

Massachusetts Department of Environmental Protection  
Bureau of Resource Protection – Water Supply

# BRP WS 29 Chemical Addition Retrofit

for systems that serve more than 3,300 people

## Instructions and Supporting Materials

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### Table of Contents

- introduction
- permit fact sheet
- completeness checklist

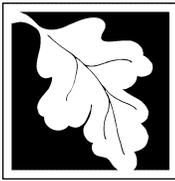
### Introduction

MassDEP *Permit Applications*, as well as *Instructions & Support Materials*, are available for download from the MassDEP Web site at <http://www.mass.gov/eea/agencies/massdep/service/approvals/> in two file formats: Microsoft Word™ and Adobe Acrobat PDF™. Either format allows documents to be printed.

*Instructions & Support Materials* files in Microsoft Word™ format contain a series of documents that provide guidance on how to prepare a permit application. Although we recommend that you print out the entire package, you may choose to print specific documents by selecting the appropriate page numbers for printing.

*Permit Applications* in Microsoft Word™ format must be downloaded separately. Users with Microsoft Word™ 97 or later may complete these forms electronically.

Permitting packages in Adobe Acrobat PDF™ format combine *Permit Applications* and *Instructions & Support Materials* in a single document. Adobe Acrobat PDF™ files may only be viewed and printed without alteration. *Permit Applications* in this format may not be completed electronically.



# BRP WS 29 Chemical Addition Retrofit

for systems that serve more than 3,300 people

## Permit Fact Sheet

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### 1. What is the purpose of this permit?

This permit serves to protect the public's health and welfare by insuring that minimum drinking water requirements are met in the chemical addition retrofit of water systems. It consists of an approval for chemical addition retrofit of water systems, for systems that serve more than 3,300 people. For systems that serve less than or equal to 3,300 people, apply for BRP WS 34. Legislative authority is stated in MGL Chapter 111 s. 160A et al. Regulatory authority is stated in 310 CMR 22.04 of the Drinking Water Regulations.

### 2. Who must apply?

Public water suppliers that serve more than 3,300 people or their representatives who want approval for the chemical addition retrofit of their water system.

### 3. What other requirements should be considered when applying for this permit?

If the water supplier or their representatives apply for this permit it may also be necessary for them to apply for other MassDEP water treatment permits, e.g. BRP WS 23 or BRP WS 24.

**Note:** These additional requirements are intended to serve as a guide to the applicant. It does not necessarily include all additional requirements.

### 4. What is the application fee?

The application fee is \$705.

### 5. What is the Primary Permit Location? What is the Reserve Copy Location?

PRIMARY PERMIT LOCATION  
Department of Environmental Protection  
\_\_\_\_\_ \* Regional Office

RESERVE COPY LOCATION  
None Required.

#### Water Supply

\*Find your region: <http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>

### 6. Where can I get a copy of the timelines?

The timelines are available on the MassDEP Website:

<http://www.mass.gov/eea/agencies/massdep/service/approvals/timely-action-fees-and-payments.html>

### 7. What is the annual compliance fee?

There is no annual compliance assurance fee for this permit.

### 8. How long is this permit in effect?

This permit is in effect as long as the applicant remains in compliance with appropriate laws and regulations and the Department determines that the product or operations continue to protect the public health and welfare.

### 9. How can I avoid the most common mistakes made in applying for this permit?



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection – Water Supply

## **BRP WS 29 Chemical Addition Retrofit**

for systems that serve more than 3,300 people

### **Permit Fact Sheet**

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- a. Fill in all information on the MassDEP Application Form BRP WS Application.
- b. Attach all information requested on the Application Completeness Checklist.
- c. Send application and one copy of the MassDEP Transmittal Form to MassDEP Regional Office, Water Supply.
- d. Submit fee and one copy of the MassDEP Transmittal Form to: Department of Environmental Protection, P.O. Box 4062, Boston, MA 02211.

#### **10. What are the regulations that apply to this permit? Where can I get copies?**

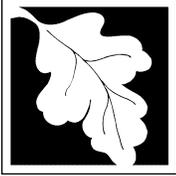
These regulations include, but are not limited to:

- a. Drinking Water Regulations, 310 CMR 22.00.
- b. Timely Action and Fee Provisions, 310 CMR 4.00.

These may be purchased at:

**State House Bookstore**  
Room 116  
Boston, MA 02133  
617-727-2834

**State House West Bookstore**  
436 Dwight Street  
Springfield, MA 01103  
413-784-1376



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection – Water Supply

## BRP WS 29 Chemical Addition Retrofit

for systems that serve more than 3,300 people

# Application Completeness Checklist

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- The MassDEP Transmittal Form is completed:  
<http://www.mass.gov/eea/agencies/massdep/service/approvals/transmittal-and-application-forms.html>
- Form BRP WS Application is completed.
- A cover letter explaining the request is attached.
- Documentation to support the request.
- A MassDEP application for chemical addition retrofit.
- A Massachusetts Professional Engineer's Certification and dated stamp.

