DQ#6248

WENCK

Responsive partner.
Exceptional outcomes.

October 22, 2018

Fiscal Services
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

RE: Water Gremlin Company Major Amendment Application
Permit No. 12300341-003

Dear Coordinator:

Wenck Associates, Inc., on behalf of Water Gremlin Company (Water Gremlin), hereby submits the following items for the Major Air Permit Application for its facility located in White Bear Township, Minnesota.

- A USB drive containing the complete PDF of the major air permit amendment application;
- The original signed SCP-01 form; and
- Check for application fee of $7,125.

The permit application referenced above is subject to Minn. Stat. § 116.03, subd. 2b(d) which requires the Commissioner of the Minnesota Pollution Control Agency (MPCA) to determine whether the application is complete within 30 business days after receiving the application. The statute also establishes a goal that the Commissioner issue permits within 150 days after receiving an application. ***Water Gremlin chooses to waive its statutory right to a completeness review within 30 days. This letter is notification to the MPCA of that waiver.***

Please contact me at (651) 294-4584 or Carl Dubois of Water Gremlin at (651) 209-9404 should you have any questions related to the application.

Sincerely,

Wenck Associates, Inc.

Beth Freymiller
Project Manager

cc. Carl Dubois – Water Gremlin Company

DQ# 6248

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North
St. Paul, MN 55155-4194

SCP-01: Submittal cover page

Permit application/notification/ determination request fee submittal

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 7

RECEIVED OCT 24 2018

From: Water Gremlin
Check #: 20083740
Amt of Check: 7,125
Date of Check:
Date of Dep.:

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Submittal is (choose from the following options and then complete the remainder of item 3 as directed):

- ☐ The final certified (or recertified) version of a previously-submitted permit application. **Complete Section 3A.**
- ☐ Additional or supplemental information requested by permit staff during the permit-writing process. **Complete Section 3A.**
- ☐ A request that the Minnesota Pollution Control Agency (MPCA) make an applicability determination. **Complete Section 3A.**
- ☐ An application for a new Individual Part 70 or State Permit – choose **one** of the following:
  - ☐ This is the original application or replacement for a denied application – **Complete Section 3B.**
  - ☐ This is the replacement for an application returned as incomplete (not denied) **and** the scope is different than the incomplete application – **Complete Section 3B.**
  - ☐ This is the replacement for an application returned as incomplete (not denied) **and** the scope is exactly the same as in the incomplete application – **Complete Section 3E.**
- ☐ An application for reissuance of an Individual Part 70 or State Permit – choose **one** of the following:
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- ☒ An application for an amendment to an existing Individual Part 70 or State Permit – choose **one** of the following:
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- ☐ An application for a Registration Permit, Capped Permit, or General Permit – choose **one** of the following:
  - ☐ This is the original application or replacement for a denied application – **Complete Section 3C.**
  - ☐ This is the replacement for an application returned as incomplete (not denied) **and** the scope is different than the incomplete application – **Complete Section 3C.**
  - ☐ This is the replacement for an application returned as incomplete (not denied) **and** the scope is exactly the same as in the incomplete application – **Complete Section 3E.**
- ☐ An application for an administrative change to an existing Registration, Capped, or General Permit – choose **one** of the following:
  - ☐ This is the original application or replacement for a denied application – **Complete Section 3C.**
  - ☐ This is the replacement for an application returned as incomplete (not denied) **and** the scope is different than the incomplete application – **Complete Section 3C.**
  - ☐ This is the replacement for an application returned as incomplete (not denied) **and** the scope is exactly the same as in the incomplete application – **Complete Section 3E.**
- ☐ A notification required under Minn. R. 7007.1150(C); Minn. R. 7007.1250, subp. 4; Minn. R. 7007.1350; Minn. R. 7007.0800, subp. 10, item B. **Complete Section 3D.**
- ☐ A notification from a hot mix asphalt plant holding a Registration Permit of the intent to incorporate ground tear-off shingles and/or manufacturer scrap shingles in the hot mix asphalt. **Complete Section 3D.**

Section 3A – Request for applicability determination, recertification of a previously-submitted permit application, or supplement to a previously-submitted permit application

Use this section only if your submittal is one of the following:

- The final version of a previously submitted permit application, incorporating changes negotiated through the permitting process, or
- Submittal of additional or supplemental information requested by permit staff during the permit-writing process, or
- A request for the MPCA to make an applicability determination.

For final versions and supplemental information, enter the "tracking number" which can be obtained from the MPCA permit staff working on the permit.

Check one of the boxes below. Do not complete Sections 3B, 3C, 3D, or 3E. Continue with item 4 of the form.

Choose one of the following:	Quantity	Points	Total points
☐ Recertification of a previously-submitted permit application – tracking number: _____	NA	NA	NA
☐ Supplement to a previously-submitted permit application – tracking number: _____	NA	NA	NA
☐ An Applicability Determination Request		x 10 =	

Section 3B – Application for an Individual Part 70 or State Permit, reissuance of an Individual Part 70 or State Permit, or amendment of an Individual Part 70 or State Permit

Is this application replacing an application that was returned as incomplete (not an application that was denied)?

☒ No ☐ Yes Enter the tracking number of the incomplete application being replaced: _____.

Check as many of the boxes below as apply. If your submittal also includes notifications that do not require a permit application, also complete Section 3D. Then continue with item 4 of the form.

Choose one of the following:	Quantity	Points	Total points
☐ Application for an Individual Part 70 Permit		x 75 =	
☐ Application for an Individual State Permit		x 50 =	
☐ Application for reissuance of an expiring Individual Part 70 or State Permit			
Expiration date: _____ (mm/dd/yyyy) Application due date (180 days prior to expiration): _____ (mm/dd/yyyy)	NA	NA	NA
☒ Application for a major amendment to an Individual State or Part 70 Permit ☒ Includes reconstruction or modification of a New Source Performance Standards (NSPS) Affected Facility not subject to New Source Review	1	x 25 =	25
☐ Application for a moderate amendment to an Individual State or Part 70 Permit		x 15 =	
☐ Application for a minor amendment to an Individual State or Part 70 Permit		x 4 =	
☐ Application for an administrative amendment to an Individual State or Part 70 Permit Application will be denied if you were not instructed to use the physical forms application process.		x 1 =	

Additional information (check all that apply):

☐ Submittal was preceded by pre-application work with the MPCA (for example: dispersion modeling or modeling protocol review, AERA review, environmental review). The tracking number associated with the preapplication work is: _____

☐ Permit will replace an existing permit of a different type (e.g., replacing a Capped Permit with an Individual State Permit, or replacing a Part 70 General Permit with an Individual Part 70 Permit).

☐ Permit is for construction of a new facility.

☐ Permit is required because of a modification to an existing facility, making the facility subject for the first time for the requirement for an Air Emission Permit.

☐ Project is subject to Prevention of Significant Deterioration (PSD) (40 CFR § 52.21)

- Send a complete copy of the application to U.S. Environmental Protection Agency (EPA) Region V (see instructions).
- Contact EPA Region V to begin the Endangered Species Assessment process (see instructions).

☐ Permit is required because of installation or modification of a Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP) and/or a Part 60 NSPS Affected Facility at a Stationary Source with Potential-to-Emit below all permit thresholds (Minn. R. 7007.0500, subp. 2.C.(1)).

Section 3C – Application for a Registration, Capped, or General Permit

Is this application replacing an application that was returned as incomplete (not an application that was denied)?

☐ No ☐ Yes Enter the tracking number of the incomplete application being replaced: _____.

Check as many of the boxes below as apply. Continue with item 4 of the form.

Choose one of the following:	Quantity	Points	Total points
☐ Application for a Registration Permit ☐ Option A ☐ Option B ☐ Option C ☐ Option D		x 2 =	
☐ Application for a Capped Permit ☐ Option 1 ☐ Option 2		x 4 =	
☐ Application for a Part 70 General Permit ☐ Manufacturing General Permit ☐ Low Emitting Facility General Permit		x 4 =	
☐ Application for a State General Permit ☐ Nonmetallic Mineral Processing General Permit		x 3 =	
☐ Application for an administrative change to an existing Registration, Capped, or General Permit (e.g., change of facility ownership)		x 1 =	

Additional information (check all that apply):

☐ Permit will replace an existing permit of a different type (e.g., replacing a Registration Permit with a Capped Permit; replacing an Option B Registration Permit with an Option D Registration Permit; etc.)

☐ Permit is required for construction of a new facility

☐ Permit is required because of a modification to an existing facility, making the facility subject for the first time for the requirement for an Air Emission Permit.

☐ Permit is required because of a modification or change making the facility ineligible for its existing Air Emission Permit.

Section 3D – Notifications

If your submittal also includes a permit application, then also complete Section 3A, 3B, 3C, or 3e as applicable. Check all applicable boxes below, then continue with item 4 of the form.

☐ A notification of accumulated insignificant activities (Minn. R .7007.1250, subp. 4)

☐ A notification of installation of pollution control equipment (Minn. R. 7007.1150, item C)

☐ A notification of replacement of a unit (Minn. R. 7007.1150, item C)

☐ A notification of replacement of controls with listed controls (Minn. R. 7007.1150, item C)

☐ A notification of changes that contravene a permit term (Minn. R .7007.1350)

☐ A notification from a hot mix asphalt plant including a request to incorporate ground tear-off shingles and/or manufacturer scrap shingles in the hot mix asphalt (applies to Registration Permits) Minn. R. 7011.0913, subp. 3)

Section 3E – Replacement for an incomplete application where the project scope is unchanged

Enter the tracking number of the incomplete application being replaced: _____.

Check one option under "i" and one option under "ii". Calculate the points' difference in "iii". Check all that apply under "iv." Then continue with item 4 of the form.

i. Choose one of the following describing this application:	Quantity	Points	Total Points
☐ Application for an Individual Part 70 Permit		x 75 =	
☐ Application for an Individual State Permit		x 50 =	
☐ Application for a major amendment to an Individual State or Part 70 Permit ☐ Includes reconstruction or modification of a New Source Performance Standards (NSPS) Affected Facility not subject to New Source Review		x 25 =	
☐ Application for a moderate amendment to an Individual State or Part 70 Permit		x 15 =	

i. Choose one of the following describing this application:	Quantity	Points	Total Points
☐ Application for a minor amendment to an Individual State or Part 70 Permit		x 4 =	
☐ Application for an administrative amendment to an Individual State or Part 70 Permit. Application will be denied if you were not instructed to use the physical forms application process.		x 1 =	
☐ Application for a Registration Permit ☐ Option A ☐ Option B ☐ Option C ☐ Option D		x 2 =	
☐ Application for a Capped Permit ☐ Option 1 ☐ Option 2		x 4 =	
☐ Application for a Part 70 General Permit ☐ Manufacturing General Permit ☐ Low Emitting Facility General Permit		x 4 =	
☐ Application for a State General Permit ☐ Nonmetallic Mineral Processing General Permit		x 3 =	
☐ Application for an administrative change to an existing Registration, Capped, or General Permit (e.g., change of facility ownership)		x 1 =	

ii. Choose one of the following describing the incomplete application being replaced:	Quantity	Points	Total Points
☐ Application for an Individual Part 70 Permit		x 75 =	
☐ Application for an Individual State Permit		x 50 =	
☐ Application for a major amendment to an Individual State or Part 70 Permit		x 25 =	
☐ Application for a moderate amendment to an Individual State or Part 70 Permit		x 15 =	
☐ Application for a minor amendment to an Individual State or Part 70 Permit		x 4 =	
☐ Application for an administrative amendment to an Individual State or Part 70 Permit		x 1 =	
☐ Application for a Registration Permit ☐ Option A ☐ Option B ☐ Option C ☐ Option D		x 2 =	
☐ Application for a Capped Permit ☐ Option 1 ☐ Option 2		x 4 =	
☐ Application for a Part 70 General Permit ☐ Manufacturing General Permit ☐ Low Emitting Facility General Permit		x 4 =	
☐ Application for a State General Permit ☐ Nonmetallic Mineral Processing General Permit		x 3 =	
☐ Application for an administrative change to an existing Registration, Capped, or General Permit (e.g., change of facility ownership)		x 1 =	

iii. (Points from part i: _____) – (Points from part ii: _____) = Total points for Section 3E. →

If the number is negative (e.g., the number from "ii" is larger than the number from "i', enter "0".

iv. Additional information (check all that apply):

☐ Submittal was preceded by pre-application work with the MPCA (for example: dispersion modeling or modeling protocol review, AERA review, environmental review). The tracking number associated with the preapplication work is: _____

☐ Permit will replace an existing permit of a different type (e.g., replacing a Capped Permit with an Individual State Permit, or replacing a Part 70 General Permit with an Individual Part 70 Permit)

☐ Permit is for construction of a new facility.

i. Choose one of the following describing this application:	Quantity	Points	Total Points

☐ Permit is required because of a modification to an existing facility, making the facility subject for the first time for the requirement for an Air Emission Permit.

☐ Project is subject to Prevention of Significant Deterioration (PSD) (40 CFR § 52.21)

- Send a complete copy of the application to U.S. Environmental Protection Agency (EPA) Region V (see instructions).
- Contact EPA Region V to begin the Endangered Species Assessment and Historic Preservation Act processes (see instructions).

☐ Permit is required because of installation or modification of a Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP) and/or a Part 60 NSPS Affected Facility at a Stationary Source with Potential-to-Emit below all permit thresholds (Minn. R. 7007.0500, subp. 2.C.(1)).

4) Total points ("total points" from Section 3A, 3B, 3C, or 3E part iii)

25

5) Total application fee

25 (total points from item 4) x $285 = $ 7,125 (fee amount)

The application fee amount is $285 per point, payable to the MPCA. Send your payment ("fee amount") with your submittal. The fee is not refundable, per Minn. R. 7002.0016, subp. 1. There may be additional fees assessed during processing of your request, as required by Minn. R. ch. 7002.

6a) Confidentiality statement:

☒ This application does not contain material claimed to be confidential under Minn. Stat. §§ 13.37 subd. 1(b) and 116.075. Skip item 6b, go to item 7.

☐ This application contains material which is claimed to be confidential under Minn. Stat. §§ 13.37 subd. 1(b) and 116.075. Complete Item 6b. Your submittal must include both Confidential and Public versions of your application.

Registration Permit applicants may not claim any portion of their application as confidential. If applying for a Registration Permit or an administrative change to a Registration Permit, you must check the first box above ("This application does not contain.....").

☐ Confidential copy of application attached ☐ Public copy of application attached

6b) Confidentiality certification

To certify data for the confidential use of the MPCA, a responsible official must read the following, certify to its truth by filling in the signature block on the following page, and provide the stated attachments.

☐ I certify that the enclosed permit application(s) and all attachments have been reviewed by me and do contain confidential material. I understand that only specific data can be considered confidential and not the entire application or permit. I certify that I have enclosed the following to comply with the proper procedure for confidential material:

- ☐ I have enclosed a statement identifying which data contained in my application I consider confidential, and I have explained why I believe the information qualifies for confidential (or non-public) treatment under Minnesota Statutes.
- ☐ I have explained why the data for which I am seeking confidential treatment should not be considered "emissions data" which the MPCA is required to make available to the public under federal law.
- ☐ I have enclosed an application containing all pertinent information to allow for completion and issuance of my permit. This document has been clearly marked "confidential".
- ☐ I have enclosed a second copy of my application with the confidential data blacked out (not omitted or deleted entirely). It is evident from this copy that information was there, but that it is not for public review. This document has been clearly marked "public copy".

Permittee responsible official:	**Co-Permittee responsible official (if applicable)**
Print name:	Print name:
Title:	Title:
Signature:	Signature:
Date (mm/dd/yyyy):	Date (mm/dd/yyyy):

7) Submittal certification

I certify under penalty of law that the enclosed documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I also certify, in accordance with Minn. R. 7007.0500, subp. 2 (K)(2) and subp. 2 (K)(3), that I have reviewed the procedures implemented by my facility to maintain compliance and that those procedures are, to the best of my knowledge and belief, reasonable to maintain compliance with all applicable requirements, including those that will become applicable during the term of the permit.

I also certify, in accordance with Minn. R. 7007.1450, subp. 4(D), that if this application requests the use of the minor or moderate permit amendment procedures, the proposed change is not part of a larger project which, taken as a whole, would not qualify for treatment as a minor or moderate permit amendment.

Choose one of the following:

☐ I certify that no construction is associated with the permit action sought by this permit application.

☐ I certify that my project includes construction, but construction has not yet been started except as allowed under Minn. R. 7007.1110, subp. 10 or Minn. R. 7007.1250, subp. 4, and will not begin until the permit is issued except as allowed under Minn. R. 7007.1110, subp. 12; Minn. R. 7007.1142, subp. 2; Minn. R. 7007.1150, item C; or Minn. R. 7007.1450, subp. 7.

☒ My project includes construction, and construction other than what is allowed under Minnesota Rules has been started

Permittee responsible official:	**Co-Permittee responsible official (if applicable)**
Print name: Carl Dubois	Print name:
Title: VP International Manufacturing	Title:
Signature: Carl T Dubois	Signature:
Date (mm/dd/yyyy): 10/09/2018	Date (mm/dd/yyyy):

8) Package submittal

Applications, notifications, and/or requests that are submitted without authorized signature(s) (under submittal certification for all applications and under confidentiality certification if you are seeking confidential treatment of any information in the application); without required forms, and/or without the required application fee, will be returned. You must submit at least one SCP-01 that bears the original signature(s) (i.e., is not a photocopy of the signed signature page). Please make your check out to the Minnesota Pollution Control Agency. Send the complete application package and check to:

Fiscal Services – 6th Floor
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

You may choose to submit your application as a "pdf" file on a compact disc (CD). If you choose this option, you must still include a paper copy of any form that requires a signature.

WENCK File #2606-0010
October 2018

Major Air Permit Amendment

Water Gremlin Company

Prepared for:
Water Gremlin Company

Site Address:
4400 Otter Lake Road
White Bear Township, MN
55110

WENCK
Responsive partner.
Exceptional outcomes.

Prepared by:

WENCK Associates, Inc.
1802 Wooddale Drive
Woodbury, MN 55125
Phone: 651-294-4580
Fax: 651-228-1969

Table of Contents

APPENDICES

1.0 Project Description

Water Gremlin is a manufacturer of fabricated lead metal products from purchased refined lead material. Battery terminal posts are the primary product, and account for majority of production at the facility. Water Gremlin consist of an existing manufacturing facility at 4400 Otter Lake Road in White Bear Township, MN. Water Gremlin manufacturing operations are currently permitted under State Only Air Emission Permit No. 12300341-003. Uncontrolled emissions from the facility are above the major source thresholds for the Part 70 permit program for Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP), therefore the facility has taken limits on VOCs and Trichloroethylene (TCE) to be a synthetic minor source under the Part 70 program and to retain its State Permit status.

This air permit application is for a major air permit amendment. Water Gremlin is currently operating under Air Quality Permit No. 12300341-003, which was issued on September 22, 2006. The previous air permit amendment application granted flexibility to replace or install new coating units. Since 2006, all of the existing coating units have been replaced and old units have been retired (as allowed by the current permit). This application seeks to update the listing of coating units at the facility, as well as receive authorization for Water Gremlin to replace the existing air pollution control equipment (solvent recovery system). The existing solvent recovery system will be replaced with a unit which uses a similar fluidized activated carbon adsorption/desorption system. Water Gremlin also requests that the existing permit limits be replaced with Pre-cap limits for Single/Total HAP and VOC. Compliance will be demonstrated monthly using a mass balance. Water Gremlin seeks to retain its flexibility to add/replace new coating units with this application. Proposed permit conditions to allow the Pre-cap permit are identified in the marked up permit pages enclosed with this application.

2.0 Applicable Requirements

The applicable state and federal air quality regulations are summarized in this section. The MPCA forms that identify all applicable requirements are highlighted and included in Appendix A.

NEW SOURCE REVIEW (NSR)

The facility is currently minor source with respect to federal Prevention of Significant Deterioration (PSD) rules. This status remains unchanged with the current major amendment.

NEW SOURCE PERFORMANCE STANDARDS (NSPS) (40 CFR PART 60)

40 CFR 60 Subpart IIII is the Federal Standard of Performance for Emergency Compression Ignition Internal Combustion Engines. The facility emergency generator (EQUI89) was manufactured and installed after the applicability date of this rule and is therefore subject to its requirements.

There are no other applicable requirements under 40 CFR Part 60.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

The emergency generator engine is subject to the area source requirements in 40 CFR Part 63 Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Water Gremlin will demonstrate compliance with this NESHAP by complying with requirements of 40 CFR 60, subp. IIII.

There are no other applicable requirements under 40 CFR Part 63.

MINNESOTA STANDARDS OF PERFORMANCE

State standard of performance applicability is identified on the CH-13 application form contained in Appendix A of this application.

Appendix A

Permit Application Forms

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

SCP-01: Submittal cover page

Permit application/notification/
determination request fee submittal

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 7

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For final versions and supplemental information, enter the "tracking number" which can be obtained from the MPCA permit staff working on the permit.

Check one of the boxes below. Do not complete Sections 3B, 3C, 3D, or 3E. Continue with item 4 of the form.

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☐ Application for an administrative amendment to an Individual State or Part 70 Permit Application will be denied if you were not instructed to use the physical forms application process.		x 1 =	

Additional information (check all that apply):

☐ Submittal was preceded by pre-application work with the MPCA (for example: dispersion modeling or modeling protocol review, AERA review, environmental review). The tracking number associated with the preapplication work is: _____

☐ Permit will replace an existing permit of a different type (e.g., replacing a Capped Permit with an Individual State Permit, or replacing a Part 70 General Permit with an Individual Part 70 Permit).

☐ Permit is for construction of a new facility.

☐ Permit is required because of a modification to an existing facility, making the facility subject for the first time for the requirement for an Air Emission Permit.

☐ Project is subject to Prevention of Significant Deterioration (PSD) (40 CFR § 52.21)

- Send a complete copy of the application to U.S. Environmental Protection Agency (EPA) Region V (see instructions).
- Contact EPA Region V to begin the Endangered Species Assessment process (see instructions).

☐ Permit is required because of installation or modification of a Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP) and/or a Part 60 NSPS Affected Facility at a Stationary Source with Potential-to-Emit below all permit thresholds (Minn. R. 7007.0500, subp. 2.C.(1)).

Section 3C – Application for a Registration, Capped, or General Permit

Is this application replacing an application that was returned as incomplete (not an application that was denied)?

☐ No ☐ Yes Enter the tracking number of the incomplete application being replaced: _____.

Check as many of the boxes below as apply. Continue with item 4 of the form.

Choose one of the following:	Quantity	Points	Total points
☐ Application for a Registration Permit ☐ Option A ☐ Option B ☐ Option C ☐ Option D		x 2 =	
☐ Application for a Capped Permit ☐ Option 1 ☐ Option 2		x 4 =	
☐ Application for a Part 70 General Permit ☐ Manufacturing General Permit ☐ Low Emitting Facility General Permit		x 4 =	
☐ Application for a State General Permit ☐ Nonmetallic Mineral Processing General Permit		x 3 =	
☐ Application for an administrative change to an existing Registration, Capped, or General Permit (e.g., change of facility ownership)		x 1 =	

Additional information (check all that apply):

☐ Permit will replace an existing permit of a different type (e.g., replacing a Registration Permit with a Capped Permit; replacing an Option B Registration Permit with an Option D Registration Permit; etc.)

☐ Permit is required for construction of a new facility

☐ Permit is required because of a modification to an existing facility, making the facility subject for the first time for the requirement for an Air Emission Permit.

☐ Permit is required because of a modification or change making the facility ineligible for its existing Air Emission Permit.

Section 3D – Notifications

If your submittal also includes a permit application, then also complete Section 3A, 3B, 3C, or 3e as applicable. Check all applicable boxes below, then continue with item 4 of the form.

☐ A notification of accumulated insignificant activities (Minn. R .7007.1250, subp. 4)

☐ A notification of installation of pollution control equipment (Minn. R. 7007.1150, item C)

☐ A notification of replacement of a unit (Minn. R. 7007.1150, item C)

☐ A notification of replacement of controls with listed controls (Minn. R. 7007.1150, item C)

☐ A notification of changes that contravene a permit term (Minn. R .7007.1350)

☐ A notification from a hot mix asphalt plant including a request to incorporate ground tear-off shingles and/or manufacturer scrap shingles in the hot mix asphalt (applies to Registration Permits) Minn. R. 7011.0913, subp. 3)

Section 3E – Replacement for an incomplete application where the project scope is unchanged

Enter the tracking number of the incomplete application being replaced: _____.

Check one option under “i" and one option under “ii”. Calculate the points’ difference in “iii”. Check all that apply under “iv.” Then continue with item 4 of the form.

i. Choose one of the following describing this application:	Quantity	Points	Total Points
☐ Application for an Individual Part 70 Permit		x 75 =	
☐ Application for an Individual State Permit		x 50 =	
☐ Application for a major amendment to an Individual State or Part 70 Permit ☐ Includes reconstruction or modification of a New Source Performance Standards (NSPS) Affected Facility not subject to New Source Review		x 25 =	
☐ Application for a moderate amendment to an Individual State or Part 70 Permit		x 15 =	

i. Choose one of the following describing this application:	Quantity	Points	Total Points
☐ Application for a minor amendment to an Individual State or Part 70 Permit		x 4 =	
☐ Application for an administrative amendment to an Individual State or Part 70 Permit. Application will be denied if you were not instructed to use the physical forms application process.		x 1 =	
☐ Application for a Registration Permit ☐ Option A ☐ Option B ☐ Option C ☐ Option D		x 2 =	
☐ Application for a Capped Permit ☐ Option 1 ☐ Option 2		x 4 =	
☐ Application for a Part 70 General Permit ☐ Manufacturing General Permit ☐ Low Emitting Facility General Permit		x 4 =	
☐ Application for a State General Permit ☐ Nonmetallic Mineral Processing General Permit		x 3 =	
☐ Application for an administrative change to an existing Registration, Capped, or General Permit (e.g., change of facility ownership)		x 1 =	

ii. Choose one of the following describing the incomplete application being replaced:	Quantity	Points	Total Points
☐ Application for an Individual Part 70 Permit		x 75 =	
☐ Application for an Individual State Permit		x 50 =	
☐ Application for a major amendment to an Individual State or Part 70 Permit		x 25 =	
☐ Application for a moderate amendment to an Individual State or Part 70 Permit		x 15 =	
☐ Application for a minor amendment to an Individual State or Part 70 Permit		x 4 =	
☐ Application for an administrative amendment to an Individual State or Part 70 Permit		x 1 =	
☐ Application for a Registration Permit ☐ Option A ☐ Option B ☐ Option C ☐ Option D		x 2 =	
☐ Application for a Capped Permit ☐ Option 1 ☐ Option 2		x 4 =	
☐ Application for a Part 70 General Permit ☐ Manufacturing General Permit ☐ Low Emitting Facility General Permit		x 4 =	
☐ Application for a State General Permit ☐ Nonmetallic Mineral Processing General Permit		x 3 =	
☐ Application for an administrative change to an existing Registration, Capped, or General Permit (e.g., change of facility ownership)		x 1 =	

iii. (Points from part i: _____) – (Points from part ii: _____) = Total points for Section 3E. →

If the number is negative (e.g., the number from "ii" is larger than the number from "i', enter "0".

iv. Additional information (check all that apply):

☐ Submittal was preceded by pre-application work with the MPCA (for example: dispersion modeling or modeling protocol review, AERA review, environmental review). The tracking number associated with the preapplication work is: _____

☐ Permit will replace an existing permit of a different type (e.g., replacing a Capped Permit with an Individual State Permit, or replacing a Part 70 General Permit with an Individual Part 70 Permit)

☐ Permit is for construction of a new facility.

i. Choose one of the following describing this application:	Quantity	Points	Total Points

☐ Permit is required because of a modification to an existing facility, making the facility subject for the first time for the requirement for an Air Emission Permit.

☐ Project is subject to Prevention of Significant Deterioration (PSD) (40 CFR § 52.21)

- Send a complete copy of the application to U.S. Environmental Protection Agency (EPA) Region V (see instructions).
- Contact EPA Region V to begin the Endangered Species Assessment and Historic Preservation Act processes (see instructions).

☐ Permit is required because of installation or modification of a Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP) and/or a Part 60 NSPS Affected Facility at a Stationary Source with Potential-to-Emit below all permit thresholds (Minn. R. 7007.0500, subp. 2.C.(1)).

4) Total points ("total points" from Section 3A, 3B, 3C, or 3E part iii)

25

5) Total application fee

25 (total points from item 4) x $285 = $ 7,125 (fee amount)

The application fee amount is $285 per point, payable to the MPCA. Send your payment ("fee amount") with your submittal. The fee is not refundable, per Minn. R. 7002.0016, subp. 1. There may be additional fees assessed during processing of your request, as required by Minn. R. ch. 7002.

6a) Confidentiality statement:

☒ This application does not contain material claimed to be confidential under Minn. Stat. §§ 13.37 subd. 1(b) and 116.075. Skip item 6b, go to item 7.

☐ This application contains material which is claimed to be confidential under Minn. Stat. §§ 13.37 subd. 1(b) and 116.075. Complete Item 6b. Your submittal must include both Confidential and Public versions of your application.

Registration Permit applicants may not claim any portion of their application as confidential. If applying for a Registration Permit or an administrative change to a Registration Permit, you must check the first box above ("This application does not contain…..").

☐ Confidential copy of application attached ☐ Public copy of application attached

6b) Confidentiality certification

To certify data for the confidential use of the MPCA, a responsible official must read the following, certify to its truth by filling in the signature block on the following page, and provide the stated attachments.

☐ I certify that the enclosed permit application(s) and all attachments have been reviewed by me and do contain confidential material. I understand that only specific data can be considered confidential and not the entire application or permit. I certify that I have enclosed the following to comply with the proper procedure for confidential material:

- ☐ I have enclosed a statement identifying which data contained in my application I consider confidential, and I have explained why I believe the information qualifies for confidential (or non-public) treatment under Minnesota Statutes.
- ☐ I have explained why the data for which I am seeking confidential treatment should not be considered "emissions data" which the MPCA is required to make available to the public under federal law.
- ☐ I have enclosed an application containing all pertinent information to allow for completion and issuance of my permit. This document has been clearly marked "confidential".
- ☐ I have enclosed a second copy of my application with the confidential data blacked out (not omitted or deleted entirely). It is evident from this copy that information was there, but that it is not for public review. This document has been clearly marked "public copy".

Permittee responsible official:	**Co-Permittee responsible official (if applicable)**
Print name:	Print name:
Title:	Title:
Signature:	Signature:
Date (mm/dd/yyyy):	Date (mm/dd/yyyy):

7) Submittal certification

I certify under penalty of law that the enclosed documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I also certify, in accordance with Minn. R. 7007.0500, subp. 2 (K)(2) and subp. 2 (K)(3), that I have reviewed the procedures implemented by my facility to maintain compliance and that those procedures are, to the best of my knowledge and belief, reasonable to maintain compliance with all applicable requirements, including those that will become applicable during the term of the permit.

I also certify, in accordance with Minn. R. 7007.1450, subp. 4(D), that if this application requests the use of the minor or moderate permit amendment procedures, the proposed change is not part of a larger project which, taken as a whole, would not qualify for treatment as a minor or moderate permit amendment.

Choose one of the following:

☐ I certify that no construction is associated with the permit action sought by this permit application.

☐ I certify that my project includes construction, but construction has not yet been started except as allowed under Minn. R. 7007.1110, subp. 10 or Minn. R. 7007.1250, subp. 4, and will not begin until the permit is issued except as allowed under Minn. R. 7007.1110, subp. 12; Minn. R. 7007.1142, subp. 2; Minn. R. 7007.1150, item C; or Minn. R. 7007.1450, subp. 7.

☒ My project includes construction, and construction other than what is allowed under Minnesota Rules has been started

Permittee responsible official:	**Co-Permittee responsible official (if applicable)**
Print name: Carl Dubois	Print name:
Title: VP International Manufacturing	Title:
Signature: Carl T Dubois	Signature:
Date (mm/dd/yyyy): 10/09/2018	Date (mm/dd/yyyy):

8) Package submittal

Applications, notifications, and/or requests that are submitted without authorized signature(s) (under submittal certification for all applications and under confidentiality certification if you are seeking confidential treatment of any information in the application); without required forms, and/or without the required application fee, will be returned. You must submit at least one SCP-01 that bears the original signature(s) (i.e., is not a photocopy of the signed signature page). Please make your check out to the Minnesota Pollution Control Agency. Send the complete application package and check to:

Fiscal Services – 6th Floor
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

You may choose to submit your application as a "pdf" file on a compact disc (CD). If you choose this option, you must still include a paper copy of any form that requires a signature.

As discussed during Water Gremlin's pre-application meeting, Water Gremlin is requesting approval to construct new control equipment before permit issuance. The new pollution control equipment has been ordered, but construction has not yet begun as of the date of this application submittal.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-GI-01

Facility information for permit changes

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 3

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Facility location

Street address: 4400 Otter Lake Road

City: White Bear Township County: Ramsey Zip code: 55110

Note: If the facility is or will be located within the city limits of Minneapolis, attach a map showing the exact location.

Mailing address: 4400 Otter Lake Road

City: White Bear Township State: MN Zip code: 55110

4) Corporate/Company Owner

Name: Okabe Holdings U.S.A

Mailing address: 4400 Otter Lake Road

City: White Bear Township State: MN Zip code: 55110

Owner Classification: ☒ Private ☐ Local Govt. ☐ State Govt. ☐ Federal Govt. ☐ Utility

5) Corporate/Company Operator (if different than owner)

Name:

Mailing address:

City: State: Zip code:

6) Co-permittee (if applicable)

Name:

Mailing address:

City: State: Zip code:

7) Legally responsible official for this permit/facility

Mr/Ms: Carl Dubois Phone: 651-209-9404

Title: VP International Manufacturing Fax: 651-289-2881

At (check one): ☒ Owner Address ☐ Operator Address ☐ Emission Facility Address

☐ Other (specify):

Email address: carl.dubois@watergremlin.com

8) Contact person for this permit

Mr/Ms: Denise L'Allier-Pray Phone: 651-209-9441

Title: EHSF Manager Fax: 651-429-7490

At (check one): ☒ Owner Address ☐ Operator Address ☐ Emission Facility Address

☐ Other (specify):

Email address: denise.pray@watergremlin.com

9) All billings for annual fees should be addressed to:

Mr/Ms: Denise L'Allier-Pray Phone: 651-209-9441

Title: EHSF Manager Fax: 651-429-7490

At (check one): ☒ Owner address ☐ Operator address ☐ Emission facility address

☐ Other (specify):

Email address: denise.pray@watergremlin.com

10) Standard Industrial Classification (SIC) Code and description**, and North American Industry Classification System (NAICS) code and description** for the facility:

Primary: 3364 / Nonferrous Die-Castings, except Aluminum

Secondary (if applicable): /

Tertiary (if applicable): /

Primary NAICS code: /

11) Primary product produced (or activity performed) at the facility is:

Manufacturer of fabricated lead metal products as well as battery terminal post production.

12) Facility is: ☒ Stationary ☐ Portable

13) (reserved for future use)

14) Is environmental review required (either an Environmental Assessment Worksheet (EAW) or an Environmental Impact Statement (EIS)) for this facility?

☒ No ☐ Yes -- you may also be required to perform a state air toxics review for your facility. Please call 1-800-657-3864 or locally 651-296-6300.

15) Are you (or will you be, if this is a new facility) required to submit a Toxics Release Inventory (Form R) under SARA Title 313 for this facility? Contact the Minnesota Emergency Planning and Community Right-to-Know Act (EPCRA) Program for more information, at 651-201-7400.

☒ Yes – Answer Question 15a ☐ No – Go on to Question 16

15a) Are you required to submit a Pollution Prevention Plan Progress Report in accordance with Minn. Stat. § 115D.08?

☐ No ☒ Yes, and the most recently required progress report has been submitted

☐ Yes, but a progress report has not been submitted because (fill in reason below):

16) Is this facility within 50 miles of another state or the Canadian border?:

☒ Yes (specify which ones) WI ☐ No

17) Are you proposing any alternative operating or emissions trading scenarios in this application? (see Minn. R. 7007.0800, subp. 10 and 11)

☒ No ☐ Yes - attach a description of your proposal, including a statement on how the proposal will meet all applicable requirements (specifically, please address any applicable New Source Review requirements - see Form CH-04).

18) Person preparing this permit application:

Mr./Ms. Beth Freymiller

Title: Project Manager

Phone: 651-294-4584 Fax: Date: October 18, 2018

Email address: bfreymiller@wenck.com

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-15

SIP Changes and Permits
Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID No.: 12300341 1b) AQ File No.: 2005

2) Facility Name: Water Gremlin Company

Section I

I.1 Does your facility have source specific State Implementation Plan (SIP) conditions contained in a Part 70 permit or a federally enforceable state operating permit **or** has your facility been issued an Administrative Order (Order) to ensure compliance with a national ambient air quality standard (NAAQS)? (This would include permit conditions labeled "Title I condition: SIP for [pollutant] NAAQS"). If your facility is listed in Table 1 below, you have source specific SIP conditions.

☐ Yes. Check all applicable pollutants and continue with Section II.

- ☐ Sulfur Dioxide (SO_2)
- ☐ Particulate matter less than 10 microns (PM_{10})
- ☐ Lead

☒ No. **Stop here**, and submit this form with your application for a permit amendment or operating permit reissuance.

Section II

II.1 Where are the SIP conditions that apply to your facility?

- ☐ In the current operating permit
- ☐ In the Order
- ☐ In both the current operating permit and the Order

II.2 This permit application is for

- ☐ Reissuance of the operating permit
- ☐ An amendment to the current operating permit

Whether you are proposing changes through an application for a facility modification, or if you are submitting a reissuance application and there have been changes at your facility that are not included in the current operating permit or the Order, complete the rest of this form considering those changes as the 'proposed change.' If your facility is subject to the Order, Minnesota Pollution Control Agency (MPCA) will initiate a SIP revision to transfer the Title I conditions from the Order to the Permit.

II.3 Does the proposed change involve equipment or operating parameters that are subject to a Title I SIP condition in your permit or a requirement from your Order?

- ☐ Yes
- ☐ No

II.4 Does the proposed change add an emission unit(s) or stack/vent that will emit the criteria pollutant(s) identified in Section I?

