration of THPS is greater than 4.4 mg/l, additional hydrogen peroxide shall be added to the flood water and resampled to insure compliance with the permit concentration limit before any flood water is discharged overboard.
6. The concentration of THPS in the final effluent shall be sampled hourly. The feed rate of hydrogen peroxide shall be continuously monitored. The feed of hydrogen peroxide shall be adjusted as needed to insure that the effluent THPS limit is met for the duration of the discharge.
7. The permittee shall include notification of completion of the dewatering and hydrostatic testing of the pipe segments with the submission of the appropriate discharge monitoring report. The permit shall be terminated upon completion and testing of the Beverly to South Weymouth and Deer Island lateral pipeline segments.

Report within twenty four (24) hours any discharge of THPS in concentrations greater than 4.4 mg/l to the Environmental Protection Agency, Massachusetts Department of Environmental Protection, and the Massachusetts Division of Marine Fisheries at the following telephone numbers:

EPA - (617) 918-1715	MADEP - (978) 661-7600	MADMF - (978) 282-0308, extension 122
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**C. MONITORING AND REPORTING**

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate discharge monitoring report (DMR) forms 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 State at the following addresses:

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



The State Agency is:

Massachusetts Department of Environmental Protection  
Bureau of Resource Protection  
205A Lowell Street  
Wilmington, MA 01887

In addition, copies of all Discharge Monitoring Reports shall be submitted to the following address:

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

#### **E. STATE PERMIT CONDITIONS**

This discharge permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MADEP) 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 MADEP pursuant to M.G.L. Chap. 21, §43.

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.