To submit the application package:

- Checklist items have been completed.
- Send one copy of the application along with one copy of the MassDEP Transmittal Form to:

Department of Environmental Protection

\_\_\_\_\_ \* Regional Office

Water Supply

\*Find your region: <http://www.mass.gov/eea/agencies/massdep/about/contacts/find-the-massdep-regional-office-for-your-city-or-town.html>

- Send fee of \$705 in the form of check or money order made payable to *Commonwealth of Massachusetts*, along with one copy of the MassDEP Transmittal Form to:

Department of Environmental Protection

P.O. Box 4062

Boston, MA 02211



# BRP WS Application

## For Drinking Water Program (Water Supply) Permits or Approvals

### A. Application

1. Is this application for  an Original or  a Resubmittal?

2. Applicant:

Name _____			Address _____	
City _____	State _____	Zip _____	Contact _____	Telephone _____

3. Consultant:

Name _____			Address _____	
City _____	State _____	Zip _____	Contact _____	Telephone _____

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



### B. Permit

Please check the permit or approval for which you are applying:

**Zone II Determination for Existing Sources**

- BRP WS 07 Approval to Conduct Pump Test for Zone II Delineation
- BRP WS 08 Approval of Zone II Delineation

**New Technology**

- BRP WS 11 Minor New Technology Approval; where no field test required
  - Drinking Water Additive
  - Cross Connection Device
  - Water Vending Machine
  - Other (specify): \_\_\_\_\_
- BRP WS 12 Major New Technology Approval: where field testing is required
- BRP WS 27 New Technology with Third-party Approval
- BRP WS 28 Vending Site/Source Prototype
- BRP WS 31 Vending and POU/POE Devices with Third-party Approval

**New Source Approvals <70 gpm**

- BRP WS 13 Exploratory Phase, Site Examination, Land Use Survey and Approval to Conduct Pumping Test
- BRP WS 15 Pumping Test Report Approval and Approval to Construct Source
- BRP WS 37 Approval of Transient Non-Community Source Less than 7 Gallons per Minute (combines BRP WS 13 and BRP WS 15 submittals)

**New Source Approvals = or > 70 gpm**

- BRP WS 17 Exploratory Phase, Site Examination, Land Use Survey, and Conduct Pumping Test
- BRP WS 19 Pumping Test Report Approval
- BRP WS 20 To Construct Source

**Water Treatment Approvals**

- BRP WS 21A To Conduct Pilot Study < 40,000 gpd
- BRP WS 21B To Conduct Pilot Study = or > 40,000 gpd and < 200,000 gpd
- BRP WS 21C To Conduct Pilot Study = or > 200,000 gpd and < 1 mgd
- BRP WS 21D To Conduct Pilot Study = or > 1 mgd
- BRP WS 22A Pilot Study Report < 40,000 gpd
- BRP WS 22B Pilot Study Report = or > 40,000 gpd and < 200,000 gpd
- BRP WS 22C Pilot Study Report = or > 200,000 gpd and < 1 mgd
- BRP WS 22D Pilot Study Report = or > 1 mgd
- BRP WS 23A To Construct Facility <40,000 gpd
- BRP WS 23B To Construct Facility = or > 40,000 gpd and < 200,000 gpd
- BRP WS 23C To Construct Facility = or > 200,000 gpd and < 1 mgd
- BRP WS 24 To Construct Facility = or > 1 mgd
- BRP WS 25 Treatment Facility Modification
- BRP WS 29 Water Treatment: Chemical Addition Retrofits of Water Systems > 3,300 people
- BRP WS 30A Vending Installation Approval
- BRP WS 30B POU/POE Installation Approval
- BRP WS 34 Water Treatment: Chemical Addition Retrofits of Water Systems = or < 3,300 people
- BRP WS 35A Multiple Vending Installation Approval
- BRP WS 35B Multiple POU/POE Installation Approval

**Water Quality Assurance**

- BRP WS 26 Sale or Acquisition of Land for Water Source
- BRP WS 36 Abandonment of Water Source

**Distribution System Modifications**

- BRP WS 32 Systems > 3,300 people
- BRP WS 33 Systems = or < 3,300 people



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection – Drinking Water Program

# BRP WS Application

For Drinking Water Program (Water Supply) Permits or Approvals

\_\_\_\_\_  
Transmittal Number

\_\_\_\_\_  
Facility ID# (if known)

## C. Certification

“I certify, under penalty of law, that this application and all attachments were prepared under my supervision, in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted in this application, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.”

