TITLE V PERMIT RENEWAL APPLICATION ORIGINAL BRADFORD SOAP WORKS, INC. WEST WARWICK, RHODE ISLAND

PREPARED FOR:
Original Bradford Soap Works, Inc.
West Warwick, Rhode Island

PREPARED BY:
GZA GeoEnvironmental, Inc.
Manchester, New Hampshire

August 6, 2010
File No. 04.0029192.00

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BRADFORD SOAP WORKS, INC.
PO Box 1007
200 Providence Street
West Warwick, Rhode Island 02893
401 821.2141 TEL
401 821.1660 FAX
www.bradfordsoap.com

August 9, 2010
File No. 04.0029192.00

Mr. David Del Sesto
Office of Air Resources
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908-5767

Re: Title V Renewal Application
Original Bradford Soap Works (Bradford Soap)
West Warwick, Rhode Island

Dear Mr. Del Sesto:

This document and attachments constitutes the Title V Operating Permit Renewal Application for the Bradford Soap facility.

The following attachments are included as part of the application:

- Attachment 1 Renewal Application Form;
- Attachment 2 Application Section 6.1 – Compliance Certification;
- Attachment 3 Application Sections 2.6, 4.0, and 4.2 for cold cleaning stations;
- Attachment 4 Application Sections 2.0, 2.99, 3.0, 3.99, 4.0, 4.1, 4.2, 5.0, 5.1, 5.2, and 6.2 for soap transfer system with process flow diagrams;
- Attachment 5 Updated Lists of Insignificant Activities; and
- Attachment 6 Supporting Calculations.

Please note that Bradford Soap is requesting only two changes in the permit. The first change is to correct the description of the two cold cleaners at the facility, P007 and P008. These cold cleaning stations have been replaced with two Model 30, Safety-Kleen Sink Parts Washers. These are 30-gallon units. New application forms have been included. The second change is the addition of four material transfer systems. These are not new systems but are being added because they vent outside the building, rather than inside the building as was believed at the time the original operating permit application was prepared. Three of the material transfer systems have emissions below the threshold

(<2000lb) for insignificant activities prior to control. The fourth has emissions of greater than 2000 pounds prior to control. The updated list of insignificant activities has been provided because some of the tanks store different materials than at the time of the original application. The only other change in insignificant activities was the installation of a salt silo.

All notices and correspondence regarding this submittal should be directed to:

Mr. Arthur Henault
Original Bradford Soap Works
P.O. Box 1007
200 Providence Street
West Warwick, Rhode Island 02893
Telephone No. (401) 381-6288

Technical questions concerning the application and a copy of all correspondence should be directed to:

Mr. Michael P. North, P.E.
GZA GeoEnvironmental, Inc.
380 Harvey Road
Manchester, New Hampshire 03103
Telephone No. (603) 623-3600

Thank you for your attention to this matter. Please do not hesitate to contact us if you have any questions or require further information.

Very truly yours,

BRADFORD ORIGINAL SOAP WORKS, INC.

Arthur J. Henault, III
Environmental Health and Safety Manager

Attachments:
- Attachment 1 Renewal Application Form
- Attachment 2 Application Section 6.1 – Compliance Certification
- Attachment 3 Application Sections 2.6, 4.0, and 4.2 for cold cleaning stations; and
- Attachment 4 Attachment 4 Application Sections 2.0, 2.99, 3.0, 3.99, 4.0, 4.1, 4.2, 5.0, 5.1, 5.2, and 6.2 for soap transfer system with process flow diagrams; and
- Attachment 5 Updated Lists of Insignificant Activities; and
- Attachment 6 Supporting Calculations.

ATTACHMENT 1

RENEWAL APPLICATION FORM

Rhode Island Department of Environmental Management
Office of Air Resources
Title V Operating Permit Renewal **Renewal Application Form 02**

1. Facility Name: Original Bradford Soap Works, Inc.

2. Permit Number: RI-14-06 (RI)

3. Facility contact person and phone number: Arthur Henault

   401-381-6228

4. Permit cover page changes: None

5. Were there any off-permit changes? No

6. Are the current emission units correctly identified and defined in the permit? ____

   No, P007 and P008 have been replaced with a new model—Safety-Kleen Sink Parts Washer Model 30

7. Is the current air pollution control equipment correctly identified and defined in the permit? Yes

8. Will there be any new emission units or air pollution control devices? Yes,

   Existing emission units added due to their being vented outside.

9. Does the CAM rule apply to any of the emissions units? Yes, the CAM rule applies to P001. The CAM was submitted during the last permitting round and is not required as part of this application package.

10. Are there any new applicable requirements? No

11. Is the source in compliance with all of the conditions of the current permit?

Yes, compliance certifications are included in attachment 2.

12. Are there any requested changes to testing conditions? No

13. Are there any requested changes to monitoring conditions other then those being replaced by CAM? No

14. Are there any requested changes to recordkeeping requirements? No

15. Are there any requested changes to reporting requirements? No

16. Will there be any new alternative operating scenarios? No

17. Are there any other changes? No

18. Is the Insignificant Activities Summary up to date? Insignificant activities have been updated and are included in Attachment 5

I, the undersigned, hereby certify under penalty of law, that I am a responsible individual, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information including the possibility of fine or imprisonment.

William F. Schmiedknecht Jr.	8/20/2010
AUTHORIZED SIGNATURE	**DATE**
Wm F. Schmiedknecht Jr.	SVP Admin
PRINTED NAME OF SIGNATORY	**TITLE OF SIGNATORY**

ATTACHMENT 2

SECTION 6 APPLICATION FORMS

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P001
Applicable requirement(s): Approvals 1479 -1481	Air Pollutant(s): VOC

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping, and reporting requirements.

Test methods (check all that apply)

- ☐ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☒ Stack testing
- ☐ Fuel sampling and analysis
- ☐ Other (specify):

Generally describe the frequency and duration of this testing and how it will be recorded:

Initial compliance test

Monitoring requirements (check all that apply)

- ☒ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☐ Other monitoring methods (describe in detail): none

Monitoring device type: thermocouple

Monitoring location: Coolant inlet and outlet for each condenser

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

Continuous monitoring of temperature, recorded manually once per batch

Is enhanced monitoring applicable? ☒ Yes ☐ No

Is enhanced monitoring protocol attached? ☒ Yes ☐ No

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
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(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P001
Applicable requirement(s): Approvals 1479 -1481	Air Pollutant(s): VOC

Recordkeeping requirements

Data/parameters being recorded: Coolant temperature at inlet and outlet of condenser

Frequency of recordkeeping (how often the data is recorded): Once per batch

Reporting requirements

Generally describe what is reported: No additional reporting requirements in permits

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☐ Other _____

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements, except those identified in Section 6.1 of this application.

William F. Schmiedeknecht, Jr.
AUTHORIZED SIGNATURE

8/20/10
DATE

William Schmiedeknecht
TYPED OR PRINTED NAME

Sr. Vice President of Administration
TITLE OF SIGNATORY

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P004
Applicable requirement(s): Regulation 22	Air Pollutant(s): HCl

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping, and reporting requirements.

Test methods (check all that apply)

- ☐ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☐ Stack testing
- ☐ Fuel sampling and analysis
- ☐ Other (specify): none

Generally describe the frequency and duration of this testing and how it will be recorded:

not applicable

Monitoring requirements (check all that apply)

- ☐ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☐ Other monitoring methods (describe in detail): none

Monitoring device type: none

Monitoring location:

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

not applicable

Is enhanced monitoring applicable? ☐ Yes ☒ No

Is enhanced monitoring protocol attached? ☐ Yes ☒ No

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Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P004
Applicable requirement(s): Regulation 22	Air Pollutant(s): HCl

Recordkeeping requirements

Data/parameters being recorded: HCl usage

Frequency of recordkeeping (how often the data is recorded): As purchased

Reporting requirements

Generally describe what is reported: HCl usage and emissions

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☒ Other Annually

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements, and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements, except those identified in Section 6.1 of this application.

William F. Schmiedeknecht, Jr — 8/2/10

AUTHORIZED SIGNATURE — DATE

William Schmiedeknecht — Sr. Vice President of Administration

TYPED OR PRINTED NAME — TITLE OF SIGNATORY

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): B001, B002, B003
Applicable requirement(s): Regulations 14 and 27	Air Pollutant(s): NOx

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping, and reporting requirements.

Test methods (check all that apply)

- ☐ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☐ Stack testing
- ☐ Fuel sampling and analysis
- ☒ Other (specify): Annual tune-up

Generally describe the frequency and duration of this testing and how it will be recorded:

Annual tune-up, test parameters to be recorded as required in Reg. 27.