- ☐ Yes
- ☐ No

II.5 Does the proposed change increase the emission rate of the criteria pollutant(s) at any of the existing emission points (emission unit, control equipment or stack/vent)?

- ☐ Yes
- ☐ No

II.6 Does the proposed change increase the overall emission rate of that criteria pollutant at the facility?

- ☐ Yes
- ☐ No

Section III

Review the SIP modeling parameters for your facility. These are usually found in an appendix to your permit or in your Order. For the proposed change at your facility, check all that apply:

- ☐ Addition of new emission point(s) for the criteria pollutant
- ☐ Removal of existing emission point(s) for the criteria pollutant
- ☐ Change in one or more modeled stack/vent heights or diameter
  - ☐ Increase in stack height
  - ☐ Decrease in stack height
  - ☐ Increase in stack diameter
  - ☐ Decrease in stack diameter
- ☐ Change in modeled air flow rate(s)
  - ☐ Increase in air flow rate(s)
  - ☐ Decrease in air flow rate(s)
- ☐ Change in one or more modeled emission rates
  - ☐ Increase in emission rate(s)
  - ☐ Decrease in emission rate(s)
- ☐ Change in location of one or more emission points
- ☐ Change in exit point temperature
  - ☐ Increase in temperature
  - ☐ Decrease in temperature
- ☐ Change in building locations or dimensions
- ☐ Other _____
- ☐ No change to current modeling parameters.

If there are any changes to the modeling parameters, you will need to demonstrate that the plume dispersion characteristics of the criteria pollutant will be equivalent to or better than the dispersion characteristics modeled using the parameters included as noted in the appendix of your permit or in your Order. In many cases you will need to remodel to show attainment with the NAAQS. However, in some cases you may be able to provide a written justification for improved dispersion characteristics.

If you will need to do modeling, it is recommended that you check the MPCA website or contact MPCA staff for guidance on current SIP modeling. SIP modeling requirements may be different than modeling for other programs and may have changed since previous modeling was done for your facility. See the MPCA's on-line SIP and modeling information at http://www.pca.state.mn.us/veiz4a6 and http://www.pca.state.mn.us/nwqh421 for current contact information.

Section IV

Will the proposed change require a SIP revision?

In general, a SIP revision is not required if you are making a change to the facility that does not increase, from any emission point, the emission rate of the criteria pollutant or alter equipment or parameters used as the basis for modeling of the criteria pollutant.

If you answered "Yes" to any of the questions in Section II or have identified changes to the modeling parameters for your facility in Section III, you will likely need a SIP revision for your project. If a SIP revision is required for a modification amendment, you must submit a **major** amendment application. If the proposed change includes an increase in emissions of the criteria pollutant or if it is new construction, the current Title I SIP conditions in your permit or the conditions in your Order for your facility must be followed until the SIP revision is approved by U.S. Environmental Protection Agency (EPA). If the proposed change will reduce emissions or will provide better modeled dispersion characteristics that change may proceed with MPCA and EPA approval.

When a SIP revision is part of your permit reissuance or amendment, approval of the reissuance or modification application will include more steps and take more time than the general process for a permit issuance. The SIP revision includes review and approval of the permit application by MPCA, including public notice of the permit. The SIP revision requires a public notice (which may occur concurrently with the permit notice of the draft/proposed permit); EPA generally does a preliminary review of the SIP revision at this time. There is an opportunity for interested parties to request a public meeting during the public notice period. After MPCA's public notice period ends for the draft/proposed permit, MPCA submits the SIP revision to EPA for a formal review and approval. Final approval of the SIP revision occurs when EPA publishes the revision as a final rule in the federal register.

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-00

Project Screening
Air Quality Permit Program

Doc Type: Permit Application

AQ Facility ID number: 12300341 Agency Interest ID number: 2005

Facility name: Water Gremlin Company

Instructions: Fill out this form last, after you've determined the type of permit you need.
Check **all** applicable boxes on this form that describe your proposed project and your facility.

Applicable analyses:

☐ My project requires Environmental Review (Use the Environmental Review Pre-Screening Form, available at https://www.pca.state.mn.us/quick-links/environmental-review, to determine this)

☐ Environmental Assessment Worksheet ☐ Environmental Impact Statement

Submitted to (who?): _____ on (date mm/dd/yyyy): _____

☐ My project requires a Prevention of Significant Deterioration (PSD) permit, utilizes the Plant-wide Applicability Limit requirements of 40 CFR § 52.21, and/or involves a Best Available Control Technology (BACT) Analysis (either a new analysis or revisions to previous permit conditions).

☐ My project involves a case-by-case Maximum Achievable Control Technology (MACT) determination under section 112(g)(2)(B) of the Clean Air Act Amendments of 1990 as described on form CH-07.

☐ My project involves a site-specific alternative monitoring request under 40 CFR § 60.13(i) or 40 CFR § 63.8(f).

☐ My project involves changes to limits or requirements that are identified as State Implementation Plan (SIP) requirements in my permit or Administrative Order. (Use Form CH-15 to determine this.)

☐ My project involves ambient air dispersion modeling for criteria pollutants.

Modeling protocol was approved on (date mm/dd/yyyy): _____

Modeling results submitted to (who?): _____ on (date mm/dd/yyyy): _____

☐ Modeling follows protocol exactly ☐ Modeling mostly follows protocol but with minor changes

☐ My project involves an Air Emissions Risk Analysis (AERA).

Submitted to (who?): _____ on (date mm/dd/yyyy): _____

☐ My project requires at least one other media permit in addition to an air permit (list permits: e.g., National Pollutant Discharge Elimination System [NPDES] permit).

_____

Application submitted to (who?): _____ on (date mm/dd/yyyy): _____

☒ None of the above

Industry sector:

☐ Petroleum refining
☐ Pulp and/or paper mill
☐ Composite wood products (e.g., OSB)
☐ Metallic mining
☐ Non-beverage ethanol production
☐ Waste combustor
☐ Electric utility
☒ None of the above

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-01

Change Description

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

Instructions: Provide below a description of each physical and operational change, or proposed change to existing permit conditions, included in this application. This includes addition of new units, removal or replacement of existing units, or changes which may result in debottlenecking of emission units. Use form CH-02 to determine if a permit amendment is required for your proposed change or modification.

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Does your project involve any of the following? Check all that apply.

- ☒ Construction or physical change.
- ☐ Increase in production.
- ☐ Other operational change.
- ☐ Fuel change.
- ☐ None of the above. Go to question 5.

4) Does your project involve the addition or modification of a non-emergency generator?

- ☒ No.
- ☐ Yes. You must conduct screening modeling for the generator or group of generators. See instructions.

5) Do you need your permit issued by a certain date?

- ☐ No.
- ☒ Yes. Date (mm/dd/yyyy): 12/15/2018

  Reason:

  To allow for replacment of control equipment as soon as possible.

6) Complete and attach form CD-01 to specify which applicable requirements need to be added to or deleted from your permit unless the application is for a change in ownership, a change in facility name, or an extension of a deadline by no more than 120 days. The deadline must be one which Minnesota Pollution Control Agency (MPCA) has authority to extend. If the application is only for a change in ownership, a change in facility name, or an extension of a deadline by no more than 120 days, form CD-01 does not need to be included. Instead, include this information in the description below.

7) Description of proposed project, including details of all changes indicated in question 3:

This application seeks to update listing of coating emission units at the facility, as well as grant authorization for Water Gremlin to replace the existing air pollution control equipment (solvent recovery system). The existing solvent recory system will be replaced with a unit which uses a similar fluidized activated carbon adsorption/desorption system. The application also requests to change the existing permit language to a pre-cap for single/total HAP and VOC. Emissions will be calculated monthly based on a mass balance.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-02

Action type determination

Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID number: 1300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Answer the questions on this form, referring to and completing the additional forms as directed, to determine if a permit or amendment is required (and if so what type), or if a notification is required.

3. Does the change consist only of a change in facility ownership or operational control, facility ownership name, or facility name?

☒ No. Go to question 4.

☐ Yes. Use the Minnesota Pollution Control Agency (MPCA) e-Services for an administrative amendment (found on the MPCA website at https://www.pca.state.mn.us/data/e-services). Physical applications received for an administrative amendment will be denied.

4. Does the change consist only of the extension of a deadline by no more than 120 days? The deadline must be one which MPCA has authority to extend, or the answer to this question must be "no."

☒ No. Go to question 5.

☐ Yes. Use MPCA's e-Services for an administrative amendment (found on the MPCA website at https://www.pca.state.mn.us/data/e-services). Physical applications received for an administrative amendment will be denied.

5. Does the proposed change or modification require a major amendment? To answer this question, use form CH-03 and all forms referenced therein. Include these forms in your submittal, unless otherwise noted on form CH-12 or CH-09, if applicable.

☐ Yes. The proposed change consists only of amending existing permit requirements related to **monitoring, reporting, or recordkeeping** as shown by item 2 on form CH-03. Go to question 12.

☒ Yes. The proposed change is a major amendment as indicated by one or more questions for items 3 through 9 on form CH-03. Go to question 10.

☐ No. Go to question 6.

6. Does the entire proposed change or modification consist **only** of insignificant activities described in Minn. R. 7007.1300, subparts 2 and/or 3?

☐ Yes. The proposed change qualifies as an insignificant modification under Minn. R. 7007.1250, subp. 1.A. No permit amendment is needed to make the change, and you are done with this form. If the modification triggers new monitoring, record keeping, or reporting requirements under applicable requirements or Minn. R. 7007.0100 to 7007.1850, then you must initiate an administrative amendment under Minn. R. 7007.1400 to include the new requirements no more than 30 days after making the modification. Use MPCA's e-Services for an administrative amendment (found on the MPCA website at https://www.pca.state.mn.us/data/e-services). Physical applications received for an administrative amendment will be denied unless specifically instructed within the MPCA e-Service.

If the proposed change also meets the conditions of Minn. R. 7007.1250, subp. 4, then you must notify the MPCA using form CH-12.

☐ No. Part of the project is not one of the listed insignificant activities listed in Minn. R. 7007.1300, subp. 2 and/or 3. Go to question 7.

7. Can the change be done through an administrative amendment? You **may** apply for an administrative amendment for several other reasons not listed above. These reasons are listed in Minn. R. 7007.1400, subp. 1.

☐ Yes. Use MPCA's e-Services for an administrative amendment (found on the MPCA website at https://www.pca.state.mn.us/data/e-services). Physical applications received for an administrative amendment will be denied.

☐ No. Go to question 8.

8. Can the change be made through the "contravening permit terms" provision? Use form CH-09 to determine Yes or No.

☐ Yes. Include form CH-09 in your submittal. Proceed to question 12.

☐ No. Go to question 9.

9. Is a minor or moderate amendment needed? Complete form CH-10 to determine Yes or No.

☐ Yes. Include form CH-10 in your submittal. Go to question 10.

☐ No. Complete form CH-12 to determine what notification or recordkeeping requirements apply. Proceed to question 12.

10. Complete form CH-11 to determine your status with regard to crossing permit thresholds, and indicate that status below.

☒ This change can be made through the permit amendment provisions of Minn. R. 7007.1450 or 7007.1500. Include form CH-11 in your submittal. Proceed to question 11.

☐ This change requires issuance of a Title V or State operating permit. Submit a completed *Total facility application*. You are done with this form.

11. Complete form CH-13 to determine what state rules apply to the equipment you are adding or the changes you are proposing, and include form CH-13 in your submittal. Then proceed to question 12.

12. In addition to this form and any forms you were instructed herein to include in your submittal, complete and submit form CH-14 and any other forms or information as directed on form CH-14.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-14

Permit notification and amendment application requirements

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 4

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Minn. R. 7007.0600 describes what a permit application must include. The items in the following list constitute an administratively complete application, but do not necessarily mean that the application is technically complete for the purpose of taking final permit action. Please complete the following to verify that you have included all the indicated forms and information.

Included	Not included	Form/Requirement	When required
☒		SCP-01 Submittal cover page with original signature	Always
☒		CH-GI-01 Facility information	Always
☒		CH-15 SIP Changes and permits	Always
☒		CH-00 Project screening	Always
☒		CH-01 Change description	Always
☒		CH-02 Action Type determination	Always
☒		CH-14 Permit notification and amendment application requirements	Always
☒	☐	CH-03 Major permit amendment determination	When indicated on CH-02, CH-12, or CH-09
☒	☐	CH-04 Determination of New Source Review (NSR) status	As directed on CH-03
☐	☒	CH-04a Determination of increases at major sources	As directed on form CH-04
☒	☐	CH-04b Determination of increases at minor sources	As directed on form CH-04
☒	☐	CH-04c Determination of greenhouse gas status under NSR	As directed on CH-03
☐	☒	CH-04d Calculating the Net Emissions Increase Under NSR	As directed on form CH-04a
☐	☒	CH-04e Required elements for Prevention of Significant Deterioration (PSD) permit application	As directed on form CH-04b or CH-04d
☐	☒	Best available control technology analysis	When the proposed change or modification is major under NSR
☒	☐	CH-05 Applicability of New Source Performance Standards (NSPS)	As directed on CH-03
☒	☐	Highlighted copy of applicable subpart(s) of 40 CFR pt. 60, including subpart A	When so indicated on CH-05
☒	☐	CH-06 Applicability of Part 61 National Emission Standards for Hazardous Air Pollutant Sources (NESHAP)	As directed on CH-03

Included	Not included	Form/Requirement	When required
☐	☒	Highlighted copy of applicable subpart(s) of 40 CFR pt. 61, including subpart A	When so indicated on CH-06
☒	☐	CH-07 Applicability of Part 63 NESHAP	As directed on CH-03
☒	☐	Highlighted copy of applicable subpart(s) of 40 CFR pt. 63, including subpart A No applicable requirements under 40 CFR 63, subp. A as unit demonstrates compliance through 40 CFR 60, subp. IIII	When so indicated on CH-07 or CH-08
☒	☐	CH-11 Crossing permit thresholds	When indicated on CH-02. Make sure your proposed change qualifies for amendment of your existing permit, or as an I/O permit under Minn. R. 7007.0750, subp. 5.
☒	☐	CH-13 Applicability of State Rules	When indicated on CH-02
☒	☐	CD-01 Compliance plan	For all applications for a major, moderate, or minor amendment, or when directed to on CH-01 for administrative amendments, or when indicated on CH-12.
☐	☒	GI-07 Facility emissions summary	For all amendment applications, except when there are no emission changes, or when using the GI-07 spreadsheet in place of form GI-07
☒	☐	GI-07 Spreadsheet - facility emissions summary	When using the GI-07 spreadsheet in place of form GI-07
☒	☐	Editable electronic spreadsheet containing all calculations	Whenever GI-07 or CH-04c is required. If submitting the application electronically (“pdf” on a CD), you must include the editable spreadsheet(s) on the CD. If submitting the application on paper, you must also include a CD of the editable electronic spreadsheet(s) with the application.
☒	☐	Emission calculation printouts (if submitting application electronically as a “pdf” document then the emission calculations must be a part of the the pdf document; if submitting a paper copy of the application, then the emission calculations must be printed on paper as part of the application. Example calculations must also be included.)	Whenever GI-07 or CH-04c is required.
☐	☒	HG-01 Mercury releases to ambient air	If the permit will authorize an increase in mercury emissions (construction of a new facility that will emit mercury, or modification of an existing facility resulting in additional mercury emissions), AND the potential mercury emissions from the entire facility already are or will be (after the proposed change) three (3) or more pounds per year,
☐	☒	GI-09H Requirements: Compliance Assurance Monitoring (CAM)	When adding or changing control equipment or controlled emission units at a Part 70 source
☐	☒	CAM Plan	When indicated on GI-09H
☐	☒	GI-09K Requirement: Cross-State Air Pollution Rule	If the permit will authorize construction or modification of a stationary fossil-fuel-fired boiler or combustion turbine at your stationary source serving at any time, on or after January 1, 2005, a generator with a nameplate capacity of more than 25 megawatt electric producing electricity for sale.
☐	☒	EMS-00 EMS Permit qualification	When proposing to incorporate Environmental Management System (EMS) provisions
☐	☒	CH-10 Applicability of minor or moderate amendment process	When applying for a moderate or minor amendment

Included	Not included	Form/Requirement	When required
☐	☒	CH-08 Administrative amendment determination	When applying for an administrative amendment other than for a change in facility name, ownership, or ownership name. Physical applications received for an administrative amendment will be denied unless specifically instructed within the Minnesota Pollution Control Agency (MPCA) administrative other e-Service to use physical/paper forms
☐	☒	CH-09 Contravening permit terms	When proposing contravening permit terms
☐	☒	CH-12 Written notification form	When proposing changes that do not require a permit amendment, other than those covered by contravening permit terms
☒	☐	IA-01 Insignificant activities list	When the proposed change or modification includes changes to insignificant activities
☒	☐	GI-02 Process flow diagram	When the proposed change or modification includes changes to the process flow, including removing or adding new emission units, control devices, stacks/vents, tanks, or fugitive sources
☒	☐	Separate sheet showing revised process flow	When the process flow diagram is not drawn directly on form GI-02
☒	☐	GI-03 Facility and stack/vent diagram	When proposed change or modification includes changes to the stack/vent diagram, including removing or relocating existing stack/vents, or adding new stack/vents
☒	☐	Separate sheet showing revised stack/vent diagram	When the stack/vent diagram is not drawn directly on form GI-03
☒	☐	GI-04 Stack/Vent information	When adding or changing stack/vents
☒	☐	GI-05A Pollution control equipment information	When adding or changing control equipment
☒	☐	CD-05 Compliance plan for control equipment (or marked-up permit page(s) for a specific control device when only making changes to operating parameter values of existing control equipment)	When adding or changing control equipment
☐	☒	CR-02 Hood certification	When adding or changing emission units venting to control equipment through an existing hood (not required for total enclosures)
☒	☐	GI-05B Emission unit information	When adding, replacing, or changing emission units, or adding or replacing a control device controlling an emission unit
☐	☒	GI-05C Tank information	When adding,replacing, or changing storage tanks, or adding or replacing a control device controlling a tank
☐	☒	GI-05D Fugitive emission source information	When adding, replacing, or changing fugitive sources, or adding or replacing a control device controlling a fugitive source
☒	☐	GI-05E Group information	When adding, replacing, or removing subject items in a permit group, including emission units, control equipment, monitors, stacks, etc., or when adding or deleting groups within a permit
☒	☐	GI-05F Emission source associations	When adding, replacing, or changing emission units, tanks, fugitive sources, or control equipment
☐	☒	ME-01 Continuous monitoring system information	To describe new, removed, or changed continuous monitoring systems
☐	☒	ME-02 Monitor associations	When adding, replacing, or changing continuous monitoring systems

Included	Not included	Form/Requirement	When required
☐	☒	PAL-01 PAL cover page	When requesting a new Plantwide Applicability Limit (PAL) under NSR
☐	☒	PAL-02 Determination of plantwide applicability limit for major NSR sources	When requesting a new PAL under NSR
☐	☒	MI-01 Building and Structure Information	When adding or changing buildings/structures
☐	☒	MI-02c Modeling for plantwide applicability limitations	When requesting a new PAL under NSR
☐	☒	EC-03 IC Engine screen modeling	When adding or changing a non-emergency generator
☐	☒	Application for reissuance of Title V or expiring state operating permit submitted ☐ required ☒ not required	If the expiration date of the operating permit has passed or will have passed by the time the requested permit amendment has been issued, Under Minn. R. 7007.0400, subp. 2, an application for reissuance of the operating permit is required 180 days prior to the expiration date of the permit.
☐	☒	Environmental Assessment worksheet submitted ☐ required ☒ not required	Varies – Use the *Environmental review pre-screening* form, available on the MPCA website at https://www.pca.state.mn.us/quick-links/environmental-review, to determine this.
☐	☒	Air Emission Risk Analysis submitted (AERA) submitted ☐ required ☒ not required	An AERA will likely be needed if there is an increase of any criteria pollutant by 250 tons per year or more. An AERA may also be required on a case-by-case basis – see the MPCA website at http://www.pca.state.mn.us/index.php/air/air-monitoring-and-reporting/air-emissions-modeling-and-monitoring/air-emission-risk-analysis-aera/air-emissions-risk-analysis-aera.html
☐	☒	Dispersion modeling submitted ☐ required ☒ not required	If AERA is needed, or if project is subject to PSD unless the only pollutant involved is a Volatile Organic Compound. See the MPCA website at http://www.pca.state.mn.us/index.php/air/air-monitoring-and-reporting/air-emissions-modeling-and-monitoring/air-dispersion-modeling/index.html

Instructions for form CH-14

1a) AQ Facility ID number -- Fill in your Air Quality (AQ) Facility Identification (ID) number. This is the first eight digits of the permit number for all permits issued under Minn. R. ch. 7007.

1b) Agency Interest ID number -- Fill in your Agency Interest ID number. This is an ID number assigned to your facility through the Tempo database. If you don't know this number, leave this line blank.

2) Facility name -- Enter your facility name.

3) Complete each line of the table by checking the appropriate box, indicating that the specified form or attachment is included or not included in the application.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-03

Major permit amendment determination

Air Quality Permit Program

Doc Type: Permit Application

Instructions start on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

1c) Facility name: Water Gremlin Company

To answer the questions posed in this form, you will have to complete the additional forms referenced in the individual items.

This form refers to proposed **changes** and **modifications**. A "modification" as defined in Minn. R. 7007.0100, subp. 14, includes:

A. any change that constitutes a title I modification …; or

B. any physical change or change in the method of operation of an emissions unit, emission facility, or stationary source that results in an increase in the emission of a regulated air pollutant.

A "change" is a change to permit terms or conditions, in the absence of a modification as described above.

2) Is the proposed change an amendment to existing permit requirements related to **monitoring, reporting, or recordkeeping other than (1)** adding new requirements, **(2)** eliminating the requirements if they are rendered meaningless because they apply to emissions that will no longer occur, **(3)** eliminating requirements that are technically incorrect where the elimination does not affect the accuracy of the data generated, or **(4)** eliminating requirements for a piece of equipment that no longer exists (Minn. R. 7007.1500, subp. 1[A])?

☒ Yes. If you answer yes to this question, a major amendment is required. Use and submit form *CD-01* and/or *CD-05* to document the changes to such requirements. If the permit application will include a proposed modification as defined in Minn. R. 7007.0100, subp. 14 or another type of proposed change, go to question 3a; otherwise, you are done with this form.

☐ No. Go to question 3a.

3) Is the proposed change or modification a title I modification? It is if the answer to any of the following is "**yes**":

3a) Is the proposed change or modification subject to New Source Review? Use and submit form *CH-04*, *CH-04c*, and *CH-04a* or *CH-04b*, as applicable, and all other forms referenced therein. Submit all forms used regardless of the outcome.

☐ Yes
☐ No

3b) Is the proposed change or modification a modification or reconstruction as defined for New Source Performance Standards? Use and submit form *CH-05*. Submit form *CH-05* regardless of the outcome.

☐ Yes
☐ No

3c) Is the proposed change or modification a hazardous air pollutant modification under Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAPs)? Use form *CH-06* to make this determination and submit form *CH-06* regardless of the outcome.

☐ Yes
☐ No

3d) Is the proposed change or modification defined as construction or reconstruction of a major source under Part 63 NESHAPs? Use and submit form *CH-07*.

☐ Yes
☐ No

4) Reserved for future use.

5) Does this change or modification establish or amend any **source-specific permit condition** that is or will be based on a case-by-case determination of an emissions limit or standard, an ambient impacts analysis, visibility, or increment analysis (e.g., a modeling-based limit, the requirement to operate a specific control device for a specific emission unit, specific operating parameters for a control device, a specific control efficiency, Best Available Control Technology (BACT), Maximum Achievable Control Technology (MACT), adding a new fuel to a list of allowable fuels, etc.) (Minn. R. 7007.1500, subp. 1[B])?

☐ Yes. Use and submit form *CD-01* and/or *CD-05* to document such conditions. If you are amending existing New Source Review requirements established through a previously issued New Source Review permit (requirements from a BACT analysis, or ambient impacts, class I impacts, or additional impacts analysis), submit form *CH-04e* and appropriate supporting documentation (revised BACT, ambient impacts, class I impacts, or additional impacts analyses). If you are amending existing requirements based on a case-by-case MACT determination, please contact the MPCA for more information.

☐ No

6) Does this change or modification establish or amend any permit terms or conditions for which there is no underlying applicable requirement and that you have assumed to avoid an applicable requirement to which you would otherwise be subject? Such limits are usually synthetic minor limitations such as a limit on hours of operation. Please note that if you would like to add equipment under an existing emissions cap or limit, and the permit does not explicitly pre-authorize such additions, that is considered amending the limit or emissions cap. (Minn. R. 7007.1500, subp. 1[C]).

☐ Yes. Use and submit form *CD-01* and/or *CD-05* to document such conditions.

☐ No

7) Does this change or modification establish, amend, renew, or distribute a **Plantwide Applicability Limit** (PAL) under 40 CFR § 52.21(aa)? (This is only available to existing major sources under New Source Review.)

☐ Yes. Use and submit form *PAL-01* (and the forms referenced within *PAL-01*) and *CD-01* to document conditions. (As of the date of this form, the PAL cover page (*PAL-01*) and the form for determination of a PAL (*PAL-02*) have been completed. The remaining forms for renewal, expiration allocation, and increasing a PAL, are not yet available.)

☐ No

8) Is this change or modification subject to classification as a **major permit amendment under any *other* agency rule**?

☐ Yes If yes, please describe below.

☐ No

9) Does this change or modification seek to establish or amend a federally enforceable emission cap (such as a synthetic minor limit which limits hours of operation) which avoids classification as a part 70 source?

☐ Yes. Use and submit form *CD-01* and/or *CD-05* to document conditions.

☐ No

If you answered "Yes" to one or more of the above questions, a major permit amendment is required.

Instructions for form CH-03 – Major permit amendment checklist

1a) **AQ Facility ID number --** Fill in your Air Quality (AQ) Facility identification (ID) number. This is the first eight digits of the permit number for all new permits issued under the operating permit program. If you don't know this number, leave this line blank.

1b) **Agency Interest ID number --** Fill in your Agency Interest ID number. This is an ID number assigned to your facility through the Tempo database. If you don't know this number, leave this line blank.

1c) **Facility name** -- Enter the facility name.

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-04

Determination of New Source Review Status

Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID number: 12300341 1b) AQ File number: 2005

2) Facility name: Water Gremlin Company

3) Is your facility defined as one of the following types of facilities?

Some standard industrial classification (SIC) code(s) applying to specific categories are given in parentheses to assist you in classifying your facility. The SIC codes provided are not meant to be an exhaustive list of facilities included in the category.

- Coal cleaning plants-with thermal dryers
- Portland cement plants (3241)
- Iron and steel mills (3312)
- Primary copper smelters (3331)
- Hydrofluoric acid plants (2819, 2899)
- Nitric acid plants (2873)
- Lime plants (3274)
- Coke oven batteries (3312)
- Carbon black plants (furnace process, 2895)
- Fuel conversion plants
- Secondary metal production plants (334x)
- Fossil-fuel boilers (or combination thereof) totaling more than 250 MMBtu/hr heat input
- Taconite ore processing plants (1011)
- Charcoal production plants (2819, 2861)
- Kraft pulp mills (2611, 2621)
- Primary zinc smelters (3339)
- Primary aluminum ore reduction plants (3334)
- Municipal incinerators capable of charging more than 250 tons of refuse per day
- Sulfuric acid plants (2819)
- Petroleum refineries (2911)
- Phosphate rock processing plants (1475)
- Sulfur recovery plants (2819)
- Primary lead smelters (3339)
- Sintering plants*
- Chemical process plants (28xx)**
- Petroleum storage & transfer units, total storage capacity over 300,000 barrels
- Glass fiber processing plants
- Fossil fuel-fired steam electric plants of more than 250 MMBtu/hr heat input

**Processing of fine grain materials into coarser lumps (performed primarily on ores).*

***Does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140.*

☐ **Yes**, my facility is classified as one of the 28 sources listed above. A listed air emission source having a potential to emit (PTE) 100 tons per year (TPY) or more of any single regulated New Source Review (NSR) pollutant (except carbon dioxide equivalents (CO_2e)) is considered a major stationary source. For sources classified as one of the 28 listed, fugitive emissions must be included in the PTE. **For item 6 of this form, and for form CH-04b if applicable, a 100-TPY emissions threshold must be used for all regulated NSR pollutants except CO_2e.**

☒ **No**, my facility is not classified as one of the 28 sources listed above. An air emission source not classified as one of the 28 sources listed above and having the PTE 250 TPY or more of any single regulated NSR pollutant (except CO_2e) is considered a major stationary source. **For item 6 of this form, and for form CH-04b if applicable, a 250-TPY emissions threshold must be used for all regulated NSR pollutants except CO_2e.**

4) [Reserved]

5) [Reserved]

6) Is the current federally enforceable PTE (excluding greenhouse gas) of your facility greater than or equal to the thresholds identified in question 3, making your facility a major stationary source?

☐ **Yes.** Go to question 7.

☒ **No.** Go to question 9.

7) Is your facility currently covered by a permit that contains a Plantwide Applicability Limit ("actuals PAL") as defined at 40 CFR § 52.21(aa)(2)(i) and (v)?

☐ **Yes**. Go to question 8.

☐ **No**. Go to question 9.

8) Are you able to continue to meet the emissions limits set by the Plantwide Applicability Limit after the project?

☐ **Yes**. NSR is not applicable to the proposed change/modification. You need not complete the remainder of this form. You must determine if an amendment is needed under Minn. R. 7007.1150 – 7007.1500.

☐ **No**. You must complete a Best Available Control Technology (BACT) analysis for all major and significant emissions units at your source. If installation of BACT still does not allow you to install the emission unit and maintain compliance with your PAL, you may apply for an increase in your PAL. Please see the Minnesota Pollution Control Agency (MPCA) fact sheet on PALs at http://www.pca.state.mn.us/index.php/view-document.html?gid=2097 or form PAL-05 (*not yet available as of the date of this form*), for guidance on increasing a PAL. Do not complete the remainder of this form.

9) Synthetic Minor Source: Are you proposing new or revised federally enforceable limits such that the **entire facility *(including the proposed modification)*** will become or remain a minor source?

☐ **Yes**. Submit an application for a major amendment. Refer to the MPCA website at https://www.pca.state.mn.us/air/synthetic-minor-permit-limits for guidance on setting limits. Put proposed limits and proposed compliance demonstration on form CD-01. Do ***not*** complete form CH-04a. If you are revising an existing federally enforceable limit, complete form CH-04b to document emission changes.

☒ **No**. If you answered "Yes" to question 6, go to form CH-04a.
If you answered "No" to question 6, go to form CH-04b.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-04b

Determination of increases at minor sources

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 4

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Use this form to calculate emissions increases at existing sources, which are minor New Source Review (NSR) sources. If the facility is an existing major source under NSR, use form *CH-04a*.

3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table 1

SI IDs:	EQUI 66	EQUI 67	EQUI 68	EQUI 69	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.00	0.00	0.00	0.00	Table
PM_{10} (including condensables)	0.00	0.00	0.00	0.00	copied
$PM_{2.5}$ (including condensables)	0.00	0.00	0.00	0.00	for
NO_x	0.00	0.00	0.00	0.00	additional
SO_2	0.00	0.00	0.00	0.00	units
CO	0.00	0.00	0.00	0.00	See
Ozone (VOC)	17.78	1.11	28.90	33.34	Total
Lead	0.00	0.00	0.00	0.00	in
Fluorides	0.00	0.00	0.00	0.00	final
Sulfuric acid mist	0.00	0.00	0.00	0.00	Table.
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	
MWC acid gas	0.00	0.00	0.00	0.00	
MSW landfill gas	0.00	0.00	0.00	0.00	
Carbon dioxide equivalents (CO_2e)	0.00	0.00	0.00	0.00	

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-04b

Determination of increases at minor sources

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 4

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Use this form to calculate emissions increases at existing sources, which are minor New Source Review (NSR) sources. If the facility is an existing major source under NSR, use form *CH-04a*.

3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table Repeated

Table 1

SI IDs:	EQUI 70	EQUI 71	EQUI 72	EQUI 73	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.00	0.00	0.00	0.00	Table
PM_{10} (including condensables)	0.00	0.00	0.00	0.00	Copied
$PM_{2.5}$ (including condensables)	0.00	0.00	0.00	0.00	See
NO_x	0.00	0.00	0.00	0.00	Total
SO_2	0.00	0.00	0.00	0.00	in last
CO	0.00	0.00	0.00	0.00	Table.
Ozone (VOC)	1.11	4.45	6.67	12.23	
Lead	0.00	0.00	0.00	0.00	
Fluorides	0.00	0.00	0.00	0.00	
Sulfuric acid mist	0.00	0.00	0.00	0.00	
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	
MWC acid gas	0.00	0.00	0.00	0.00	
MSW landfill gas	0.00	0.00	0.00	0.00	
Carbon dioxide equivalents (CO_2e)	0.00	0.00	0.00	0.00	

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St. Paul, MN 55155-4194

CH-04b

Determination of increases at minor sources

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 4

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Use this form to calculate emissions increases at existing sources, which are minor New Source Review (NSR) sources. If the facility is an existing major source under NSR, use form *CH-04a*.

3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table Repeated

Table 1

SI IDs:	EQUI 74	EQUI 75	EQUI 76	EQUI 77	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.00	0.00	0.00	0.00	Table
PM_{10} (including condensables)	0.00	0.00	0.00	0.00	Copied
$PM_{2.5}$ (including condensables)	0.00	0.00	0.00	0.00	see
NO_x	0.00	0.00	0.00	0.00	Total
SO_2	0.00	0.00	0.00	0.00	in
CO	0.00	0.00	0.00	0.00	Last
Ozone (VOC)	2.22	1.11	11.11	20.01	Form
Lead	0.00	0.00	0.00	0.00	
Fluorides	0.00	0.00	0.00	0.00	
Sulfuric acid mist	0.00	0.00	0.00	0.00	
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	
MWC acid gas	0.00	0.00	0.00	0.00	
MSW landfill gas	0.00	0.00	0.00	0.00	
Carbon dioxide equivalents (CO_2e)	0.00	0.00	0.00	0.00	

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3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table 1

Table Repeated

SI IDs:	EQUI 78	EQUI 79	EQUI 80	EQUI 81	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.00	0.00	0.00	0.00	Table
PM_{10} (including condensables)	0.00	0.00	0.00	0.00	Copied
$PM_{2.5}$ (including condensables)	0.00	0.00	0.00	0.00	see
NO_x	0.00	0.00	0.00	0.00	Total
SO_2	0.00	0.00	0.00	0.00	in last
CO	0.00	0.00	0.00	0.00	Table
Ozone (VOC)	10.00	1.11	22.23	16.67	
Lead	0.00	0.00	0.00	0.00	
Fluorides	0.00	0.00	0.00	0.00	
Sulfuric acid mist	0.00	0.00	0.00	0.00	
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	
MWC acid gas	0.00	0.00	0.00	0.00	
MSW landfill gas	0.00	0.00	0.00	0.00	
Carbon dioxide equivalents (CO_2e)	0.00	0.00	0.00	0.00	

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Use this form to calculate emissions increases at existing sources, which are minor New Source Review (NSR) sources. If the facility is an existing major source under NSR, use form *CH-04a*.

3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table 1

Table Repeated

SI IDs:	EQUI 82	EQUI 83	EQUI 84	EQUI 100	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.00	0.00	0.00	0.00	Table
PM_{10} (including condensables)	0.00	0.00	0.00	0.00	copied
$PM_{2.5}$ (including condensables)	0.00	0.00	0.00	0.00	see
NO_x	0.00	0.00	0.00	0.00	total at
SO_2	0.00	0.00	0.00	0.00	last
CO	0.00	0.00	0.00	0.00	Table
Ozone (VOC)	4.45	26.67	6.67	1.11	
Lead	0.00	0.00	0.00	0.00	
Fluorides	0.00	0.00	0.00	0.00	
Sulfuric acid mist	0.00	0.00	0.00	0.00	
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	
MWC acid gas	0.00	0.00	0.00	0.00	
MSW landfill gas	0.00	0.00	0.00	0.00	
Carbon dioxide equivalents (CO_2e)	0.00	0.00	0.00	0.00	

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Use this form to calculate emissions increases at existing sources, which are minor New Source Review (NSR) sources. If the facility is an existing major source under NSR, use form *CH-04a*.

3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table Repeated

Table 1

SI IDs:	EQUI 101	EQUI 102	EQUI 103	EQUI 85	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.00	0.00	0.00	0.10	Table
PM_{10} (including condensables)	0.00	0.00	0.00	0.10	copied
$PM_{2.5}$ (including condensables)	0.00	0.00	0.00	0.10	see
NO_x	0.00	0.00	0.00	0.68	total
SO_2	0.00	0.00	0.00	4.08E-03	on
CO	0.00	0.00	0.00	0.57	last
Ozone (VOC)	1.11	1.11	1.11	0.04	form.
Lead	0.00	0.00	0.00	0.02	
Fluorides	0.00	0.00	0.00	0.00	
Sulfuric acid mist	0.00	0.00	0.00	0.00	
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	
MWC acid gas	0.00	0.00	0.00	0.00	
MSW landfill gas	0.00	0.00	0.00	0.00	
Carbon dioxide equivalents (CO_2e)	0.00	0.00	0.00	813	

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Use this form to calculate emissions increases at existing sources, which are minor New Source Review (NSR) sources. If the facility is an existing major source under NSR, use form *CH-04a*.