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Position/Title



# BRP WS 29 Chemical Addition Retrofit

Application for Approval for Treatment of Public Water  
Supply Systems That Serve More Than 3,300 People

Transmittal Number \_\_\_\_\_

Facility ID# (if known) \_\_\_\_\_

## A. Water Supply Information

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Name of Applicant – Board of Water Commissioners or similar body: \_\_\_\_\_
2. PWS I.D.#: \_\_\_\_\_
3. City or Town: \_\_\_\_\_
4. Total population served by system (estimate if necessary): \_\_\_\_\_
5. Other City, Town, District, Institution or Area Served: \_\_\_\_\_
6. PWS I.D.#: \_\_\_\_\_

## B. Treatment Information

**Note:** Treatment of public water supply may be adopted, modified, or discontinued only with the approval of the Department of Environmental Protection.

1. Sources of Water Supply to be treated:
 

i. _____	ii. _____
iii. _____	iv. _____
2. Treatment Type (See list A below): \_\_\_\_\_
3. Treatment Processes (See list B below):
 

_____	_____
Treatment Type	Code Number
4. Chemicals to be used: \_\_\_\_\_

### List A – Treatment Type

Disinfection By-Product Control  
Corrosion Control  
Disinfection Dechlorination  
Iron Removal  
Inorganic Removal  
Fluoridation  
Manganese Removal  
Organic Removal  
Particulate Removal  
Radionuclides Removal  
Softening  
Taste/Odor Control

### List B – Treatment Processes and Code Numbers

100 Activated Alumina	403 Gas. Chlorination - Pre	600 Rapid mix
121 Activated Carbon (Granular)	421 Hypochlorination - Post	620 Reducing Agents
125 Activated Carbon (Powder)	423 Hypochlorination - Pre	623 Reducing Agents - Sodium Bisulfate
160 Algae Control	441 Inhibitor - Bimetalic Phosphate	625 Reducing Agents - Sodium Sulfite
180 Bone Char	443 Inhibitor - Hexametaohosphate	627 Reducing Agents - Sulfur Dioxide
200 Chloramines	445 Inhibitor - Orthophosphate	640 Reverse Osmosis
220 Chlorine Dioxide	447 Inhibitor - Polyphosphate	660 Sedimentation
240 Coagulation	449 Inhibitor - Silicate	680 Sequestration
300 Distillation	460 Ion Exchange	700 Sludge Treatment
320 Electrodialysis	500 Lime - Soda Ash Addition	720 Ultraviolet Radiation
360 Flocculation	520 Microscreening	740 pH Adjustment
380 Fluoridation	560 Permaganate	741 pH Adjustment - Post
401 Gas. Chlorination - Post	580 Peroxide	742 pH Adjustment - Pre



# BRP WS 29 Chemical Addition Retrofit

Application for Approval for Treatment of Public Water  
Supply Systems That Serve More Than 3,300 People

Transmittal Number \_\_\_\_\_

Facility ID# (if known) \_\_\_\_\_

## C. Feed Points

	Feed Point #1		Feed Point #2	
Feed Point(s):	_____		_____	
Type of Feed Equipment:	_____		_____	
Flow Rate (GPM):	_____	_____	_____	_____
	Max	Min	Max	Min
Water Pressure:	_____	_____	_____	_____
	Max	Min	Max	Min
Feeder Capacity (Gal/24 hr or lbs/24 hr):	_____	_____	_____	_____
	Max	Min	Max	Min

## D. Designer

1. Design Engineer: \_\_\_\_\_

2. Massachusetts Registration Number: \_\_\_\_\_

## E. Certificate

The undersigned certify that the treatment facility will be operated under the supervision of the person named in Section F (or designated alternate) who will be in responsible charge of the operation, will comply with instructions and requirements of the Department of Environmental Protection, including those pertaining to maintenance of equipment, records and reports, performance of routine tests and submission of routine samples.

It is understood that any change of assignment in Sections F or G must be reported promptly in writing to the Department of Environmental Protection.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## F. Employee in Responsible Charge of Treatment Facility

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Certified Operator License Number

\_\_\_\_\_  
Grade

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection – Water Supply

**BRP WS 29** Chemical Addition Retrofit

Application for Approval for Treatment of Public Water  
Supply Systems That Serve More Than 3,300 People

\_\_\_\_\_  
Transmittal Number

\_\_\_\_\_  
Facility ID# (if known)

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**F. Employee in Responsible Charge of Treatment Facility (cont.)**

Office Address and Telephone:

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City/Town

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

\_\_\_\_\_  
Office Telephone Number (including extension)

Home Address and Telephone:

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City/Town

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

\_\_\_\_\_  
Home Telephone Number

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**G. Alternate Employee in Responsible Charge of Treatment Facility**

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Certified Operator License Number

\_\_\_\_\_  
Grade

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Office Address and Telephone:

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City/Town

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

\_\_\_\_\_  
Office Telephone Number (including extension)

Home Address and Telephone:

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City/Town

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

\_\_\_\_\_  
Home Telephone Number