Monitoring requirements (check all that apply)

- ☐ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☐ Other monitoring methods (describe in detail): none

Monitoring device type: none

Monitoring location:

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

not applicable

Is enhanced monitoring applicable? ☐ Yes ☒ No

Is enhanced monitoring protocol attached? ☐ Yes ☒ No

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Division of Air Resources

291 Promenade Street
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Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): B001, B002, B003
Applicable requirement(s): Regulation 14, 27	Air Pollutant(s): NOx

Recordkeeping requirements

Data/parameters being recorded: Oxygen setting and other parameters required in Regulation 27

Frequency of recordkeeping (how often the data is recorded): Annually

Reporting requirements

Generally describe what is reported: Fuel use

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☒ Other Annually

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements, and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements, except those identified in Section 6.1 of this application.

William J. Schmiedeknecht — 8/20/12

AUTHORIZED SIGNATURE — DATE

William Schmiedeknecht — Sr.Vice President of Administration

TYPED OR PRINTED NAME — TITLE OF SIGNATORY

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): B001-B003, P001-P005
Applicable requirement(s): Regulation 1; Regulation 6 and Regulation 13 (B001-B003 only)	Air Pollutant(s): Visible emissions, PM

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping, and reporting requirements.

Test methods (check all that apply)

- ☒ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☐ Stack testing
- ☐ Fuel sampling and analysis
- ☒ Other (specify): visual observation

Generally describe the frequency and duration of this testing and how it will be recorded:

Prior to each annual compliance certification, a visual check of all emission units will be performed and any visible emissions recorded. Method 9 testing will be performed only by RIDEM request.

Monitoring requirements (check all that apply)

- ☐ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☒ Other monitoring methods (describe in detail): Visible emissions for B001, B002, B003

Monitoring device type: Audible opacity monitor

Monitoring location: Stacks S101, S102, S103

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

Monitoring is continuous. Audible alarms will be recorded manually

Is enhanced monitoring applicable? ☐ Yes ☒ No

Is enhanced monitoring protocol attached? ☐ Yes ☒ No

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Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): B0001-B003, P001-P005
Applicable requirement(s): Regulation 1; Regulation 6 and Regulation 13 (B001-B003 only)	Air Pollutant(s): Visible emissions and PM

Recordkeeping requirements

Data/parameters being recorded: Opacity monitor alarms and presence of visible emissions at emission units not monitored

Frequency of recordkeeping (how often the data is recorded): Alarms recorded as they occur. Visual observations once per year.

Reporting requirements

Generally describe what is reported: Opacity alarms that have occurred. Presence or absence of visible emissions at above 20% opacity.

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☒ Other Annually

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements, and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements, except those identified in Section 6.1 of this application.

AUTHORIZED SIGNATURE — DATE: 8/2/10

William Schmiedeknecht — Sr. Vice President of Administration

TYPED OR PRINTED NAME — TITLE OF SIGNATORY

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P001, P003, P005
Applicable requirement(s): Regulations 14 and 15	Air Pollutant(s): VOC

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping, and reporting requirements.

Test methods (check all that apply)

- ☐ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☐ Stack testing
- ☐ Fuel sampling and analysis
- ☒ Other (specify): Testing of alcohol content of finished soap

Generally describe the frequency and duration of this testing and how it will be recorded:

Each batch of soap is tested for quality control purposes and logged

Monitoring requirements (check all that apply)

- ☐ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☐ Other monitoring methods (describe in detail): none

Monitoring device type: none

Monitoring location:

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

not applicable

Is enhanced monitoring applicable? ☒ Yes ☐ No

Is enhanced monitoring protocol attached? ☒ Yes ☐ No

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Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P001, P003, P005
Applicable requirement(s): Regulation 14, 15	Air Pollutant(s): VOC

Recordkeeping requirements

Data/parameters being recorded: Record isopropanol, SDA 40, and other solvent usage, amount of clear soap produced, average clear soap alcohol content

Frequency of recordkeeping (how often the data is recorded): Isopropanol and lab solvents tracked through purchase records. SDA 40 usage, alcohol content, tracked per batch

Reporting requirements

Generally describe what is reported: VOC usage, clear soap produced, alcohol content of clear soap, VOC emissions

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☒ Other Annually

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements, and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements, except those identified in Section 6.1 of this application.

AUTHORIZED SIGNATURE — DATE: 8/20/10

William Schmiedeknecht — Sr. Vice President of Administration

TYPED OR PRINTED NAME — TITLE OF SIGNATORY

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): B001-B003
Applicable requirement(s): Regulation 8	Air Pollutant(s): sulfur dioxide

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping, and reporting requirements.

Test methods (check all that apply)

- ☐ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☐ Stack testing
- ☐ Fuel sampling and analysis
- ☒ Other (specify): Suppliers report of sulfur content

Generally describe the frequency and duration of this testing and how it will be recorded:

Sulfur content reported by supplier for each delivery will be recorded

Monitoring requirements (check all that apply)

- ☐ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☐ Other monitoring methods (describe in detail): _____

Monitoring device type: none

Monitoring location: _____

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

not applicable

Is enhanced monitoring applicable? ☐ Yes ☒ No

Is enhanced monitoring protocol attached? ☐ Yes ☒ No

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Division of Air Resources

291 Promenade Street
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Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): B0001-B003
Applicable requirement(s): Regulation 8	Air Pollutant(s): Sulfur dioxide

Recordkeeping requirements

Data/parameters being recorded: Sulfur content as reported by supplier

Frequency of recordkeeping (how often the data is recorded): For each oil delivery

Reporting requirements

Generally describe what is reported: Sulfur content

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☒ Other Annually

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements, and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements, except those identified in Section 6.1 of this application.

AUTHORIZED SIGNATURE — DATE 1/20/10

William Schmiedeknecht — Sr. Vice President of Administration

TYPED OR PRINTED NAME — TITLE OF SIGNATORY

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): B001-B003, C003 (Reg 9), All (Regs. 28, 29)
Applicable requirement(s): Regulations 9, 28, 29	Air Pollutant(s): various

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping, and reporting requirements.

Test methods (check all that apply) ***Not applicable***

- ☐ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☐ Stack testing
- ☐ Fuel sampling and analysis
- ☐ Other (specify):

Generally describe the frequency and duration of this testing and how it will be recorded:

_____

_____

Monitoring requirements (check all that apply) ***Not applicable***

- ☐ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☐ Other monitoring methods (describe in detail): _____

Monitoring device type: _____

Monitoring location: _____

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

_____

Is enhanced monitoring applicable? ☒ Yes ☐ No Applicable to C003

Is enhanced monitoring protocol attached? ☐ Yes ☒ No Previously Submitted

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
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Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): B001-B003, C003
Applicable requirement(s): Regulation 9	Air Pollutant(s): various

Recordkeeping requirements

Data/parameters being recorded: Emissions per permits and for fee payments

Frequency of recordkeeping (how often the data is recorded): various

Reporting requirements

Generally describe what is reported:

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☒ Other Annually

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements, and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements, except those identified in Section 6.1 of this application.

AUTHORIZED SIGNATURE — DATE 8/21/11

William Schmiedeknecht — Sr. Vice President of Administration

TYPED OR PRINTED NAME — TITLE OF SIGNATORY

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P007, P008
Applicable requirement(s): Regulation 36	Air Pollutant(s): VOC

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping, and reporting requirements.

Test methods (check all that apply) ***Not applicable***

- ☐ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☐ Stack testing
- ☐ Fuel sampling and analysis
- ☐ Other (specify):

Generally describe the frequency and duration of this testing and how it will be recorded:

_____

_____

Monitoring requirements (check all that apply) ***Not applicable***

- ☐ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☒ Other monitoring methods (describe in detail): Monthly visual inspection

Monitoring device type: _____

Monitoring location: _____

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

_____

Is enhanced monitoring applicable? ☐ Yes ☒ No

Is enhanced monitoring protocol attached? ☐ Yes ☒ No

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Division of Air Resources

291 Promenade Street
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Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P007, P008
Applicable requirement(s): Regulation 36	Air Pollutant(s): VOC

Recordkeeping requirements

Data/parameters being recorded: Solvent used and disposed, training and equipment maintenance and condition

Frequency of recordkeeping (how often the data is recorded): At each occurrence

Reporting requirements

Generally describe what is reported: _____

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☒ Other One time only compliance notification, annual report documenting training and solvent consumption

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements, and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements, except those identified in Section 6.1 of this application.