3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table Repeated

Table 1

SI IDs:	EQUI 86	EQUI 87	EQUI 88	EQUI 89	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.03	0.02	0.12	0.04	Table
PM_{10} (including condensables)	0.03	0.02	0.12	0.04	copied
$PM_{2.5}$ (including condensables)	0.03	0.02	0.12	0.04	See
NO_x	0.23	0.23	0.15	0.62	Total
SO_2	1.36E-03	1.36E-03	2.11E-04	0.04	on
CO	0.19	0.19	0.13	0.13	last
Ozone (VOC)	0.01	0.01	8.48E-03	0.05	Table
Lead	0.005	4.26E-04	0.037	0.00	
Fluorides	0.00	0.00	0.00	0.00	
Sulfuric acid mist	0.00	0.00	0.00	0.00	
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	
MWC acid gas	0.00	0.00	0.00	0.00	
MSW landfill gas	0.00	0.00	0.00	0.00	
Carbon dioxide equivalents (CO_2e)	271	271	184	24	

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3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table 1

Table Repeated

SI IDs:	EQUI 90	EQUI 91	EQUI 92	EQUI 93	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.08	0.20	0.18	0.16	Table
PM_{10} (including condensables)	0.08	0.20	0.18	0.16	copied
$PM_{2.5}$ (including condensables)	0.08	0.20	0.18	0.16	see
NO_x	1.07	2.60	2.41	2.13	total
SO_2	0.01	0.02	0.01	0.01	at
CO	0.90	2.18	2.02	1.79	last
Ozone (VOC)	0.06	0.14	0.13	0.12	Table
Lead	0.00	0.00	0.00	0.00	
Fluorides	0.00	0.00	0.00	0.00	
Sulfuric acid mist	0.00	0.00	0.00	0.00	
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	
MWC acid gas	0.00	0.00	0.00	0.00	
MSW landfill gas	0.00	0.00	0.00	0.00	
Carbon dioxide equivalents (CO_2e)	1,282	3,103	2,877	2,539	

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3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table Repeated

Table 1

SI IDs:	EQUI 94	EQUI 95	EQUI 96	EQUI 97	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	0.18	7.20E-02	0.15	13.75	Table
PM_{10} (including condensables)	0.18	7.20E-02	0.15	13.75	copied
$PM_{2.5}$ (including condensables)	0.18	7.20E-02	0.15	13.75	see
NO_x	2.32	0.94	1.98	0.00	Total
SO_2	0.01	0.01	0.01	0.00	on
CO	1.95	0.79	1.66	0.00	last
Ozone (VOC)	0.13	0.05	0.11	0.00	Table
Lead	0.00	0.00	0.00	0.00	0.00
Fluorides	0.00	0.00	0.00	0.00	0.00
Sulfuric acid mist	0.00	0.00	0.00	0.00	0.00
Hydrogen sulfide (H_2S)	0.00	0.00	0.00	0.00	0.00
Total reduced sulfur including H_2S	0.00	0.00	0.00	0.00	0.00
Total reduced sulfur compounds including H_2S	0.00	0.00	0.00	0.00	0.00
Municipal Waste Combustion (MWC) organics	0.00	0.00	0.00	0.00	0.00
MWC acid gas	0.00	0.00	0.00	0.00	0.00
MSW landfill gas	0.00	0.00	0.00	0.00	0.00
Carbon dioxide equivalents (CO_2e)	2,770	1,126	2,363	0.00	

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Use this form to calculate emissions increases at existing sources, which are minor New Source Review (NSR) sources. If the facility is an existing major source under NSR, use form *CH-04a*.

3) [Reserved]

4) Use Table 1 to document the potential emissions of the individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 1 if more than four units are affected. Transfer the total increases (total potential emissions) for each pollutant from the "Total" column in Table 1 to column B in Table 2. Refer to the Minnesota Pollution Control Agency (MPCA) Greenhouse Gas (GHG) Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating carbon dioxide equivalents (CO_2e) emissions. Attach your calculations in both an editable spreadsheet format and a hardcopy printout.

Table 1

Natural Gas IA's

SI IDs:	EQUI 98	EQUI 99	IA		
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
PM	10.12	9.22	1.78		36.21
PM_{10} (including condensables)	10.12	9.22	1.78		36.21
$PM_{2.5}$ (including condensables)	10.12	9.22	1.78		36.21
NO_x	0.00	0.00	23.44		38.80
SO_2	0.00	0.00	0.14		0.27
CO	0.00	0.00	19.69		32.20
Ozone (VOC)	0.00	0.00	1.29		229.99
Lead	0.00	0.00			
Fluorides	0.00	0.00			
Sulfuric acid mist	0.00	0.00			
Hydrogen sulfide (H_2S)	0.00	0.00			
Total reduced sulfur including H_2S	0.00	0.00			
Total reduced sulfur compounds including H_2S	0.00	0.00			
Municipal Waste Combustion (MWC) organics	0.00	0.00			
MWC acid gas	0.00	0.00			
MSW landfill gas	0.00	0.00			
Carbon dioxide equivalents (CO_2e)	0.00	0.00	27,999		45,621

Table 2 - Summary

Column A	Column B	Column C	Column D	Column E
	Emissions from all units affected by the modification (from Table 1)	Thresholds for minor sources ("No" to CH-04 question 5 or 6 or "No" to GI-09C question C4 or C5) (tpy)		Thresholds for major sources
Pollutant	(tpy)	Answered "Yes" to CH-04 question 3 or GI-09C Section A	Answered "No" to CH-04 question 3 or GI-09C Section A	Significant emission rates for major sources (tpy)
PM	36.21	100	250	25[5]
PM_{10} (including condensables)	36.21	100	250	15
$PM_{2.5}$ (including condensables)	36.21	100	250	10
NO_x	38.80	100	250	40
SO_2	0.27	100	250	40
CO	32.20	100	250	100
Ozone (VOC)	229.99	100	250	40
Lead	0.00	100	250	0.6
Fluorides	0.00	100	250	3
Sulfuric acid mist	0.00	100	250	7
Hydrogen sulfide (H_2S)	0.00	100	250	10
Total reduced sulfur including H_2S	0.00	100	250	10
Total reduced sulfur compounds including H_2S	0.00	100	250	10
MWC organics [1]	0.00	100	250	10
MWC acid gas [2]	0.00	100	250	0.0000035
MWC metals [3]	0.00	100	250	40
MSW landfill gas	0.00	100	250	15
CO_2e [4]	45,621	NA	NA	75,000[6]

Note 1: MWC organics means Municipal waste combustor organics. These are defined as total tetra-thro-octa-chlorinated dibenzo-para-dioxins and dibenzofurans.

Note 2: MWC acid gases are measured as the sum of sulfur dioxide and hydrochloric acid.

Note 3: MWC Metals are measured as particulate matter.

Note 4: CO_2e is calculated as a weighted aggregate of carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, using the gases' global warming potentials. (Refer to the MPCA website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for instructions on calculating greenhouse gas emissions.)

Note 5: On July 31, 1987, the National Ambient Air Quality Standard for TSP (PM) was repealed and replaced with a standard for particulate matter less than 10 µm in size (PM_{10}). The significant levels in this table are as they appear in the Code of Federal Regulations, March 1994. A source may not be required to comply with Nonattainment NSR for TSP increases above 25 tons per year (tpy), but may be for PM_{10} above 15 tpy.

Note 6: On June 23, 2014, the U.S. Supreme Court decided (in Utility Air Regulatory Group (UARG) v. U.S. Environmental Protection Agency) that a project is not subject to regulation by virtue of GHG emissions alone. However, projects subject to regulation for other NSR-regulated pollutants are still subject to regulation for GHG.

5) Referring to Table 2, do the total emissions from new, modified, debottlenecked, and replacement units exceed the appropriate threshold for minor sources (Column C or D, depending on response on *CH-04* or *GI-09c*), for any pollutant?

☒ No. Done with this form. Attach all calculations and required documentation (as described within this form). If you were sent to this from form *GI-09C*, go back to that form and answer "No" to the question of whether the proposed change or modification is subject to NSR.

☐ Yes. Go to question 6.

6) In Table 3, list each pollutant for which the minor source threshold is exceeded in Table 2. Then go to question 7.

Table 3 – Pollutant status vs. minor source thresholds

Pollutants exceeding the minor source threshold in Table 2:	

7) Will you propose and accept a limit on every pollutant, in Table 3 such that no minor source thresholds are exceeded? (Refer to the MPCA website at https://www.pca.state.mn.us/air/synthetic-minor-permit-limits for information on how to determine and propose limits.) See instructions for situations when CO_2e emissions are above the applicable threshold.

☐ Yes. Go to question 8.

☐ No. The emissions of at least one pollutant exceed the threshold for minor sources. Go to question 10.

8) Briefly describe the limit(s) you are proposing to keep the emissions of all pollutants listed in Table 3 below its associated minor source threshold. Also include the limit(s) on form *CD-01*, with your proposed method of demonstrating compliance. Then go to question 9.

9) You are done with this form. Attach all calculations and required documentation (as described within this form). If you were sent to this from form *GI-09C*, go back to that form and answer "No" to the question of whether the proposed change or modification is subject to NSR.

10) The project is major for at least one pollutant.

Review Table 2. In Table 4, list each pollutant, including CO_2e, for which the total emissions from new, modified, debottlenecked, and replacement units exceed the associated major source significant emission rate threshold for major sources. Then go to question 11.

Table 4 – Pollutant status vs. major modification thresholds

Pollutants exceeding the major source significant emission rate in Table 2	

11) Will you propose and accept a limit on any pollutant in Table 4 such that it does not exceed its major source significant emission rate? If you propose limits to restrict the emissions of all pollutants listed in Table 4 except for CO_2e such that only emissions of CO_2e are above the applicable threshold, then the proposed change or modification is not subject to NSR. If this is the case, answer "yes" to this question. (Refer to the MPCA website at https://www.pca.state.mn.us/air/synthetic-minor-permit-limits for information on determining and proposing limits.)

☐ Yes. Go to question 12.

☐ No. The project is major for each pollutant listed in Table 4. Go to question 13.

12) Briefly describe the limit(s) you are proposing to keep the emissions of any pollutant listed in Table 4 below their significant emission rates. Also include the limit(s) on form *CD-01* with your proposed method of demonstrating compliance. Go to question 13.

13) In Table 5, list all pollutants that you have determined to be subject to Prevention of Significant Deterioration Program (PSD). This will include each pollutant in Table 3 and in Table 4 for which you did not limit emissions below the major source threshold in Table 2 (the significant emission rate).

Table 5 – Pollutants subject to PSD

14) You have now completed this form. Attach all calculations and required documentation (as described within this form). If you were sent to this from form *GI-09C*, go back to that form and answer "Yes" to the question of whether the proposed change or modification is subject to NSR. Also complete *CH-04e* to identify the information needed for a PSD permit application.

Instructions for form CH-04b

Complete *CH-04b* only if directed on form *CH-04* or *GI-09C*.

1a) **AQ Facility ID number --** Fill in your Air Quality (AQ) Facility identification (ID) number. This is the first eight digits of the permit number for all new permits issued under the operating permit program. If you don't know this number, leave this line blank.

1b) **Agency Interest ID number --** Fill in your Agency Interest ID number. This is an ID number assigned to your facility through the Tempo database. If you don't know this number, leave this line blank.

2) **Facility name --** Enter your facility name.

3) [Reserved]

4) At the top of each column in Table 1, enter or select "EU" (emissions unit), "TK" (tank), "FS" (fugitive source), "EQUI" (Tempo designation for emission units and tanks), or "FUGI" (Tempo designation for fugitive sources) and enter the number as it exists in your current Air Quality Permit. In calculating the emissions increase from a proposed change or modification at an existing minor stationary source, you must calculate the potential emissions of the new, modified, or debottlenecked unit(s) (this might be an emission unit, a tank, or a fugitive source). If the potential emissions of the new or modified units are greater than or equal to the applicable threshold, the proposed modification is potentially subject to NSR. Potential to emit (PTE) is the capability at maximum design capacity to emit a pollutant, except as constrained by federally-enforceable conditions (which include the effect of installed air pollution control equipment and restrictions on the hours of operation, or the type or amount of material combusted, stored or processed). Do not take air pollution control equipment into account except as allowed by Minn. R. 7007.1200, subp. 2. You may not take credit for proposed or non federally-enforceable pollution control equipment. You may not take credit from emissions reductions made at existing emission unit, tanks or fugitive sources. Note that potential emissions are used for an emissions increase because this is for a minor NSR source (40 CFR 52.21(a)(2)(iv)(d), 40 CFR 52.21(b)(1)(i)(c), 40 CFR 52.21(b)(48)(iii)).

   In the last column of Table 1, enter the total emissions, in tpy, of each pollutant. (This will be used again in Table 2.)

   Transfer the total potential emissions for each pollutant to Table 2. Compare the total emissions from the new, modified, debottlenecked, and replacement units for each pollutant to the appropriate threshold for minor sources (for all regulated pollutants except CO_2e, 100 tpy if you answered "Yes" to question 3 of form *CH-04* or Section A of *GI-09C*, or 250 tpy if you answered "No" to question 3 of form *CH-04* or Section A of form *GI-09C*; there is no minor source threshold for CO_2e emissions. In addition, if either nitrogen oxides (NO_X) or sulfur dioxide (SO_2) emissions are above the thresholds, then the proposed project may also considered to be major for Particulate Matter less than 2.5 micrometers ($PM_{2.5}$), since NO_X and SO_2 are assumed precursors to $PM_{2.5}$.

5) If the total emissions from the proposed change or modification do not exceed the thresholds in Table 2, you are done with this form and the NSR analysis. If you are applying for an amendment to an existing permit, return to forms *CH-02* and *CH-03* to continue the process of determining the type of permit amendment needed. If you are applying for a first-time individual permit, return to form *GI-09C* and answer "No" to the question of whether the proposed change or modification is subject to NSR.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-04c

Determination of greenhouse gas status under New Source Review

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Calculate the potential to emit (PTE) of greenhouse gases (GHG) emissions for your existing facility, before your proposed change, including the mass emissions of individual GHGs (columns a – f), the sum of the mass emissions of individual GHGs (column g), and the carbon dioxide equivalent (CO_2e, column h). Refer to the Minnesota Pollution Control Agency (MPCA) GHG Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating the individual mass emissions and the CO_2e. Complete your calculations on a spreadsheet; transfer the current PTE to Table 1 below, and include the editable calculation spreadsheet in your application package.

Table 1

No natural gas combustion equipment included in previous permit, therefore GHG PTE was previously 0.

a)	b)	c)	d)	e)	f)	g)	h)
Carbon dioxide (CO_2) (tons per year [tpy])	Methane (CH_4) (tpy)	Nitrous oxide (N_2O) (tpy)	Hydrofluoro-carbons (HFC) (tpy)	Perfluoro-carbons (PFC) (tpy)	Sulfur hexafluoride (SF_6) (tpy)	Mass sum of GHGs (tpy)	Carbon dioxide equivalent (CO_2e) (tpy)
0.00	0.00	0.00	---	---	---	0.00	0.00

4) [Reserved]

5) [Reserved]

6) Use Table 2 to document the emissions increase for individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 2 if more than four units are affected. Summarize the total increases for each pollutant in Table 3. Attach your calculations (in both an editable spreadsheet format and a hard copy printout). Answer the question following Table 3.

Table 2

Table repeated on subsequent pages to include all GHG emissions sources at the facility.

SI IDs:	EQUI 90	EQUI 91	EQUI 92	EQUI 93	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
CO_2	1,281	3,100	2,874	2,536	Table
CH_4	2.41E-02	5.83E-02	5.4E-02	4.77E-02	Repeated
N_2O	2.41E-03	5.83E-03	5.4E-03	4.77E-03	see
HFC	---	---	---	---	next page
PFC	---	---	---	---	for
SF_6	---	---	---	---	Total
CO_2e	1,282	3,103	2,877	2,539	

☐ The project does not involve adding, modifying, replacing, or debottlenecking units that emit GHG. Done with this form. Return to the form that directed you here (form *CH-03* or *GI-09c*) and answer "no" to the question of whether the proposed change or modification is subject to regulation for GHG.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-04c

Determination of greenhouse gas status under New Source Review

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Calculate the potential to emit (PTE) of greenhouse gases (GHG) emissions for your existing facility, before your proposed change, including the mass emissions of individual GHGs (columns a – f), the sum of the mass emissions of individual GHGs (column g), and the carbon dioxide equivalent (CO_2e, column h). Refer to the Minnesota Pollution Control Agency (MPCA) GHG Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating the individual mass emissions and the CO_2e. Complete your calculations on a spreadsheet; transfer the current PTE to Table 1 below, and include the editable calculation spreadsheet in your application package.

Table 1

a)	b)	c)	d)	e)	f)	g)	h)
Carbon dioxide (CO_2) (tons per year [tpy])	Methane (CH_4) (tpy)	Nitrous oxide (N_2O) (tpy)	Hydrofluoro-carbons (HFC) (tpy)	Perfluoro-carbons (PFC) (tpy)	Sulfur hexafluoride (SF_6) (tpy)	Mass sum of GHGs (tpy)	Carbon dioxide equivalent (CO_2e) (tpy)
0.00	0.00	0.00	---	---	---	0.00	0.00

4) [Reserved]

5) [Reserved]

6) Use Table 2 to document the emissions increase for individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 2 if more than four units are affected. Summarize the total increases for each pollutant in Table 3. Attach your calculations (in both an editable spreadsheet format and a hard copy printout). Answer the question following Table 3.

Table 2

Table Repeated

Natural Gas Combustion Insignificant Activities

SI IDs:	EQUI 94	EQUI 95	EQUI 96		
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
CO_2	2,767	1,125	2,361	27,970	Table
CH_4	5.2E-02	2.12E-02	4.45E-02	5.26E-01	copied
N_2O	5.2E-02	2.12E-03	4.45E-03	5.26E-02	see
HFC	---	---	---		Total
PFC	---	---	---		on
SF_6	---	---	---		Last
CO_2e	2,770	1,126	2,363	27,999	Table

☐ The project does not involve adding, modifying, replacing, or debottlenecking units that emit GHG. Done with this form. Return to the form that directed you here (form *CH-03* or *GI-09c*) and answer "no" to the question of whether the proposed change or modification is subject to regulation for GHG.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-04c

Determination of greenhouse gas status under New Source Review

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Calculate the potential to emit (PTE) of greenhouse gases (GHG) emissions for your existing facility, before your proposed change, including the mass emissions of individual GHGs (columns a – f), the sum of the mass emissions of individual GHGs (column g), and the carbon dioxide equivalent (CO_2e, column h). Refer to the Minnesota Pollution Control Agency (MPCA) GHG Emissions website at https://www.pca.state.mn.us/air/greenhouse-gas-emissions-calculations for guidance in calculating the individual mass emissions and the CO_2e. Complete your calculations on a spreadsheet; transfer the current PTE to Table 1 below, and include the editable calculation spreadsheet in your application package.

Table 1

a)	b)	c)	d)	e)	f)	g)	h)
Carbon dioxide (CO_2) (tons per year [tpy])	Methane (CH_4) (tpy)	Nitrous oxide (N_2O) (tpy)	Hydrofluoro-carbons (HFC) (tpy)	Perfluoro-carbons (PFC) (tpy)	Sulfur hexafluoride (SF_6) (tpy)	Mass sum of GHGs (tpy)	Carbon dioxide equivalent (CO_2e) (tpy)
0.00	0.00	0.00	---	---	---	0.00	0.00

4) [Reserved]

5) [Reserved]

6) Use Table 2 to document the emissions increase for individual units, tanks, or fugitive sources affected by the proposed modification. See instructions for calculating emissions increases. Make additional copies of Table 2 if more than four units are affected. Summarize the total increases for each pollutant in Table 3. Attach your calculations (in both an editable spreadsheet format and a hard copy printout). Answer the question following Table 3.

Table 2

SI IDs:	EQUI 85	EQUI 86	EQUI 87	EQUI 88	
Pollutant	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Potential emissions (tpy)**	**Total (tpy)**
CO_2	812	271	271	184	45,574
CH_4	0.02	5.1E-03	5.1E-03	3.5E-03	0.86
N_2O	1.5E-03	5.1E-04	5.1E-04	3.5E-04	0.09
HFC	---	---	---		---
PFC	---	---	---		---
SF_6	---	---	---		---
CO_2e	813	271	271	184	45,621

☐ The project does not involve adding, modifying, replacing, or debottlenecking units that emit GHG. Done with this form. Return to the form that directed you here (form *CH-03* or *GI-09c*) and answer "no" to the question of whether the proposed change or modification is subject to regulation for GHG.

Table 3 - Summary

Pollutant	Potential emissions ("Total" from Table 2) (tpy)
CO_2	45,574
CH_4	0.86
N_2O	0.09
HFC	---
PFC	---
SF_6	---
Total mass GHG (sum of above 6 numbers)	45,630
CO_2e	45,621

7) Is the number you entered for CO_2e in Table 3 greater than or equal to 75,000 tpy?

☐ Yes. Go to question 8.

☒ No. Your proposed change is not Subject to Regulation for GHG under New Source Review. You are done with this form. Return to the form that directed you here (form *CH-04* or *GI-09C*) and answer "No" to the question of whether the proposed change or modification is subject to regulation for GHG.

8) Are the total mass emissions (sum of the masses of the individual GHGs, excluding global warming potentials) in Table 3 greater than or equal to zero?

☐ Yes. Go to question 9.

☐ No. Your proposed change is not Subject to Regulation for GHG under New Source Review. You are done with this form. Return to the form that directed you here (form *CH-03* or GI-09c) and answer "No" to the question of whether the proposed change or modification is subject to regulation for GHG.

9) On either form *CH-04a* or *CH-04b*, did you indicate that any pollutant is subject to prevention of significant deterioration program (PSD)?

☐ Yes. Your project is subject to regulation for GHG.

☐ No. Your project is not subject to regulation for GHG.

Instructions for form CH-04c

1a) **AQ Facility ID number --** Fill in your Air Quality (AQ) Facility Identification (ID) number. This is the first eight digits of the permit number for all permits issued under the operating permit program.

1b) **Agency Interest ID number --** Fill in your Agency Interest ID number. This is an ID number assigned to your facility through the Tempo database. If you don't know this number, leave this line blank.

2) **Facility name --** Enter your facility name.

3) **Calculate the GHG PTE of the existing facility (Table 1) --** Potential to emit (PTE) is the capability at maximum design capacity to emit a pollutant, except as constrained by federally-enforceable conditions (which include the effect of installed air pollution control equipment and restrictions on the hours of operation, or the type or amount of material combusted, stored or processed). Do not take air pollution control equipment into account except as allowed by Minn. R. 7007.1200, subp. 2. You may not take credit for proposed or non-federally-enforceable pollution control equipment.

4) [Reserved]

5) [Reserved]

6) At the top of each column in Table 2, enter or select "EU" (emissions unit), "TK" (tank), "FS" (fugitive source), "CE" (control equipment), "EQUI" (Tempo designation for emission units and tanks), "FUGI" (Tempo designation for fugitive sources), or "TREA" (Tempo designation for control equipment) and enter the number as it exists in your current Part 70 permit.

In calculating the emissions increase from the proposed change or modification at the facility, you must calculate the potential emissions of the new, modified, or debottlenecked EU, TK, FS, CE, EQUI, FUGI, or TREA. For units with decreased emissions, mark the increase as 0 (i.e., do not include negative numbers). If more than four EU/TK/FS/CE/EQUI/FUGI/TREA are involved, you will have to create a duplicate of Table 2 and attach it to this form. Once you complete Table 2, transfer the total emissions for each pollutant to Table 3.

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-05

Applicability of NSPS

Air Quality Permit Program

Doc Type: Permit Application

Instructions on Page 3

Complete this form to determine if the proposed change or modification results in new applicability of a New Source Performance Standard listed in Table 1.

1a) AQ Facility ID No.: 12300341 **1b)** AQ File No.: 2005

2) Facility Name: Water Gremlin Company

3) Is there a New Source Performance Standards (NSPS) for a source category which includes the unit(s) you are installing, modifying, or reconstructing?

☒ Yes. Go to question 4

☐ No. Done with this Form. Answer "No" to question 3b) on Form CH-03.

4) Complete Question 4a) – 4c) for each new, modified, or reconstructed unit which may be subject to an NSPS following the proposed project. (Copy as necessary.)

4a) Unit	**4b)** NSPS Subpart(s) that may apply after project	**4c)** Do all of the NSPS listed in column 4b) for the unit listed in column 4a) currently apply (prior to the proposed project)? If this is a new unit, the answer is "no."	
EQUI89	40 CFR 60, subp. IIII	☐ Yes – done with this unit	☒ No
		☐ Yes – done with this unit	☐ No
		☐ Yes – done with this unit	☐ No
		☐ Yes – done with this unit	☐ No
		☐ Yes – done with this unit	☐ No

5) Did you check "no" in column 4c) for **any** unit in the table in question 4)?

☐ No. This indicates that NSPS currently applies to all units and there will be no newly applicable NSPS as a result of the proposed project. Done with this form. Answer "no" to question 3b on Form CH-03.

☒ Yes. Complete the remainder of this form for each unit for which you checked "no" in the last column of the table in question 4.

6) Installing a new unit to which the NSPS will apply?

☐ No. Go to Question 7).

☒ Yes Complete Questions 6a) – 6e) for each new unit. (Copy as necessary.)

6a) Emission Unit Number: EQUI89

6b) Emission Unit/Equipment Description: Emergency Generator Engine

6c) Stack/Vent Number: STRU4

6d) Date of Equipment Manufacture or Installation: 11/08/2010 (mm/dd/yyyy)

6e) Attach a copy of the applicable 40 CFR pt. 60 subpart, and subpart A, with the applicable sections highlighted. Use Form CD-01 to document the proposed methods of compliance.

7) Reconstructing an existing unit to which an NSPS will apply?

☒ No. Go to Question 8).

☐ Yes Complete Questions 7a) – 7e) (next page) for each reconstructed unit. (Copy as necessary.)

7a) Emission Unit Number: _____

7b) Emission Unit/Equipment Description: _____

7c) Stack/Vent Number: _____

7d) Date of Reconstruction (expected): _____ (mm/dd/yyyy)

7e) Attach a copy of the applicable 40 CFR pt. 60 subpart, and subpart A, with the applicable sections highlighted. Use Form CD-01 to document the proposed methods of compliance.

8) Physical change or modification to an existing unit to which the NSPS might apply?

☒ No Go to Question 10).

☐ Yes – Complete Question 8a) for each modified unit. (Copy as necessary.)

8a) Emission Unit ID No.: _____

Pollutant(s) regulated by the NSPS	Emission Rate after change (lb/hr)	Emission Rate before change (lb/hr)	Change in Emission Rate (lb/hr)
☐ PM			
☐ PM_{10}			
☐ $PM_{2.5}$			
☐ NO_X			
☐ SO_2			
☐ CO			
☐ VOC			
☐ Lead			

9) Is there an increase in the hourly emission rate of any of the pollutants regulated by the NSPS?

☐ No. Go to Question 10).

☐ Yes – Complete Questions 9a) – 9d) for each modified unit. (Copy as necessary.)

9b) Emission Unit/Equipment Description _____

9b) Stack/Vent Number _____

9c) Date of Modification (expected) _____ (mm/dd/yyyy)

9d) Attach a copy of the applicable 40 CFR pt. 60 subpart, and subpart A, with the applicable sections highlighted. Use Form CD-01 to document the proposed methods of compliance.

10) Check all that apply

☒ If you answered either "yes" or "no" to question 6) **and** "no" to question 7) **and** "no" to question 8) or question 9), a major amendment is not needed under Minn. R. 7007.1500, subp. 3a. Answer "no" to Question 3b) on Form CH-03. Another type of permit amendment may still be required.

☐ If you answered "yes" or "no" to question 6), **and either** "yes" to question 7) **or** "yes" to questions 8) and 9), this change or modification requires a major amendment under Minn. R. 7007.1500, subp. 3a. Answer "yes" to Question 3b) on Form CH-03.

☐ If you answered "yes" to question 6), 7), or 9), **but the total facility potential-to-emit remains below all permit thresholds**, review Minn. R. 7007.0250 – 7007.0300 to determine if a permit is needed.

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-06

Applicability of Part 61 NESHAP

Air Quality Permit Program

Doc Type: Permit Application

Instructions on Page 3

Complete this form to determine if the proposed change or modification results in new applicability of a Part 61 NESHAP listed in Table 1.

1a) AQ Facility ID No.: 12300341 **1b)** AQ File No.: 2005

2) Facility Name: Water Gremlin Company

3) Is there a Part 61 NESHAP for a source category which includes the unit(s) you are installing, modifying, or reconstructing?

☐ Yes Go to question 4

☒ No Done with this Form. Answer "No" to question 3c) on Form CH-03.

4) Complete Questions 4a) – 4c) for each new, modified, or reconstructed unit which may be subject to a Part 61 NESHAP following the proposed project (Copy as necessary).

4a) Unit	**4b)** Part 61 Subpart(s) that may apply after project	**4c)** Do all of the NESHAPs listed in column 4b) for the unit listed in column 4a) currently apply (prior to the proposed project)? If this is a new unit, the answer is "no."	
		☐ Yes – done with this unit	☐ No
		☐ Yes – done with this unit	☐ No
		☐ Yes – done with this unit	☐ No
		☐ Yes – done with this unit	☐ No
		☐ Yes – done with this unit	☐ No

5) Did you check "no" in column 4c) for **any** unit in the table in question 4)?

☐ No This indicates that NESHAP currently applies to all units and there will be no newly applicable NESHAPs as a result of the proposed project. Done with this form. Answer "no" to question 3c on Form CH-03.

☐ Yes Complete the remainder of this form for each unit for which you checked "no" in the last column of the table in question 4.

6) Installing new equipment which will cause a Part 61 NESHAP to apply?

☐ No Go to question 7).

☐ Yes Complete 6a) – 6c) for each new unit (Copy as necessary). Use Form CD-01 to document the proposed methods of compliance. Include a highlighted photocopy of the standard.

6a) Emission Unit Number _____

6b) Emission Unit/Equipment Description _____

6c) Stack/Vent Number _____

7) Physical or operational change to an existing unit such that a Part 61 NESHAP will apply?

☐ No Go to question 9).

☐ Yes Complete 7a) for each modified unit (Copy as necessary). Then go to question 8).

7a) Emission Unit ID No.: _____

Pollutant	**Emission Rate after change (lb/hr)**	**Emission Rate before change (lb/hr)**	**Change in Emission Rate (lb/hr)**

8) Is there an increase in the emission rate of any of the pollutants regulated by the Part 61 NESHAP?

☐ No Go to question 9).

☐ Yes Complete questions 8a) – 8c) for each modified unit (Copy as necessary). Use Form CD-01 to document the proposed methods of compliance. Include a highlighted photocopy of the standard.

8a) Emission Unit/Equipment Description: _____

8b) Stack/Vent Number: _____

8c) Date of Modification (expected): _____ (mm/dd/yyyy)

9) Check all that apply

☐ If you answered "yes" or "no" to question 6) and "no" to question 7) or 8), a major amendment is not needed under Minn. R. 7007.1500, subp. 1.D. Answer "no" to Question 3c) on Form CH-03. Another type of permit amendment may be required.

☐ If you answered "yes" or "no" to question 6) and "yes" to question 8), this change or modification requires a major amendment under Minn. R. 7007.1500, subp. 1.D. Answer "yes" to Question 3c) on Form CH-03.

☐ If you answered "yes" to question 6) or 8), **but the total facility potential-to-emit remains below all permit thresholds**, you are required to obtain a permit only for the emission unit(s) subject to the Part 61 NESHAP.

Instructions for Form CH-06

1a) **AQ Facility ID No. --** Fill in your Air Quality Facility ID Number. This is the first eight digits of the permit number for all permits issued under the operating permit program.

1b) **AQ File No. --** Fill in your AQ File Number. This number can be found in the "cc" section of correspondence from the Minnesota Pollution Control Agency (MPCA).

2) **Facility Name --** Enter your facility name.

3) **Is there a Part 61 NESHAP for a source category which includes the unit(s) you are installing, modifying, or reconstructing? --** If you know or suspect one of the standards listed in Table 1 may apply after your proposed change or modification, you should refer to the applicability section of the 40 CFR pt. 61 subpart and read the requirements to make a final determination. If the answer is "no," then the answer to question 3c) on Form CH-03 is "no."

4) **Which NESHAP? --** For each unit where a Part 61 NESHAP may apply after the proposed project, indicate which NESHAP will apply, and whether it currently applies (it may currently apply to modified or reconstructed units, it will not currently apply to new units).

5) **Did you check "no" in column 4c) for any unit listed? --** If you didn't check "no" (you checked "yes" in 4c) for every new, modified, or reconstructed unit), this indicates that all of the Part 61 NESHAPs that may apply after the project already apply now, prior to the project. If that is the case, then the answer to question 3c) on Form CH-03 is no. If this is not the case, go on with this form for any unit for which "no" was checked in 4c).

6) **Installing new equipment which will cause a Part 61 National Emission Standard for Hazardous Air Pollutants (NESHAP) to apply? --** If you determine that a Part 61 NESHAP will apply, complete items 6a) – 6c). Use Form GI-05B to provide details about the emissions unit (EU), and Form GI-04 to provide details about the stack (SV). Number both the EU and SV consecutively following the last number used for your total facility permit.

7) **Modifying an existing unit such that a Part 61 NESHAP will apply? --** If the proposed change or modification involves physically modifying or changing the method of operation of an existing unit which may be subject to the NESHAP(s) identified in Question 4), go on to 7a).

7a) For each existing emission unit that is being changed, or for which the method of operation will be changed, determine if there will be an increase in hourly emissions. When doing the calculations, **do not take air pollution control equipment into account except as allowed by the standard or Minn. R 7007.1200.**

8) **Is there an increase in the emission rate of any of the pollutants regulated by the Part 61 NESHAP? --** A modification for Part 61 NESHAP purposes is a physical change or change in method of operation which results in an increase in emission of one or more pollutants regulated by the individual NESHAP. If you determine that there is an increase in an emission rate of a pollutant regulated under the Part 61 NESHAP, the change is a "modification" under 40 CFR pt. 61, and you should complete items 8a) – 8c).

9) Check the appropriate box showing what permitting requirements the above questions have established.

If you answered "no" to question 7) or 8), indicating that you are not making any changes to existing units that result in increase in hourly emission rates, this means that the change is not a Title I modification under Minn. R. 7007.0100, subp. 26(D), and you can answer "no" to question 3c) on Form CH-03. *The change may still require a major amendment or another type of amendment.*

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-07

Applicability of part 63 NESHAP for amendments

Air Quality Permit Program

Doc Type: Permit Application

AQ Facility ID number: 12300341 Agency Interest ID number: 2005

Facility name: Water Gremlin Company

1) Are there or will there be Hazardous Air Pollutants (HAPs) emissions (listed on Table A) from any source affected by the proposed project?

☐ No. Done with this form. Answer "No" to question 3d on form *CH-03*.
☒ Yes. Go on to question 2 of this form.

2) Are you proposing to install new HAP-emitting sources, or reconstruct existing equipment that will emit HAPs following the reconstruction? (This specifically means "reconstruction" as defined at 40 CFR § 63.2 – if you modify existing equipment without meeting the definition of "reconstruction," the answer to this question is "No.")

☐ No. Done with this form. Answer "No" to question 3d on form *CH-03*.
☒ Yes. Go on to question 3 of this form.

3) Is the currently-permitted facility a major HAP source (considering potential emissions and all existing federally enforceable permit conditions)?

☒ No. Go on to question 4.
☐ Yes. Go to question 7.

4) Will the new or reconstructed items (those affected by the modification) have the potential to emit 10 or more tons per year of any individual HAP, or 25 or more tons per year of total HAPs, before considering any limits the source may be subject to or limits you may propose later in this form?

☐ No. Go on to question 5.
☒ Yes. Go to question 6.

5) Will the facility as modified be a major source of HAP emissions after your proposed change, before considering any limiting conditions you may propose later in this form?

☐ No. Go to question 10.
☐ Yes. Go on to question 6.

6) It is possible to avoid becoming a major HAP source by proposing federally enforceable permit conditions to limit your potential HAP emissions from the entire facility (as modified) to less than 10 tons per year for each HAP and/or 25 tons per year for all HAPs combined. Do you want to accept permit limitations on HAPs to avoid becoming a major HAP source?

☐ No. Go on to question 7.
☒ Yes. **Briefly describe the limitations** you would be willing to accept so that your HAP emissions will be less than 10 tons per year for each HAP and less than 25 tons per year for all HAPs combined (use a separate sheet if needed). Description must include each of the HAP pollutants. Include your proposed limit, monitoring, recordkeeping, and reporting on form *CD-01*. You must answer "Yes" to question 6 on form *CH-03*. Then go to question 10 of this form.

Water Gremlin is proposong limit of less than 9 tons per year for single HAP (trichloroethylene) and a limit less than 23.5 tons per year for total HAPs. These are proposed pre-cap limits.

7) Will any of the new or reconstructed items be subject to any of the standards for major source categories listed in Table B? Also consider whether any existing, non-modified parts of the facility are subject to one or more of the standards listed in Table B; if so, and the standard is not already included in your existing permit, include those sources and standards here as well.

☐ No. Go on to question 8.
☐ Yes. List the source categories applicable to each new, reconstructed, or existing HAP-emitting equipment.

Source	(N)ew, (R)econstructed, or (E)xisting? (Check one)	Applicable source category (subpart or title)	Compliance date (mm/dd/yyyy)
	☐ N ☐ R ☐ E		
	☐ N ☐ R ☐ E		
	☐ N ☐ R ☐ E		
	☐ N ☐ R ☐ E		

For each standard listed above, attach a copy of the National Emission Standards for Hazardous Air Pollutant (NESHAP) standard with the applicable parts highlighted. Also attach a copy of Subpart A with the applicable portions highlighted. If the applicable standard offers more than one compliance option, make it clear which one you are choosing.
Go on to question 8.

8) Will the new or reconstructed items (those affected by the proposed modification) have the potential to emit 10 or more tons per year of any individual HAP, or 25 or more tons per year of total HAPs, before considering any limits the source may be subject to?

☐ No. Done with this form. Answer "No" to question 3d on form *CH-03*.
☐ Yes. Go on to question 9 of this form. Answer "Yes" to question 3d on form *CH-03*.

9) Will any of the new or reconstructed items **not** be subject to any of the standards for major source categories listed in Table B?

☐ No. Done with this form.
☐ Yes. List them here. Done with this form.

HAP-emitting units with no applicable source category in Table B.

For those HAP-emitting units listed above, you must propose a case-by-case maximum achievable control technology (MACT) determination meeting the requirements of 40 CFR § 63.43. Contact the Minnesota Pollution Control Agency for information about proposing a case-by-case MACT determination for approval.

10) Some non-major HAP sources will be subject to requirements of NESHAPs called "area source" NESHAPs. Will the proposed new or reconstructed units belong to any of the area source categories listed below?