AUTHORIZED SIGNATURE — DATE 8/20/6

William Schmiedeknecht — Sr. Vice President of Administration

TYPED OR PRINTED NAME — TITLE OF SIGNATORY

ATTACHMENT 3

APPLICATION FORMS FOR P007 AND P008

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 2.6 - Emission Units
Metal Cleaning - Cold Cleaning Degreasers

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): NA
Emission Unit ID No(s): P007, P008	Stack ID No(s): NA

Manufacturer: Safety-Kleen
Model No.: 30
Serial No.: Not available
Date Tank Installed: September 1, 2009

Inside Dimensions of Tank (ft.):
3 Length, 1.08 Width, 0.67 Depth
Freeboard Height: _____ Freeboard Ratio: _____
Tank Type: ☐ Dip Tank ☒ Spray Tank

Max. Operating Schedule: 8 Hours/Day, 5 Days/Week, 50 Weeks/Year

Solvent Type (Attach MSDS for each solvent used):

Name: Safety-Kleen Premium Solvent
Supplier: Safety-Kleen Systems, Inc.
Max. Amount Used: 0.0047 Gallons/Hour, 41.3 Gallons/Year
Max. Volatility at 100°F: 0.6 mm Hg

Equipment Design

Is the Degreaser Equipped With:
Tank Cover: ☒ Yes ☐ No
Agitation: ☐ Yes ☒ No
Type: ☐ Pumped
Drainage Board: ☐ Yes ☒ No
Type: ☐ Internal ☐ Mechanical
☐ External ☐ Air
Drainage Return (if external): ☐Yes ☐No ☐ Ultrasonic
Is Solvent Sprayed? ☒Yes ☐No
Heating: ☐ Yes ☒ No
Spray Pressure: _____ psia
Temperature: Ambient °F

Operating Procedure

Can the Degreaser be Closed during Operation? ☐ Yes ☒ No
Is the Degreaser Cover Closed when Degreaser is not in use? ☒ Yes ☐ No
Are Parts Dry Before Removal from Drying Rack? ☐ Yes ☒ No
How are waste solvent and sludge disposed of?

Type of Air Pollution Control Devices (if any):
☐ Carbon Adsorption ☐ Refrigerated Chiller
☒ None ☐ Other
(specify): _____

SIGNATURE OF PERSON COMPLETING THIS PART

8/6/10
DATE

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 4.0 - Emissions
Unit Emissions Summary

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): Not applicable
Emission Unit ID No(s): P007	Stack ID No(s): Not applicable

Complete the following summary of emissions from this unit. The quantities reported should take into consideration the application of air pollution control devices, where applicable. Attach calculations and emission factor references.

Criteria Pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year
PM_{10}	NA					
Total suspended particulate	NA					
Sulfur dioxide	7446-09-5					
Volatile organic compounds	NA	0.0112	0.0490	0.0140	0.0614	0.0614
Nitrogen oxides	10102-44-0					
Carbon monoxide	630-08-0					
Lead	7439-92-1					

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year

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State of Rhode Island
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291 Promenade Street
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Section 4.0 - Emissions
Unit Emissions Summary

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): Not applicable
Emission Unit ID No(s): P008	Stack ID No(s): Not applicable

Complete the following summary of emissions from this unit. The quantities reported should take into consideration the application of air pollution control devices, where applicable. Attach calculations and emission factor references.

Criteria Pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year
PM_{10}	NA					
Total suspended particulate	NA					
Sulfur dioxide	7446-09-5					
Volatile organic compounds	NA	0.0112	0.0490	0.0140	0.0614	0.0614
Nitrogen oxides	10102-44-0					
Carbon monoxide	630-08-0					
Lead	7439-92-1					

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year

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State of Rhode Island
Department of Environmental Management
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(401) 277 - 2808

Section 4.2 - Emissions
Applicable Requirements

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P007, P008	Stack ID No(s): not applicable

Provide any restrictions on operation which affect emissions or operations (e.g. only one unit is operated at a time):

see below

Provide any specific emission standard(s) and limitation(s) set by regulation and/or permit conditions which are applicable to this emission unit (e.g., volatile organic compound content of coating not to exceed 3.5 lb/gal):

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
VOC	Reg. 36.4	Spray delivery pressure of 10 psi or less
VOC	Reg. 36.5	Freeboard ration of at least 0.75
VOC	Reg. 36.4	Solvent and waste must be covered
Vapor Pressure	Reg. 36.5.7	Solvent vapor pressure <1.0mm Hg @20C

Provide any specific recordkeeping requirement which is specific to this emission unit:

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
VOC	Reg. 36.10.4	Maintain training records
VOC	Reg. 36.10.4	Records of amount and type of solvent
VOC	Reg. 36.10.4	Records of Equip. malfunctions, leaks repairs.

State of Rhode Island
Department of Environmental Management
Division of Air Resources

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Section 4.2 - Emissions
Applicable Requirements (Continued)

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P007, P008	Stack ID No(s): not applicable

Provide any specific reporting requirement which is applicable to this emission unit:

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
VOC	Reg. 36.11.2	Compliance notification report

Provide any specific monitoring requirement which is applicable to this emission unit:

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
Not applicable		

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Section 4.2 - Emissions
Applicable Requirements (Continued)

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P007, P008	Stack ID No(s): not applicable

Provide any specific testing requirement which is applicable to this emission unit:

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
None		

Does this emission unit qualify for an exemption from any regulation? ☐ Yes ☒ No

If yes, then list both the regulation from which it is exempt and the regulation which allows the exemption **AND** provide a detailed explanation of why the exemption applies. Include detailed supporting data and calculations. Attach and label as exhibit or refer to other attachments which address and justify this exemption.

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Department of Environmental Management
Division of Air Resources

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Section 6.0 - Compliance Plan
Applicable Requirements and Compliance Status

Complete the following for all emission units in the facility subject to an applicable requirement:

Facility name: Original Bradford Soap Works	Air Pollutant: VOC
Emission Unit ID No(s): P007, P008	Stack ID No(s): not applicable

Applicable requirement	Type of requirement (emission limit, monitoring, recordkeeping, reporting or other)	Compliance status	
		In or out	Method of compliance determination (CEM, stack test, etc.)
Reg. 36.4 pressure limit	other	in	per manufacturer
Reg. 36.5 Freeboard ratio	other	in	physical measurement
Reg. 36.4 cover requirements	other	in	visual observation
Reg. 36.10.4 training records	recordkeeping	in	no training required
Reg. 36.10.4 solvent records	recordkeeping	in	facility records
Reg. 36.10.4 equipment records	recordkeeping	in	facility records
Reg. 36.11.2	compliance notification	in	by this application

Check all that apply:

☒ For the applicable requirements with which the facility will be subject as indicated above, we will continue to operate and maintain this facility to assure compliance with such requirements for the duration of the permit.

☒ For applicable requirements that will become effective during the permit term, we will meet such requirements on a timely basis. If a more detailed schedule is expressly required by the applicable requirement, include an attachment with this form.

☒ For the applicable requirements with which the facility is not in compliance or for new requirements with which the facility will not be in compliance in a timely basis as indicated above, we will submit a narrative description of how the source will achieve compliance with such requirements along with a schedule of compliance and a schedule for the submission of certified progress reports.

SIGNATURE OF PERSON COMPLETING THIS SECTION

8/6/10
DATE

ATTACHMENT 4

APPLICATION FORMS FOR P009, P010, P011, AND P012

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 2.0 - Emission Units
Emission Unit Summary

ID No. of Emission Unit	Plant's Name or Description of Emission Unit
B001	Boiler 1
B002	Boiler 2
B003	Boiler 3
H001	Warehouse Tower Space Heater
P001	Clear Soap Process
P002	Ammonium Stearate Process
P003	Ultrafresh Process
P004	Lye Neutralization
P005	Laboratories
P007	Cold Cleaning Station
P008	Cold Cleaning Station
P009	Bin Storage Transfer System
P010	Soap Conveyance from Bin Storage
P011	Soap Conveyance from Tote
P012	Soap Bin Conveyance from Dryers
B = Boiler	
H = Space Heater	
P = Process Source	

NOTE: For each emission unit specified above, a corresponding Emission Unit form (sections 2.1 - 2.99) should be completed.

Original Bradford Soap Works
FACILITY NAME

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State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
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(401) 277 - 2808

Section 2.99 - Emission Units
Miscellaneous

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P009	Stack ID No(s): V321
Plant's Name of Emission Unit: Bin Storage Transfer System	Name of any Air Pollution Control Device(s): Bag house (C003)
In Detail, Describe this Emission Unit: Material transfer system for soap.	
Manufacturer: Semco, Inc. Model Number VF-85	Date of Construction: _____ Date of Installation: _____ Has this Unit been modified? ☐ Yes ☒ No
Unit Source Classification Code (SCC): 30100910 cleaning chemicals (general)	
Normal Operating Schedule: 24 Hours/Day, 6 Days/Week, 51 Weeks/Year (Use this schedule information to calculate annual material and fuel usage from the hourly usage in sections A, B and C) Ozone Season Operating Schedule: 24 Hours/Day, 6 Days/Week, 51 Weeks/Year (June - August)	
Describe any fugitive emissions associated with this unit, such as outdoor storage piles, unpaved roads, open conveyors, etc.: None	

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Section 2.99 - Emission Units
Miscellaneous (Continued)

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P009	Stack ID No(s): V321

(A) List the Types and Amount of Material Input to this Unit:

Material	Average Usage Per Hour	(Units)	Average Usage Per Year	(Units)	Maximum Usage Per Hour	(Units)	Maximum Usage Per Year	(Units)	% Moisture
Soap	2,100	lb	2,000	ton	2,100	lb	9,198	ton	10

(B) List the Products from this Emission Unit:

Product	Average Production Rate Per Hour	(Units)	Average Production Rate Per Year	(Units)	Maximum Production Rate Per Hour	(Units)	Maximum Production Rate Per Year	(Units)
Soap	2,100	lb	2,000	ton	2,100	lb	9,198	ton

(C) Process Fuel Usage: None

Fuel Type and Grade	Max. Heat Input) (Million BTU/hr	Average Usage Per Hour	(Units)	Average Usage Per Year	(Units)	Maximum Usage Per Hour	(Units)	Maximum Usage Per Year	(Units)	% Sulfur (Max.)	% Ash (Max.)