☐ No. Done with this form. Answer "No" to question 3d on Form CH-03.
☒ Yes. Place a check in the box next to that category, and read the specified NESHAP for source categories to determine all applicable requirements for area sources. Attach a copy of each applicable subpart of the NESHAP for area source categories, and highlight the applicable requirements in each applicable subpart. Also attach a copy of Subpart A with the applicable portions highlighted. Done with this form. Answer "No" to question 3d on form *CH-03*.

☐ Acrylic and Modacrylic Fibers Production, 40 CFR § 63 subp. LLLLLL
☐ Asphalt Processing and Asphalt Roofing Manufacturing, 40 CFR § 63 subp. AAAAAAA
☐ Carbon Black Production, 40 CFR § 63 subp. MMMMMM
☐ Chemical Manufacturing Area Sources, 40 CFR § 63 subp. VVVVVV
☐ Chemical Manufacturing: Chromium Compounds, 40 CFR § 63 subp. NNNNNN
☐ Chemical Preparations Industry, 40 CFR § 63 subp. BBBBBBB
☐ Chromic acid anodizing (Chromium Electroplating), 40 CFR § 63 subp. N
☐ Clay Ceramics Manufacturing, 40 CFR § 63 subp. RRRRRR
☐ Commercial dry cleaning (Perc) transfer machines, 40 CFR § 63 subp. M
☐ Commercial sterilization facilities, 40 CFR § 63 subp. O
☐ Decorative chromium electroplating **(Chromium Electroplating)**, 40 CFR § 63 subp. N
☐ Electric Arc Furnace Steelmaking Facilities, 40 CFR § 63 subp. YYYYY
☐ Ferroalloys Production Facilities, 40 CFR § 63 subp. YYYYYY
☐ Flexible Polyurethane Foam Production and Fabrication, 40 CFR § 63 subp. OOOOOO

☐ Gasoline Dispensing Facilities, 40 CFR § 63 subp. CCCCCC
☐ Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities, 40 CFR § 63 subp. BBBBBB
☐ Glass Manufacturing, 40 CFR § 63 subp. SSSSSS
☐ Gold Mine Ore Processing and Production, 40 CFR § 63 subp. EEEEEEE
☐ Halogenated solvent cleaners (Degreasing Organic Cleaners), 40 CFR § 63 subp. T
☐ Hard chromium electroplating (Chromium Electroplating), 40 CFR § 63 subp. N
☐ Hospital Sterilizers using Ethylene Oxides, 40 CFR § 63 subp. WWWWW
☐ Industrial, Commercial, and Institutional Boilers and Process Heaters – Area Sources. 40 CFR § 63 subp. JJJJJJ
☐ Iron and Steel Foundries Area Sources, 40 CFR § 63 subp. ZZZZZ
☐ Lead Acid Battery Manufacturing, 40 CFR § 63 subp. PPPPPP
☐ Metal Fabrication and Finishing Sources, 40 CFR § 63 subp. XXXXXX
☐ Nonferrous Foundries: Aluminum, Copper, and Other, 40 CFR § 63 subp. ZZZZZZ
☐ Oil and natural gas production, 40 CFR § 63 subp. HH
☐ Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR § 63 subp. HHHHHH
☐ Paints and Allied Products Manufacturing, 40 CFR § 63 subp. CCCCCCC
☐ Plating and Polishing Operations, 40 CFR § 63 subp. WWWWWW
☐ Polyvinyl Chloride and Copolymers Production, 40 CFR § 63 subp. DDDDDD
☐ Prepared Feeds Manufacturing, 40 CFR § 63 subp. DDDDDDD
☐ Primary Copper Smelting, 40 CFR § 63 subp. EEEEEE
☐ Primary Nonferrous Metals: Zinc, Cadmium, and Beryllium, 40 CFR § 63 subp. GGGGGG
☒ Reciprocating Internal Combustion Engines, 40 CFR § 63 subp. ZZZZ
☐ Secondary aluminum processing, 40 CFR § 63 subp. RRR
☐ Secondary Copper Smelting, 40 CFR § 63 subp. FFFFFF
☐ Secondary Nonferrous Metals Processing (Brass, Bronze, Magnesium, Zinc), 40 CFR § 63 subp. TTTTTT
☐ Wood Preserving, 40 CFR § 63 subp. QQQQQQ

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-11

Crossing Permit Thresholds

Air Quality Permit Program

Doc Type: Permit Application

Instructions on Page 3

1a) AQ Facility ID number: 12300341 **1b)** AQ File number: 2005

2) Facility name: Water Gremlin Company

Use this form to determine if the proposed changes cause the facility to become subject for the first time to the requirement to obtain either a State or a Part 70 permit. Please attach your documentation.

3) Does the facility currently hold a Part 70 permit and after the proposed change the facility PTE will remain above the Part 70 threshold?

☐ Yes – done with this form.
☒ No – Proceed to question 4. Include calculations supporting the facility PTE and permit status after the change.

4) Table 1 – Total facility Potential-to-Emit (PTE) after proposed change

☐ This project does not increase emissions; therefore there is no need to complete the table in item 4.

Pollutant	PM_{10} tpy	$PM_{2.5}$ tpy	SO_2 tpy	NO_x tpy	CO tpy	VOC tpy	Lead tpy	Single HAP tpy	Total HAPs tpy	CO_2e tpy
Total facility PTE after change	36.21	36.21	0.27	38.80	32.2	13.54	0.06	9	22.5	45,621

☒ Calculations supporting Table 1 are attached. Proceed to question 5.

5) Table 2 – Facility permit status before and after proposed change

Total facility PTE and permit status before change	Total facility PTE and permit status after change	Action required
☐ Below all permit thresholds	Remains below all permit thresholds and the change does not cause the source or any part to become subject to an NSPS (40 CFR pt. 60) or a Part 61 NESHAP (40 CFR pt. 61)	No permit action required
☐ Below all permit thresholds	Remains below all permit thresholds but the change causes the source or any part to become subject to an NSPS (40 CFR pt. 60) or a Part 61 NESHAP (40 CFR pt. 61).	Apply for and receive a permit only for those sources subject to that regulation. Check applicability of registration permit and general permit.
☐ Below all permit thresholds	Exceeds a threshold for a State permit but not for a Part 70 permit.	Apply for and receive a permit to construct before beginning actual construction of the change. Apply for a state operating permit within 180 days after beginning operation of the change.
☐ Below all permit thresholds ☐ Above a state permit threshold but below all Part 70 thresholds and facility holds a state operating permit	Exceeds a threshold for a Part 70 permit	Apply for and receive a permit to construct before beginning actual construction of the change. Apply for a Part 70 permit within 365 days after beginning operation of the change.
☒ Above a state permit threshold but below all Part 70 thresholds and facility holds a state operating permit	Remains above a State permit threshold but below all Part 70 thresholds	Apply for an amendment to your existing state operating permit.
☐ Above a state or Part 70 permit threshold but facility does not hold a state or Part 70 operating permit	Remains above Part 70 Threshold	Apply for and receive a Part 70 operating permit before beginning actual construction of the change.
☐ Above a state permit threshold and below all Part 70 thresholds but facility does not hold a state operating permit ☐ Above state and Part 70 permit thresholds but facility does not hold a state or Part 70 operating permit	Remains above a State permit threshold but below all Part 70 thresholds	Apply for and receive a state operating permit before beginning actual construction of the change.

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

CH-13

Applicability Of State Rules

Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID No.: 12300341 **1b)** Agency Interest ID No.: 2005

2) Facility Name: Water Gremlin Company

Some businesses and activities in Minnesota are subject to the following rules. Read each question to determine if the rule applies to the equipment or processes you are installing or modifying. If so, be sure to include the rule in Form CD-01, if you are required to fill it out for this application.

3) Minnesota Standards of Performance for Stationary Sources (Minn. R. ch. 7011)

3a) Will you be installing or modifying equipment that meets the following definition?

"A furnace, boiler or other combustion equipment in Minnesota which burns fossil fuel for the purpose of producing steam, hot water, hot air, or other hot liquid, gas, or solid, where the smoke doesn't have direct contact with the heated medium for which another standard of performance has not been promulgated."

☐ No, my new or modified equipment **is not** subject to Minn. R. 7011.0500-7011.0551. Go to question 3b).

☒ Yes. Is or will the unit(s) be subject to a federal New Source Performance Standard (as identified on Form CH-05)?

- ☐ Yes, my new or modified equipment **is not** subject to Minn. R. 7011.0500-7011.0551. Go to question 3b).
- ☒ No, my new or modified equipment **is** subject to Minn. R. 7011.0500-7011.0551. Standards of Performance for Indirect Heating Fossil-Fuel Burning Equipment. (Read the rule to determine the specific requirements that apply.) List the subject unit(s):

  EQUI90-EQUI96

3b) Is your new or modified equipment type or process equipment found in Table 3? This table contains only state-specific requirements; it does not contain state rules that incorporate federal rules by reference.

☐ No, none of the Minnesota Rules listed in Table 3 apply to my new or modified equipment. Go to question 4).

☒ Yes, my new or modified equipment may be subject to the rule associated with it in Table 3. Read the associated rule to see if it applies.

3c) After reading through Table 3 and any rule that may apply to your proposed change, list the ones that do apply in Table 1. Again, Table 3 contains only state-specific requirements; it does not contain state rules that incorporate federal rules by reference. You do not need to list the state rules that incorporate federal rules by reference. You do not need to list the Standards of Performance for Indirect Heating Fossil-Fuel Burning Equipment again, if it applies (see 3a, above).

Table 1: New/Modified Equipment Subject to Minnesota Standards of Performance

Emission Source ID Number	Minnesota Rule Part that Applies	What the Rule Part Applies to (Whole facility or Specific Piece of Equipment)
EQUI89	7011.2300	Specific Piece of Equipment

4) Reserved for future use.

5) Standards of Performance for Industrial Process Equipment (Minn. R. 7011.0700 - 7011.0735)

5a) Are you installing or modifying any industrial process equipment on-site that may generate any air contaminant in any amount and is not regulated by a federal New Source Performance Standard or MN Rules Standard of Performance?

☒ Yes. List the units in Table 2, then go to item 5b).
☐ No, my new or modified equipment is not subject to the Industrial Process Equipment rule. Go to question 6).

5b) **Opacity Standard**

(Note: Opacity is a measure of visible emissions or how much of the view is obscured by stack emissions. The emissions causing opacity are often smoke or dust.)

- For industrial process equipment which was *in operation before July 9, 1969*, the equipment shall not exhibit greater than 20 percent opacity, except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20 percent or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60 percent.
- For industrial process equipment which was *not in operation before July 9, 1969*, the equipment shall not exhibit greater than 20 percent opacity.

5c) Does any of the industrial process equipment you listed in Table 2 have particulate control equipment with a collection efficiency of at least 99 percent if it was in operation before July 9, 1969, or 99.7 percent if it was not in operation before July 9, 1969?

☒ No. Go to question 5d).
☐ Yes. These units are considered to be in compliance with the remaining requirements of this rule.

- For those units meeting this criterion which were in operation before July 9, 1969, complete Table 2 by checking the box labeled “Collection Efficiency > 99%.”
- For those units meeting this criterion which were not in operation before July 9, 1969, complete Table 2 by checking the box labeled “Collection Efficiency > 99.7%.”
- Then, if there are units listed in Table 2 which are not controlled by control equipment with a collection efficiency of 99% or 99.7% (as applicable), go on to question 5d).

5d) Has it been demonstrated that the operation of the entire facility is in compliance with all ambient air quality standards? This is typically shown through some level of computer dispersion modeling.

☐ Yes. Go to question 5e).
☒ No. Skip to item 5i).

5e) Is the facility located outside of the seven county Minneapolis-St. Paul metropolitan region?

☐ Yes. Go to question 5f)
☐ No. Skip to item 5i).

5f) Is the facility located outside of the city of Duluth?

☐ Yes. Go to question 5g).
☐ No. Skip to item 5i).

5g) Is the facility located at least 1/4 mile from any residence or public roadway?

☐ Yes. Go to question 5h).
☐ No. Skip to item 5i).

5h) Answer this question individually for each remaining unit listed in Table 2 (those which were not identified in item 5c) as being controlled by control equipment having a control efficiency of 99% or 99.7% (as applicable)). Does the industrial process equipment have particulate control equipment with a collection efficiency of at least 85 percent?

☐ Yes, the unit is considered to be in compliance with the remaining requirements of this rule. For each unit for which you can answer “yes” to question 5h), complete Table 2 by checking the box labeled “Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85%.” Answer question 5h) for each remaining unit on Table 2.
☐ No. For each unit for which you answered “No” to question 5h), complete Table 2 as described in item 5i). Then go to question 6).

5i) Complete Table 2 for all remaining industrial process equipment listed (those which were not identified in question 5c) as being controlled by control equipment having a control efficiency of 99% or 99.7% (as applicable)). Use Table 4 to determine the particulate limit in either pounds per hour (lb/hr) or grains per dry standard cubic foot (gr/dscf). Then go to question 6).

Table 2: New/Modified Equipment Subject to Industrial Process Equipment Rule

Equipment Subject to Industrial Process Equipment Rule (list EU number(s))	Applicable Particulate Limit
EQUI66 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.08 lb/hr
EQUI67 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.01 lb/hr
EQUI68 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.10 lb/hr
EQUI69 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.11 lb/hr
EQUI70 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.01 lb/hr
EQUI71 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.03 lb/hr
EQUI72 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.04 lb/hr
EQUI73 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.06 lb/hr
EQUI74 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.02 lb/hr

Table 2: New/Modified Equipment Subject to Industrial Process Equipment Rule

Equipment Subject to Industrial Process Equipment Rule (list EU number(s))	Applicable Particulate Limit
EQUI75 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.01 lb/hr
EQUI76 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.06 lb/hr
EQUI77 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.08 lb/hr
EQUI78 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.05 lb/hr
EQUI79 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.01 lb/hr
EQUI80 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.09 lb/hr
EQUI81 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.07 lb/hr
EQUI82 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.03 lb/hr
EQUI83 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.10 lb/hr

Table 2: New/Modified Equipment Subject to Industrial Process Equipment Rule

Equipment Subject to Industrial Process Equipment Rule (list EU number(s))	Applicable Particulate Limit
EQUI84 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.04 lb/hr
EQUI100 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.01 lb/hr
EQUI101 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.01 lb/hr
EQUI102 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.01 lb/hr
EQUI103 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 0.01 lb/hr
EQUI97 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 4.60 lb/hr
EQUI98 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 4.60 lb/hr
EQUI99 ☐ In operation before July 9, 1969 ☒ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☒ 3.62 lb/hr
_____ ☐ In operation before July 9, 1969 ☐ Not in operation before July 9, 1969	☐ Collection Efficiency > 99% ☐ Collection Efficiency > 99.7% ☐ Outside MSP & Duluth, ¼ mile from roads/residences, collection efficiency > 85% ☐ _____ gr/dscf ☐ _____ lb/hr

6) Waste Combustors (Minn. R. 7011.1201-7011.1290)

Note: Depending on the type of waste combustor you operate, you may be instructed to fill out one or more of the following forms:

- WC-01 -- Required if you determine that your waste combustor requires a permit.
- WC-02 -- Required if you install/operate a Class IV waste combustor at a hospital.
- WC-03 -- Required if you do not met the stack height requirements of Minn. R. 7011.1235.

If after reading through the following section, you determine that you are required to fill out one or more of the WC forms, contact the Air Quality Permit Document Coordinator.

6a) Are you proposing installing or modifying a waste combustor?

"Waste Combustor" means any emissions unit or emission facility where mixed municipal solid waste, solid waste, or refuse-derived fuel is combusted, and includes incinerators, energy recovery facilities, or other combustion devices. A metals recovery incinerator is a waste combustor. A combustion device combusting primarily wood, or at least 70 percent fossil fuel and wood in combination with up to 30 percent papermill wastewater treatment plant sludge is not a waste combustor. A soil treatment facility, paint burn-off oven, wood heater, or residential fireplace is not a waste combustor.

"Wood" is defined as: wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including sawdust, sander dust, wood chips, wood scraps, slabs, millings, shavings, and processed pellets made from wood and other forest residues.

A facility that is co-firing Refuse Derived Fuel (RDF) or Municipal Solid Waste (MSW) at rates less than 30 percent by weight is not regulated as a waste combustor, but is regulated as a boiler.

☐ Yes, I am installing or modifying a waste combustor. Answer questions 6b through 6e to determine whether you are allowed to continue to operate, and what type of permit the waste combustor requires. Allowed waste combustors must obtain an air emissions permit.
☒ No, the facility equipment is not subject to this rule. Done with this form.

6b) Is the waste combustor solely a crematory, pathological or an animal carcass incinerator?

☐ Yes. It is subject to standards of performance in Minn. R. 7011.1215, subp. 3. The waste combustor is an insignificant activity that does not need to be reported.
☐ No, the facility equipment is not subject to this rule.

6c) Is the design capacity of the waste combustor equal to or greater than 3 million Btu/hr?

"Design capacity" means: the hourly throughput of the waste combustor unit based on heat input from solid waste to the combustion system as stated by the manufacturer or designer, based on accepted design and engineering practices. For a non-continuous feed system, design capacity means the total heat input from solid waste per cycle.

If you don't have a manufacturer's design capacity in terms of heat input, you may estimate heat input by the following formula:

$$\mathbf{H_{in} = (HHV) \times (R)}$$

Where:

H_{in} = Heat input rate
HHV = heat value of waste
R = waste input rate, in lb/hr, as defined by the manufacturer
Commercial/Retail/Institutional Wastes = 7000 Btu/lb
General Industrial Wastes = 9000 Btu/lb
Medical/Infectious Wastes = 10,000 Btu/lb

☐ Yes, the waste combustor has a design capacity of 3 million Btu/hr or greater. The waste combustor is subject to the standards of performance applicable to waste combustors. There are also additional permit application requirements for this unit, as described in Minn. R. 7007.0501, or 7011.1210. Complete form WC-01.
☐ No, the heat input rate is below 3 million Btu/hr. Go to question 6d.

6d) Is the waste combustor used as a metal recover incinerator?

"Metals recovery incinerator" means a furnace or incinerator used primarily to recover precious and non-precious metals by burning the combustible fraction from waste. An aluminum sweat furnace is not a metals recovery incinerator.

☐ Yes. The waste combustor is subject to the standards of performance applicable to waste combustors. There are also additional permit application requirements for this unit, as described in Minn. R. 7007.0501, or 7011.1210. Complete form WC-01.

☐ No. Go to question 6e).

6e) Is the waste combustor located at a hospital?

☐ Yes. The waste combustor is subject to the standards of performance applicable to Class IV waste combustors. There are also additional permit application requirements for this unit, as described in Minn. R. 7007.0501, or 7011.1210. Complete form WC-02 if the waste combustor will comply with all of the design, operating, and standards of performance in parts 7011.1201 to 7011.1290. Otherwise, an air emissions permit must be issued, and you must complete for WC-01. [**Please Note:** There are federal Standards of Performance that must also be met for new sources (see Form CH-05), and the state will be adopting more stringent standards for existing incinerators.]

☐ No, the waste combustor is not located at a hospital. The operation of this waste combustor was banned after January 30, 1996. Your compliance plan must contain specific steps to cease operation of this waste combustor.

Table 3: Minnesota Standards of Performance for Stationary Sources*

Facility or Equipment Type	Associated Minnesota Rule
Direct Heating Equipment	7011.0600 through 7011.0625
Concrete Manufacturing Plants	7011.0850 through 7011.0860
Stage One Vapor Recovery	7011.0865 through 7011.0870
Hot Mix Asphalt Plants	7011.0900 through 7011.0925
Bulk Agricultural Commodity Facilities (Grain Elevators)	7011.1000 through 7011.1015
Coal Handling Facilities	7011.1100 through 7011.1140
Incinerators (waste combustors)	7011.1201 though 7011.1285
Petroleum Refineries	7011.1400 through 7011.1430
Liquid Petroleum and Volatile Organic Compounds (VOCs) Storage Vessels	7011.1500 through 7011.1515
Sulfuric Acid Plants	7011.1600 through 7011.1630
Nitric Acid Plants	7011.1700 through 7011.1725
Brass and Bronze Plants	7011.1900 through 7011.1915
Iron and Steel Plants	7011.2000 through 7011.2015
Inorganic Fibrous Materials	7011.2100 through 7011.2105
Stationary Internal Combustion Engine (Generators)	7011.2300
Municipal Solid Waste Landfills	7011.3500 through 7011.3510
Asbestos	7011.9921 through 7011.9927

** This table does not include Minnesota Rules which incorporate federal New Source Performance Standards (NSPS) or National Emission standards for Hazardous Air Pollutant Sources (NESHAPS) by reference.*

Table 4: Instructions for determining your particulate limit

Minnesota has a State rule for the concentration of particulate matter that may be in your exhaust stream. The unit of the standard is grains per dry standard cubic foot. You need to convert your actual exhaust flow to dry standard cubic feet per minute to find the emission limit from the rule.

Sources subject to this rule are required to meet the emission limits established at all times. These limits will vary depending on operating conditions. To determine compliance at any point in time (i.e. for a stack test), follow the steps below:

1. Determine the amount of dry material (subtract any water or moisture content) in pounds per hour that is processed by your equipment.
2. Use Table 4.1 to determine your allowed emission rate based on process weight rate. If your process weight rate falls between two values on the table, interpolate or extrapolate using the equation:

$$E = 3.59 \times \left(\frac{P}{2000}\right)^{0.62} \quad \text{for} \quad P \leq 60{,}000 \text{ lbs/hour; and:}$$

$$E = 17.31 \times \left(\frac{P}{2000}\right)^{0.16} \quad \text{for} \quad P > 60{,}000 \text{ lbs/hour}$$

where: E = emission rate in lbs/hour; and
P = process weight rate in lbs/hour

3. If your process equipment is vented to the atmosphere, determine the airflow through your stack. Correct to 68 F and 14.7 psi, and correct to remove any moisture in the gas stream to obtain the air flow in dry standard cubic feet per minute (dscfm).

4. Use Table 4.2 to determine your allowed concentration in grains per dry standard cubic foot (gr/dscf). Interpolate using the equation:

$$\mathbf{c} = \mathbf{1.7627} \times \mathbf{V}^{-\mathbf{0.3241}}$$

where: c = concentration in gr/dscf,
V = gas volume in dscfm

5. Determine which of the two emission rates calculated above is *less stringent*. To convert a concentration (calculated in step 4) to an emission rate (calculated in step 2), use the following equation:

$$\mathbf{E} = \mathbf{c} \times \mathbf{V} \times \left(\frac{\mathbf{60}}{\mathbf{7000}} \right)$$

where:
E = emission rate in lbs/hour;
c = concentration in gr/dscf,
V = gas volume in dscfm

Table 4.1

Process Rate (lbs/hour)	Emission Rate (lbs/hour)
100	0.55
500	1.53
1,000	2.25
5,000	6.34
10,000	9.73
20,000	14.99
60,000	29.60
80,000	31.19
120,000	33.28
160,000	34.85
200,000	36.11
400,000	40.35
1,000,000	46.72

Table 4.2

Source Gas Volume (dscfm)	Concentration (gr/dscf)
7,000 or less	0.100
8,000	0.096
9,000	0.092
10,000	0.089
20,000	0.071
30,000	0.062
40,000	0.057
50,000	0.053
60,000	0.050
80,000	0.045
100,000	0.042
120,000	0.040
140,000	0.038
160,000	0.036
180,000	0.035
200,000	0.034
300,000	0.030
400,000	0.027
500,000	0.025
600,000	0.024
800,000	0.021
1,000,000 or more	0.020

Regardless of the allowable emission rates calculated from Tables 4.1 and 4.2, no process equipment is allowed to emit more than 0.30 grains per standard cubic foot of exhaust gas.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CD-01
Compliance Plan
Air Quality Permit Program
Doc Type: Permit Application

Instructions on page 7

Facility information

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Watre Gremlin Company

Submit a separate form for each Emission Unit/Tank/Fugitive Source or Group of Sources as necessary.

3a) Emission unit/tank/fugitive source identification number(s): _____

Associated control equipment number(s): _____

Associated Monitoring System(s) (CEMS or COMS): _____

Associated stack/vent number(s): _____

OR

3b) Group description: Battery Terminal Post Coaters

Emission units/tanks/fugitive sources included in group: EQUI66-EQUI84, EQUI100-EQUI103

Control equipment included in group: TREA3

Monitoring systems (CEMS or COMS) included in group: _____

Stack/vents included in group: STRU3

CEMS = continuous emission monitoring system; COMS = continuous opacity monitoring system

Use **Section A** of this form when you are applying for the first time for a new individual operating permit (federal or state). This includes:

- permits for construction of new facilities
- permits for existing facilities that are switching to an individual permit from a Registration Permit, Capped Permit, or General Permit
- permits for existing facilities subject to permitting for the first time

Use **Section B** of this form when you are applying for an amendment to an existing individual operating permit (federal or state).

In addition to this form, use **Form CD-05** to identify operating parameters of control equipment when you are applying for the first time for an individual operating permit, or when applying for an amendment to an existing individual operating permit.

Section A – Compliance plan for a new individual operating permit

4) National Emission Standards for Hazardous Air Pollutants (NESHAP) for source categories (40 CFR pt. 63)

4a) On Form GI-09A, did you identify a Part 63 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 4b.

☐ Yes. Attach a copy of each applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart.

☐ Attached ☐ Not attached

4b) On Form GI-09A, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☐ No. Go on to question 4c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

4c) On Form GI-09A, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 5.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

5) National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR pt. 61)

5a) On Form GI-09B, did you identify a Part 61 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to qqestion 6.

☐ Yes. Attach a highlighted copy of each applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

6) New Source Performance Standards (NSPS) (40 CFR pt. 60)

6a) If required to complete Form GI-09D, did you identify a NSPS that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 7.

☐ Yes. Attach a copy of each applicable NSPS subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

7) Acid rain requirements (40 CFR pt. 72)

7a) On Form GI-09 or GI-09E, did you identify that the acid rain requirements are applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 8.

☐ Yes. Refer to the U.S. Environmental Protection Agency (EPA) website at http://www.epa.gov/airmarkets/business/forms.html#arp for the applicable acid rain program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate

☐ Not attached

8) New Source Review (40 CFR pt. 52.21)

8a) On Form GI-09C, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source under New Source Review, or so that portions of the proposed facility are not subject to certain elements of New Source Review?

☐ No. Go on to question 8b.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

8b) Will the stationary source be permitted as a major source under New Source Review?

☐ No. Go on to question 9.

☐ Yes. Go on to question 8c.

8c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Control Technology (BACT) requirements?

☐ No. Go on to question 9.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

9) Minnesota standards of performance (Minn. R. ch. 7011)

9a) On Form GI-09I, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 2a of Form GI-09I), any other industry specific Minnesota standard of performance (Table H of Form GI-09I), or to Minn. R 7011.0715 (item 4 of Form GI-09I)?

☐ No. Go on to question 10.

☐ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration

10) National or Minnesota Ambient Air Quality Standards (NAAQS or MAAQS)

10a) Is the item or group identified in question 3a or 3b subject to an existing or proposed limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☐ No. Go on to question 11.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11) Environmental Assessment Worksheets (EAW) and Air Emissions Risk Analysis (AERA)

11a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☐ No.

☐ Yes: ☐ To avoid an AERA and/or ☐ To avoid an EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☐ No.

☐ Yes. ☐ AERA and/or ☐ EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

12) Is there pollution control equipment associated with the item or group identified?

☐ No.

☐ Yes. Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

13) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

13a) Is the item in 3a or does the group identified in 3b include a new or modified stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 megawatts electric (MWe) producing electricity for sale?

☐ No.

☐ Yes. Complete form GI-09K and include in your application.

Section B – Compliance plan for an amendment to an existing individual operating permit

14) To the extent that your proposed permit amendment consists of edits to existing permit language, you should attach to this form a copy of the relevant page(s) of the existing permit with proposed changes clearly marked.

Check one or more of the following statements, as applicable:

☒ All or part of the proposed permit changes for the item or group identified in question 3a or 3b are shown by edits to the existing permit language, a copy of which is attached to this form. If you show all changes with the edits to the existing permit language, you are done with this form.

☒ Some of the proposed permit changes for the item or group identified in question 3a or 3b cannot be shown by simply marking up existing permit language, so I am answering the questions below.

☐ New requirements to existing equipment are inclusively shown by including a highlighted copy of the applicable rule. If the highlighted rule does not include all requirements (e.g. control equipment operating requirements), or if newly applicable requirements cannot be exclusively shown with a highlighted version of the rule, answer the questions below.

For any proposed changes that cannot be easily and clearly shown by submitting marked-up pages from your existing permit, answer the questions that follow.

15) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) for Source Categories (40 CFR pt. 63)

15a) On CH-07, did you identify a newly applicable Part 63 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 15b.

☐ Yes. Attach a copy of each newly applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

15b) On Form CH-07, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☐ No. Go on to question 15c.

☒ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration
TCE Emissions < 9 tons per year (12-month rolling sum)	mass balance; monthly calculations
Total HAPs < 22.5 tons per year (12-month rolling sum)	mass balance; monthly calculations

15c) On Form CH-07, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 16.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

16) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) (40 CFR pt. 61)

16a) On Form CH-06, did you identify a newly applicable Part 61 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 17.

☐ Yes. Attach a highlighted copy of each newly applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

17) New Source Performance Standards (NSPS) (40 CFR pt. 60)

17a) On Form CH-05, did you identify a newly applicable NSPS for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 18.

☐ Yes. Attach a copy of each newly applicable NSPS subpart and subpart A. Highlight all applicable requirements of the subparts. ☐ Attached ☐ Not attached

18) Acid Rain Requirements (40 CFR pt. 72)

18a) Does the unit or group identified in question 3a or 3b include new electricity generating equipment capable of generating 25 MW or more of electricity?

☒ No. Go on to question 19.

☐ Yes. The equipment may be subject to acid rain requirements. Refer to the EPA website at http://www.epa.gov/airmarkets/business/ forms.html#arp for the applicable Acid Rain Program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate ☐ Not attached

19) New Source Review (40 CFR pt. 52.21)

19a) On Form CH-04, CH-04a, CH-04b, or CH-04d, did you indicate the intention to propose limits on the item or group identified in question 3a or 3b (of this form) so that the proposed modification is not subject to New Source Review, or so that entire facility is not a major source under New Source Review, or so that portions of the facility or modification are not subject to certain elements of New Source Review? (If you are proposing limits, but on an item or group other than identified in question 3a or 3b of this form, then answer **No**; complete a separate CD-01 for the item or group for which you are proposing limits)

☒ No. Go on to question 19b.

☐ Yes. Below, list the limit(s) you are proposing, including the proposed compliance demonstration. Then go on to question 20.

Proposed limit	Proposed compliance demonstration

19b) Is the unit or group identified in question 3a or 3b (of this form) subject to New Source Review? This would be determined on Form CH-04b or CH-04d.

☒ No. Go on to question 20.

☐ Yes. Go on to question 19c.

19c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Technology (BACT) requirements?

☒ No. Go on to question 20.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

20) Minnesota Standards of Performance (Minn. R. ch. 7011)

20a) On Form CH-13, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 3a of Form CH-13), any other industry specific Minnesota standard of performance (Table 1 of Form CH-13), or to Minn. R 7011.0715 (item 5 of Form CH-13)?

☐ No. Go on to question 21.

☒ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration
Minn. R. 7011.0715	varies by coater - see CH-13	battery terminal post coaters do not emit PM and demonstrate compliance based on PTE.

21) National Ambient Air Quality Standard (NAAQS) or Minnesota Ambient Air Quality Standard (MAAQS)

21a) Will the item or group identified in question 3a or 3b be subject to a limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☒ No. Go on to question 22.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22) Environmental Assessment Worksheet (EAW) and Air Emission Risk Analysis (AERA)

22a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☒ No.

☐ Yes. ☐ To avoid an AERA and/or ☐ To avoid an EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☒ No.

☐ Yes. ☐ AERA and/or ☐ EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

23) Is there pollution control equipment associated with the item or group identified?

☐ No ☒ Yes – Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

24) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

24a) Is the item in 3a or does the group identified in 3b include a stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 MWe producing electricity for sale?

☒ No.

☐ Yes. Go on to question 24b.

24b) Have the requirements of CSAPR (40 CFR pt. 97) already been incorporated into your permit?

☒ No because the units described in question 24a are exempt from CSAPR under 40 CFR § 97.404(b)(1)(i) and 40 CFR § 97.704(b)(1)(i) or 40 CFR § 97.404(b)(2)(i) and 40 CFR § 97.704(b)(2)(i) **and** you've previously submitted form GI-09k indicating such exemption(s) for all units described in question 3a.

☐ No and the units described in question 24a are not exempt from CSAPR **or** you have not previously submitted form GI-09K – Complete form GI-09K and include in your application.

☐ Yes.

Instructions for form CD-01

This form is intended to be used for applications for new individual permits for new facilities, for applications for new individual permits for existing facilities, and for applications for amendments to existing individual permits. It is not intended to be used for applications for reissuance of an existing permit.

Use Form CD-05 to describe operating parameters of control equipment.

Organization

Form CD-01 requires you to organize your compliance plan based on how different portions of your facility are affected by the applicable requirements you identified in the Form GI-09 series. Form CD-01 requires that all applicable requirements listed on the form apply to all portions of the facility listed on the form. Therefore, you will find that you probably will need to use more than one

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CD-05
Compliance plan for control equipment
Air Quality Permit Program

Doc Type: Permit Application

Facility information

1a) AQ Facility ID number: 12300341 **1b) Agency Interest ID number:** 2005

2) Facility name: Water Gremlin Company

3) Electrostatic precipitators (includes wet electrostatic precipitators) (control codes 010, 011, 012, 146)

Complete the following information for each electrostatic precipitator not already included in an existing individual permit. For changes to parameters of electrostatic precipitators already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Using control equipment rule?	Voltage (kVolts)	Secondary current (mA)	Total power (kW)	Minimum fields online	Using conditioning agent?	Conditioning agent flow rate, if applicable	Subject to CAM?	For a "Large" or "Other" PSEU?
		☐ No ☐ Yes					☐ No ☐ Yes		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes					☐ No ☐ Yes		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes					☐ No ☐ Yes		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes					☐ No ☐ Yes		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes					☐ No ☐ Yes		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

CAM = Compliance Assurance Monitoring
PSEU = Pollutant specific emission unit

4) **Fabric filters (control codes 016, 017, 018)**

Complete the following information for each fabric filter not already included in an existing individual permit. For changes to parameters for fabric filters already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on Form GI-05A)	Using control equipment rule?	Minimum pressure drop (in. of water column)	Maximum pressure drop (in. of water column)	Bag leak detector in use?	Subject to CAM?	For a "Large" or "Other" PSEU?
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

5) **Panel/Wall filters (including high efficiency particulate air [HEPA] filters) (control codes 058, 101), Mechanically aided separators (control codes 056, 113)**

Complete the following information for each wall or panel filter not already included in an existing individual permit. For changes to parameters for filters already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Using control equipment rule?	Subject to CAM?	For a "Large" or "Other" PSEU?
		☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ Yes ☐ No	☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

6) Cyclones/Multiclones (control codes 007, 008, 009, 075, 076, 077)

Complete the following information for each cyclone or multiclone not already included in an existing individual permit. For changes to parameters for cyclones or multiclones already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Using control equipment rule?*	Minimum pressure drop (inches of water column)	Maximum pressure drop (inches of water column)	Subject to CAM?	For a "Large" or "Other" PSEU?
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

* Control equipment rule can only be used for control codes 007, 008, 009, and 076.

7) Wet cyclone separator (control codes 057, 085)

Complete the following information for each wet cyclone separator not already included in an existing individual permit. For changes to parameters for wet cyclone separators already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Using control equipment rule?	Minimum pressure drop (inches of water column)	Maximum pressure drop (inches of water column)	Water pressure (psi)	Subject to CAM?	For a "Large" or "Other" PSEU?
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

8) Wet scrubber (control codes 001, 002, 003), Spray tower (control code 052), Venturi scrubber (control code 053), or Impingement plate scrubber (control code 055)

Complete the following information for each wet scrubber not already included in an existing individual permit. For changes to parameters for wet scrubbers already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Using control equipment rule?*	Minimum pressure drop (inches of water column)	Maximum pressure drop (inches of water column)	Minimum liquid flow rate (gal/min)	Subject to CAM?	For a "Large" or "Other" PSEU?
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes				☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

* Control equipment rule can only be used for control codes 052, 053, and 055.

9) Injection systems (control codes 028, 031, 032, 041, 042, 067, 068, 069, 070, 071, 206, 207)

Complete the following information for each injection system not already included in an existing individual permit. For changes to parameters for injection systems already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Minimum injection rate	Min. rate units (gal./hr or lbs/hr)	Maximum injection rate	Max. rate units (gal./hr or lbs/hr)	Material injected**	Subject to CAM?	For a "Large" or "Other" PSEU?
							☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
							☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
							☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
							☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
							☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

******Use one of the following for material injected: air; ammonia (anhydrous); calcium bromide; carbon; chlorine flux; limestone, dry; limestone, wet; mercury additive; mercury reagent; molten sulfur; other; perlite; reactive flux; reagent; sorbent, dry; steam or water; trona

10) Thermal oxidation (control codes 021, 022, 131, 133)

Complete the following information for each thermal oxidizer not already included in an existing individual permit. For changes to parameters for thermal oxidizers already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Using control equipment rule?	Combustion temperature (degrees F)	Inlet and Outlet temperatures (degrees F)	Residence time (seconds)	Burner capacity (MMBtu/hr)	Subject to CAM?	For a "Large" or "Other" PSEU?
		☐ No ☐ Yes		Inlet: _____ Outlet: _____			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		Inlet: _____ Outlet: _____			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		Inlet: _____ Outlet: _____			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		Inlet: _____ Outlet: _____			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		Inlet: _____ Outlet: _____			☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

11) Catalytic oxidation (control codes 019, 020, 039, 109)

Complete the following information for each catalytic oxidizer not already included in an existing individual permit. For changes to parameters for catalytic oxidizers already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Using control equipment rule?*	Catalyst bed reactivity (kat)	Inlet and Outlet temperatures (degrees F)	Burner capacity (MMBtu/hr)	Subject to CAM?	For a "Large" or "Other" PSEU?
		☐ No ☐ Yes		Inlet: _____ Outlet: _____		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		Inlet: _____ Outlet: _____		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		Inlet: _____ Outlet: _____		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		Inlet: _____ Outlet: _____		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

		☐ No ☐ Yes		Inlet: _____ Outlet: _____		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

* Control equipment rule can only be used for control codes 019, 020, and 109.