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State of Rhode Island
Department of Environmental Management
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Section 2.99 - Emission Units
Miscellaneous

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P010	Stack ID No(s): V322
Plant's Name of Emission Unit: Soap Conveyance from Bin Storage	Name of any Air Pollution Control Device(s): Bag house (C004)

In Detail, Describe this Emission Unit:

Material Transfer system for soap.

Manufacturer: Unknown	Date of Construction:
Model Number Unknown	Date of Installation:
	Has this Unit been modified? ☐ Yes ☒ No

Unit Source Classification Code (SCC): 30100910 cleaning chemicals (general)

Normal Operating Schedule: 24 Hours/Day, 6 Days/Week, 51 Weeks/Year
(Use this schedule information to calculate annual material and fuel usage from the hourly usage in sections A, B and C)

Ozone Season Operating Schedule: 24 Hours/Day, 6 Days/Week, 51 Weeks/Year
(June - August)

Describe any fugitive emissions associated with this unit, such as outdoor storage piles, unpaved roads, open conveyors, etc.:

None

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Section 2.99 - Emission Units
Miscellaneous (Continued)

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P010	Stack ID No(s): V322

(A) List the Types and Amount of Material Input to this Unit:

Material	Average Usage Per Hour	(Units)	Average Usage Per Year	(Units)	Maximum Usage Per Hour	(Units)	Maximum Usage Per Year	(Units)	% Moisture
Soap	4,200	lb	2,000	ton	4,200	lb	18,396	ton	10

(B) List the Products from this Emission Unit:

Product	Average Production Rate Per Hour	(Units)	Average Production Rate Per Year	(Units)	Maximum Production Rate Per Hour	(Units)	Maximum Production Rate Per Year	(Units)
bagged soap	4,200	lb	2,000	ton	4,200	lb	18,396	ton

(C) Process Fuel Usage: None

Fuel Type and Grade	Max. Heat Input) (Million BTU/hr	Average Usage Per Hour	(Units)	Average Usage Per Year	(Units)	Maximum Usage Per Hour	(Units)	Maximum Usage Per Year	(Units)	% Sulfur (Max.)	% Ash (Max.)

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State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 2.99 - Emission Units
Miscellaneous

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P011	Stack ID No(s): V323
Plant's Name of Emission Unit: Soap Conveyance from Tote	Name of any Air Pollution Control Device(s): Bag house (C005)

In Detail, Describe this Emission Unit:

Material transfer system for soap.

Manufacturer: Spencer Turbine Company	Date of Construction:
Model Number TH830AB-1	Date of Installation:
	Has this Unit been modified? ☐ Yes ☒ No

Unit Source Classification Code (SCC): 30100910 cleaning chemicals (general)

Normal Operating Schedule: 24 Hours/Day, 6 Days/Week, 51 Weeks/Year
(Use this schedule information to calculate annual material and fuel usage from the hourly usage in sections A, B and C)

Ozone Season Operating Schedule: 24 Hours/Day, 6 Days/Week, 51 Weeks/Year
(June - August)

Describe any fugitive emissions associated with this unit, such as outdoor storage piles, unpaved roads, open conveyors, etc.:

None

State of Rhode Island
Department of Environmental Management
Division of Air Resources

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Providence, RI 02908
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Section 2.99 - Emission Units
Miscellaneous (Continued)

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P011	Stack ID No(s): V323

(A) List the Types and Amount of Material Input to this Unit:

Material	Average Usage Per Hour	(Units)	Average Usage Per Year	(Units)	Maximum Usage Per Hour	(Units)	Maximum Usage Per Year	(Units)	% Moisture
Soap	2,100	lb	225	ton	2,100	lb	9,198	ton	10

(B) List the Products from this Emission Unit:

Product	Average Production Rate Per Hour	(Units)	Average Production Rate Per Year	(Units)	Maximum Production Rate Per Hour	(Units)	Maximum Production Rate Per Year	(Units)
bagged soap	2,100	lb	225	ton	2,100	lb	9,198	ton

(C) Process Fuel Usage: None

Fuel Type and Grade	Max. Heat Input) (Million BTU/hr	Average Usage Per Hour	(Units)	Average Usage Per Year	(Units)	Maximum Usage Per Hour	(Units)	Maximum Usage Per Year	(Units)	% Sulfur (Max.)	% Ash (Max.)

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State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
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Section 2.99 - Emission Units
Miscellaneous

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P012	Stack ID No(s): V324
Plant's Name of Emission Unit: Soap Bin Conveyance from Dryers	Name of any Air Pollution Control Device(s): Bag house (C006)

In Detail, Describe this Emission Unit:

Material transfer system for soap.

Manufacturer: Vacumax	Date of Construction:
Model Number 106004	Date of Installation:
	Has this Unit been modified? ☐ Yes ☒ No

Unit Source Classification Code (SCC): 30100910 cleaning chemicals (general)

Normal Operating Schedule: 24 Hours/Day, 6 Days/Week, 51 Weeks/Year
(Use this schedule information to calculate annual material and fuel usage from the hourly usage in sections A, B and C)

Ozone Season Operating Schedule: 24 Hours/Day, 6 Days/Week, 51 Weeks/Year
(June - August)

Describe any fugitive emissions associated with this unit, such as outdoor storage piles, unpaved roads, open conveyors, etc.:

None

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Section 2.99 - Emission Units
Miscellaneous (Continued)

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P012	Stack ID No(s): V324

(A) List the Types and Amount of Material Input to this Unit:

Material	Average Usage Per Hour	(Units)	Average Usage Per Year	(Units)	Maximum Usage Per Hour	(Units)	Maximum Usage Per Year	(Units)	% Moisture
Soap	8,400	lb	4,000	ton	8,400	lb	36,792	ton	10

(B) List the Products from this Emission Unit:

Product	Average Production Rate Per Hour	(Units)	Average Production Rate Per Year	(Units)	Maximum Production Rate Per Hour	(Units)	Maximum Production Rate Per Year	(Units)
bagged soap	8,400	lb	4,000	ton	8,400	lb	36,792	ton

(C) Process Fuel Usage: None

Fuel Type and Grade	Max. Heat Input) (Million BTU/hr	Average Usage Per Hour	(Units)	Average Usage Per Year	(Units)	Maximum Usage Per Hour	(Units)	Maximum Usage Per Year	(Units)	% Sulfur (Max.)	% Ash (Max.)

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State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
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(401) 277 - 2808

Section 3.0 - Air Pollution Control Devices
Summary

ID No. of Air Pollution Control Device	Air Pollution Control Device Description:
C003	Bag house on bin storage transfer system
C004	Bag house on soap conveyance from bin storage
C005	Bag house on soap conveyance from tote
C006	Bag house on soap bin conveyance from dryers

NOTE: For each control device specified above, a corresponding data page (sections 3.1 - 3.99) should be included.

Original Bradford Soap Works
FACILITY NAME

SIGNATURE OF PERSON COMPLETING THIS SECTION

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State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
Providence, RI 02908
(401) 277 - 2808

Section 3.99 - Air Pollution Control Devices
Miscellaneous

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Air Pollution Control ID No(s): C003	Stack ID No(s): V321

List all emission units that are controlled by this unit:
ID number of emission units: P009 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

Manufacturer:	Semco, Inc.	Date of manufacture:	not available
Model number:	VF-85	Date of installation:	not available

List pollutants which this device is intended to control:

Pollutant	Inlet loading gr/acf	Inlet loading lb/hr	% Control efficiency	Outlet loading gr/acf	Outlet loading lb/hr
Soap dust	not avail.	4.83	99.9%	not avail.	0.005

Describe how inlet and outlet loading and efficiency were determined:

Efficiency is assumed value based on relatively large size of soap particles

Describe this device, attach additional information if necessary:

There is no information available on this device.

Inlet gas temp.: 70 °F Outlet gas temperature 70 °F Outlet gas moisture content: <10 %mass

Inlet gas flow rate: not avail acfm Outlet gas flow rate: not avail. acfm

Average pressure drop across the device (inches water): not avail.