12) Vapor recovery systems (including condensers) (control codes 047, 072, 073, 074)

Complete the following information for each vapor recovery system not already included in an existing individual permit. For changes to parameters for vapor recovery systems already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Temperature range (degrees F)	Condenser pressure drop range (inches of water column)	Filter pressure drop range (inches of water column)	Subject to CAM?	For a "Large" or "Other" PSEU?
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

13) Oxidation catalyst (control codes 203, 312)

Complete the following information for each oxidation catalyst not already included in an existing individual permit. For changes to parameters for oxidation catalyst already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Catalyst bed reactivity (kat)*	Inlet temperature (degrees F)	Outlet temperature (degrees F)	Subject to CAM?	For a "Large" or "Other" PSEU?
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
					☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

* If you are unable to find a catalyst bed reactivity value, enter 9,999.

14) Other controls (control codes 004, 005, 006, 013, 014, 015, 023, 024, 025, 026, 027, 029, 030, 033, 034, 035, 036, 037, 038, 040, 043, 044, 045, 046, 048, 049, 050, 051, 054, 059, 060, 061, 062, 063, 064, 065, 066, 078, 080, 081, 082, 083, 084, 086, 099, 106, 107, 139, 159, 201, 204, 205, 302, 503, 517, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910)

Complete the following information for each control device not described above and not already included in an existing individual permit. For changes to parameters for any other control devices that are already included in an existing permit, attach a copy of the relevant permit page with proposed changes clearly marked.

CE number:	Control efficiency basis (for control and capture efficiencies listed on form *GI-05A*)	Using control equipment rule?*	Operating parameters (describe)	Subject to CAM?	For a "Large" or "Other" PSEU?
CE004	100% capture; room at negative pressure. Solvent recovery efficiency 95%	☒ No ☐ Yes	Fluidized Activated Carbon Bed	☐ Yes ☒ No	☐ Large ☐ Other ☒ NA
		☐ No ☐ Yes		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA
		☐ No ☐ Yes		☐ Yes ☐ No	☐ Large ☐ Other ☐ NA

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CD-01
Compliance Plan
Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 7

Facility information

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Submit a separate form for each Emission Unit/Tank/Fugitive Source or Group of Sources as necessary.

3a) Emission unit/tank/fugitive source identification number(s): _____

Associated control equipment number(s): _____

Associated Monitoring System(s) (CEMS or COMS): _____

Associated stack/vent number(s): _____

OR

3b) Group description: Lead Melt Pots

Emission units/tanks/fugitive sources included in group: EQUI85-EQUI88

Control equipment included in group: TREA1

Monitoring systems (CEMS or COMS) included in group: _____

Stack/vents included in group: STRU1

CEMS = continuous emission monitoring system; COMS = continuous opacity monitoring system

Use **Section A** of this form when you are applying for the first time for a new individual operating permit (federal or state). This includes:

- permits for construction of new facilities
- permits for existing facilities that are switching to an individual permit from a Registration Permit, Capped Permit, or General Permit
- permits for existing facilities subject to permitting for the first time

Use **Section B** of this form when you are applying for an amendment to an existing individual operating permit (federal or state).

In addition to this form, use **Form CD-05** to identify operating parameters of control equipment when you are applying for the first time for an individual operating permit, or when applying for an amendment to an existing individual operating permit.

Section A – Compliance plan for a new individual operating permit

4) National Emission Standards for Hazardous Air Pollutants (NESHAP) for source categories (40 CFR pt. 63)

4a) On Form GI-09A, did you identify a Part 63 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 4b.

☐ Yes. Attach a copy of each applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart.

☐ Attached ☐ Not attached

4b) On Form GI-09A, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☐ No. Go on to question 4c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

4c) On Form GI-09A, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 5.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

5) National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR pt. 61)

5a) On Form GI-09B, did you identify a Part 61 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to qqestion 6.

☐ Yes. Attach a highlighted copy of each applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

6) New Source Performance Standards (NSPS) (40 CFR pt. 60)

6a) If required to complete Form GI-09D, did you identify a NSPS that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 7.

☐ Yes. Attach a copy of each applicable NSPS subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

7) Acid rain requirements (40 CFR pt. 72)

7a) On Form GI-09 or GI-09E, did you identify that the acid rain requirements are applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 8.

☐ Yes. Refer to the U.S. Environmental Protection Agency (EPA) website at http://www.epa.gov/airmarkets/business/forms.html#arp for the applicable acid rain program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate

☐ Not attached

8) New Source Review (40 CFR pt. 52.21)

8a) On Form GI-09C, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source under New Source Review, or so that portions of the proposed facility are not subject to certain elements of New Source Review?

☐ No. Go on to question 8b.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

8b) Will the stationary source be permitted as a major source under New Source Review?

☐ No. Go on to question 9.

☐ Yes. Go on to question 8c.

8c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Control Technology (BACT) requirements?

☐ No. Go on to question 9.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

9) Minnesota standards of performance (Minn. R. ch. 7011)

9a) On Form GI-09I, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 2a of Form GI-09I), any other industry specific Minnesota standard of performance (Table H of Form GI-09I), or to Minn. R 7011.0715 (item 4 of Form GI-09I)?

☐ No. Go on to question 10.

☐ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration

10) National or Minnesota Ambient Air Quality Standards (NAAQS or MAAQS)

10a) Is the item or group identified in question 3a or 3b subject to an existing or proposed limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☐ No. Go on to question 11.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11) Environmental Assessment Worksheets (EAW) and Air Emissions Risk Analysis (AERA)

11a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☐ No.

☐ Yes: ☐ To avoid an AERA and/or ☐ To avoid an EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☐ No.

☐ Yes. ☐ AERA and/or ☐ EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

12) Is there pollution control equipment associated with the item or group identified?

☐ No.

☐ Yes. Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

13) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

13a) Is the item in 3a or does the group identified in 3b include a new or modified stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 megawatts electric (MWe) producing electricity for sale?

☐ No.

☐ Yes. Complete form GI-09K and include in your application.

Section B – Compliance plan for an amendment to an existing individual operating permit

14) To the extent that your proposed permit amendment consists of edits to existing permit language, you should attach to this form a copy of the relevant page(s) of the existing permit with proposed changes clearly marked.

Check one or more of the following statements, as applicable:

☒ All or part of the proposed permit changes for the item or group identified in question 3a or 3b are shown by edits to the existing permit language, a copy of which is attached to this form. If you show all changes with the edits to the existing permit language, you are done with this form.

☐ Some of the proposed permit changes for the item or group identified in question 3a or 3b cannot be shown by simply marking up existing permit language, so I am answering the questions below.

☐ New requirements to existing equipment are inclusively shown by including a highlighted copy of the applicable rule. If the highlighted rule does not include all requirements (e.g. control equipment operating requirements), or if newly applicable requirements cannot be exclusively shown with a highlighted version of the rule, answer the questions below.

For any proposed changes that cannot be easily and clearly shown by submitting marked-up pages from your existing permit, answer the questions that follow.

15) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) for Source Categories (40 CFR pt. 63)

15a) On CH-07, did you identify a newly applicable Part 63 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 15b.

☐ Yes. Attach a copy of each newly applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

15b) On Form CH-07, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☐ No. Go on to question 15c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

15c) On Form CH-07, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 16.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

16) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) (40 CFR pt. 61)

16a) On Form CH-06, did you identify a newly applicable Part 61 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 17.

☐ Yes. Attach a highlighted copy of each newly applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

17) New Source Performance Standards (NSPS) (40 CFR pt. 60)

17a) On Form CH-05, did you identify a newly applicable NSPS for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 18.

☐ Yes. Attach a copy of each newly applicable NSPS subpart and subpart A. Highlight all applicable requirements of the subparts. ☐ Attached ☐ Not attached

18) Acid Rain Requirements (40 CFR pt. 72)

18a) Does the unit or group identified in question 3a or 3b include new electricity generating equipment capable of generating 25 MW or more of electricity?

☐ No. Go on to question 19.

☐ Yes. The equipment may be subject to acid rain requirements. Refer to the EPA website at http://www.epa.gov/airmarkets/business/ forms.html#arp for the applicable Acid Rain Program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate ☐ Not attached

19) New Source Review (40 CFR pt. 52.21)

19a) On Form CH-04, CH-04a, CH-04b, or CH-04d, did you indicate the intention to propose limits on the item or group identified in question 3a or 3b (of this form) so that the proposed modification is not subject to New Source Review, or so that entire facility is not a major source under New Source Review, or so that portions of the facility or modification are not subject to certain elements of New Source Review? (If you are proposing limits, but on an item or group other than identified in question 3a or 3b of this form, then answer **No**; complete a separate CD-01 for the item or group for which you are proposing limits)

☐ No. Go on to question 19b.

☐ Yes. Below, list the limit(s) you are proposing, including the proposed compliance demonstration. Then go on to question 20.

Proposed limit	Proposed compliance demonstration

19b) Is the unit or group identified in question 3a or 3b (of this form) subject to New Source Review? This would be determined on Form CH-04b or CH-04d.

☐ No. Go on to question 20.

☐ Yes. Go on to question 19c.

19c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Technology (BACT) requirements?

☐ No. Go on to question 20.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

20) Minnesota Standards of Performance (Minn. R. ch. 7011)

20a) On Form CH-13, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 3a of Form CH-13), any other industry specific Minnesota standard of performance (Table 1 of Form CH-13), or to Minn. R 7011.0715 (item 5 of Form CH-13)?

☐ No. Go on to question 21.

☐ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration

21) National Ambient Air Quality Standard (NAAQS) or Minnesota Ambient Air Quality Standard (MAAQS)

21a) Will the item or group identified in question 3a or 3b be subject to a limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☐ No. Go on to question 22.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22) Environmental Assessment Worksheet (EAW) and Air Emission Risk Analysis (AERA)

22a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☐ No.

☐ Yes. ☐ To avoid an AERA and/or ☐ To avoid an EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☐ No.

☐ Yes. ☐ AERA and/or ☐ EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

23) Is there pollution control equipment associated with the item or group identified?

☐ No ☐ Yes – Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

24) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

24a) Is the item in 3a or does the group identified in 3b include a stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 MWe producing electricity for sale?

☐ No.

☐ Yes. Go on to question 24b.

24b) Have the requirements of CSAPR (40 CFR pt. 97) already been incorporated into your permit?

☐ No because the units described in question 24a are exempt from CSAPR under 40 CFR § 97.404(b)(1)(i) and 40 CFR § 97.704(b)(1)(i) or 40 CFR § 97.404(b)(2)(i) and 40 CFR § 97.704(b)(2)(i) **and** you've previously submitted form GI-09k indicating such exemption(s) for all units described in question 3a.

☐ No and the units described in question 24a are not exempt from CSAPR **or** you have not previously submitted form GI-09K – Complete form GI-09K and include in your application.

☐ Yes.

Instructions for form CD-01

This form is intended to be used for applications for new individual permits for new facilities, for applications for new individual permits for existing facilities, and for applications for amendments to existing individual permits. It is not intended to be used for applications for reissuance of an existing permit.

Use Form CD-05 to describe operating parameters of control equipment.

Organization

Form CD-01 requires you to organize your compliance plan based on how different portions of your facility are affected by the applicable requirements you identified in the Form GI-09 series. Form CD-01 requires that all applicable requirements listed on the form apply to all portions of the facility listed on the form. Therefore, you will find that you probably will need to use more than one form for your facility. Use as many copies of the forms as you need until you have covered all state and federal rules and regulations that apply to your facility.

Once you determine which portions of your facility have applicable requirements in common, you can then proceed to fill out your CD-01 forms as follows:

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CD-01
Compliance Plan
Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 7

Facility information

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Submit a separate form for each Emission Unit/Tank/Fugitive Source or Group of Sources as necessary.

3a) Emission unit/tank/fugitive source identification number(s): _____

Associated control equipment number(s): _____

Associated Monitoring System(s) (CEMS or COMS): _____

Associated stack/vent number(s): _____

OR

3b) Group description: Make-up Air Units (MAU)

Emission units/tanks/fugitive sources included in group: EQUI90-EQUI96

Control equipment included in group: _____

Monitoring systems (CEMS or COMS) included in group: _____

Stack/vents included in group: STRU5-STRU11

CEMS = continuous emission monitoring system; COMS = continuous opacity monitoring system

Use **Section A** of this form when you are applying for the first time for a new individual operating permit (federal or state). This includes:

- permits for construction of new facilities
- permits for existing facilities that are switching to an individual permit from a Registration Permit, Capped Permit, or General Permit
- permits for existing facilities subject to permitting for the first time

Use **Section B** of this form when you are applying for an amendment to an existing individual operating permit (federal or state).

In addition to this form, use **Form CD-05** to identify operating parameters of control equipment when you are applying for the first time for an individual operating permit, or when applying for an amendment to an existing individual operating permit.

Section A – Compliance plan for a new individual operating permit

4) National Emission Standards for Hazardous Air Pollutants (NESHAP) for source categories (40 CFR pt. 63)

4a) On Form GI-09A, did you identify a Part 63 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 4b.

☐ Yes. Attach a copy of each applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart.

☐ Attached ☐ Not attached

4b) On Form GI-09A, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☐ No. Go on to question 4c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

4c) On Form GI-09A, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 5.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

5) National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR pt. 61)

5a) On Form GI-09B, did you identify a Part 61 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to qqestion 6.

☐ Yes. Attach a highlighted copy of each applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

6) New Source Performance Standards (NSPS) (40 CFR pt. 60)

6a) If required to complete Form GI-09D, did you identify a NSPS that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 7.

☐ Yes. Attach a copy of each applicable NSPS subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

7) Acid rain requirements (40 CFR pt. 72)

7a) On Form GI-09 or GI-09E, did you identify that the acid rain requirements are applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 8.

☐ Yes. Refer to the U.S. Environmental Protection Agency (EPA) website at http://www.epa.gov/airmarkets/business/forms.html#arp for the applicable acid rain program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate

☐ Not attached

8) New Source Review (40 CFR pt. 52.21)

8a) On Form GI-09C, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source under New Source Review, or so that portions of the proposed facility are not subject to certain elements of New Source Review?

☐ No. Go on to question 8b.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

8b) Will the stationary source be permitted as a major source under New Source Review?

☐ No. Go on to question 9.

☐ Yes. Go on to question 8c.

8c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Control Technology (BACT) requirements?

☐ No. Go on to question 9.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

9) Minnesota standards of performance (Minn. R. ch. 7011)

9a) On Form GI-09I, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 2a of Form GI-09I), any other industry specific Minnesota standard of performance (Table H of Form GI-09I), or to Minn. R 7011.0715 (item 4 of Form GI-09I)?

☐ No. Go on to question 10.

☐ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration

10) National or Minnesota Ambient Air Quality Standards (NAAQS or MAAQS)

10a) Is the item or group identified in question 3a or 3b subject to an existing or proposed limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☐ No. Go on to question 11.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11) Environmental Assessment Worksheets (EAW) and Air Emissions Risk Analysis (AERA)

11a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☐ No.

☐ Yes: ☐ To avoid an AERA and/or ☐ To avoid an EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☐ No.

☐ Yes. ☐ AERA and/or ☐ EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

12) Is there pollution control equipment associated with the item or group identified?

☐ No.

☐ Yes. Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

13) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

13a) Is the item in 3a or does the group identified in 3b include a new or modified stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 megawatts electric (MWe) producing electricity for sale?

☐ No.

☐ Yes. Complete form GI-09K and include in your application.

Section B – Compliance plan for an amendment to an existing individual operating permit

14) To the extent that your proposed permit amendment consists of edits to existing permit language, you should attach to this form a copy of the relevant page(s) of the existing permit with proposed changes clearly marked.

Check one or more of the following statements, as applicable:

☐ All or part of the proposed permit changes for the item or group identified in question 3a or 3b are shown by edits to the existing permit language, a copy of which is attached to this form. If you show all changes with the edits to the existing permit language, you are done with this form.

☒ Some of the proposed permit changes for the item or group identified in question 3a or 3b cannot be shown by simply marking up existing permit language, so I am answering the questions below.

☐ New requirements to existing equipment are inclusively shown by including a highlighted copy of the applicable rule. If the highlighted rule does not include all requirements (e.g. control equipment operating requirements), or if newly applicable requirements cannot be exclusively shown with a highlighted version of the rule, answer the questions below.

For any proposed changes that cannot be easily and clearly shown by submitting marked-up pages from your existing permit, answer the questions that follow.

15) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) for Source Categories (40 CFR pt. 63)

15a) On CH-07, did you identify a newly applicable Part 63 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 15b.

☐ Yes. Attach a copy of each newly applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

15b) On Form CH-07, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☒ No. Go on to question 15c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

15c) On Form CH-07, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 16.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

16) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) (40 CFR pt. 61)

16a) On Form CH-06, did you identify a newly applicable Part 61 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 17.

☐ Yes. Attach a highlighted copy of each newly applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

17) New Source Performance Standards (NSPS) (40 CFR pt. 60)

17a) On Form CH-05, did you identify a newly applicable NSPS for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 18.

☐ Yes. Attach a copy of each newly applicable NSPS subpart and subpart A. Highlight all applicable requirements of the subparts. ☐ Attached ☐ Not attached

18) Acid Rain Requirements (40 CFR pt. 72)

18a) Does the unit or group identified in question 3a or 3b include new electricity generating equipment capable of generating 25 MW or more of electricity?

☒ No. Go on to question 19.

☐ Yes. The equipment may be subject to acid rain requirements. Refer to the EPA website at http://www.epa.gov/airmarkets/business/ forms.html#arp for the applicable Acid Rain Program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate ☐ Not attached

19) New Source Review (40 CFR pt. 52.21)

19a) On Form CH-04, CH-04a, CH-04b, or CH-04d, did you indicate the intention to propose limits on the item or group identified in question 3a or 3b (of this form) so that the proposed modification is not subject to New Source Review, or so that entire facility is not a major source under New Source Review, or so that portions of the facility or modification are not subject to certain elements of New Source Review? (If you are proposing limits, but on an item or group other than identified in question 3a or 3b of this form, then answer **No**; complete a separate CD-01 for the item or group for which you are proposing limits)

☒ No. Go on to question 19b.

☐ Yes. Below, list the limit(s) you are proposing, including the proposed compliance demonstration. Then go on to question 20.

Proposed limit	Proposed compliance demonstration

19b) Is the unit or group identified in question 3a or 3b (of this form) subject to New Source Review? This would be determined on Form CH-04b or CH-04d.

☒ No. Go on to question 20.

☐ Yes. Go on to question 19c.

19c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Technology (BACT) requirements?

☐ No. Go on to question 20.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

20) Minnesota Standards of Performance (Minn. R. ch. 7011)

20a) On Form CH-13, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 3a of Form CH-13), any other industry specific Minnesota standard of performance (Table 1 of Form CH-13), or to Minn. R 7011.0715 (item 5 of Form CH-13)?

☐ No. Go on to question 21.

☒ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration
Minn R 7011.0515	Opacity/PM	compliance demonstrated based on combustion of natural gas only.

21) National Ambient Air Quality Standard (NAAQS) or Minnesota Ambient Air Quality Standard (MAAQS)

21a) Will the item or group identified in question 3a or 3b be subject to a limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☒ No. Go on to question 22.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22) Environmental Assessment Worksheet (EAW) and Air Emission Risk Analysis (AERA)

22a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☒ No.

☐ Yes. ☐ To avoid an AERA and/or ☐ To avoid an EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☒ No.

☐ Yes. ☐ AERA and/or ☐ EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

23) Is there pollution control equipment associated with the item or group identified?

☒ No ☐ Yes – Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

24) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

24a) Is the item in 3a or does the group identified in 3b include a stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 MWe producing electricity for sale?

☒ No.

☐ Yes. Go on to question 24b.

24b) Have the requirements of CSAPR (40 CFR pt. 97) already been incorporated into your permit?

☒ No because the units described in question 24a are exempt from CSAPR under 40 CFR § 97.404(b)(1)(i) and 40 CFR § 97.704(b)(1)(i) or 40 CFR § 97.404(b)(2)(i) and 40 CFR § 97.704(b)(2)(i) **and** you've previously submitted form GI-09k indicating such exemption(s) for all units described in question 3a.

☐ No and the units described in question 24a are not exempt from CSAPR **or** you have not previously submitted form GI-09K – Complete form GI-09K and include in your application.

☐ Yes.

Instructions for form CD-01

This form is intended to be used for applications for new individual permits for new facilities, for applications for new individual permits for existing facilities, and for applications for amendments to existing individual permits. It is not intended to be used for applications for reissuance of an existing permit.

Use Form CD-05 to describe operating parameters of control equipment.

Organization

Form CD-01 requires you to organize your compliance plan based on how different portions of your facility are affected by the applicable requirements you identified in the Form GI-09 series. Form CD-01 requires that all applicable requirements listed on the form apply to all portions of the facility listed on the form. Therefore, you will find that you probably will need to use more than one form for your facility. Use as many copies of the forms as you need until you have covered all state and federal rules and regulations that apply to your facility.

Once you determine which portions of your facility have applicable requirements in common, you can then proceed to fill out your CD-01 forms as follows:

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CD-01
Compliance Plan
Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 7

Facility information

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Submit a separate form for each Emission Unit/Tank/Fugitive Source or Group of Sources as necessary.

3a) Emission unit/tank/fugitive source identification number(s): Emergency Generator Engine (EQUI89)

Associated control equipment number(s):

Associated Monitoring System(s) (CEMS or COMS):

Associated stack/vent number(s): STRU4

OR

3b) Group description:

Emission units/tanks/fugitive sources included in group:

Control equipment included in group:

Monitoring systems (CEMS or COMS) included in group:

Stack/vents included in group:

CEMS = continuous emission monitoring system; COMS = continuous opacity monitoring system

Use **Section A** of this form when you are applying for the first time for a new individual operating permit (federal or state). This includes:

- permits for construction of new facilities
- permits for existing facilities that are switching to an individual permit from a Registration Permit, Capped Permit, or General Permit
- permits for existing facilities subject to permitting for the first time

Use **Section B** of this form when you are applying for an amendment to an existing individual operating permit (federal or state).

In addition to this form, use **Form CD-05** to identify operating parameters of control equipment when you are applying for the first time for an individual operating permit, or when applying for an amendment to an existing individual operating permit.

Section A – Compliance plan for a new individual operating permit

4) National Emission Standards for Hazardous Air Pollutants (NESHAP) for source categories (40 CFR pt. 63)

4a) On Form GI-09A, did you identify a Part 63 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 4b.

☐ Yes. Attach a copy of each applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart.

☐ Attached ☐ Not attached

4b) On Form GI-09A, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☐ No. Go on to question 4c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

4c) On Form GI-09A, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 5.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

5) National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR pt. 61)

5a) On Form GI-09B, did you identify a Part 61 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to qqestion 6.

☐ Yes. Attach a highlighted copy of each applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

6) New Source Performance Standards (NSPS) (40 CFR pt. 60)

6a) If required to complete Form GI-09D, did you identify a NSPS that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 7.

☐ Yes. Attach a copy of each applicable NSPS subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

7) Acid rain requirements (40 CFR pt. 72)

7a) On Form GI-09 or GI-09E, did you identify that the acid rain requirements are applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 8.

☐ Yes. Refer to the U.S. Environmental Protection Agency (EPA) website at http://www.epa.gov/airmarkets/business/forms.html#arp for the applicable acid rain program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate

☐ Not attached

8) New Source Review (40 CFR pt. 52.21)

8a) On Form GI-09C, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source under New Source Review, or so that portions of the proposed facility are not subject to certain elements of New Source Review?

☐ No. Go on to question 8b.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

8b) Will the stationary source be permitted as a major source under New Source Review?

☐ No. Go on to question 9.

☐ Yes. Go on to question 8c.

8c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Control Technology (BACT) requirements?

☐ No. Go on to question 9.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

9) Minnesota standards of performance (Minn. R. ch. 7011)

9a) On Form GI-09I, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 2a of Form GI-09I), any other industry specific Minnesota standard of performance (Table H of Form GI-09I), or to Minn. R 7011.0715 (item 4 of Form GI-09I)?

☐ No. Go on to question 10.

☐ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration

10) National or Minnesota Ambient Air Quality Standards (NAAQS or MAAQS)

10a) Is the item or group identified in question 3a or 3b subject to an existing or proposed limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☐ No. Go on to question 11.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11) Environmental Assessment Worksheets (EAW) and Air Emissions Risk Analysis (AERA)

11a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☐ No.

☐ Yes: ☐ To avoid an AERA and/or ☐ To avoid an EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☐ No.

☐ Yes. ☐ AERA and/or ☐ EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

12) Is there pollution control equipment associated with the item or group identified?

☐ No.

☐ Yes. Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

13) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

13a) Is the item in 3a or does the group identified in 3b include a new or modified stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 megawatts electric (MWe) producing electricity for sale?

☐ No.

☐ Yes. Complete form GI-09K and include in your application.

Section B – Compliance plan for an amendment to an existing individual operating permit

14) To the extent that your proposed permit amendment consists of edits to existing permit language, you should attach to this form a copy of the relevant page(s) of the existing permit with proposed changes clearly marked.

Check one or more of the following statements, as applicable:

☐ All or part of the proposed permit changes for the item or group identified in question 3a or 3b are shown by edits to the existing permit language, a copy of which is attached to this form. If you show all changes with the edits to the existing permit language, you are done with this form.

☒ Some of the proposed permit changes for the item or group identified in question 3a or 3b cannot be shown by simply marking up existing permit language, so I am answering the questions below.

☐ New requirements to existing equipment are inclusively shown by including a highlighted copy of the applicable rule. If the highlighted rule does not include all requirements (e.g. control equipment operating requirements), or if newly applicable requirements cannot be exclusively shown with a highlighted version of the rule, answer the questions below.

For any proposed changes that cannot be easily and clearly shown by submitting marked-up pages from your existing permit, answer the questions that follow.

15) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) for Source Categories (40 CFR pt. 63)

15a) On CH-07, did you identify a newly applicable Part 63 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 15b.

☒ Yes. Attach a copy of each newly applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☒ Attached ☐ Not attached

15b) On Form CH-07, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☒ No. Go on to question 15c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

15c) On Form CH-07, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 16.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

16) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) (40 CFR pt. 61)

16a) On Form CH-06, did you identify a newly applicable Part 61 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 17.

☐ Yes. Attach a highlighted copy of each newly applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

17) New Source Performance Standards (NSPS) (40 CFR pt. 60)

17a) On Form CH-05, did you identify a newly applicable NSPS for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 18.

☒ Yes. Attach a copy of each newly applicable NSPS subpart and subpart A. Highlight all applicable requirements of the subparts. ☒ Attached ☐ Not attached

18) Acid Rain Requirements (40 CFR pt. 72)

18a) Does the unit or group identified in question 3a or 3b include new electricity generating equipment capable of generating 25 MW or more of electricity?

☒ No. Go on to question 19.

☐ Yes. The equipment may be subject to acid rain requirements. Refer to the EPA website at http://www.epa.gov/airmarkets/business/ forms.html#arp for the applicable Acid Rain Program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate ☐ Not attached

19) New Source Review (40 CFR pt. 52.21)

19a) On Form CH-04, CH-04a, CH-04b, or CH-04d, did you indicate the intention to propose limits on the item or group identified in question 3a or 3b (of this form) so that the proposed modification is not subject to New Source Review, or so that entire facility is not a major source under New Source Review, or so that portions of the facility or modification are not subject to certain elements of New Source Review? (If you are proposing limits, but on an item or group other than identified in question 3a or 3b of this form, then answer **No**; complete a separate CD-01 for the item or group for which you are proposing limits)

☒ No. Go on to question 19b.

☐ Yes. Below, list the limit(s) you are proposing, including the proposed compliance demonstration. Then go on to question 20.

Proposed limit	Proposed compliance demonstration

19b) Is the unit or group identified in question 3a or 3b (of this form) subject to New Source Review? This would be determined on Form CH-04b or CH-04d.

☒ No. Go on to question 20.

☐ Yes. Go on to question 19c.

19c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Technology (BACT) requirements?

☐ No. Go on to question 20.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

20) Minnesota Standards of Performance (Minn. R. ch. 7011)

20a) On Form CH-13, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 3a of Form CH-13), any other industry specific Minnesota standard of performance (Table 1 of Form CH-13), or to Minn. R 7011.0715 (item 5 of Form CH-13)?

☐ No. Go on to question 21.

☒ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration
Minn. R. 7011.2300	SO2 less than 0.5 lb/MMBtu	combustion of ultra low sulfur diesel only.
	less than 20% opacity	

21) National Ambient Air Quality Standard (NAAQS) or Minnesota Ambient Air Quality Standard (MAAQS)

21a) Will the item or group identified in question 3a or 3b be subject to a limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☒ No. Go on to question 22.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22) Environmental Assessment Worksheet (EAW) and Air Emission Risk Analysis (AERA)

22a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☒ No.

☐ Yes. ☐ To avoid an AERA and/or ☐ To avoid an EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☒ No.

☐ Yes. ☐ AERA and/or ☐ EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

23) Is there pollution control equipment associated with the item or group identified?

☒ No ☐ Yes – Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

24) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

24a) Is the item in 3a or does the group identified in 3b include a stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 MWe producing electricity for sale?

☒ No.

☐ Yes. Go on to question 24b.

24b) Have the requirements of CSAPR (40 CFR pt. 97) already been incorporated into your permit?

☒ No because the units described in question 24a are exempt from CSAPR under 40 CFR § 97.404(b)(1)(i) and 40 CFR § 97.704(b)(1)(i) or 40 CFR § 97.404(b)(2)(i) and 40 CFR § 97.704(b)(2)(i) **and** you've previously submitted form GI-09k indicating such exemption(s) for all units described in question 3a.

☐ No and the units described in question 24a are not exempt from CSAPR **or** you have not previously submitted form GI-09K – Complete form GI-09K and include in your application.

☐ Yes.

Instructions for form CD-01

This form is intended to be used for applications for new individual permits for new facilities, for applications for new individual permits for existing facilities, and for applications for amendments to existing individual permits. It is not intended to be used for applications for reissuance of an existing permit.

Use Form CD-05 to describe operating parameters of control equipment.

Organization

Form CD-01 requires you to organize your compliance plan based on how different portions of your facility are affected by the applicable requirements you identified in the Form GI-09 series. Form CD-01 requires that all applicable requirements listed on the form apply to all portions of the facility listed on the form. Therefore, you will find that you probably will need to use more than one form for your facility. Use as many copies of the forms as you need until you have covered all state and federal rules and regulations that apply to your facility.

Once you determine which portions of your facility have applicable requirements in common, you can then proceed to fill out your CD-01 forms as follows:

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

CD-01
Compliance Plan
Air Quality Permit Program
Doc Type: Permit Application

Instructions on page 7

Facility information

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Submit a separate form for each Emission Unit/Tank/Fugitive Source or Group of Sources as necessary.

3a) Emission unit/tank/fugitive source identification number(s): _____

Associated control equipment number(s): _____

Associated Monitoring System(s) (CEMS or COMS): _____

Associated stack/vent number(s): _____

OR

3b) Group description: Abrasive Blasting

Emission units/tanks/fugitive sources included in group: EQUI97-EQUI99

Control equipment included in group: _____

Monitoring systems (CEMS or COMS) included in group: _____

Stack/vents included in group: STRU12-STRU13

CEMS = continuous emission monitoring system; COMS = continuous opacity monitoring system

Use **Section A** of this form when you are applying for the first time for a new individual operating permit (federal or state). This includes:

- permits for construction of new facilities
- permits for existing facilities that are switching to an individual permit from a Registration Permit, Capped Permit, or General Permit
- permits for existing facilities subject to permitting for the first time

Use **Section B** of this form when you are applying for an amendment to an existing individual operating permit (federal or state).

In addition to this form, use **Form CD-05** to identify operating parameters of control equipment when you are applying for the first time for an individual operating permit, or when applying for an amendment to an existing individual operating permit.

Section A – Compliance plan for a new individual operating permit

4) National Emission Standards for Hazardous Air Pollutants (NESHAP) for source categories (40 CFR pt. 63)

4a) On Form GI-09A, did you identify a Part 63 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 4b.

☐ Yes. Attach a copy of each applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart.

☐ Attached ☐ Not attached

4b) On Form GI-09A, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☐ No. Go on to question 4c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

4c) On Form GI-09A, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 5.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

5) National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR pt. 61)

5a) On Form GI-09B, did you identify a Part 61 NESHAP that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to qqestion 6.

☐ Yes. Attach a highlighted copy of each applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

6) New Source Performance Standards (NSPS) (40 CFR pt. 60)

6a) If required to complete Form GI-09D, did you identify a NSPS that is or will be applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 7.

☐ Yes. Attach a copy of each applicable NSPS subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

7) Acid rain requirements (40 CFR pt. 72)

7a) On Form GI-09 or GI-09E, did you identify that the acid rain requirements are applicable to the item or group identified in question 3a or 3b (of this form)?

☐ No. Go on to question 8.

☐ Yes. Refer to the U.S. Environmental Protection Agency (EPA) website at http://www.epa.gov/airmarkets/business/forms.html#arp for the applicable acid rain program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate

☐ Not attached

8) New Source Review (40 CFR pt. 52.21)

8a) On Form GI-09C, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source under New Source Review, or so that portions of the proposed facility are not subject to certain elements of New Source Review?

☐ No. Go on to question 8b.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

8b) Will the stationary source be permitted as a major source under New Source Review?

☐ No. Go on to question 9.

☐ Yes. Go on to question 8c.

8c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Control Technology (BACT) requirements?

☐ No. Go on to question 9.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

9) Minnesota standards of performance (Minn. R. ch. 7011)

9a) On Form GI-09I, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 2a of Form GI-09I), any other industry specific Minnesota standard of performance (Table H of Form GI-09I), or to Minn. R 7011.0715 (item 4 of Form GI-09I)?

☐ No. Go on to question 10.

☐ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration

10) National or Minnesota Ambient Air Quality Standards (NAAQS or MAAQS)

10a) Is the item or group identified in question 3a or 3b subject to an existing or proposed limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☐ No. Go on to question 11.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11) Environmental Assessment Worksheets (EAW) and Air Emissions Risk Analysis (AERA)

11a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☐ No.

☐ Yes: ☐ To avoid an AERA and/or ☐ To avoid an EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

11b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☐ No.

☐ Yes. ☐ AERA and/or ☐ EAW
List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

12) Is there pollution control equipment associated with the item or group identified?

☐ No.

☐ Yes. Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

13) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

13a) Is the item in 3a or does the group identified in 3b include a new or modified stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 megawatts electric (MWe) producing electricity for sale?

☐ No.

☐ Yes. Complete form GI-09K and include in your application.

Section B – Compliance plan for an amendment to an existing individual operating permit

14) To the extent that your proposed permit amendment consists of edits to existing permit language, you should attach to this form a copy of the relevant page(s) of the existing permit with proposed changes clearly marked.

Check one or more of the following statements, as applicable:

☐ All or part of the proposed permit changes for the item or group identified in question 3a or 3b are shown by edits to the existing permit language, a copy of which is attached to this form. If you show all changes with the edits to the existing permit language, you are done with this form.

☒ Some of the proposed permit changes for the item or group identified in question 3a or 3b cannot be shown by simply marking up existing permit language, so I am answering the questions below.

☐ New requirements to existing equipment are inclusively shown by including a highlighted copy of the applicable rule. If the highlighted rule does not include all requirements (e.g. control equipment operating requirements), or if newly applicable requirements cannot be exclusively shown with a highlighted version of the rule, answer the questions below.

For any proposed changes that cannot be easily and clearly shown by submitting marked-up pages from your existing permit, answer the questions that follow.

15) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) for Source Categories (40 CFR pt. 63)

15a) On CH-07, did you identify a newly applicable Part 63 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 15b.

☐ Yes. Attach a copy of each newly applicable Part 63 NESHAP subpart and subpart A. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

15b) On Form CH-07, did you propose limits on the item or group identified in question 3a or 3b (of this form) so that the entire facility is not a major source of HAPs?

☒ No. Go on to question 15c.

☐ Yes. Below, list the limit(s) you proposed, providing the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

15c) On Form CH-07, did you identify that a case-by-case determination of Maximum Achievable Control Technology (MACT) is required for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 16.

☐ Yes. Attach your case-by-case proposal, including proposed compliance demonstration.

☐ Attached ☐ Not attached

16) National Emission Standards for Hazardous Air Pollutant Sources (NESHAPS) (40 CFR pt. 61)

16a) On Form CH-06, did you identify a newly applicable Part 61 NESHAP for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 17.

☐ Yes. Attach a highlighted copy of each newly applicable Part 61 NESHAP. Highlight all applicable requirements of the entire subpart. ☐ Attached ☐ Not attached

17) New Source Performance Standards (NSPS) (40 CFR pt. 60)

17a) On Form CH-05, did you identify a newly applicable NSPS for the item or group identified in question 3a or 3b (of this form)?

☒ No. Go on to question 18.

☐ Yes. Attach a copy of each newly applicable NSPS subpart and subpart A. Highlight all applicable requirements of the subparts. ☐ Attached ☐ Not attached

18) Acid Rain Requirements (40 CFR pt. 72)

18a) Does the unit or group identified in question 3a or 3b include new electricity generating equipment capable of generating 25 MW or more of electricity?

☒ No. Go on to question 19.

☐ Yes. The equipment may be subject to acid rain requirements. Refer to the EPA website at http://www.epa.gov/airmarkets/business/ forms.html#arp for the applicable Acid Rain Program forms and instructions.

☐ Applicable forms attached and sent to EPA as appropriate ☐ Not attached

19) New Source Review (40 CFR pt. 52.21)

19a) On Form CH-04, CH-04a, CH-04b, or CH-04d, did you indicate the intention to propose limits on the item or group identified in question 3a or 3b (of this form) so that the proposed modification is not subject to New Source Review, or so that entire facility is not a major source under New Source Review, or so that portions of the facility or modification are not subject to certain elements of New Source Review? (If you are proposing limits, but on an item or group other than identified in question 3a or 3b of this form, then answer **No**; complete a separate CD-01 for the item or group for which you are proposing limits)

☒ No. Go on to question 19b.

☐ Yes. Below, list the limit(s) you are proposing, including the proposed compliance demonstration. Then go on to question 20.

Proposed limit	Proposed compliance demonstration

19b) Is the unit or group identified in question 3a or 3b (of this form) subject to New Source Review? This would be determined on Form CH-04b or CH-04d.

☒ No. Go on to question 20.

☐ Yes. Go on to question 19c.

19c) Is the item or group identified in question 3a or 3b (of this form) subject to Best Available Technology (BACT) requirements?

☐ No. Go on to question 20.

☐ Yes. Below, list the BACT requirements proposed for the item or group identified in question 3a or 3b of this form, providing the proposed compliance demonstration.

Proposed BACT limit	Proposed compliance demonstration

20) Minnesota Standards of Performance (Minn. R. ch. 7011)

20a) On Form CH-13, did you identify the item or group listed in question 3a or 3b (of this form) as being subject to Minn. R. 7011.0515 (item 3a of Form CH-13), any other industry specific Minnesota standard of performance (Table 1 of Form CH-13), or to Minn. R 7011.0715 (item 5 of Form CH-13)?

☐ No. Go on to question 21.

☒ Yes. List the rule(s) and specific limit(s) below, along with the proposed compliance demonstration.

Applicable rule	Rule limit	Proposed compliance demonstration
Minn. R 7011.0715	PM/opacity limit	Potential emissions are less than applicable limit.

21) National Ambient Air Quality Standard (NAAQS) or Minnesota Ambient Air Quality Standard (MAAQS)

21a) Will the item or group identified in question 3a or 3b be subject to a limit required in order to meet NAAQS or MAAQS? (This would be identified through modeling.)

☒ No. Go on to question 22.

☐ Yes. List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22) Environmental Assessment Worksheet (EAW) and Air Emission Risk Analysis (AERA)

22a) Did you assume limits on the item or group listed in question 3a or 3b in order to avoid the need to do an EAW or AERA?

☒ No.

☐ Yes. ☐ To avoid an AERA and/or ☐ To avoid an EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

22b) Does the item or group identified in question 3a or 3b require limits based on the results of an EAW or AERA that was performed?

☒ No.

☐ Yes. ☐ AERA and/or ☐ EAW

List the limit(s) below, along with the proposed compliance demonstration.

Proposed limit	Proposed compliance demonstration

23) Is there pollution control equipment associated with the item or group identified?

☒ No ☐ Yes – Complete Form CD-05 for each associated control device or submit marked-up pages of the permit if only making changes to operating parameter values of existing control equipment.

24) Cross-State Air Pollution Rule (CSAPR) (40 CFR pt. 97)

24a) Is the item in 3a or does the group identified in 3b include a stationary fossil-fuel-fired boiler or stationary fossil-fuel-fired combustion turbine serving at any time, on or after January 1, 2005, a generator with a nameplate capacity or more than 25 MWe producing electricity for sale?

☒ No.

☐ Yes. Go on to question 24b.

24b) Have the requirements of CSAPR (40 CFR pt. 97) already been incorporated into your permit?

☒ No because the units described in question 24a are exempt from CSAPR under 40 CFR § 97.404(b)(1)(i) and 40 CFR § 97.704(b)(1)(i) or 40 CFR § 97.404(b)(2)(i) and 40 CFR § 97.704(b)(2)(i) **and** you've previously submitted form GI-09k indicating such exemption(s) for all units described in question 3a.

☐ No and the units described in question 24a are not exempt from CSAPR **or** you have not previously submitted form GI-09K – Complete form GI-09K and include in your application.

☐ Yes.

Instructions for form CD-01

This form is intended to be used for applications for new individual permits for new facilities, for applications for new individual permits for existing facilities, and for applications for amendments to existing individual permits. It is not intended to be used for applications for reissuance of an existing permit.

Use Form CD-05 to describe operating parameters of control equipment.

Organization

Form CD-01 requires you to organize your compliance plan based on how different portions of your facility are affected by the applicable requirements you identified in the Form GI-09 series. Form CD-01 requires that all applicable requirements listed on the form apply to all portions of the facility listed on the form. Therefore, you will find that you probably will need to use more than one form for your facility. Use as many copies of the forms as you need until you have covered all state and federal rules and regulations that apply to your facility.

Once you determine which portions of your facility have applicable requirements in common, you can then proceed to fill out your CD-01 forms as follows:

AIR EMISSION PERMIT NO. 12300341-003

IS ISSUED TO

Water Gremlin Co

WATER GREMLIN CO
1610 Whitaker Avenue
White Bear Lake, Ramsey County, MN 55110

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Application Date	Issue Date	Action #
Total Facility Operating Permit	September 23, 1999	July 20, 2000	001
Major Amendment	July 19, 2001	March 18, 2002	002
Major Amendment	April 07, 2006	See Below	003

This permit authorizes the Permittee to operate and construct the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: State; Limits to Avoid Pt 70/Limits to Avoid NSR

Permit Amendment Issue Date: September 22, 2006

Expiration: Permit does not expire

Richard J. Sandberg, Manager
Air Quality Permits Section
Industrial Division

for Brad Moore
Acting Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	651-296-6300
Outside Metro Area	1-800-657-3864
TTY	651-282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Water Gremlin is a manufacturer of fabricated lead metal products from purchases refined lead material. Products include fishing sinker weights and lead acid battery terminals. Battery terminal posts are the primary product, and account for a majority of production at the facility. Uncontrolled emissions from the facility are above the major source thresholds for the Part 70 permit program for Volatile Organic Compounds (VOC) and hazardous air pollutants, therefore the facility has taken limits on VOCs and Trichloroethylene (TCE) to be a synthetic minor source under the Part 70 program and to obtain a State Permit.

PERMIT ACTION 003 DESCRIPTION:

This is a major amendment to pre-approve future coaters that can be installed without further authorization required. These coaters will be permitted under pre-existing coating usage limits, and will cause no change in total facility PTE.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: **Total Facility**

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subps. 2 and 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subps. 14 and 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017.	Minn. R. ch. 7017
Performance Test Notifications and Submittals: Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4; Minn. R. 7017.2035, subps. 1-2
Limits set as a result of a performance test apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit and completion of permit reopening and reissuance. If limits serve to cause more stringent operating conditions, resulting changes to facility operation need to be made immediately. If limits serve to relax current operating conditions, resulting changes to facility operation must not be made prior to issuance of permit amendment with new limit incorporated.	Minn. R. 7017.2025
MONITORING	hdr
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment.	Minn. R. 7007.0800, subp. 4(D)

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
RECORDKEEPING	hdr
Recordkeeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. The cause of the deviation; 2. The exact dates of the period of the deviation, if the deviation has been corrected; 3. Whether or not the deviation has been corrected; 4. The anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 - 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emissions Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 - 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 - 7002.0095

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Subject Item: **GP 001 Battery Terminal Coaters with Rework Tables and Associated Control Equipment**

Associated Items: CE 003 Fluidized Activated Carbon Bed

EU 001 Battery Terminal Post Coater

EU 002 Battery Terminal Post Coater

EU 003 Battery Terminal Post Coater

EU 004 Battery Terminal Post Coater

EU 005 Battery Terminal Post Coater

EU 006 Battery Terminal Post Coater

EU 007 Battery Terminal Post Coater

EU 008 Battery Terminal Post Coater

EU 009 Battery Terminal Post Coater

EU 010 Battery Terminal Post Coater

EU 011 Battery Terminal Post Coater

EU 012 Battery Terminal Post Coater

EU 013 Battery Terminal Post Coater

EU 014 Battery Terminal Post Coater

EU 015 Battery Terminal Post Coater

EU 016 Future Coater

EU 017 Future Coater

EU 018 Future Coater

EU 019 Future Coater

EU 020 Future Coater

EU 021 Future Coater

EU 022 2 Rework Tables

EU 027 Future Coater

EU 028 Future Coater

EU 029 Future Coater

EU 030 Future Coater

EU 031 Future Coater

EU 032 Future Coater

EU 033 Future Coater

EU 034 Future Coater

EU 035 Future Coater

EU 036 Future Coater

EU 037 Future Coater

EU 038 Future Coater

EU 039 Future Coater

EU 040 Future Coater

EU 041 Future Coater

EU 042 Future Coater

Replace Group with proposed
COMG2:
EQUI 66 - EQUI 84
EQUI100-103
TREA3

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Associated Items:

EU 043 Future Coater

EU 044 Future Coater

EU 045 Future Coater

EU 046 Future Coater

EU 047 Future Coater

EU 048 Future Coater

EU 049 Future Coater

EU 050 Future Coater

EU 051 Future Coater

EU 052 Future Coater

EU 053 Future Coater

EU 054 Future Coater

EU 055 Future Coater

EU 056 Future Coater

EU 057 Future Coater

EU 058 Future Coater

EU 059 Future Coater

EU 060 Future Coater

EU 061 Future Coater

EU 062 Future Coater

EU 063 Future Coater

EU 064 Future Coater

EU 065 Future Coater

EU 066 Future Coater

EU 067 Future Coater

EU 068 Future Coater

EU 069 Future Coater

SV 004 Adsorber Stack (for CE 003)

Request to maintain flexibility to replace/ modify and/or install new coaters. Water Gremlin will conduct an internal analysis and document the change in coating capacity and determine the operating procedure for coating units.

What to do	Why to do it
The emission units designated as Future Coater in GP 001 may be installed at any time without prior authorization of or review by the MPCA. Any newly installed emission unit will be subject to all GP 001 requirements. At such time that any emission unit(s) designated as Future Coater in GP 001 is installed, the owner or operator shall notify the MPCA in the next emissions inventory submittal. Such notification shall constitute all reporting required in connection with installation of the emission unit(s).	Title I Condition: To avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subp. 2
OPERATIONAL REQUIREMENTS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
~~VOC Usage: less than or equal to 316,666 lbs/month using 12-month Rolling Average . Calculate a new 12-month rolling average of VOC Usage by the fifteenth day of each month for the previous 12-month period. VOC Usage shall be calculated based on purchase records of all VOC-containing materials and corresponding material composition.~~	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subp. 2

Replace existing VOC usage limit with Pre-Cap language limiting VOC emissions to less than 90 tpy.

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Replace existing single/total HAP usage limits with Pre-Cap limits at 9 tpy single HAP and 23.5 tpy total HAP.

~~Single HAP Usage: less than or equal to 31,666 lbs/month using 12-month Rolling Average . Calculate a new 12-month rolling average of Single HAP Usage by the fifteenth day of each month for the previous 12-month period. Single HAP Usage shall be calculated based on purchase records of all HAP-containing materials and corresponding material composition.~~	Title I Condition: To avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subp. 2
~~Total HAP Usage: less than or equal to 80,000 lbs/month using 12-month Rolling Average . Calculate a new 12-month rolling average of combined total HAP Usage by the fifteenth day of each month for the previous 12-month period. Total HAP Usage shall be calculated based on purchase records of all HAP-containing materials and corresponding material composition.~~	Title I Condition: To avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subp. 2
Material Content: VOC and HAP contents shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC and HAP contents. The Division Manager reserves the right to require the Permittee to determine the VOC and HAP contents of any material, according to EPA reference methods. If an EPA reference method is used for material content determination, the data obtained shall supersede the MSDS.	Title I Condition: To avoid classification as a major source under 40 CFR Section 70.2 Manufacturer data may also be obtained to determine VOC/HAP concentrations.
RECORDKEEPING	hdr
~~Volatile Organic Compounds (VOC) Recordkeeping~~ ~~By the 15th of each month, the Permittee shall:~~ ~~1. Record the total mass of each VOC-containing material from purchase records in the previous month and the VOC content of each material as determined by the Material Content requirement in this permit~~ ~~2. Calculate the VOC usage for the previous month~~ ~~3. Calcluate the average VOC usage for the previous 12 months (12-month Rollling Average)~~	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subp. 5
~~Single Hazardous Air Pollutant (Single HAP) Recordkeeping~~ ~~By the 15th of each month, the Permittee shall:~~ ~~1. Record the total mass of each HAP-containing material from purchase records in the previous month and the HAP content of each material as determined by the Material Content requirement in this permit~~ ~~2. Calculate the Single HAP usage for the previous month~~ ~~3. Calcluate the average Single HAP usage for the previous 12 months (12-month Rollling Average)~~	Title I Condition: To avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subp. 5
~~Total Hazardous Air Pollutant (Total HAP) Recordkeeping~~ ~~By the 15th of each month, the Permittee shall:~~ ~~1. Record the total mass of each HAP-containing material from purchase records in the previous month and the HAP content of each material as determined by the Material Content requirement in this permit~~ ~~2. Calculate the Total HAP usage for the previous month~~ ~~3. Calcluate the average Total HAP usage for the previous 12 months (12-month Rollling Average)~~	Title I Condition: To avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subp. 5

Replace existing record keeping/calculation requirements with mass balance calculation:
VOC/HAP Emissions = VOC/HAP in material purchased - VOC/HAP material in storage (yet to be added to the system) - VOC/HAP material in coating material tanks - quantity of VOC/HAP material maintained in the distillation unit - VOC/HAP material stored in activated carbon beads - VOC/HAP material shipped off as waste.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Subject Item: **GP 002 Lead Melting Pots and Associated Control Equipment**

Associated Items: CE 002 Electrostatic Precipitator - Low Efficiency

EU 023 Large Re-Melt Pot

EU 024 Small Re-Melt Pot

EU 025 Doe Run Melt Pot

EU 026 Collins Re-Melt Pot

SV 003

Update Emission Unit Numbers:
TREA1
EQUI85-88

What to do	Why to do it
OPERATIONAL REQUIREMENTS	hdr
Particulate Matter < 10 micron: greater than or equal to 70 percent collection efficiency at all times during which the associated subject emission units are in operation.	Minn. R. 7011.0070, subp. 1
Fuel Usage: limited to natural gas	Minn. Stat. 116.007, subd. 4a; Minn. R. 7007.0800, subp. 2
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Operate the electrostatic precipitator at all times during which the emission units associated with GP 002 are in operation.	Minn. R. 7011.0075, subp. 1
Operate and maintain the electrostatic precipitator according to the control equipment manufacturer's specifications.	Minn. R. 7011.0075, subp. 2

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Subject Item: **CE 002 Electrostatic Precipitator - Low Efficiency**

Associated Items: EU 023 Large Re-Melt Pot

EU 024 Small Re-Melt Pot

EU 025 Doe Run Melt Pot

EU 026 Collins Re-Melt Pot

GP 002 Lead Melting Pots and Associated Control Equipment

Update emission unit listing: TREA1 EQUI85-88

What to do	Why to do it
Periodic Inspections: Once per month, or more frequently as required by the Operation and Maintenance Plan, the Permittee shall complete the ESP Maintenace Checklist, Cleaning Services, and Preventive Maintenance as described in the Operation and Maintenance Plan. If a problem is noted during an inspection, the permittee shall follow corrective actions as specified in the Operation and Maintenance Plan.	Minn. R. 7007.0800, subp. 14
The Permittee shall operate and maintain the ESP in accordance with the Operation and Maintenance Plan. The Permittee shall keep copies of the Operation and Maintenance Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Subject Item: **CE 003 Fluidized Activated Carbon Bed**

Associated Items:

EU 001 Battery Terminal Post Coater

EU 002 Battery Terminal Post Coater

EU 003 Battery Terminal Post Coater

EU 004 Battery Terminal Post Coater

EU 005 Battery Terminal Post Coater

EU 006 Battery Terminal Post Coater

EU 007 Battery Terminal Post Coater

EU 008 Battery Terminal Post Coater

EU 009 Battery Terminal Post Coater

EU 010 Battery Terminal Post Coater

EU 011 Battery Terminal Post Coater

EU 012 Battery Terminal Post Coater

EU 013 Battery Terminal Post Coater

EU 014 Battery Terminal Post Coater

EU 015 Battery Terminal Post Coater

EU 016 Future Coater

EU 017 Future Coater

EU 018 Future Coater

EU 019 Future Coater

EU 020 Future Coater

EU 021 Future Coater

EU 022 2 Rework Tables

EU 027 Future Coater

EU 028 Future Coater

EU 029 Future Coater

EU 030 Future Coater

EU 031 Future Coater

EU 032 Future Coater

EU 033 Future Coater

EU 034 Future Coater

EU 035 Future Coater

EU 036 Future Coater

EU 037 Future Coater

EU 038 Future Coater

EU 039 Future Coater

EU 040 Future Coater

EU 041 Future Coater

EU 042 Future Coater

EU 043 Future Coater

Replace Unit ID's
EQUI66-EQUI84, EQUI100-EQUI103
TREA3

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Associated Items:

EU 044 Future Coater

EU 045 Future Coater

EU 046 Future Coater

EU 047 Future Coater

EU 048 Future Coater

EU 049 Future Coater

EU 050 Future Coater

EU 051 Future Coater

EU 052 Future Coater

EU 053 Future Coater

EU 054 Future Coater

EU 055 Future Coater

EU 056 Future Coater

EU 057 Future Coater

EU 058 Future Coater

EU 059 Future Coater

EU 060 Future Coater

EU 061 Future Coater

EU 062 Future Coater

EU 063 Future Coater

EU 064 Future Coater

EU 065 Future Coater

EU 066 Future Coater

EU 067 Future Coater

EU 068 Future Coater

EU 069 Future Coater

GP 001 Battery Terminal Coaters with Rework Tables and Associated Control Equipment

Add requirement to conduct stack testing to ensure that 95% collection efficiency is achieved

What to do	Why to do it
The term "coating room" shall be defined as any area of the facility that is enclosed, operated under negative pressure, and whose air is ducted to CE 003 whenever any coating operation located in the room is in operation.	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2
OPERATIONAL REQUIREMENTS	hdr
Operate a bead activated carbon adsorb/desorb/condenser emission control system at all times during which the associated emission units are in operation. Operation of the emission control system for HAP and Volatile Organic Compounds: greater than or equal to 95 percent ~~control efficiency~~ collection efficiency	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subp. 14
Adsorber Inlet Pressure Drop: greater than or equal to 2.0 inches of water column and less than or equal to 4.5 inches of water column	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subp. 4
Desorber Fluid Temperature: greater than or equal to 250 degrees F and less than or equal to 450 degrees F	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subp. 4
Maximum Allowable Aftercool Temperature: less than or equal to 120 degrees F	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subp. 4

Water Gremlin will work with the control equipment manufacturer to establish applicable operating parameters and ranges. Any changes tot he operating parameters will be communicated to MPCA during the permit writing process.

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Carrier Gas Feed Pressure Pressure Drop: greater than or equal to 22 inches of water column and less than or equal to 40 inches of water column	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subp. 4
MONITORING AND RECORDKEEPING	hdr
Continuously monitor the pressure in each coating room as an indicator of capture efficiency using a pressure gauge at all times during which the bead activated carbon adsorb/desorb/condenser emission control system is in operation. A negative pressure is to be maintained at all times in each coating room. Each coating room shall be equipped with an alarm to notify operators if the coating room is not under negative pressure.	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subps. 4 and 5
Continuously monitor the inlet static pressure in the adsorber. The emission control system shall be equipped with an alarm to notify operators if the pressure moves outside of the normal range determined by the equipment manufacturer during installation and start-up.	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subps. 4 and 5
Continously monitor the desorber fluid temperature. The system shall be equipped with an alarm to notify operators if the temperature drops below the minimum temperature for efficient regeneration.	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subps. 4 and 5
Continuously monitor the temperature of the carbon exiting the desorber. The emission control system shall be equipped with an alarm to notify operators if the temperature of the carbon exceeds the maximum temperature for adsorption efficiency.	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subps. 4 and 5
Continuously monitor the carrier gas static pressure. The emission control system shall be equipped with an alarm to notify operators if the pressure moves outside of the normal range determined by the equipment manufacturer during installation and start-up.	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subps. 4 and 5
Record the following parameters at a minimum once each day of operation: - Pressure in each coating room - Inlet Static Pressure in the Adsorber - Desorber Fluid Temperature - Temperature of the Carbon exiting the Desorber - Carrier Gas Feed Pressure	Title I Condition: To avoid classification as a major source under 40 CFR Sections 52.21 and 70.2; Minn. R. 7007.0800, subp. 4
If the parameters documented are outside the allowed ranges, the Permittee must take immediate steps to return the parameters to within the allowed ranges in this permit.	Minn. R. 7007.0800, subp. 2
Monthly Inspections: Once per month, the Permittee shall complete a Monthly Inspection Checklist for the Fluidized Bed as described in the Operation and Maintenance Plan. If a problem is noted during an inspection, the permittee shall follow corrective actions as specified in the Operation and Maintenance Plan.	Title I Condition: To avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subps. 4 and 5
Annual Inspections: Once annually, during the Fluidized Bed shutdown, the permittee shall record inspection of the oxidizer components as described under the annual inspection guidelines in the Operation and Maintenance Plan. If a problem is noted during an inspection, the permittee shall follow corrective actions as specified in the Operation and Maintenance Plan.	Title I Condition: To avoid classification as a major source under 40 CFR Section 70.2; Minn. R. 7007.0800, subps. 4 and 5
The Permittee shall operate and maintain the Fluidized Bed in accordance with the Operation and Maintenance Plan. The Permittee shall keep copies of the Operation and Maintenance Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
If the Permittee changes coating formulations to a previously unused HAP-based coating carrier, Permittee shall notify the Commissioner within 30 days of making such a change. Within 90 days of the change in coating carrier, the Permittee shall conduct performance testing of the emission control system to determine the destruction efficiency of the new HAP.	Minn. R. 7007.0800, subp. 2

TABLE B: SUBMITTALS

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:
- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

TABLE B: RECURRENT SUBMITTALS

Facility Name: Water Gremlin Co

Permit Number: 12300341 - 003

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 07/20/2000. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations occur, the Permittee shall submit a report stating that no deviations occurred during the reporting period.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 07/20/2000 (for the previous calendar year). To be submitted to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

IA-01

Insignificant Activities Required to be Listed

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Check and describe insignificant activities:

	Rule citation	Description of activities at the facility
☐	7007.1300, subp. 3(A)	
☐	7007.1300, subp. 3(B)(1)	
☐	7007.1300, subp. 3(B)(2)	
☐	7007.1300, subp. 3(C)	
☐	7007.1300, subp. 3(D)	
☐	7007.1300, subp. 3(E)(1)	
☐	7007.1300, subp. 3(E)(2)	
☐	7007.1300, subp. 3(F)	
☐	7007.1300, subp. 3(G)	
☐	7007.1300, subp. 3(H)(1)	
☐	7007.1300, subp. 3(H)(2)	
☒	7007.1300, subp. 3(H)(3)	Welding Equipment
☐	7007.1300, subp. 3(H)(4)	
☐	7007.1300, subp. 3(H)(5)	
☐	7007.1300, subp. 3(H)(6)	

	Rule citation	Description of activities at the facility
☐	7007.1300, subp. 3(H)(7)	
☒	7007.1300, subp. 3(I)	Casting Equipment: DC09, DC10, DC12, DC14, DC15, DC16, DC17, DC19, DC21, DC22 DC23, DC24, DC25, DC26, DC27, DC28, DC29 ,DC32, DC33, DC34, DC35, DC36, DC37 DC38, DC39, DC4, DC41, DC42, DC44, DC45, DC48, Natural Gas-fired Equipment: See Attached emissions calculations Part Washing Equipment: Model 81 - Toolroom, Model 34 - Coating Room, Model 34 - North DC Room, Kleer Flo - Billets Room, a small tub Cooling Tower Distilling Equipment: Distiller - Detrex FC30-EW R&D Equipment: one billet cast machine with two kettles to be installed Fall 2018
☐	7007.1300, subp. 3(J)	
☐	7007.1300, subp. 3(K)	
☐	7007.1300, subp. 4	
☐	7008.4100	
☐	7008.4110	

Form IA-01 instructions

Four tables of insignificant activities are provided below.

- **Table IA-01.1, Insignificant activities not required to be listed**, specifies those activities that **do not** need to be included in your permit application.
- **Table IA-01.2**, **Insignificant activities required to be listed, and Table IA-01.4, Conditionally insignificant activities**, specify those activities that must be included in your application, on the **IA-01** form.
- **Table IA-01.3, Insignificant activities required to be listed for part 70 sources**, specifies insignificant activities which are required to be listed in part 70 permit applications but do not qualify as insignificant activities for state permits.
- If your facility has a Plantwide Applicability Limit (PAL), or you are applying for a PAL, all activities from Tables IA-01.2, 3, and 4 that emit the PAL pollutant no longer qualify as Insignificant Activities and must be included in your permit application as emitting equipment using the appropriate forms (e.g., GI-04, GI-05B, GI-05C, GI-07, CD-01, etc.).
- Any activity that requires a permit under 40 CFR § 52.21 (e.g., it is included in a previous Best Available Control Technology [BACT] determination or is subject to conditions to avoid New Source Review), no longer qualifies as Insignificant Activity and must be included in your permit application on the appropriate forms (e.g., GI-04, GI-05B, GI-05C, GI-07, CD-01, etc.).
- It is possible that activities listed on this form may be included in your permit with applicable requirements and associated periodic monitoring.

1a) AQ Facility ID number -- Fill in your Air Quality (AQ) Facility Identification (ID) number as listed on form GI-01, item 1a.

1b) Agency Interest ID number -- Fill in your Agency Interest ID number as listed on form GI-01, item 1b.

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-02

Process Flow Diagram

Air Quality Permit Program

Doc Type: Permit Application

Instructions on Page 2

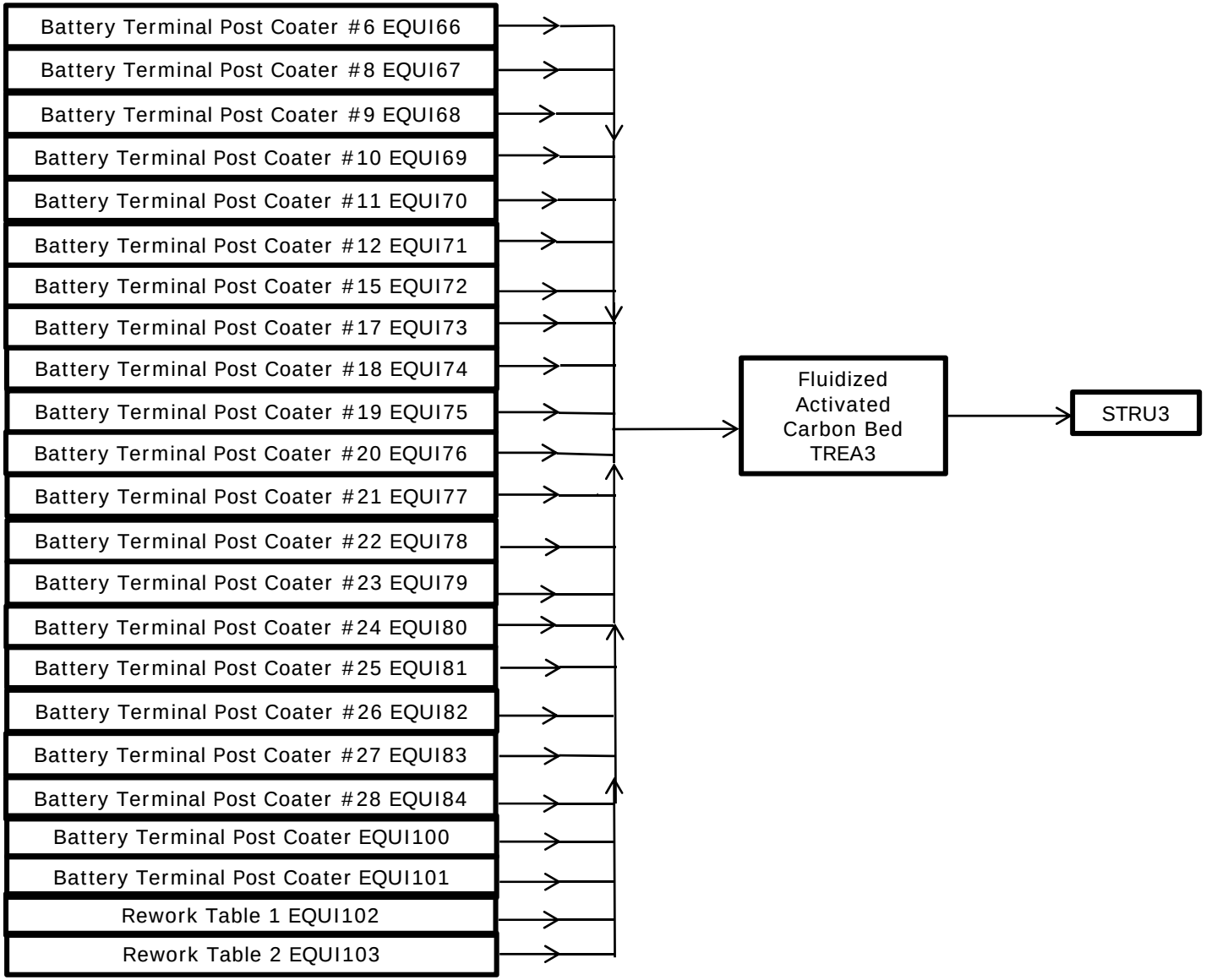
1a) AQ Facility ID number: 12300341

1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

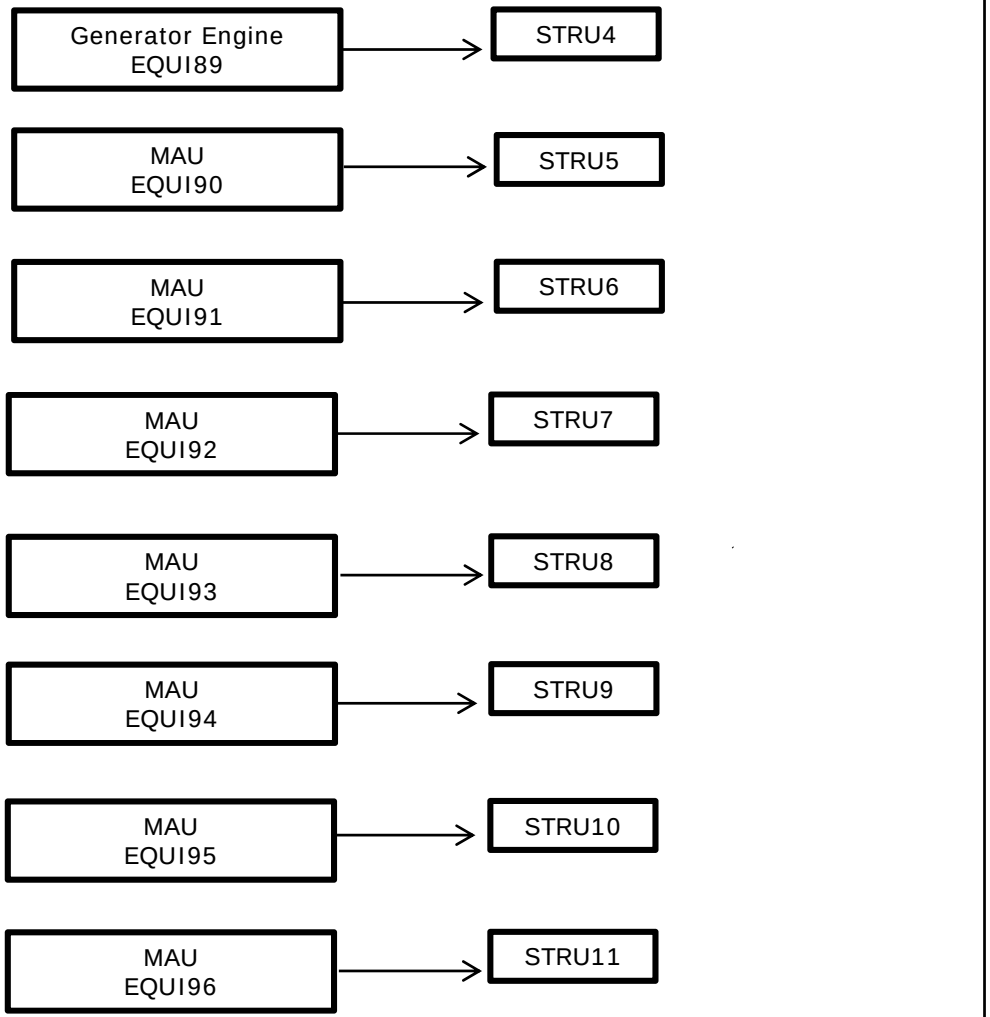
3) Flow diagram: (insert flow diagram below or attach a separate sheet)

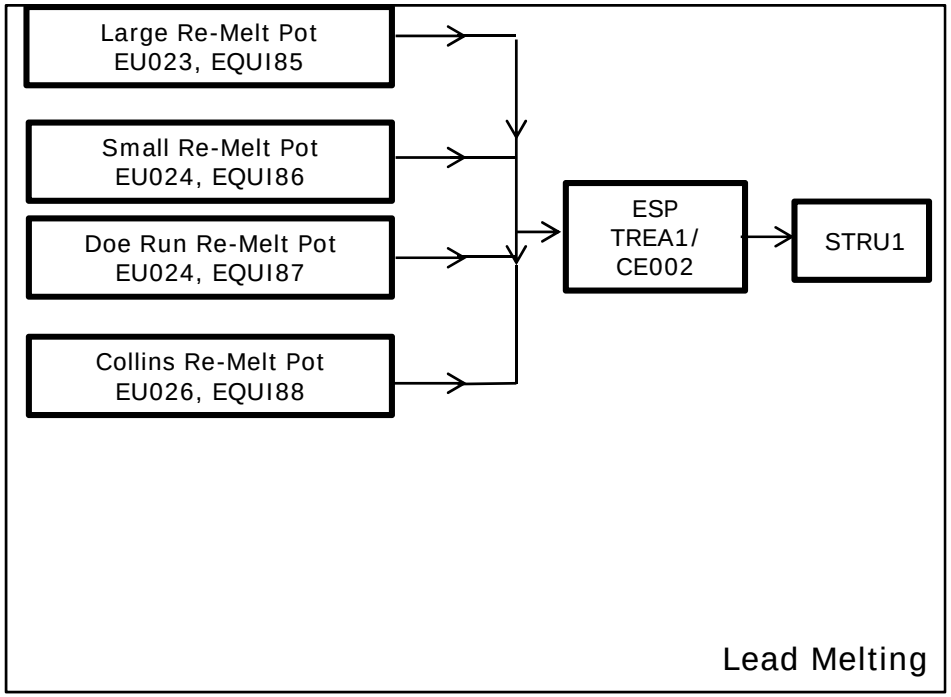
Please see attached flow diagram.

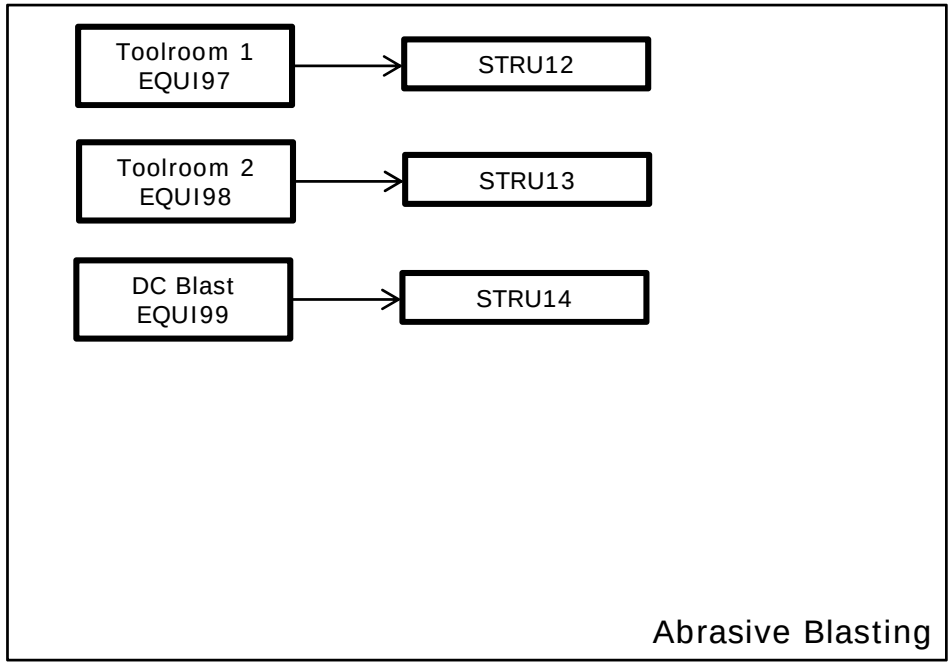


Coating

Water Gremlin Company	WENCK Responsive partner. Exceptional outcomes.	October 2018
Process Flow Diagram		







Water Gremlin Company

Process Flow Diagram

WENCK

Responsive partner. Exceptional outcomes.