Indicate any instruments used to monitor the performance and operation of this control device:

- ☐ Temperature (inlet)
- ☐ Temperature (outlet)
- ☐ Fan amps
- ☐ Flow rate
- ☐ Pressure drop
- ☐ Other (specify): none

SIGNATURE OF PERSON COMPLETING THIS SECTION

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Section 3.99 - Air Pollution Control Devices
Miscellaneous

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Air Pollution Control ID No(s): C004	Stack ID No(s): V322

List all emission units that are controlled by this unit:
ID number of emission units: P010 , _____ , _____ , _____ , _____ , _____ , _____ , _____ ,_____

Manufacturer: Unknown	Date of manufacture: _____
Model number: Unknown	Date of installation: _____

List pollutants which this device is intended to control:

Pollutant	Inlet loading gr/acf	Inlet loading lb/hr	% Control efficiency	Outlet loading gr/acf	Outlet loading lb/hr
Soap dust	not avail.	9.66	99.9%	not avail.	0.010

Describe how inlet and outlet loading and efficiency were determined:

Efficiency is assumed value based on relatively large size of soap particles

Describe this device, attach additional information if necessary:

There is no information available on this device.

Inlet gas temp.: 70 °F Outlet gas temperature 70 °F Outlet gas moisture content: <10 %mass

Inlet gas flow rate: not avail acfm Outlet gas flow rate: not avail. acfm

Average pressure drop across the device (inches water): not avail.

Indicate any instruments used to monitor the performance and operation of this control device:

- ☐ Temperature (inlet)
- ☐ Temperature (outlet)
- ☐ Fan amps
- ☐ Flow rate
- ☐ Pressure drop
- ☐ Other (specify): none

SIGNATURE OF PERSON COMPLETING THIS SECTION

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Section 3.99 - Air Pollution Control Devices
Miscellaneous

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Air Pollution Control ID No(s): C005	Stack ID No(s): V323

List all emission units that are controlled by this unit:
ID number of emission units: P011 , _____ , _____ , _____ , _____ , _____ , _____ , _____ ,_____

Manufacturer: Spencer Turbine Company
Model number: TH830AB-1
Date of manufacture: _____
Date of installation: _____

List pollutants which this device is intended to control:

Pollutant	Inlet loading gr/acf	Inlet loading lb/hr	% Control efficiency	Outlet loading gr/acf	Outlet loading lb/hr
Soap dust	not avail.	4.83	99.9%	not avail.	0.005

Describe how inlet and outlet loading and efficiency were determined:

Efficiency is assumed value based on relatively large size of soap particles

Describe this device, attach additional information if necessary:

There is no information available on this device.

Inlet gas temp.: 70 °F Outlet gas temperature 70 °F Outlet gas moisture content: <10 %mass
Inlet gas flow rate: not avail acfm Outlet gas flow rate: not avail. acfm

Average pressure drop across the device (inches water): not avail.

Indicate any instruments used to monitor the performance and operation of this control device:

- ☐ Temperature (inlet)
- ☐ Fan amps
- ☐ Pressure drop
- ☐ Temperature (outlet)
- ☐ Flow rate
- ☐ Other (specify): none

SIGNATURE OF PERSON COMPLETING THIS SECTION

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Division of Air Resources

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Section 3.99 - Air Pollution Control Devices
Miscellaneous

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Air Pollution Control ID No(s): C006	Stack ID No(s): V324

List all emission units that are controlled by this unit:
ID number of emission units: P012 , _____ , _____ , _____ , _____ , _____ , _____ , _____ ,_____

Manufacturer:	Vacumax	Date of manufacture:	
Model number:	106004	Date of installation:	

List pollutants which this device is intended to control:

Pollutant	Inlet loading gr/acf	Inlet loading lb/hr	% Control efficiency	Outlet loading gr/acf	Outlet loading lb/hr
Soap dust	not avail.	19.32	99.9%	not avail.	0.019

Describe how inlet and outlet loading and efficiency were determined:

Efficiency is assumed value based on relatively large size of soap particles

Describe this device, attach additional information if necessary:

There is no information available on this device.

Inlet gas temp.: 70 °F Outlet gas temperature 70 °F Outlet gas moisture content: <10 %mass

Inlet gas flow rate: not avail acfm Outlet gas flow rate: not avail. acfm

Average pressure drop across the device (inches water): not avail.

Indicate any instruments used to monitor the performance and operation of this control device:

- ☐ Temperature (inlet)
- ☐ Temperature (outlet)
- ☐ Fan amps
- ☐ Flow rate
- ☐ Pressure drop
- ☐ Other (specify): none

SIGNATURE OF PERSON COMPLETING THIS SECTION

DATE 8/6/10

State of Rhode Island
Department of Environmental Management
Division of Air Resources

291 Promenade Street
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Section 4.0 - Emissions
Unit Emissions Summary

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P009	Stack ID No(s): V321

Complete the following summary of emissions from this unit. The quantities reported should take into consideration the application of air pollution control devices, where applicable. Attach calculations and emission factor references.

Criteria Pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year
PM_{10}	NA					
Total suspended particulate	NA	0.005	0.005	0.005	0.021	0.021
Sulfur dioxide	7446-09-5					
Volatile organic compounds	NA					
Nitrogen oxides	10102-44-0					
Carbon monoxide	630-08-0					
Lead	7439-92-1					

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year

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Division of Air Resources

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Section 4.0 - Emissions
Unit Emissions Summary

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P010	Stack ID No(s): V322

Complete the following summary of emissions from this unit. The quantities reported should take into consideration the application of air pollution control devices, where applicable. Attach calculations and emission factor references.

Criteria Pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year
PM_{10}	NA					
Total suspended particulate	NA	0.010	0.005	0.010	0.042	0.042
Sulfur dioxide	7446-09-5					
Volatile organic compounds	NA					
Nitrogen oxides	10102-44-0					
Carbon monoxide	630-08-0					
Lead	7439-92-1					

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year

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Division of Air Resources

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Section 4.0 - Emissions
Unit Emissions Summary

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P011	Stack ID No(s): V323

Complete the following summary of emissions from this unit. The quantities reported should take into consideration the application of air pollution control devices, where applicable. Attach calculations and emission factor references.

Criteria Pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year
PM_{10}	NA					
Total suspended particulate	NA	0.005	0.001	0.005	0.021	0.021
Sulfur dioxide	7446-09-5					
Volatile organic compounds	NA					
Nitrogen oxides	10102-44-0					
Carbon monoxide	630-08-0					
Lead	7439-92-1					

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year

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Section 4.0 - Emissions
Unit Emissions Summary

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P012	Stack ID No(s): V324

Complete the following summary of emissions from this unit. The quantities reported should take into consideration the application of air pollution control devices, where applicable. Attach calculations and emission factor references.

Criteria Pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year
PM_{10}	NA					
Total suspended particulate	NA	0.019	0.009	0.019	0.085	0.085
Sulfur dioxide	7446-09-5					
Volatile organic compounds	NA					
Nitrogen oxides	10102-44-0					
Carbon monoxide	630-08-0					
Lead	7439-92-1					

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions		Maximum emissions		Potential emissions
		lb/hr	tons/year	lb/hr	tons/year	tons/year

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Section 4.2 - Emissions
Applicable Requirements

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P009, P010, P011, P012	Stack ID No(s): V321, V322, V323, V324

Provide any restrictions on operation which affect emissions or operations (e.g. only one unit is operated at a time):

None

Provide any specific emission standard(s) and limitation(s) set by regulation and/or permit conditions which are applicable to this emission unit (e.g., volatile organic compound content of coating not to exceed 3.5 lb/gal):

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
Visible emissions	Regulation 1	Opacity limited to 20 percent
Various	Regulation 16	Operation requirements

Provide any specific recordkeeping requirement which is specific to this emission unit:

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
Particulate matter	Regulation 14	Fundamental recordkeeping

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Section 4.2 - Emissions
Applicable Requirements (Continued)

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P009, P010, P011, P012	Stack ID No(s): V321, V322, V323, V324

Provide any specific reporting requirement which is applicable to this emission unit:

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
None		

Provide any specific monitoring requirement which is applicable to this emission unit:

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
none		

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Section 4.2 - Emissions
Applicable Requirements (Continued)

Facility Name: Original Bradford Soap Works	Approval No. (if applicable): not applicable
Emission Unit ID No(s): P009, P010, P011, P012	Stack ID No(s): V321, V322, V323, V324

Provide any specific testing requirement which is applicable to this emission unit:

Air pollutant(s)	Regulation/Approval No.	Requirement(s)
none		

Does this emission unit qualify for an exemption from any regulation? ☒ Yes ☐ No

If yes, then list both the regulation from which it is exempt and the regulation which allows the exemption **AND** provide a detailed explanation of why the exemption applies. Include detailed supporting data and calculations. Attach and label as exhibit or refer to other attachments which address and justify this exemption.