October 2018

Minnesota Pollution Control Agency

AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

PERMIT APPLICATION FORM **GI-03**

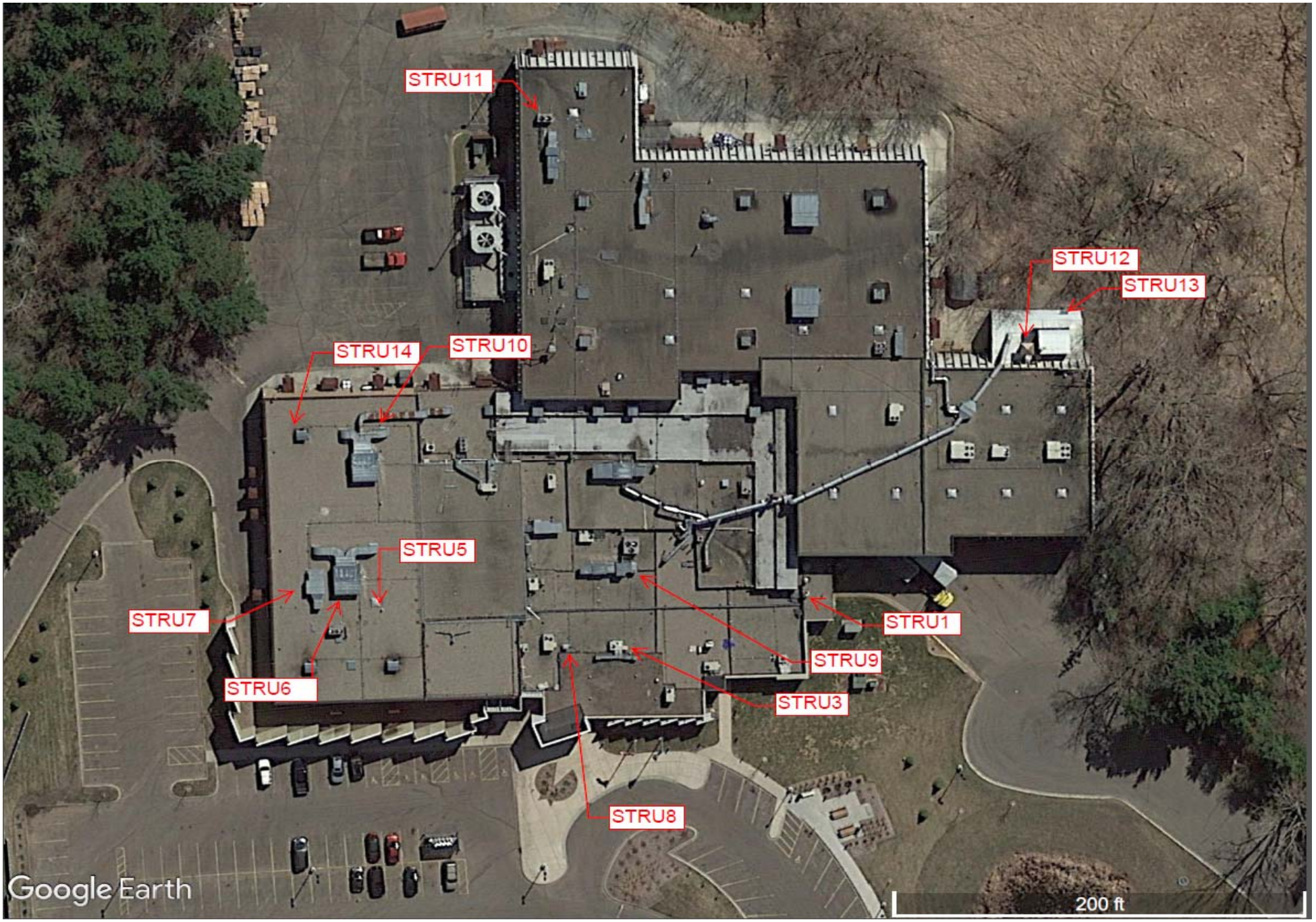
FACILITY AND STACK/VENT DIAGRAM

2/16/05

1) AQ Facility ID No.: **12300341**

2) Facility Name: **Water Gremlin Company**

3) Facility and Stack/Vent Diagram:



Water Gremlin Company	WENCK Responsive partner. Exceptional outcomes.	October 2018
Stack Vent Diagram		

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-04

Stack/Vent (SV) Information

Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID No.: 12300341 **1b)** Agency Interest ID No.: 2005

2) Facility Name: Water Gremlin Company

Form GI-05F *Emission Source Association* must also be completed and submitted whenever this form is required.

3a)	**SV ID No.**	STRU1	STRU3	STRU4	STRU5
3b)	**Stack/Vent Operator's Description**	Lead Melting Pots Stack	Battery Terminal Post Coater Stack	Generator Engine Stack	MAU 1 Stack
3c)	**Height of Opening From Ground (feet)**	14.58	TBD	7'	20
3d)	**Inside Diameter (feet)**	0.5	TBD	0.33	
	Length (feet)				3.25
	Width (feet)				2.58
3e)	**Design Flow Rate (cubic feet / min)**	2400	15,000	419	363
3f)	**Exit Gas Temp. (°F)**	70-100	70	1062	150
3g)	**Flow Rate/Temp Information Source**	E	M	M	T
3h)	**Discharge Direction**	H	U	U	H
3i)	**Status**	Active	Active	Active	Active
3j)	**Removal Date (mm/dd/yyyy)**				
3k)	**Reasons for Changes/Modifications**				

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-04

Stack/Vent (SV) Information

Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID No.: 12300341 **1b)** Agency Interest ID No.: 2005

2) Facility Name: Water Gremlin

Form GI-05F *Emission Source Association* must also be completed and submitted whenever this form is required.

3a)	**SV ID No.**	STRU6	STRU7	STRU8	STRU9
3b)	**Stack/Vent Operator's Description**	MAU 2 Stack	MAU 3 Stack	MAU 5 Stack	MAU 6 Stack
3c)	**Height of Opening From Ground (feet)**	20	20	20	29
3d)	**Inside Diameter (feet)**				
	Length (feet)	3.83	3.83	4.33	4.33
	Width (feet)	8.58	9.16	4.66	4.66
3e)	**Design Flow Rate (cubic feet / min)**	878	814	719	784
3f)	**Exit Gas Temp. (°F)**	150	150	100	100
3g)	**Flow Rate/Temp Information Source**	E	E	E	E
3h)	**Discharge Direction**	H	H	H	H
3i)	**Status**	Active	Active	Active	Active
3j)	**Removal Date (mm/dd/yyyy)**				
3k)	**Reasons for Changes/Modifications**				

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-04

Stack/Vent (SV) Information

Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID No.: 12300341 **1b)** Agency Interest ID No.: 2005

2) Facility Name: Water Gremlin Company

Form GI-05F *Emission Source Association* must also be completed and submitted whenever this form is required.

3a)	**SV ID No.**	STRU10	STRU11	STRU12	STRU13
3b)	**Stack/Vent Operator's Description**	MAU 9 Stack	MAU 11 Stack	Toolroom 1 Abrasive Blasting Stack	Toolroom 2 Abrasive Blasting Stack
3c)	**Height of Opening From Ground (feet)**	15	31	5	5
3d)	**Inside Diameter (feet)**			0.67	0.67
	Length (feet)	2.58	4.33		
	Width (feet)	6.16	4.67		
3e)	**Design Flow Rate (cubic feet / min)**	319	669	4724	4724
3f)	**Exit Gas Temp. (°F)**	120	120	70	70
3g)	**Flow Rate/Temp Information Source**	E	E	E	E
3h)	**Discharge Direction**	H	H	H	H
3i)	**Status**	Active	Active	Active	Active
3j)	**Removal Date (mm/dd/yyyy)**				
3k)	**Reasons for Changes/Modifications**				

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-04

Stack/Vent (SV) Information

Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID No.: 12300341 **1b)** Agency Interest ID No.: 2005

2) Facility Name: Water Gremlin Company

Form GI-05F *Emission Source Association* must also be completed and submitted whenever this form is required.

3a)	**SV ID No.**	STRU14			
3b)	**Stack/Vent Operator's Description**	DC Abrasive Blasting Stack			
3c)	**Height of Opening From Ground (feet)**	6			
3d)	**Inside Diameter (feet)**	0.67			
	Length (feet)				
	Width (feet)				
3e)	**Design Flow Rate (cubic feet / min)**	3319			
3f)	**Exit Gas Temp. (°F)**	100			
3g)	**Flow Rate/Temp Information Source**	E			
3h)	**Discharge Direction**	U			
3i)	**Status**	Active			
3j)	**Removal Date (mm/dd/yyyy)**				
3k)	**Reasons for Changes/Modifications**				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05A

Pollution control equipment information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on Page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

Form *GI-05F Emission source association* must also be completed and submitted whenever this form is required.

3a) Control equip ID no.	3b) CE type code	3c) Description	3d) Manufacturer	3e) Model number	3f) Installation date (mm/dd/yyyy)	3g) Removal date (mm/dd/yyyy)	3h) Pollutants controlled	3i) Capture efficiency	3j) Destruct/ collect efficiency	3k) Afterburner/ Oxidizer combustion parameters
CE004/ TREA3	048	Fluidized Activated Carbon Bed	Gulf Coast Environmental Systems	150-FBC-CARB	12/15/2018		TCE (HAP), VOCs	100%	95%	NA

Note that the fluidized activated carbon bed is a solvent recovery system and the efficiency represented above is a collection efficiency. The coating room is under negative pressure and therefore 100% capture of emissions is assumed.

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI66	EQUI67	EQUI68	EQUI69
3b) Emission unit type	Spray Booth/Coating Line	Spray Booth/Coating Line	Spray Booth/Coating Line	Spray Booth/Coating Line
3c) Emission unit operator's description	Battery Terminal Post Coater #6	Battery Terminal Post Coater #8	Battery Terminal Post Coater #9	Battery Terminal Post Coater #10
3d) Manufacturer	Water Gremlin	Water Gremlin	Water Gremlin	Water Gremlin
3e) Model number	Custom	Custom	Custom	Custom
3f) Max design capacity	8 Units: gallons/ Day	0.5 Units: gallons/ Day	13 Units: gallons/ Day	15 Units: gallons/ Day
3g) Commence construction date (mm/dd/yyyy)	1/1/1996 ☐ to be determined	1/1/1997 ☐ to be determined	1/1/1998 ☐ to be determined	1/1/1999 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/1996 ☐ to be determined	1/1/1997 ☐ to be determined	1/1/1998 ☐ to be determined	1/1/1999 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI70	EQUI71	EQUI72	EQUI73
3b) Emission unit type	Spray booth/Coating Line	Spray booth/Coating Line	Spray Booth/Coating Line	Spray Booth/Coating Line
3c) Emission unit operator's description	Battery Terminal Post Coater #11	Battery Terminal Post Coater #12	Battery Terminal Post Coater #15	Battery Terminal Post Coater #17
3d) Manufacturer	Water Gremlin	Water Gremlin	Water Gremlin	Water Gremlin
3e) Model number	Custom	Custom	Custom	Custom
3f) Max design capacity	0.5 Units: gallons/ Day	2 Units: gallons/ Day	3 Units: gallons/ Day	5.5 Units: gallons/ Day
3g) Commence construction date (mm/dd/yyyy)	1/1/1999 ☐ to be determined	1/1/1998 ☐ to be determined	1/1/1997 ☐ to be determined	1/1/2000 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/1999 ☐ to be determined	1/1/1998 ☐ to be determined	1/1/1997 ☐ to be determined	1/1/2000 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI74	EQUI75	EQUI76	EQUI77
3b) Emission unit type	Spray booth/Coating line	Spray booth/Coating line	Spray booth/Coating line	Spray booth/Coating line
3c) Emission unit operator's description	Battery Terminal Post Coater #18	Battery Terminal Post Coater #19	Battery Terminal Post Coater #20	Battery Terminal Post Coater #21
3d) Manufacturer	Water Gremlin	Water Gremlin	Water Gremlin	Water Gremlin
3e) Model number	Custom	Custom	Custom	Custom
3f) Max design capacity	1 Units: gallons/ Day	0.5 Units: gallons/ Day	5 Units: gallons/ Day	9 Units: gallons/ Day
3g) Commence construction date (mm/dd/yyyy)	1/1/2001 ☐ to be determined	1/1/2003 ☐ to be determined	1/1/2001 ☐ to be determined	1/1/2004 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/2001 ☐ to be determined	1/1/2003 ☐ to be determined	1/1/2001 ☐ to be determined	1/1/2004 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI78	EQUI79	EQUI80	EQUI81
3b) Emission unit type	Spray booth/Coating line	Spray booth/Coating line	Spray booth/Coating line	Spray booth/Coating line
3c) Emission unit operator's description	Battery Terminal Post Coater #22	Battery Terminal Post Coater #23	Battery Terminal Post Coater #24	Battery Terminal Post Coater #25
3d) Manufacturer	Water Gremlin	Water Gremlin	Water Gremlin	Water Gremlin
3e) Model number	Custom	Custom	Custom	Custom
3f) Max design capacity	4.5 Units: gallons/ Day	0.5 Units: gallons/ Day	10 Units: gallons/ Day	7.5 Units: gallons/ Day
3g) Commence construction date (mm/dd/yyyy)	1/1/2006 ☐ to be determined	1/1/2008 ☐ to be determined	1/1/2007 ☐ to be determined	1/1/2011 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/2006 ☐ to be determined	1/1/2008 ☐ to be determined	1/1/2007 ☐ to be determined	1/1/2011 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI82	EQUI83	EQUI84	EQUI85
3b) Emission unit type	Spray booth/Coating line	Spray booth/Coating line	Spray booth/Coating line	Melting Equipment
3c) Emission unit operator's description	Battery Terminal Post Coater #26	Battery Terminal Post Coater #27	Battery Terminal Post Coater #28	CF Scrap Re-Melt Pot
3d) Manufacturer	Water Gremlin	Water Gremlin	Water Gremling	N/A
3e) Model number	Custom	Custom	Custom	N/A
3f) Max design capacity	2 Units: gallons/ Day	12 Units: gallons/ Day	3 Units: gallons/ Day	1.5 Units: MM Btu/ Hr
3g) Commence construction date (mm/dd/yyyy)	1/1/2012 ☐ to be determined	1/1/2012 ☐ to be determined	1/1/2018 ☐ to be determined	1/1/1991 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/2012 ☐ to be determined	1/1/2012 ☐ to be determined	1/1/2018 ☐ to be determined	1/1/1991 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI86	EQUI87	EQUI88	EQUI89
3b) Emission unit type	Meling Equipment	Melting Equipment	Melting Equipment	Other Combustion
3c) Emission unit operator's description	Small Re-Melt Pot	Doe Run Melt Pot	CF Re-Melt Pot	Generator Engine
3d) Manufacturer	NA	NA	NA	John Deere
3e) Model number	NA	NA	NA	4024HF285
3f) Max design capacity	0.5 Units: MM Btu/ Hr	0.5 Units: MM Btu/ Hr	0.34 Units: MM Btu/ Hr	0.6 Units: MM Btu/ Hr
3g) Commence construction date (mm/dd/yyyy)	1/1/1991 ☐ to be determined	1/1/1991 ☐ to be determined	1/1/1991 ☐ to be determined	5/1/2012 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/1991 ☐ to be determined	1/1/1991 ☐ to be determined	1/1/1991 ☐ to be determined	5/1/2012 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				Not coal burning
3k) Engine use				emergency/blackstart
3l) Engine displacement	Units:	Units:	Units:	2392.51 Units: total cc
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI90	EQUI91	EQUI92	EQUI93
3b) Emission unit type	Other Combustion	Other Combustion	Other Combustion	Other Combustion
3c) Emission unit operator's description	Make-up Air Unit	Make-up Air Unit	Make-up Air Unit	Make-up Air Unit
3d) Manufacturer	RUPP	CaptiveAire	CaptiveAire	CaptiveAire
3e) Model number	R1d.250-G10	CAH230	CAH230	CAH36
3f) Max design capacity	2.5 Units: MM Btu/ Hr	6.05 Units: MM Btu/ Hr	5.61 Units: MM Btu/ Hr	4.95 Units: MM Btu/ Hr
3g) Commence construction date (mm/dd/yyyy)	1/1/1993 ☐ to be determined	1/1/2016 ☐ to be determined	1/1/2015 ☐ to be determined	1/1/2016 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/1993 ☐ to be determined	1/1/2016 ☐ to be determined	1/1/2015 ☐ to be determined	1/1/2016 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI94	EQUI95	EQUI96	EQUI97
3b) Emission unit type	Other Combustion	Other Combustion	Other Combustion	Abrasive Equipment
3c) Emission unit operator's description	Make-up Air Unit	Make-up Air Unit	Make-up Air Unit	Toolroom1 Abrasive Blasting
3d) Manufacturer	RUPP	Titan	Industrial Air	Gopher
3e) Model number	RAM227	TA220NGHRH2SPD	QD230C	NA
3f) Max design capacity	5.4 Units: MM Btu/ Hr	2.2 Units: MM Btu/ Hr	4.61 Units: MM Btu/ Hr	125 Units: psig /
3g) Commence construction date (mm/dd/yyyy)	1/1/1997 ☒ to be determined	1/1/1995 ☐ to be determined	1/1/1996 ☐ to be determined	1/1/1979 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/1997 ☐ to be determined	1/1/1995 ☐ to be determined	1/1/1996 ☐ to be determined	1/1/1979 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI98	EQUI99	EQUI100	EQUI101
3b) Emission unit type	Abrasive Equipment	Abrasive Equipment	Spray Booth/Coating Line	Spray Booth/Coating Line
3c) Emission unit operator's description	Toolroom 2 Abrasive Blasting	DC Abrasive Blasting	Battery Terminal Post Coater	Battery Terminal Post Coatger
3d) Manufacturer	Gopher	Gopher	Water Gremlin	Water Gremlin
3e) Model number	NA	NA	Custom	Custom
3f) Max design capacity	90 Units: psig /	80 Units: psig /	0.5 Units: gallons/ Day	0.5 Units: gallons/ Day
3g) Commence construction date (mm/dd/yyyy)	1/1/1989 ☐ to be determined	1/1/2015 ☐ to be determined	1/1/2020 ☐ to be determined	1/1/2020 ☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/1989 ☐ to be determined	1/1/2015 ☐ to be determined	1/1/2020 ☐ to be determined	1/1/2020 ☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active	Active	Active
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05B

Emission unit information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

3) Fill in a column in the table below for each new or modified emission unit (EU/EQUI). Form GI-05F *Emission Source Association* must also be submitted whenever this form is required.

3a) Emission unit ID number	EQUI102	EQUI103		
3b) Emission unit type	Spray Booth/Coating Line	Spray Booth/Coating Line		
3c) Emission unit operator's description	Rework Table #1	Rework Table #2		
3d) Manufacturer	Water Gremlin	Water Gremlin		
3e) Model number	Custom	Custom		
3f) Max design capacity	0.5 Units: gallons/ Day	0.5 Units: gallons/ Day	Units: /	Units: /
3g) Commence construction date (mm/dd/yyyy)	1/1/1996 ☐ to be determined	1/1/1996 ☐ to be determined	☐ to be determined	☐ to be determined
3h) Initial startup date (mm/dd/yyyy)	1/1/1996 ☐ to be determined	1/1/1996 ☐ to be determined	☐ to be determined	☐ to be determined
3i) Modification or reconstructed date (mm/dd/yyyy)				
3j) Firing method				
3k) Engine use				
3l) Engine displacement	Units:	Units:	Units:	Units:
3m) Subject to CSAPR?				
3n) Electric generating capacity (megawatts)				
3o) SIC code				
3p) Status	Active	Active		
3q) Removal date (mm/dd/yyyy)				
3r) Reasons for changes/modifications				

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

GI-05E

Group information

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 2

1a) AQ Facility ID number: 12300341 **1b)** Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

To complete this form, you will need the AQ SI details report labeled *Component Group (Members).* Any modifications or changes to the method of operation at the facility that are not currently reflected in the permit, must also be described on form *CH-01*.

3) Fill in a row in the table below for each new or modified group in your permit, or check the box below. A "group" is most often used when a limit is applied to several items (such as a fuel usage limit that applies to two or more boilers combined), or when several items are individually subject to identical requirements.

☐ Check this box if all changes can be described by marking up a copy of your permit and you are including a marked-up copy with your application. Include this form with your application.

a)	b)	c)
Group ID	Title or description of group	Group member IDs
COMG1	Lead Melting Pots and Associated Control Equipment	EQUI85, EQUI86, EQUI87, EQUI 88, TREA1
COMG2	Battery Terminal Coaters with Rework Tables and Associated Control Equipment	EQUI66-EQUI84,EQUI100-EQUI103, TREA3
COMG3	Make-up Air Units (MAU)	EQUI90-EQUI96
COMG4	Abrasive Blasting	EQUI97-EQUI99

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
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GI-05F

Emission source associations

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 3

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

☐ Check this box if using GI-05F for a *Reissuance application*. You will need the AQ SI details report labeled ***SI-SI relationships***. See the instructions for fields that may be marked "null" in the *SI-SI relationships* report.

Note – If your most recent permit was issued after November 1, 2015 **or** you are applying for reissuance, use Tempo ID numbers for all equipment, stacks, controls, etc. Tempo IDs are in the form EQUIxxx, TREAxxx, STRUxxx, FUGIxxx, etc.

3a) Source ID number	3b) % Flow	3c) Relationship	3d) CE ID number	3e) Start date (mm/dd/yyyy)	3f) End date (mm/dd/yyyy)	3g) % Flow	3h) Relationship	3i) S/V ID number	3j) Start date (mm/dd/yyyy)	3k) End date (mm/dd/yyyy)	3l) Comments
EQUI66	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI67	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI68	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI69	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI70	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI71	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI72	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI73	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI74	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI75	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI76	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI77	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI78	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI79	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI80	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		

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Emission source associations

Air Quality Permit Program

Doc Type: Permit Application

Instructions on page 3

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

☐ Check this box if using GI-05F for a *Reissuance application*. You will need the AQ SI details report labeled ***SI-SI relationships***. See the instructions for fields that may be marked "null" in the *SI-SI relationships* report.

Note – If your most recent permit was issued after November 1, 2015 **or** you are applying for reissuance, use Tempo ID numbers for all equipment, stacks, controls, etc. Tempo IDs are in the form EQUIxxx, TREAxxx, STRUxxx, FUGIxxx, etc.

3a) Source ID number	3b) % Flow	3c) Relationship	3d) CE ID number	3e) Start date (mm/dd/yyyy)	3f) End date (mm/dd/yyyy)	3g) % Flow	3h) Relationship	3i) S/V ID number	3j) Start date (mm/dd/yyyy)	3k) End date (mm/dd/yyyy)	3l) Comments
EQUI81	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI82	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI83	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI84	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI85	100	**is controlled by**	TREA1	5/12/1994		100	**sends to**	STRU1	5/12/1994		
EQUI86	100	**is controlled by**	TREA1	5/12/1994		100	**sends to**	STRU1	5/12/1994		
EQUI87	100	**is controlled by**	TREA1	5/12/1994		100	**sends to**	STRU1	5/12/1994		
EQUI88	100	**is controlled by**	TREA1	5/12/1994		100	**sends to**	STRU1	5/12/1994		
EQUI89		**is controlled by**				100	**sends to**	STRU4	5/1/2012		
EQUI90		**is controlled by**				100	**sends to**	STRU5	1/1/1993		
EQUI91		**is controlled by**				100	**sends to**	STRU6	1/1/2016		
EQUI92		**is controlled by**				100	**sends to**	STRU7	1/1/2015		
EQUI93		**is controlled by**				100	**sends to**	STRU8	1/1/2016		
EQUI94		**is controlled by**				100	**sends to**	STRU9	1/1/1997		
EQUI95		**is controlled by**				100	**sends to**	STRU10	1/1/1995		

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Emission source associations

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Instructions on page 3

1a) AQ Facility ID number: 12300341 1b) Agency Interest ID number: 2005

2) Facility name: Water Gremlin Company

☐ Check this box if using GI-05F for a *Reissuance application*. You will need the AQ SI details report labeled ***SI-SI relationships***. See the instructions for fields that may be marked "null" in the *SI-SI relationships* report.

Note – If your most recent permit was issued after November 1, 2015 **or** you are applying for reissuance, use Tempo ID numbers for all equipment, stacks, controls, etc. Tempo IDs are in the form EQUIxxx, TREAxxx, STRUxxx, FUGIxxx, etc.

3a) Source ID number	3b) % Flow	3c) Relationship	3d) CE ID number	3e) Start date (mm/dd/yyyy)	3f) End date (mm/dd/yyyy)	3g) % Flow	3h) Relationship	3i) S/V ID number	3j) Start date (mm/dd/yyyy)	3k) End date (mm/dd/yyyy)	3l) Comments
EQUI96		**is controlled by**				100	**sends to**	STRU11	1/1/1996		
EQUI97		**is controlled by**				100	**sends to**	STRU12	1/1/1979		
EQUI98		**is controlled by**				100	**sends to**	STRU13	1/1/1989		
EQUI99		**is controlled by**				100	**sends to**	STRU14	1/1/2015		
EQUI100	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI101	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI102	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
EQUI103	100	**is controlled by**	TREA3	12/15/2018		100	**sends to**	STRU3	12/15/2018		
		is controlled by					**sends to**				
		is controlled by					**sends to**				
		is controlled by					**sends to**				
		is controlled by					**sends to**				
		is controlled by					**sends to**				
		is controlled by					**sends to**				

Appendix B

Emission Calculations

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Alternate Format

GI-07 Spreadsheet

Facility Emissions Summary
Air Quality Permit Program
Doc Type: Permit Application

1a) AQ Facility ID No.: 12300341 1b) Agency Interest ID No.: 2005
2) Facility Name: Water Gremlin Company

Emissions by Source Table

3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:					
3b) Tempo SI ID No.:		EQUI66				3b) Tempo SI ID No.:		EQUI67				3b) Tempo SI ID No.:		EQUI68				3b) Tempo SI ID No.:		EQUI69				3b) Tempo SI ID No.:		EQUI70			
Description		Battery Terminal Post Coater 6				Description		Battery Terminal Post Coater 8				Description		Battery Terminal Post Coater 9				Description		Battery Terminal Post Coater 10				Description		Battery Terminal Post Coater 11			
3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)
Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy
PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---
PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---
PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---
SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---
NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---
CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---
VOC	NA	4.06	17.78	0.89	---	VOC	NA	0.25	1.11	0.06	---	VOC	NA	6.60	28.90	1.44	---	VOC	NA	7.61	33.34	1.67	---	VOC	NA	0.25	1.11	0.06	---
Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---
CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---
CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---
N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---
Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---
Trichloroethylene	79016	4.06	17.78	0.89	---	Trichloroethylene	79016	0.25	1.11	0.06	---	Trichloroethylene	79016	6.60	28.90	1.44	---	Trichloroethylene	79016	7.61	33.34	1.67	---	Trichloroethylene	79016	0.25	1.11	0.06	---
Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---
1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---
Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---
Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---
Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---
Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---
Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---
Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---
Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---
Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---
Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---
Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---
Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---
Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---
Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---
PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---
POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---
Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---
Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---
Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---
Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---
Total HAPs	NA	4.06	17.78	0.89	---	Total HAPs	NA	0.25	1.11	0.06	---	Total HAPs	NA	6.60	28.90	1.44	---	Total HAPs	NA	7.61	33.34	1.67	---	Total HAPs	NA	0.25	1.11	0.06	---

5) ☐ Application is being submitted on a compact disc (CD), and the editable calculation spreadsheet(s) are included on the CD.
☐ Application is being submitted on paper, and editable calculation spreadsheet(s) are included on an enclosed CD.

3a) Delta ID No.:						**3a)** Delta ID No.:						**3a)** Delta ID No.:						**3a)** Delta ID No.:						**3a)** Delta ID No.:					
3b) Tempo SI ID No.:		EQUI71				**3b)** Tempo SI ID No.:		EQUI72				**3b)** Tempo SI ID No.:		EQUI73				**3b)** Tempo SI ID No.:		EQUI74				**3b)** Tempo SI ID No.:		EQUI75			
Description		Battery Terminal Post Coater 12				Description		Battery Terminal Post Coater 15				Description		Battery Terminal Post Coater 17				Description		Battery Terminal Post Coater 18				Description		Battery Terminal Post Coater 19			
3c)	**3d)**	**3e)** Potential			**3f)**	**3c)**	**3d)**	**3e)** Potential			**3f)**	**3c)**	**3d)**	**3e)** Potential			**3f)**	**3c)**	**3d)**	**3e)** Potential			**3f)**	**3c)**	**3d)**	**3e)** Potential			**3f)**
Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy
PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---
PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---
PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---
SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---
NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---
CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---
VOC	NA	1.02	4.45	0.22	---	VOC	NA	1.52	6.67	0.33	---	VOC	NA	2.79	12.23	0.61	---	VOC	NA	0.51	2.22	0.11	---	VOC	NA	0.25	1.11	0.06	---
Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---
CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---
CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---
N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---
Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---
Trichloroethylene	79016	1.02	4.45	0.22	---	Trichloroethylene	79016	1.52	6.67	0.33	---	Trichloroethylene	79016	2.79	12.23	0.61	---	Trichloroethylene	79016	0.51	2.22	0.11	---	Trichloroethylene	79016	0.25	1.11	0.06	---
Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---
1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---
Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---
Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---
Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---
Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---
Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---
Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---
Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---
Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---
Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---
Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---
Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---
Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---
Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---
PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---
POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---
Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---
Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---
Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---
Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---
Total HAPs	NA	1.02	4.45	0.22	---	Total HAPs	NA	1.52	6.67	0.33	---	Total HAPs	NA	2.79	12.23	0.61	---	Total HAPs	NA	0.51	2.22	0.11	---	Total HAPs	NA	0.25	1.11	0.06	---

3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:					
3b) Tempo SI ID No.:		EQUI76				3b) Tempo SI ID No.:		EQUI77				3b) Tempo SI ID No.:		EQUI78				3b) Tempo SI ID No.:		EQUI79				3b) Tempo SI ID No.:		EQUI80			
Description		Battery Terminal Post Coater 20				Description		Battery Terminal Post Coater 21				Description		Battery Terminal Post Coater 22				Description		Battery Terminal Post Coater 23				Description		Battery Terminal Post Coater 24			
3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)
Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy
PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---
PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---
PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---
SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---
NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---
CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---
VOC	NA	2.54	11.11	0.56	---	VOC	NA	4.57	20.01	1.00	---	VOC	NA	2.28	10.00	0.50	---	VOC	NA	0.25	1.11	0.06	---	VOC	NA	5.08	22.23	1.11	---
Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---
CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---
CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---
N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---
Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---
Trichloroethylene	79016	2.54	11.11	0.56	---	Trichloroethylene	79016	4.57	20.01	1.00	---	Trichloroethylene	79016	2.28	10.00	0.50	---	Trichloroethylene	79016	0.25	1.11	0.06	---	Trichloroethylene	79016	5.08	22.23	1.11	---
Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---
1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---
Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---
Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---
Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---
Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---
Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---
Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---
Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---
Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---
Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---
Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---
Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---
Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---
Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---
PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---
POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---
Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---
Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---
Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---
Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---
Total HAPs	NA	2.54	11.11	0.56	---	Total HAPs	NA	4.57	20.01	1.00	---	Total HAPs	NA	2.28	10.00	0.50	---	Total HAPs	NA	0.25	1.11	0.06	---	Total HAPs	NA	5.08	22.23	1.11	---

3a) Delta ID No.:						**3a)** Delta ID No.:						**3a)** Delta ID No.:						**3a)** Delta ID No.:						**3a)** Delta ID No.:					
3b) Tempo SI ID No.:		EQUI81				**3b)** Tempo SI ID No.:		EQUI82				**3b)** Tempo SI ID No.:		EQUI83				**3b)** Tempo SI ID No.:		EQUI84				**3b)** Tempo SI ID No.:		EQU100			
Description		Battery Terminal Post Coater 25				Description		Battery Terminal Post Coater 26				Description		Battery Terminal Post Coater 27				Description		Battery Terminal Post Coater 28				Description		Battery Terminal Post Coater New/TBD			
3c)	**3d)**	**3e)** Potential			**3f)**	**3c)**	**3d)**	**3e)** Potential			**3f)**	**3c)**	**3d)**	**3e)** Potential			**3f)**	**3c)**	**3d)**	**3e)** Potential			**3f)**	**3c)**	**3d)**	**3e)** Potential			**3f)**
Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy
PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---
PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---
PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---
SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---
NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---
CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---
VOC	NA	3.81	16.67	0.83	---	VOC	NA	1.02	4.45	0.22	---	VOC	NA	6.09	26.67	1.33	---	VOC	NA	1.52	6.67	0.33	---	VOC	NA	0.25	1.11	0.06	---
Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---
CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---
CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---
N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---
Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---
Trichloroethylene	79016	3.81	16.67	0.83	---	Trichloroethylene	79016	1.02	4.45	0.22	---	Trichloroethylene	79016	6.09	26.67	1.33	---	Trichloroethylene	79016	1.52	6.67	0.33	---	Trichloroethylene	79016	0.25	1.11	0.06	---
Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---
1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---
Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---
Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---
Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---
Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---
Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---
Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---
Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---
Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---
Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---
Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---
Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---
Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---
Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---
PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---
POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---
Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---
Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---
Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---
Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---
Total HAPs	NA	3.81	16.67	0.83	---	Total HAPs	NA	1.02	4.45	0.22	---	Total HAPs	NA	6.09	26.67	1.33	---	Total HAPs	NA	1.52	6.67	0.33	---	Total HAPs	NA	0.25	1.11	0.06	---

3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:					
3b) Tempo SI ID No.:		EQUI101				3b) Tempo SI ID No.:		EQUI102				3b) Tempo SI ID No.:		EQUI103				3b) Tempo SI ID No.:		EQUI85				3b) Tempo SI ID No.:		EQUI86			
Description		Battery Terminal Post Coater New/TBD				Description		Rework Table 1				Description		Rework Table 2				Description		Lead Melting-CF Scrap Pot (Large Billet Pot)				Description		Lead Melting-Scrap Pot (Small Billet Pot)			
3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)
Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy
PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	---	---	---	---	PM	NA	0.02	0.10	0.10	---	PM	NA	7.48E-03	0.03	0.03	---
PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	---	---	---	---	PM10	NA	0.02	0.10	0.10	---	PM10	NA	7.48E-03	0.03	0.03	---
PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	---	---	---	---	PM2.5	NA	0.02	0.10	0.10	---	PM2.5	NA	7.48E-03	0.03	0.03	---
SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	9.32E-04	4.08E-03	4.08E-03	---	SO2	NA	3.11E-04	1.36E-03	1.36E-03	---
NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	0.16	0.68	0.68	---	NOx	NA	0.05	0.23	0.23	---
CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	0.13	0.57	0.57	---	CO	NA	0.04	0.19	0.19	---
VOC	NA	0.25	1.11	0.06	---	VOC	NA	0.25	1.11	0.06	---	VOC	NA	0.25	1.11	0.06	---	VOC	NA	8.54E-03	0.04	0.04	---	VOC	NA	2.85E-03	0.01	0.01	---
Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	3.79E-03	0.02	0.02	---	Lead	NA	1.25E-03	5.48E-03	5.48E-03	---
CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	185	812	812	---	CO2	NA	62	271	271	---
CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	3.49E-03	0.02	0.02	---	CH4	NA	1.16E-03	5.09E-03	5.09E-03	---
N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	3.49E-04	1.53E-03	1.53E-03	---	N2O	NA	1.16E-04	5.09E-04	5.09E-04	---
Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	186	813	813	---	Total GHG (CO2e)	NA	62	271	271	---
Trichloroethylene	79016	0.25	1.11	0.06	---	Trichloroethylene	79016	0.25	1.11	0.06	---	Trichloroethylene	79016	0.25	1.11	0.06	---	Trichloroethylene	79016	---	---	---	---	Trichloroethylene	79016	---	---	---	---
Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---
1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---
Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	3.11E-07	1.36E-06	1.36E-06	---	Arsenic	7440-38-2	1.04E-07	4.54E-07	4.54E-07	---
Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	3.26E-06	1.43E-05	1.43E-05	---	Benzene	71-43-2	1.09E-06	4.76E-06	4.76E-06	---
Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	1.86E-08	8.16E-08	8.16E-08	---	Beryllium	7440-41-7	6.21E-09	2.72E-08	2.72E-08	---
Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	1.71E-06	7.48E-06	7.48E-06	---	Cadmium	7440-43-9	5.70E-07	2.49E-06	2.49E-06	---
Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	2.17E-06	9.53E-06	9.53E-06	---	Chromium	7440-47-3	7.25E-07	3.18E-06	3.18E-06	---
Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	1.30E-07	5.72E-07	5.72E-07	---	Cobalt	7440-48-4	4.35E-08	1.91E-07	1.91E-07	---
Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	1.86E-06	8.16E-06	8.16E-06	---	Dichlorobenzene	25321-22-6	6.21E-07	2.72E-06	2.72E-06	---
Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	1.17E-04	5.10E-04	5.10E-04	---	Formaldehyde	50-00-0	3.88E-05	1.70E-04	1.70E-04	---
Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	2.80E-03	0.01	0.01	---	Hexane	110-54-3	9.32E-04	4.08E-03	4.08E-03	---
Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	5.90E-07	2.59E-06	2.59E-06	---	Manganese	7439-96-5	1.97E-07	8.62E-07	8.62E-07	---
Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	4.04E-07	1.77E-06	1.77E-06	---	Mercury	7439-97-6	1.35E-07	5.90E-07	5.90E-07	---
Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	9.48E-07	4.15E-06	4.15E-06	---	Naphthalene	91-20-3	3.16E-07	1.38E-06	1.38E-06	---
Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	3.26E-06	1.43E-05	1.43E-05	---	Nickel	7440-02-0	1.09E-06	4.76E-06	4.76E-06	---
PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---
POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		1.37E-07	6.00E-07	6.00E-07	---	POM		4.57E-08	2.00E-07	2.00E-07	---
Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---
Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	3.73E-08	1.63E-07	1.63E-07	---	Selenium	7782-49-2	1.24E-08	5.44E-08	5.44E-08	---
Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	5.28E-06	2.31E-05	2.31E-05	---	Toluene	108-88-3	1.76E-06	7.71E-06	7.71E-06	---
Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7				---	Xylenes	1330-20-7	---	---	---	---
Total HAPs	NA	0.25	1.11	0.06	---	Total HAPs	NA	0.25	1.11	0.06	---	Total HAPs	NA	0.25	1.11	0.06	---	Total HAPs	NA	2.93E-03	0.01	0.01	---	Total HAPs	NA	9.78E-04	4.28E-03	4.28E-03	---