Not required to have permit for air pollution control device because it is not needed to meet any emission limit.

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Section 5.1 - Stack and Process Vent Identification
Stack Parameters

Facility Name: Original Bradford Soap Works	Stack ID No.: V321

List all emission units that exhaust through this stack:

ID number of emission units: P009 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

List all air pollution control devices that exhaust through this stack:

Air Pollution Control ID No.: C003 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

Stack height above ground: 10 +- ft. Stack base elevation: 60 ft. above sea level

Inside diameter at stack outlet: 0.33 ft. Discharge direction: 0 degrees

UP = 90°, DOWN = -90°, HORIZONTAL = 0°

Is this stack equipped with a rain hat or any obstruction to the free flow of the exhaust from this stack: ☐ Yes ☒ No
If yes, describe:

_____

Exhaust gas velocity (ft/sec): Avg. not available Max.: not available

Exhaust gas flow rate (acfm): Avg. not available Max.: not available

Exhaust gas temperature: 70 °F

Is this stack equipped with sampling ports for stack test purposes? ☐ Yes ☒ No

Is this stack equipped with continuous emission monitoring equipment? ☐ Yes ☒ No
If yes, what pollutant(s) does it monitor (e.g., opacity, SO_2, etc.)? _____

Distance to the nearest property line or nearest property area with unrestricted public access: 55 ft.

Can emissions that normally exit through this stack be directed to a bypass system? ☐ Yes ☒ No

If yes, describe under what circumstances the bypass is used: _____

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Section 5.1 - Stack and Process Vent Identification
Stack Parameters

Facility Name: Original Bradford Soap Works	Stack ID No.: V323

List all emission units that exhaust through this stack:

ID number of emission units: P010 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

List all air pollution control devices that exhaust through this stack:

Air Pollution Control ID No.: C004 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

Stack height above ground: 10 +- ft. Stack base elevation: 60 ft. above sea level

Inside diameter at stack outlet: 0.33 ft. Discharge direction: 0 degrees

UP = 90°, DOWN = -90°, HORIZONTAL = 0°

Is this stack equipped with a rain hat or any obstruction to the free flow of the exhaust from this stack: ☐ Yes ☒ No
If yes, describe:

_____

Exhaust gas velocity (ft/sec): Avg. not available Max.: not available

Exhaust gas flow rate (acfm): Avg. not available Max.: not available

Exhaust gas temperature: 70 °F

Is this stack equipped with sampling ports for stack test purposes? ☐ Yes ☒ No

Is this stack equipped with continuous emission monitoring equipment? ☐ Yes ☒ No
If yes, what pollutant(s) does it monitor (e.g., opacity, SO_2, etc.)? _____

Distance to the nearest property line or nearest property area with unrestricted public access: 55 ft.

Can emissions that normally exit through this stack be directed to a bypass system? ☐ Yes ☒ No

If yes, describe under what circumstances the bypass is used: _____

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Section 5.1 - Stack and Process Vent Identification
Stack Parameters

Facility Name: Original Bradford Soap Works	Stack ID No.: V323

List all emission units that exhaust through this stack:

ID number of emission units: P011 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

List all air pollution control devices that exhaust through this stack:

Air Pollution Control ID No.: C005 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

Stack height above ground: 10 +- ft. Stack base elevation: 60 ft. above sea level

Inside diameter at stack outlet: 0.33 ft. Discharge direction: 0 degrees

UP = 90°, DOWN = -90°, HORIZONTAL = 0°

Is this stack equipped with a rain hat or any obstruction to the free flow of the exhaust from this stack: ☐ Yes ☒ No
If yes, describe:

_____

Exhaust gas velocity (ft/sec): Avg. not available Max.: not available

Exhaust gas flow rate (acfm): Avg. not available Max.: not available

Exhaust gas temperature: 70 °F

Is this stack equipped with sampling ports for stack test purposes? ☐ Yes ☒ No

Is this stack equipped with continuous emission monitoring equipment? ☐ Yes ☒ No
If yes, what pollutant(s) does it monitor (e.g., opacity, SO_2, etc.)? _____

Distance to the nearest property line or nearest property area with unrestricted public access: 55 ft.

Can emissions that normally exit through this stack be directed to a bypass system? ☐ Yes ☒ No

If yes, describe under what circumstances the bypass is used: _____

_____

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Section 5.1 - Stack and Process Vent Identification
Stack Parameters

Facility Name: Original Bradford Soap Works	Stack ID No.: V324

List all emission units that exhaust through this stack:

ID number of emission units: P012 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

List all air pollution control devices that exhaust through this stack:

Air Pollution Control ID No.: C006 , _____ , _____ , _____ , _____ , _____ , _____ , _____ , _____

Stack height above ground: 28.9 +- ft. Stack base elevation: 60 ft. above sea level

Inside diameter at stack outlet: 0.5 ft. Discharge direction: 0 degrees

UP = 90°, DOWN = -90°, HORIZONTAL = 0°

Is this stack equipped with a rain hat or any obstruction to the free flow of the exhaust from this stack: ☐ Yes ☒ No
If yes, describe:

_____

Exhaust gas velocity (ft/sec): Avg. not available Max.: not available

Exhaust gas flow rate (acfm): Avg. not available Max.: not available

Exhaust gas temperature: 70 °F

Is this stack equipped with sampling ports for stack test purposes? ☐ Yes ☒ No

Is this stack equipped with continuous emission monitoring equipment? ☐ Yes ☒ No
If yes, what pollutant(s) does it monitor (e.g., opacity, SO_2, etc.)? _____

Distance to the nearest property line or nearest property area with unrestricted public access: 170 ft.

Can emissions that normally exit through this stack be directed to a bypass system? ☐ Yes ☒ No

If yes, describe under what circumstances the bypass is used: _____

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Section 5.2 - Stack and Process Vent Identification
Stack Emissions

Facility Name: Original Bradford Soap Works	Stack ID No(s): V321

Complete the following summary of emissions from this stack or vent:

Criteria Pollutants

Air pollutant	CAS Number	Average emissions lb/hr	Maximum emissions lb/hr
PM_{10}	NA		
Total suspended particulate	NA	0.005	0.005
Sulfur dioxide	7446-09-5		
Volatile organic compounds	NA		
Nitrogen oxides	10102-44-0		
Carbon monoxide	630-08-0		
Lead	7439-92-1		

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions lb/hr	Maximum emissions lb/hr

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Section 5.2 - Stack and Process Vent Identification
Stack Emissions

Facility Name: Original Bradford Soap Works	Stack ID No(s): V322

Complete the following summary of emissions from this stack or vent:

Criteria Pollutants

Air pollutant	CAS Number	Average emissions lb/hr	Maximum emissions lb/hr
PM_{10}	NA		
Total suspended particulate	NA	0.010	0.010
Sulfur dioxide	7446-09-5		
Volatile organic compounds	NA		
Nitrogen oxides	10102-44-0		
Carbon monoxide	630-08-0		
Lead	7439-92-1		

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions lb/hr	Maximum emissions lb/hr

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Section 5.2 - Stack and Process Vent Identification
Stack Emissions

Facility Name: Original Bradford Soap Works	Stack ID No(s): V323

Complete the following summary of emissions from this stack or vent:

Criteria Pollutants

Air pollutant	CAS Number	Average emissions lb/hr	Maximum emissions lb/hr
PM_{10}	NA		
Total suspended particulate	NA	0.005	0.005
Sulfur dioxide	7446-09-5		
Volatile organic compounds	NA		
Nitrogen oxides	10102-44-0		
Carbon monoxide	630-08-0		
Lead	7439-92-1		

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions lb/hr	Maximum emissions lb/hr

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Section 5.2 - Stack and Process Vent Identification
Stack Emissions

Facility Name: Original Bradford Soap Works	Stack ID No(s): V324

Complete the following summary of emissions from this stack or vent:

Criteria Pollutants

Air pollutant	CAS Number	Average emissions lb/hr	Maximum emissions lb/hr
PM_{10}	NA		
Total suspended particulate	NA	0.019	0.019
Sulfur dioxide	7446-09-5		
Volatile organic compounds	NA		
Nitrogen oxides	10102-44-0		
Carbon monoxide	630-08-0		
Lead	7439-92-1		

Regulated pollutants, including HAPS and other toxic air pollutants

Air pollutant	CAS Number	Average emissions lb/hr	Maximum emissions lb/hr

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Section 6.2 - Compliance Plan
Compliance Certification

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P009, P010, P011, P012
Applicable requirement(s): Regulation 1, 16	Air Pollutant(s): PM

Complete the following sections to provide a statement of the methods that will be used for determining compliance with all applicable requirements, including a description of test methods, monitoring, recordkeeping and reporting requirements.

Test methods (check all that apply)

- ☐ Continuous emission monitoring (CEM)
- ☐ Periodic emission monitoring using portable monitors
- ☐ Stack testing
- ☐ Fuel sampling and analysis
- ☐ Other (specify):

Generally describe the frequency and duration of this testing and how it will be recorded:

As requested by RIDEM

Monitoring requirements (check all that apply)

- ☐ Monitoring control system parameters
- ☐ Monitoring operating parameters of a process
- ☐ Monitoring maintenance procedures
- ☐ Other monitoring methods (describe in detail): None

Monitoring device type: none

Monitoring location:

Generally describe the frequency and duration of monitoring and how the data will be recorded (i.e. every 15 minutes, 1 minute instantaneous readings taken to produce an hourly average):

not applicable

Is enhanced monitoring applicable? ☐ Yes ☒ No

Is enhanced monitoring protocol attached? ☐ Yes ☒ No

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Section 6.2 - Compliance Plan
Compliance Certification
(Continued)

Facility Name: Original Bradford Soap Works	Emission Unit ID No(s): P009, P010, P011, P012
Applicable requirement(s): Regulation 1, Regulation 16	Air Pollutant(s): PM

Recordkeeping requirements

Data/parameters being recorded: None

Frequency of recordkeeping (how often the data is recorded): Once per year

Reporting requirements

Generally describe what is reported:

Frequency: ☐ Monthly ☐ Quarterly ☐ Once every six months

☒ Other As required

Schedule for the submission of compliance certifications during the term of the permit:

(Frequency of submittal must be annually or more frequent if specified by an applicable requirement) annually

Date(s): March 1

Certification of compliance with all applicable requirements:

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

Based on information and belief formed after reasonable inquiry, the statements and information in this application regarding each applicable requirement, compliance monitoring method, and compliance status, are true, accurate, and complete. In addition, I hereby certify that the facility identified in this application is in compliance with all applicable requirements. except those identified in Section 6.1 of this application.

AUTHORIZED SIGNATURE — DATE: 8/21/10

William Schmiedeknecht
TYPED OR PRINTED NAME

Sr. Vice President of Administration
TITLE OF SIGNATORY

ATTACHMENT 5

UPDATED LIST OF INSIGNIFICANT ACTIVITIES

TABLE A-1
INSIGNIFICANT ACTIVITIES

Original Bradford Soap Works
West Warwick, Rhode Island

Process Operations listed as Trivial Activities in USEPA White Paper 1 including: 1. Storage tanks that will not emit any VOC or HAP 2. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, grease, animal fats and non-volatile aqueous salt solutions 3. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and non-volatile aqueous solutions. The majority of OBSW's storage, material handling, and manufacturing operations are considered trivial activities. Process vessels and equipment that fall into this category are listed in Table A-2.
Storage Tanks of less than 2000 gallons capacity Table A-3 lists storage tanks of less than 2000 gallons capacity.
Storage Tanks of less than 10000 gallons capacity storing materials with a vapor pressure of less than 0.1 mm Hg or greater than 10000 gallons with less than 2000 pounds of emissions annually. Table A-4 lists storage tanks with a capacity less than or equal to 10000 gallons or with annual emissions of <2000 pounds. All but two tanks have volumes less than 10000 gallons and store materials with vapor pressures below the threshold.
Storage tanks having emissions of less than the thresholds listed in Table II of Regulation 29 There are two storage tanks storing materials with vapor pressures over 0.1 mm Hg, the ethanol tank and HCl tank, which are shown in Table A-4. Emissions from the HCl tank were compared against the new minimum quantity threshold in the amended Regulation 22 based on the emissions estimates in the original application and found to be well within the thresholds. The ethanol tank emissions are below the VOC emissions threshold.
Miscellaneous Combustion Devices below the Thresholds in Table II of Regulation 29 See Table A-5 for a listing of such devices
Glycerin Recovery Process The emissions from the glycerin recovery process are less than 2000 pounds per year and the process has been determined by EPA not to be subject to subparts VV and NNN of 40 CFR 60.
Inkjet Printing Total annual emissions from ink jet printing of product codes is less than 2000 pounds of VOC and 800 pounds of methyl ethyl ketone.
Fragrances Total annual VOC emissions from fragrances, which are used in process operations throughout the facility, are less than 2000 pounds of VOC
Dryers Dryers have essentially no emissions. The dryers include two APV dryers, the Proctor and Schwartz flaker/dryer and the Mazzoni dryer. One of the APV dryers has been installed since the original permit was issued.
Chillers Process chillers have emissions from refrigerant leaks of less than 1000 pounds per year.

TABLE A-2
INSIGNIFICANT ACTIVITIES
PROCESS EQUIPMENT CONSIDERED TRIVIAL

Original Bradford Soap Works
West Warwick, Rhode Island

Tank No.	Location	Material Stored	Capacity (gallons)
--	Building 9 Below Mezzanine	Synthetic Mixer	
7 B	Glycerin Room	Brine	1,000
--	Bleach Room	Caustic Soda (NaOH)	94
	Building 9 Mezzanine	Caustic Soda (NaOH)	708
-	Fourth Floor	Crucher Tank – Soap	125
-	Fourth Floor	Crucher Tank – Soap	250
--	Soap Room	Crucher Tank – Soap	500
28 A	Glycerin Room	Crude Glycerin	650
--	Soap Room	Crucher Tank – Soap	450
8A	First Floor Area	Edible Crude Oil	4,095
8B	First Floor Area	Edible Crude Oil	4,095
Kettle D	Soap Room	Kettle Soap	5,400
Kettle E	Soap Room	Kettle Soap	6,600
Kettle F	Soap Room	Kettle Soap	6,600
Kettle G	Soap Room	Kettle Soap	6,600
Kettle H	Soap Room	Kettle Soap	7,100
Kettle I	Soap Room	Kettle Soap	7,100
Kettle J	Soap Room	Kettle Soap	7,100
Kettle K	Soap Room	Kettle Soap	7,100
Kettle N	Soap Room	Kettle Soap	8,000
Kettle O	Soap Room	Kettle Soap	8,000
6	BDA Room	Liquid Soap	350
3	BDA Room	Liquid Soap	1,200
--	Building 9 Mezzanine	Mixer Tank	275
9	BDA Room	Muds/ Creams Mixing	300
--	Building 9 Mezzanine	Non-Alcoholic Clear Soap	1,200
--	Building 9 Mezzanine	Non-Alcoholic Clear Soap	1,200
--	Building 9 Mezzanine	Non-Alcoholic Synthetic Detergent	100
--	Building 9 Mezzanine	Non-Alcoholic Synthetic Detergent	1,100
--	Building 9 Mezzanine	Non-Alcoholic Synthetic Detergent	1,100
4	Soap Room	Not In Use	~1,180
Front	Fifth Floor – closest to machine	Soap	1,800
Rear	Fifth Floor – closest to door	Soap	1,800
	Building 9 Mezzanine	Soap	500
32 D	Glycerin Room	Soap Lye	1,000
32 E	Glycerin Room	Soap Lye	1,000
32 F	Glycerin Room	Soap Lye	1,000
Equalization Tanks	Bleach Room	Soap Lye	2,157
Equalization Tanks	Bleach Room	Soap Lye	2,157
31	Bleach Room	Crude Edible Tallow	11,684
9	Back tank farm	Crude Edible Tallow	7,126
30	Bleach Room	Crude Edible Tallow	8,335
5	Back tank farm	Tallow (Crude Edible)	20,000
Lye 1	Back tank farm	Soap Lye	11,200
Lye 2	Back tank farm	Soap Lye	11,200
Lye 3	Back tank farm	Soap Lye	11,200
Lye 4	Back tank farm	Soap Lye	11,200
Lye 5	Back tank farm	Soap Lye	11,200
Lye 6	Back tank farm	Soap Lye	11,200
25	Back tank farm	Palm Oil	10,395
11	First Floor Area	Palm Oil	7,112

TABLE A-3
INSIGNIFICANT ACTIVITIES
STORAGE TANKS LESS THAN 2000 GALLONS CAPACITY

Original Bradford Soap Works
West Warwick, Rhode Island

Tank No.	Location	Material Stored	Capacity (gallons)
-	Third floor clear soap	Penta Sodium & Tetrosodium Based Soap Preservatives	40
3	Boiler Room	Betz Entec 502*	100
-	Soap Room	Coconut Fatty Acid	125
-	Soap Room	Caustic Potash	125
36	Soap Room	Stearic Acid	150
-	Fourth Floor	Scrap Tank	150
-	Second Floor	Liquid Soap	200
34	Soap Room	Hampex / Preservative	250
-	Fourth Floor	Stearic Acid	300
-	Fourth Floor	Caustic	300
-	Soap Room	Stearic Acid	400
-	Fourth Floor	Sugar/ H2O	400
2	BDA Room	DM50	600
1	BDA Room	Ammonium Stearate	750
7	BDA Room	Wastewater	850
-	Fourth floor	Potash (KOH) 45%	880
20	First Floor Area	Unused	1,884
-	Fourth Floor	Coconut/ Tallow Blend	1,900

TABLE A-4
INSIGNIFICANT ACTIVITIES
STORAGE TANKS LESS THAN OR EQUAL TO 10,000 GALLONS CAPACITY
OR LESS THAN 2000 POUNDS ANNUAL EMISSIONS

Original Bradford Soap Works
West Warwick, Rhode Island

Tank No.	Location	Material Stored	Capacity (gallons)	Basis
--	Second Floor	Liquid Soap	3,200	vp < 0.1 mm Hg
Kettle C	Soap Room	Brine	3,700	vp < 0.1 mm Hg
8	First Floor Area	Empty	4,095	vp < 0.1 mm Hg
41	Building 9	Potassium Oleate	5,000	vp < 0.1 mm Hg
40	Building 9	Ammonium Stearate	6,270	vp < 0.1 mm Hg
29	Bleach Room	Crude Edible Tallow	6,491	vp < 0.1 mm Hg
13	First Floor Area	Caustic Soda (50%)	6,923	vp < 0.1 mm Hg
10	First Floor Area	Caustic Soda (50%)	7,112	vp < 0.1 mm Hg
12	First Floor Area	Potash (45% KOH)	7,191	vp < 0.1 mm Hg
--	Third Floor	Lye	~1,200	vp < 0.1 mm Hg
21	Boiler Room	Unused	~3,000	vp < 0.1 mm Hg
1	Back tank farm	Brine	5,920	vp < 0.1 mm Hg
22	Front of mill	Crude Tallow	8,197	vp < 0.1 mm Hg
23	Front of mill	Stearic Acid	7,524	vp < 0.1 mm Hg
28	Back tank farm	Crude Glycerin	9,879	vp < 0.1 mm Hg
38	Back tank farm	Coconut Oil	7,900	vp < 0.1 mm Hg
39	Back tank farm	Coconut Oil Tallow	7,900	vp < 0.1 mm Hg
1A	Outside Recovery Room	HCl	6,500	Emissions <140 lb/yr
--	Underground	ethanol	6,000	Emissions < 2000 lb/yr
--	Underground	No. 6 oil	10,500	Emissions < 2000 lb/yr
--	Outside	Salt	20,000 lbs	Emissions < 2000 lb/yr

TABLE A-5
INSIGNIFICANT ACTIVITIES
MISCELLANEOUS COMBUSTION DEVICES

Original Bradford Soap Works
West Warwick, Rhode Island

Building	Fuel Combustion Devices	Fuel	Number of Units	Heat Capacity per Unit (BTU/hr)	Total Heat Capacity (BTU/hr)
Front Office	Boiler	No 2 oil	1	300,000	300,000
9	HVAC, Bldg 9, 5th Floor	Natural Gas	1	700,000	700,000
9	Infrared Heaters Old Warehouse Area	Natural Gas	6	50,000	300,000
9	Space Heaters, Old Warehouse Area	Natural Gas	2	100,000	200,000
9	Space Heaters, Bldg 9	Natural Gas	2	300,000	600,000
9	Space Heaters, Bldg 9 Overhead Door	Natural Gas	2	71,000	142,000
14	Warehouse Tower Heater	Natural Gas	1	1,440,000	1,440,000
10, 11, 12	Space Heater Tower, Staging Area	Natural Gas	1	400,000	400,000
10, 11, 12	Space Heater, Bar Soap Amalgamator Area	Natural Gas	1	250,000	250,000
10, 11, 12	Heater, Bldg 10	Natural Gas	1	300,000	300,000
10, 11, 12	Heater, Bldg 10	Natural Gas	1	250,000	250,000
10, 11, 12	Heater, Bldg 11 By Line 16	Natural Gas	1	200,000	200,000
10, 11, 12	Heater, Bldg 11 By Line 16	Natural Gas	1	100,000	100,000
10, 11, 12	Heater, Old Evarad Room - Corner	Natural Gas	1	300,000	300,000
10, 11, 12	Maintenance Shop Heater	Natural Gas	1	50,000	50,000
10, 11, 12	Hot Water Boiler, Mezzanine	Natural Gas	1	70,000	70,000

ATTACHMENT 6

SUPPORTING CALCULATIONS

SUPPORTING CALCULATIONS
Greenhouse Gas Reporting Rule Applicability
Original Bradford Soap Works, Inc.
West Warwick, Rhode Island

Fuel	2009 Usage	Heat Value	CO_2		CH_4		N_2O	
			Default Emission Factor (kg/MMBTU)	Global Warming Potential	Default Emission Factor (kg/MMBTU)	Global Warming Potential	Default Emission Factor (kg/MMBTU)	Global Warming Potential
Natural gas	55,255,268 cuft	0.001028 MMBTU/cuft	53.02	1	1.00E-03	21	1.00E-04	310
No. 2 Oil	1,269 gallons	0.138 MMBTU/gal	73.25	1	3.00E-03	21	6.00E-04	310

Fuel	CO_2e
Natural Gas	3,015 metric tons
No. 2 Oil	13 metric tons
TOTAL	**3,027 metric tons**

<25,000 metric tons--Green house gas reporting in not required

SUPPORTING CALCULATIONS
Original Bradford Soap Works
West Warwick, Rhode Island

SOAP TRANSFER SYSTEMS

Original Bradford Soap Works uses pneumatic conveying systems to transfer soap from the dryers to storage bins and from storage bins to production areas. There are three smaller systems in Building 10 and there is a main system at Building 9. Each system consists of piping and vacuum pumps, cyclones to capture the product, and a fabric filter to remove dust. These systems were listed in the original application submitted in February 1997 as venting inside the building, but each unit does include an outside vent. Information on the material collected from the soap bin conveyance system from the dryers was used to estimate emissions from the other systems.

Soap Bin Conveyance from Dryers (P012, Building 9)

Estimated total throughput 2009:	8,000,000 lb	
Total material removed from fabric filter:	375 lb/wk	
Estimated baghouse filter efficiency:	99.9%	
Estimated maximum throughput:	2,100 lb/hr	per pump

Annual amount collected in filter

375 lb/wk	x	49 wks	=	18,375 lb

Estimated throughput through baghouse

18,375 lb	÷	99.9%	=	18,393 lb

Total amount of throughput retained in process

8,000,000 lb	-	18,393 lb	=	7,981,607 lb	=	99.77%

Actual emissions

18,393 lb	-	18,375 lb	=	18 lb

Maximum Emissions

2,100 lb/hr	x	4 pumps	x	(1 - 99.77%)	x	(1 - 99.9%)	=	0.019 lb/hr
0.019 lb/hr	x	8760 hr/yr	=	169 lb/yr	÷	2000 lb/ton	=	0.085 tons/yr

Bin Storage Transfer System (P009, Building 10)

Maximum Emissions

2,100 lb/hr	x	1 pumps	x	(1 - 99.77%)	x	(1 - 99.9%)	=	0.005 lb/hr
0.005 lb/hr	x	8760 hr/yr	=	42 lb/yr	÷	2000 lb/ton	=	0.021 tons/yr

Actual emissions

4,000,000 lb	x	(1 - 99.77%)	x	(1 - 99.9%)	=	9 lb
9 lb	÷	2000 lb/ton	=	0.005 tons/yr		

Soap Conveyance from Bin Storage (P010, Building 10)

Maximum Emissions

2,100 lb/hr	x	2 pumps	x	(1 - 99.77%)	x	(1 - 99.9%)	=	0.010 lb/hr
0.010 lb/hr	x	8760 hr/yr	=	85 lb/yr	÷	2000 lb/ton	=	0.042 tons/yr

4,000,000 lb	x	(1 - 99.77%)	x	(1 - 99.9%)	=	9 lb
9 lb	÷	2000 lb/ton	=	0.005 tons/yr		

Soap Conveyance from Tote Storage (P011, Building 10)

Maximum Emissions

2,100 lb/hr	x	1 pumps	x	(1 - 99.77%)	x	(1 - 99.9%)	=	0.005 lb/hr
0.005 lb/hr	x	8760 hr/yr	=	42 lb/yr	÷	2000 lb/ton	=	0.021 tons/yr

450,000 lb	x	(1 - 99.77%)	x	(1 - 99.9%)	=	1 lb
1 lb	÷	2000 lb/ton	=	0.001 tons/yr		

SUPPORTING CALCULATIONS
Original Bradford Soap Works
West Warwick, Rhode Island

SALT SILO

Bradford installed a new salt silo into which salt is pneumatically conveyed by delivery trucks and the salt is mixed within the silo to make a brine solution. The silo has a vent at the top. Actual annual throughput is 60,000 pounds per year. GZA estimates that no more than 0.1 percent of the product would be lost through the vent.

60,000 lb/yr	x	0.10%	=	60 lb/yr	< 2000 = insignificant activity