3a) Delta ID No.:							**3a)** Delta ID No.:							**3a)** Delta ID No.:							**3a)** Delta ID No.:							**3a)** Delta ID No.:					
3b) Tempo SI ID No.:		EQUI87					**3b)** Tempo SI ID No.:		EQUI88					**3b)** Tempo SI ID No.:		EQUI89					**3b)** Tempo SI ID No.:		EQUI90					**3b)** Tempo SI ID No.:		EQUI91			
Description		Lead Melting- Doe Run					Description		Lead Melting - Collins Re-Melt					Description		Emergency Generator					Description		MAU 1					Description		MAU2			
3c)	**3d)**	**3e)** Potential				**3f)**	**3c)**	**3d)**	**3e)** Potential				**3f)**	**3c)**	**3d)**	**3e)** Potential				**3f)**	**3c)**	**3d)**	**3e)** Potential				**3f)**	**3c)**	**3d)**	**3e)** Potential				**3f)**
Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy		Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy		Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy		Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy		Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	
PM	NA	4.02E-03	0.02	0.02	---		PM	NA	0.03	0.12	0.12	---		PM	NA	0.18	0.04	0.04	---		PM	NA	0.02	0.08	0.08	---		PM	NA	0.05	0.20	0.20	---	
PM10	NA	4.02E-03	0.02	0.02	---		PM10	NA	0.03	0.12	0.12	---		PM10	NA	0.18	0.04	0.04	---		PM10	NA	0.02	0.08	0.08	---		PM10	NA	0.05	0.20	0.20	---	
PM2.5	NA	4.02E-03	0.02	0.02	---		PM2.5	NA	0.03	0.12	0.12	---		PM2.5	NA	0.18	0.04	0.04	---		PM2.5	NA	0.02	0.08	0.08	---		PM2.5	NA	0.05	0.20	0.20	---	
SO2	NA	3.11E-04	1.36E-03	1.36E-03	---		SO2	NA	2.11E-04	9.25E-04	9.25E-04	---		SO2	NA	0.16	0.04	0.04	---		SO2	NA	1.47E-03	6.44E-03	6.44E-03	---		SO2	NA	3.56E-03	0.02	0.02	---	
NOx	NA	0.05	0.23	0.23	---		NOx	NA	0.04	0.15	0.15	---		NOx	NA	2.48	0.62	0.62	---		NOx	NA	0.25	1.07	1.07	---		NOx	NA	0.59	2.60	2.60	---	
CO	NA	0.04	0.19	0.19	---		CO	NA	0.03	0.13	0.13	---		CO	NA	0.53	0.13	0.13	---		CO	NA	0.21	0.90	0.90	---		CO	NA	0.50	2.18	2.18	---	
VOC	NA	2.85E-03	0.01	0.01	---		VOC	NA	1.94E-03	8.48E-03	8.48E-03	---		VOC	NA	0.20	0.05	0.05	---		VOC	NA	0.01	0.06	0.06	---		VOC	NA	0.03	0.14	0.14	---	
Lead	NA	9.73E-05	4.26E-04	4.26E-04	---		Lead	NA	8.33E-03	0.04	0.04	---		Lead	NA	NA	NA	NA	---		Lead	NA	NA	NA	NA	---		Lead	NA	NA	NA	NA	---	
CO2	NA	62	271	271	---		CO2	NA	42	184	184	---		CO2	NA	95.06	23.76	23.76	---		CO2	NA	292.44	1280.90	1280.90	---		CO2	NA	707.71	3099.78	3099.78	---	
CH4	NA	1.16E-03	5.09E-03	5.09E-03	---		CH4	NA	7.90E-04	3.46E-03	3.46E-03	---		CH4	NA	3.86E-03	9.64E-04	9.64E-04	---		CH4	NA	5.50E-03	0.02	0.02	---		CH4	NA	0.01	0.06	0.06	---	
N2O	NA	1.16E-04	5.09E-04	5.09E-04	---		N2O	NA	7.90E-05	3.46E-04	3.46E-04	---		N2O	NA	7.71E-04	1.93E-04	1.93E-04	---		N2O	NA	5.50E-04	2.41E-03	2.41E-03	---		N2O	NA	1.33E-03	5.83E-03	5.83E-03	---	
Total GHG (CO2e)	NA	62	271	271	---		Total GHG (CO2e)	NA	42	184	184	---		Total GHG (CO2e)	NA	95	24	24	---		Total GHG (CO2e)	NA	293	1282	1282	---		Total GHG (CO2e)	NA	708	3103	3103	---	
Trichloroethylene	79016	---	---	---	---		Trichloroethylene	79016	---	---	---	---		Trichloroethylene	79016	---	---	---	---		Trichloroethylene	79016	---	---	---	---		Trichloroethylene	79016	---	---	---	---	
Acetaldehyde	75070	---	---	---	---		Acetaldehyde	75070	---	---	---	---		Acetaldehyde	75070	4.47E-04	1.12E-04	1.12E-04	---		Acetaldehyde	75070	---	---	---	---		Acetaldehyde	75070	---	---	---	---	
1,3-Butadiene	106990	---	---	---	---		1,3-Butadiene	106990	---	---	---	---		1,3-Butadiene	106990	2.28E-05	5.70E-06	5.70E-06	---		1,3-Butadiene	106990	---	---	---	---		1,3-Butadiene	106990	---	---	---	---	
Arsenic	7440-38-2	1.04E-07	4.54E-07	4.54E-07	---		Arsenic	7440-38-2	7.04E-08	3.08E-07	3.08E-07	---		Arsenic	7440-38-2	---	---	---	---		Arsenic	7440-38-2	4.90E-07	2.15E-06	2.15E-06	---		Arsenic	7440-38-2	1.19E-06	5.20E-06	5.20E-06	
Benzene	71-43-2	1.09E-06	4.76E-06	4.76E-06	---		Benzene	71-43-2	7.39E-07	3.24E-06	3.24E-06	---		Benzene	71-43-2	5.44E-04	1.36E-04	1.36E-04	---		Benzene	71-43-2	5.15E-06	2.25E-05	2.25E-05	---		Benzene	71-43-2	1.25E-05	5.46E-05	5.46E-05	
Beryllium	7440-41-7	6.21E-09	2.72E-08	2.72E-08	---		Beryllium	7440-41-7	4.23E-09	1.85E-08	1.85E-08	---		Beryllium	7440-41-7	---	---	---	---		Beryllium	7440-41-7	2.94E-08	1.29E-07	1.29E-07	---		Beryllium	7440-41-7	7.12E-08	3.12E-07	3.12E-07	
Cadmium	7440-43-9	5.70E-07	2.49E-06	2.49E-06	---		Cadmium	7440-43-9	3.87E-07	1.70E-06	1.70E-06	---		Cadmium	7440-43-9	---	---	---	---		Cadmium	7440-43-9	2.70E-06	1.18E-05	1.18E-05	---		Cadmium	7440-43-9	6.52E-06	2.86E-05	2.86E-05	
Chromium	7440-47-3	7.25E-07	3.18E-06	3.18E-06	---		Chromium	7440-47-3	4.93E-07	2.16E-06	2.16E-06	---		Chromium	7440-47-3	---	---	---	---		Chromium	7440-47-3	3.43E-06	1.50E-05	1.50E-05	---		Chromium	7440-47-3	8.30E-06	3.64E-05	3.64E-05	
Cobalt	7440-48-4	4.35E-08	1.91E-07	1.91E-07	---		Cobalt	7440-48-4	2.96E-08	1.30E-07	1.30E-07	---		Cobalt	7440-48-4	---	---	---	---		Cobalt	7440-48-4	2.06E-07	9.02E-07	9.02E-07	---		Cobalt	7440-48-4	4.98E-07	2.18E-06	2.18E-06	
Dichlorobenzene	25321-22-6	6.21E-07	2.72E-06	2.72E-06	---		Dichlorobenzene	25321-22-6	4.23E-07	1.85E-06	1.85E-06	---		Dichlorobenzene	25321-22-6	---	---	---	---		Dichlorobenzene	25321-22-6	2.94E-06	1.29E-05	1.29E-05	---		Dichlorobenzene	25321-22-6	7.12E-06	3.12E-05	3.12E-05	
Formaldehyde	50-00-0	3.88E-05	1.70E-04	1.70E-04	---		Formaldehyde	50-00-0	2.64E-05	1.16E-04	1.16E-04	---		Formaldehyde	50-00-0	6.88E-04	1.72E-04	1.72E-04	---		Formaldehyde	50-00-0	1.84E-04	8.05E-04	8.05E-04	---		Formaldehyde	50-00-0	4.45E-04	1.95E-03	1.95E-03	
Hexane	110-54-3	9.32E-04	4.08E-03	4.08E-03	---		Hexane	110-54-3	6.34E-04	2.78E-03	2.78E-03	---		Hexane	110-54-3	---	---	---	---		Hexane	110-54-3	4.41E-03	0.02	0.02	---		Hexane	110-54-3	0.01	0.05	0.05	
Manganese	7439-96-5	1.97E-07	8.62E-07	8.62E-07	---		Manganese	7439-96-5	1.34E-07	5.86E-07	5.86E-07	---		Manganese	7439-96-5	---	---	---	---		Manganese	7439-96-5	9.31E-07	4.08E-06	4.08E-06	---		Manganese	7439-96-5	2.25E-06	9.87E-06	9.87E-06	
Mercury	7439-97-6	1.35E-07	5.90E-07	5.90E-07	---		Mercury	7439-97-6	9.15E-08	4.01E-07	4.01E-07	---		Mercury	7439-97-6	---	---	---	---		Mercury	7439-97-6	6.37E-07	2.79E-06	2.79E-06	---		Mercury	7439-97-6	1.54E-06	6.75E-06	6.75E-06	
Naphthalene	91-20-3	3.16E-07	1.38E-06	1.38E-06	---		Naphthalene	91-20-3	2.15E-07	9.41E-07	9.41E-07	---		Naphthalene	91-20-3	5.06E-05	1.27E-05	1.27E-05	---		Naphthalene	91-20-3	1.50E-06	6.55E-06	6.55E-06	---		Naphthalene	91-20-3	3.62E-06	1.58E-05	1.58E-05	
Nickel	7440-02-0	1.09E-06	4.76E-06	4.76E-06	---		Nickel	7440-02-0	7.39E-07	3.24E-06	3.24E-06	---		Nickel	7440-02-0	---	---	---	---		Nickel	7440-02-0	5.15E-06	2.25E-05	2.25E-05	---		Nickel	7440-02-0	1.25E-05	5.46E-05	5.46E-05	
PAH (not including Napthalene)		---	---	---	---		PAH (not including Napthalene)		---	---	---	---		PAH (not including Napthalene)		4.73E-05	1.18E-05	1.18E-05	---		PAH (not including Napthalene)		---	---	---	---		PAH (not including Napthalene)		---	---	---	---	
POM		4.57E-08	2.00E-07	2.00E-07	---		POM		3.11E-08	1.36E-07	1.36E-07	---		POM		---	---	---	---		POM		2.16E-07	9.47E-07	9.47E-07	---		POM		5.23E-07	2.29E-06	2.29E-06	
Propylene	115-07-1	---	---	---	---		Propylene	115-07-1	---	---	---	---		Propylene	115-07-1	1.50E-03	3.76E-04	3.76E-04	---		Propylene	115-07-1	---	---	---	---		Propylene	115-07-1	---	---	---	---	
Selenium	7782-49-2	1.24E-08	5.44E-08	5.44E-08	---		Selenium	7782-49-2	8.45E-09	3.70E-08	3.70E-08	---		Selenium	7782-49-2	---	---	---	---		Selenium	7782-49-2	5.88E-08	2.58E-07	2.58E-07	---		Selenium	7782-49-2	1.42E-07	6.24E-07	6.24E-07	
Toluene	108-88-3	1.76E-06	7.71E-06	7.71E-06	---		Toluene	108-88-3	1.20E-06	5.24E-06	5.24E-06	---		Toluene	108-88-3	2.38E-04	5.96E-05	5.96E-05	---		Toluene	108-88-3	8.33E-06	3.65E-05	3.65E-05	---		Toluene	108-88-3	2.02E-05	8.83E-05	8.83E-05	
Xylenes	1330-20-7	---	---	---	---		Xylenes	1330-20-7	---	---	---	---		Xylenes	1330-20-7	1.66E-04	4.15E-05	4.15E-05	---		Xylenes	1330-20-7	---	---	---	---		Xylenes	1330-20-7	---	---	---	---	
Total HAPs	NA	9.78E-04	4.28E-03	4.28E-03	---		Total HAPs	NA	6.65E-04	2.91E-03	2.91E-03	---		Total HAPs	NA	3.71E-03	9.27E-04	9.27E-04	---		Total HAPs	NA	4.63E-03	0.02	0.02	---		Total HAPs	NA	0.01	0.05	0.05	

3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:					
3b) Tempo SI ID No.:		EQU92				3b) Tempo SI ID No.:		EQUI93				3b) Tempo SI ID No.:		EQUIU94				3b) Tempo SI ID No.:		EQUI95				3b) Tempo SI ID No.:		EQUI96			
Description		MAU3				Description		MAU 5				Description		MAU 6				Description		MAU 9				Description		MAU 11			
3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)
Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy
PM	NA	0.04	0.18	0.18	---	PM	NA	0.04	0.16	0.16	---	PM	NA	0.04	0.18	0.18	---	PM	NA	0.02	0.07	0.07	---	PM	NA	0.03	0.15	0.15	---
PM10	NA	0.04	0.18	0.18	---	PM10	NA	0.04	0.16	0.16	---	PM10	NA	0.04	0.18	0.18	---	PM10	NA	0.02	0.07	0.07	---	PM10	NA	0.03	0.15	0.15	---
PM2.5	NA	0.04	0.18	0.18	---	PM2.5	NA	0.04	0.16	0.16	---	PM2.5	NA	0.04	0.18	0.18	---	PM2.5	NA	0.02	0.07	0.07	---	PM2.5	NA	0.03	0.15	0.15	---
SO2	NA	3.30E-03	0.01	0.01	---	SO2	NA	2.91E-03	0.01	0.01	---	SO2	NA	3.18E-03	0.01	0.01	---	SO2	NA	1.29E-03	5.66E-03	5.66E-03	---	SO2	NA	2.71E-03	0.01	0.01	---
NOx	NA	0.55	2.41	2.41	---	NOx	NA	0.49	2.13	2.13	---	NOx	NA	0.53	2.32	2.32	---	NOx	NA	0.22	0.94	0.94	---	NOx	NA	0.45	1.98	1.98	---
CO	NA	0.46	2.02	2.02	---	CO	NA	0.41	1.79	1.79	---	CO	NA	0.44	1.95	1.95	---	CO	NA	0.18	0.79	0.79	---	CO	NA	0.38	1.66	1.66	---
VOC	NA	0.03	0.13	0.13	---	VOC	NA	0.03	0.12	0.12	---	VOC	NA	0.03	0.13	0.13	---	VOC	NA	0.01	0.05	0.05	---	VOC	NA	0.02	0.11	0.11	---
Lead	NA	NA	NA	NA	---	Lead	NA	NA	NA	NA	---	Lead	NA	NA	NA	NA	---	Lead	NA	NA	NA	NA	---	Lead	NA	NA	NA	NA	---
CO2	NA	656.09	2873.67	2873.67	---	CO2	NA	579.04	2536.18	2536.18	---	CO2	NA	631.68	2766.74	2766.74	---	CO2	NA	256.82	1124.89	1124.89	---	CO2	NA	538.94	2360.58	2360.58	---
CH4	NA	0.01	0.05	0.05	---	CH4	NA	0.01	0.05	0.05	---	CH4	NA	0.01	0.05	0.05	---	CH4	NA	4.83E-03	0.02	0.02	---	CH4	NA	0.01	0.04	0.04	---
N2O	NA	1.23E-03	5.40E-03	5.40E-03	---	N2O	NA	1.09E-03	4.77E-03	4.77E-03	---	N2O	NA	1.19E-03	5.20E-03	5.20E-03	---	N2O	NA	4.83E-04	2.12E-03	2.12E-03	---	N2O	NA	1.01E-03	4.44E-03	4.44E-03	---
Total GHG (CO2e)	NA	657	2877	2877	---	Total GHG (CO2e)	NA	580	2539	2539	---	Total GHG (CO2e)	NA	632	2770	2770	---	Total GHG (CO2e)	NA	257	1126	1126	---	Total GHG (CO2e)	NA	539	2363	2363	---
Trichloroethylene	79016	---	---	---	---	Trichloroethylene	79016	---	---	---	---	Trichloroethylene	79016	---	---	---	---	Trichloroethylene	79016	---	---	---	---	Trichloroethylene	79016	---	---	---	---
Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---
1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---
Arsenic	7440-38-2	1.10E-06	4.82E-06	4.82E-06	---	Arsenic	7440-38-2	9.71E-07	4.25E-06	4.25E-06	---	Arsenic	7440-38-2	1.06E-06	4.64E-06	4.64E-06	---	Arsenic	7440-38-2	4.30E-07	1.89E-06	1.89E-06	---	Arsenic	7440-38-2	9.03E-07	3.96E-06	3.96E-06	---
Benzene	71-43-2	1.15E-05	5.06E-05	5.06E-05	---	Benzene	71-43-2	1.02E-05	4.46E-05	4.46E-05	---	Benzene	71-43-2	1.11E-05	4.87E-05	4.87E-05	---	Benzene	71-43-2	4.52E-06	1.98E-05	1.98E-05	---	Benzene	71-43-2	9.49E-06	4.15E-05	4.15E-05	---
Beryllium	7440-41-7	6.60E-08	2.89E-07	2.89E-07	---	Beryllium	7440-41-7	5.82E-08	2.55E-07	2.55E-07	---	Beryllium	7440-41-7	6.35E-08	2.78E-07	2.78E-07	---	Beryllium	7440-41-7	2.58E-08	1.13E-07	1.13E-07	---	Beryllium	7440-41-7	5.42E-08	2.37E-07	2.37E-07	---
Cadmium	7440-43-9	6.05E-06	2.65E-05	2.65E-05	---	Cadmium	7440-43-9	5.34E-06	2.34E-05	2.34E-05	---	Cadmium	7440-43-9	5.82E-06	2.55E-05	2.55E-05	---	Cadmium	7440-43-9	2.37E-06	1.04E-05	1.04E-05	---	Cadmium	7440-43-9	4.97E-06	2.18E-05	2.18E-05	---
Chromium	7440-47-3	7.70E-06	3.37E-05	3.37E-05	---	Chromium	7440-47-3	6.79E-06	2.98E-05	2.98E-05	---	Chromium	7440-47-3	7.41E-06	3.25E-05	3.25E-05	---	Chromium	7440-47-3	3.01E-06	1.32E-05	1.32E-05	---	Chromium	7440-47-3	6.32E-06	2.77E-05	2.77E-05	---
Cobalt	7440-48-4	4.62E-07	2.02E-06	2.02E-06	---	Cobalt	7440-48-4	4.08E-07	1.79E-06	1.79E-06	---	Cobalt	7440-48-4	4.45E-07	1.95E-06	1.95E-06	---	Cobalt	7440-48-4	1.81E-07	7.92E-07	7.92E-07	---	Cobalt	7440-48-4	3.79E-07	1.66E-06	1.66E-06	---
Dichlorobenzene	25321-22-6	6.60E-06	2.89E-05	2.89E-05	---	Dichlorobenzene	25321-22-6	5.82E-06	2.55E-05	2.55E-05	---	Dichlorobenzene	25321-22-6	6.35E-06	2.78E-05	2.78E-05	---	Dichlorobenzene	25321-22-6	2.58E-06	1.13E-05	1.13E-05	---	Dichlorobenzene	25321-22-6	5.42E-06	2.37E-05	2.37E-05	---
Formaldehyde	50-00-0	4.12E-04	1.81E-03	1.81E-03	---	Formaldehyde	50-00-0	3.64E-04	1.59E-03	1.59E-03	---	Formaldehyde	50-00-0	3.97E-04	1.74E-03	1.74E-03	---	Formaldehyde	50-00-0	1.61E-04	7.07E-04	7.07E-04	---	Formaldehyde	50-00-0	3.39E-04	1.48E-03	1.48E-03	---
Hexane	110-54-3	9.90E-03	0.04	0.04	---	Hexane	110-54-3	8.74E-03	0.04	0.04	---	Hexane	110-54-3	9.53E-03	0.04	0.04	---	Hexane	110-54-3	3.87E-03	0.02	0.02	---	Hexane	110-54-3	8.13E-03	0.04	0.04	---
Manganese	7439-96-5	2.09E-06	9.15E-06	9.15E-06	---	Manganese	7439-96-5	1.84E-06	8.08E-06	8.08E-06	---	Manganese	7439-96-5	2.01E-06	8.81E-06	8.81E-06	---	Manganese	7439-96-5	8.18E-07	3.58E-06	3.58E-06	---	Manganese	7439-96-5	1.72E-06	7.52E-06	7.52E-06	---
Mercury	7439-97-6	1.43E-06	6.26E-06	6.26E-06	---	Mercury	7439-97-6	1.26E-06	5.53E-06	5.53E-06	---	Mercury	7439-97-6	1.38E-06	6.03E-06	6.03E-06	---	Mercury	7439-97-6	5.60E-07	2.45E-06	2.45E-06	---	Mercury	7439-97-6	1.17E-06	5.14E-06	5.14E-06	---
Naphthalene	91-20-3	3.35E-06	1.47E-05	1.47E-05	---	Naphthalene	91-20-3	2.96E-06	1.30E-05	1.30E-05	---	Naphthalene	91-20-3	3.23E-06	1.41E-05	1.41E-05	---	Naphthalene	91-20-3	1.31E-06	5.75E-06	5.75E-06	---	Naphthalene	91-20-3	2.76E-06	1.21E-05	1.21E-05	---
Nickel	7440-02-0	1.15E-05	5.06E-05	5.06E-05	---	Nickel	7440-02-0	1.02E-05	4.46E-05	4.46E-05	---	Nickel	7440-02-0	1.11E-05	4.87E-05	4.87E-05	---	Nickel	7440-02-0	4.52E-06	1.98E-05	1.98E-05	---	Nickel	7440-02-0	9.49E-06	4.15E-05	4.15E-05	---
PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---
POM		4.85E-07	2.12E-06	2.12E-06	---	POM		4.28E-07	1.87E-06	1.87E-06	---	POM		4.67E-07	2.05E-06	2.05E-06	---	POM		1.90E-07	8.32E-07	8.32E-07	---	POM		3.98E-07	1.74E-06	1.74E-06	---
Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---
Selenium	7782-49-2	1.32E-07	5.78E-07	5.78E-07	---	Selenium	7782-49-2	1.16E-07	5.10E-07	5.10E-07	---	Selenium	7782-49-2	1.27E-07	5.57E-07	5.57E-07	---	Selenium	7782-49-2	5.17E-08	2.26E-07	2.26E-07	---	Selenium	7782-49-2	1.08E-07	4.75E-07	4.75E-07	---
Toluene	108-88-3	1.87E-05	8.19E-05	8.19E-05	---	Toluene	108-88-3	1.65E-05	7.23E-05	7.23E-05	---	Toluene	108-88-3	1.80E-05	7.88E-05	7.88E-05	---	Toluene	108-88-3	7.32E-06	3.21E-05	3.21E-05	---	Toluene	108-88-3	1.54E-05	6.73E-05	6.73E-05	---
Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---
Total HAPs	NA	0.01	0.05	0.05	---	Total HAPs	NA	9.16E-03	0.04	0.04	---	Total HAPs	NA	9.99E-03	0.04	0.04	---	Total HAPs	NA	4.06E-03	0.02	0.02	---	Total HAPs	NA	8.53E-03	0.04	0.04	---

3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:						3a) Delta ID No.:					
3b) Tempo SI ID No.:		EQUI97				3b) Tempo SI ID No.:		EQUI98				3b) Tempo SI ID No.:		EQUI99				3b) Tempo SI ID No.:					
Description		Toolroom 1 Abrasive Blasting				Description		Toolroom 2 Abrasive Blasting				Description		DC Abrasive Blasting				Description		IA Natural Gas			
3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)	3c)	3d)	3e) Potential			3f)
Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy	Pollutant Name	CAS #	Lbs per Hr	Unc tpy	Limited tpy	Actual tpy
PM	NA	3.14	13.75	13.75	---	PM	NA	2.31	10.12	10.12	---	PM	NA	2.10	9.22	9.22	---	PM	NA	0.41	1.78	1.78	---
PM10	NA	3.14	13.75	13.75	---	PM10	NA	2.31	10.12	10.12	---	PM10	NA	2.10	9.22	9.22	---	PM10	NA	0.41	1.78	1.78	---
PM2.5	NA	3.14	13.75	13.75	---	PM2.5	NA	2.31	10.12	10.12	---	PM2.5	NA	2.10	9.22	9.22	---	PM2.5	NA	0.41	1.78	1.78	---
SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	---	---	---	---	SO2	NA	0.03	0.14	0.14	---
NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	---	---	---	---	NOx	NA	5.35	23.44	23.44	---
CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	---	---	---	---	CO	NA	4.50	19.69	19.69	---
VOC	NA	---	---	---	---	VOC	NA	---	---	---	---	VOC	NA	---	---	---	---	VOC	NA	0.29	1.29	1.29	
Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	---	---	---	---	Lead	NA	NA	NA	NA	---
CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	---	---	---	---	CO2	NA	6,386	27,970	27,970	---
CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	---	---	---	---	CH4	NA	0.12	0.53	0.53	---
N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	---	---	---	---	N2O	NA	0.01	0.05	0.05	---
Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	---	---	---	---	Total GHG (CO2e)	NA	6,392	27,999	27,999	---
Trichloroethylene	79016	---	---	---	---	Trichloroethylene	79016	---	---	---	---	Trichloroethylene	79016	---	---	---	---	Trichloroethylene	79016	---	---	---	
Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	---	Acetaldehyde	75070	---	---	---	
1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	---	1,3-Butadiene	106990	---	---	---	
Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	---	---	---	---	Arsenic	7440-38-2	1.07E-05	4.69E-05	4.69E-05	
Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	---	---	---	---	Benzene	71-43-2	1.12E-04	4.92E-04	4.92E-04	
Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	---	---	---	---	Beryllium	7440-41-7	6.42E-07	2.81E-06	2.81E-06	
Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	---	---	---	---	Cadmium	7440-43-9	5.89E-05	2.58E-04	2.58E-04	
Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	---	---	---	---	Chromium	7440-47-3	7.49E-05	3.28E-04	3.28E-04	
Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	---	---	---	---	Cobalt	7440-48-4	4.50E-06	1.97E-05	1.97E-05	
Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	---	---	---	---	Dichlorobenzene	25321-22-6	6.42E-05	2.81E-04	2.81E-04	
Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	---	---	---	---	Formaldehyde	50-00-0	4.01E-03	0.02	0.02	
Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	---	---	---	---	Hexane	110-54-3	0.10	0.42	0.42	
Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	---	---	---	---	Manganese	7439-96-5	2.03E-05	8.91E-05	8.91E-05	
Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	---	---	---	---	Mercury	7439-97-6	1.39E-05	6.09E-05	6.09E-05	
Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	---	---	---	---	Naphthalene	91-20-3	3.26E-05	1.43E-04	1.43E-04	
Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	---	---	---	---	Nickel	7440-02-0	1.12E-04	4.92E-04	4.92E-04	
PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	---	PAH (not including Napthalene)		---	---	---	
POM		---	---	---	---	POM		---	---	---	---	POM		---	---	---	---	POM		4.72E-06	2.07E-05	2.07E-05	
Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	---	Propylene	115-07-1	---	---	---	
Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	---	---	---	---	Selenium	7782-49-2	1.28E-06	5.63E-06	5.63E-06	
Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	---	---	---	---	Toluene	108-88-3	1.82E-04	7.97E-04	7.97E-04	
Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	---	Xylenes	1330-20-7	---	---	---	
Total HAPs	NA	---	---	---	---	Total HAPs	NA	---	---	---	---	Total HAPs	NA	---	---	---	---	Total HAPs	NA	0.10	0.44	0.44	

Emissions Summary Table

4a)	4b) Potential (tons/year)		4c) Actual
Pollutant Name	Unrestricted	Limited	tons/year
PM	36.21	36.21	---
PM10	36.21	36.21	---
PM2.5	36.21	36.21	---
SO2	0.27	0.27	---
NOx	38.80	38.80	---
CO	32.20	32.20	---
VOC	229.99	13.54	---
Lead	0.06	0.06	---
CO2	45,574	45,574	---
CH4	0.86	0.86	---
N2O	0.09	0.09	---
Total GHG (CO2e)	45,621	45,621	---
Trichloroethylene	227.84	9.00	---
Acetaldehyde	1.12E-04	1.12E-04	---
1,3-Butadiene	5.70E-06	5.70E-06	---
Arsenic	7.64E-05	7.64E-05	---
Benzene	9.38E-04	9.38E-04	---
Beryllium	4.58E-06	4.58E-06	---
Cadmium	4.20E-04	4.20E-04	---
Chromium	5.34E-04	5.34E-04	---
Cobalt	3.21E-05	3.21E-05	---
Dichlorobenzene	4.58E-04	4.58E-04	---
Formaldehyde	0.03	0.03	---
Hexane	0.69	0.69	---
Manganese	1.45E-04	1.45E-04	---
Mercury	9.93E-05	9.93E-05	---
Naphthalene	2.46E-04	2.46E-04	---
Nickel	8.02E-04	8.02E-04	---
PAH (not including Napthalene)	1.18E-05	1.18E-05	---
POM	3.37E-05	3.37E-05	---
Propylene	3.76E-04	3.76E-04	---
Selenium	9.16E-06	9.16E-06	---
Toluene	1.36E-03	1.36E-03	---
Xylenes	4.15E-05	4.15E-05	---
Total HAPs	228.56	22.50	---

Water Gremlin Company
Coating Machines: Potential Emission Calculations

Associated Items:
TREA3
STRU3
SV005

Emission Unit ID No.	Emission Unit Description	Coating Machine Number	Application	Manufacturer	Rated Capacity (#parts/hr)	Max Coating Usage (gal/day)	Normal Operation Schedule (days/year)	Potential VOC/TCE Emission Rate (lb/hr)	Potential VOC/TCE Emission Rate (tpy)	Pollution Control Efficiency (%)	Potential VOC/TCE Emission Rate (tpy)
EQUI66	Battery Terminal Post Coater	6	Drip	In-House	4200	8	300	4.06	17.78	95%	0.89
EQUI67	Battery Terminal Post Coater	8	Spray	In-House	2	0.5	100	0.25	1.11	95%	0.06
EQUI68	Battery Terminal Post Coater	9	Drip	In-House	6580	13	300	6.60	28.90	95%	1.44
EQUI69	Battery Terminal Post Coater	10	Drip	In-House	6580	15	300	7.61	33.34	95%	1.67
EQUI70	Battery Terminal Post Coater	11	Spray	In-House	567	0.5	300	0.25	1.11	95%	0.06
EQUI71	Battery Terminal Post Coater	12	Dip	In-House	440	2	300	1.02	4.45	95%	0.22
EQUI72	Battery Terminal Post Coater	15	Drip	In-House	4680	3	300	1.52	6.67	95%	0.33
EQUI73	Battery Terminal Post Coater	17	Dip	In-House	576	5.5	300	2.79	12.23	95%	0.61
EQUI74	Battery Terminal Post Coater	18	Spray	In-House	700	1	100	0.51	2.22	95%	0.11
EQUI75	Battery Terminal Post Coater	19	Spray	In-House	150	0.5	300	0.25	1.11	95%	0.06
EQUI76	Battery Terminal Post Coater	20	Dip	In-House	936	5	300	2.54	11.11	95%	0.56
EQUI77	Battery Terminal Post Coater	21	Dip	In-House	900	9	300	4.57	20.01	95%	1.00
EQUI78	Battery Terminal Post Coater	22	Drip	In-House	836	4.5	300	2.28	10.00	95%	0.50
EQUI79	Battery Terminal Post Coater	23	Spray	In-House	2000	0.5	300	0.25	1.11	95%	0.06
EQUI80	Battery Terminal Post Coater	24	Dip	In-House	4500	10	300	5.08	22.23	95%	1.11
EQUI81	Battery Terminal Post Coater	25	Dip	In-House	1980	7.5	300	3.81	16.67	95%	0.83
EQUI82	Battery Terminal Post Coater	26	Drip	In-House	2200	2	300	1.02	4.45	95%	0.22
EQUI83	Battery Terminal Post Coater	27	Dip	In-House	1820	12	300	6.09	26.67	95%	1.33
EQUI84	Battery Terminal Post Coater	28	Drip	In-House	864	3	300	1.52	6.67	95%	0.33
EQUI100	Battery Terminal Post Coater			In-House	2	0.5	100	0.25	1.11	95%	0.06
EQUI101	Battery Terminal Post Coater			In-House	2	0.5	100	0.25	1.11	95%	0.06
EQUI102	Rework Table 1			In-House	2	0.5	100	0.25	1.11	95%	0.06
EQUI103	Rework Table 2			In-House	2	0.5	100	0.25	1.11	95%	0.06

Material	Trichloroethylene (TCE)
Total Gallons Per Day	104.50
TCE Density (lb/gal)	12.18
TCE Potential (lb/yr)	464575.65
Percent by Weight	
VOC	100%
TCE	100%
Hours Uncontrolled	8760
Hours Limited	8760

Pollutant	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
VOC	53.03	232.29	95.0%	2.65	11.61
TCE	53.03	232.29	95.0%	2.65	11.61
Total HAPs	53.03	232.29	95.0%	2.65	11.61

Water Gremlin Company
Lead Billet Pots: Potential Emission Calculations

Associated Items:
TREA1
STRU1
SV003

				Combustion Emissions					Melt Pot Emissions					
				PM/PM10/PM2.5 Emissions					PM/PM10/PM2.5 Emissions			Lead Emissions		
Emission Unit ID No.	EQUI ID No.	Emission Unit Description	Heating Rate (MMBtu/hr)	EF (lb/MMBtu)[2]	lb/hr	ton/yr	Melt Pot Size lb lead	Melt Pot Thrpt ton/hr	EF (lb/ton lead)[1]	lb/hr	ton/yr	EF (lb/ton lead)[1]	lb/hr	ton/yr
EU023	EQUI85	CF Scrap Pot (Large Billet Pot)	1.5	7.45E-03	0.01	0.05	20000	0.38	0.03	1.14E-02	0.050	0.01	3.79E-03	0.017
EU024	EQUI86	Scrap Pot (Small Billet Pot)	0.5	7.45E-03	0.00	0.02	7000	0.13	0.03	3.75E-03	0.016	0.01	1.25E-03	0.005
EU025	EQUI87	Doe Run Melt Pot	0.5	7.45E-03	0.00	0.02	7000	9.73E-03	0.03	2.92E-04	0.001	0.01	9.73E-05	4.26E-04
EU026	EQUI88	CF Pot (Collins Re-melt Pot)	0.34	7.45E-03	0.00	0.01	15000	0.83	0.03	2.50E-02	0.110	0.01	8.33E-03	0.037

1. Emission factor is obtained AP-42 Section 12.11 Table 12.11-2 for Melt Pot Emissions (Kettle Refining emission factor)
2. Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98) for Combustion Emissions
3. Throughputs are from Denise L'Allier-Pray on 10-12-2018
4. Heat Rating is from 1999 Permit Application

			Combined Particulate Emissions	
			PM/PM10/PM2.5 Emissions	
Emission Unit ID No.	EQUI ID No.	Emission Unit Description	lb/hr	ton/yr
EU023	EQUI85	CF Scrap Pot (Large Billet Pot)	2.26E-02	9.88E-02
EU024	EQUI86	Scrap Pot (Small Billet Pot)	7.48E-03	3.27E-02
EU025	EQUI87	Doe Run Melt Pot	4.02E-03	1.76E-02
EU026	EQUI88	CF Pot (Collins Re-melt Pot)	2.75E-02	1.21E-01

Natural Gas Combustion Emissions from Lead Melting Pots

	EU023	EU024	EU025	EU026	Total
Total Heat Capacity (MMBtu/hr):	1.5	0.5	0.5	0.5	3.00
Heat Value:	1020	1020	1020	1020	1020

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.02	0.10	0.0%	0.10
PM_{10}	7.6	0.02	0.10	0.0%	0.10
$PM_{2.5}$	7.6	0.02	0.10	0.0%	0.10
SO_2	0.6	0.00	7.7E-03	0.0%	0.01
NO_x	100	0.29	1.29	0.0%	1.29
CO	84	0.25	1.08	0.0%	1.08
VOC	5.5	1.62E-02	7.1E-02	0.0%	0.07

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	5.9E-07	2.6E-06	0.0%	5.9E-07	2.6E-06
Benzene	71-43-2	2.10E-03	6.2E-06	2.7E-05	0.0%	6.2E-06	2.7E-05
Beryllium	7440-41-7	1.20E-05	3.5E-08	1.5E-07	0.0%	3.5E-08	1.5E-07
Cadmium	7440-43-9	1.10E-03	3.2E-06	1.4E-05	0.0%	3.2E-06	1.4E-05
Chromium	7440-47-3	1.40E-03	4.1E-06	1.8E-05	0.0%	4.1E-06	1.8E-05
Cobalt	7440-48-4	8.40E-05	2.5E-07	1.1E-06	0.0%	2.5E-07	1.1E-06
Dichlorobenzene	25321-22-6	1.20E-03	3.5E-06	1.5E-05	0.0%	3.5E-06	1.5E-05
Formaldehyde	50-00-0	7.50E-02	2.2E-04	9.7E-04	0.0%	2.2E-04	9.7E-04
Hexane	110-54-3	1.80	5.3E-03	2.3E-02	0.0%	5.3E-03	2.3E-02
Lead		5.00E-04	1.5E-06	6.4E-06	0.0%	1.5E-06	6.4E-06
Manganese	7439-96-5	3.80E-04	1.1E-06	4.9E-06	0.0%	1.1E-06	4.9E-06
Mercury	7439-97-6	2.60E-04	7.6E-07	3.3E-06	0.0%	7.6E-07	3.3E-06
Naphthalene	91-20-3	6.10E-04	1.8E-06	7.9E-06	0.0%	1.8E-06	7.9E-06
Nickel	7440-02-0	2.10E-03	6.2E-06	2.7E-05	0.0%	6.2E-06	2.7E-05
POM		8.82E-05	2.6E-07	1.1E-06	0.0%	2.6E-07	1.1E-06
Selenium	7782-49-2	2.40E-05	7.1E-08	3.1E-07	0.0%	7.1E-08	3.1E-07
Toluene	108-88-3	3.40E-03	1.0E-05	4.4E-05	0.0%	1.0E-05	4.4E-05
Total HAPs		---	**5.55E-03**	**2.43E-02**	---	**5.55E-03**	**2.43E-02**

Notes:
Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98)Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)	Maximum Uncontrolled Emissions (lb/hr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	351	0.00	351	1,537
CH_4	25	2.20E-03	6.60E-03	0.00	6.60E-03	2.89E-02
N_2O	298	2.20E-04	6.60E-04	0.00	6.60E-04	2.89E-03
Total GHG (CO_2e)			351.3		351.3	1,539

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

Water Gremlin Company
Diesel Generator: Potential Emission Calculations

Emission Unit Identification Number:	**EQUI 89**	**STRU4**	Manufactured	11/8/2010
Stack/Vent Designation Number:	**Emergency Generator Engine**		Installed	May-12
Rated Heat Input:	**TBD**		EPA Tier 3 Engine	
	0.6 MMBtu/hr			
	fuel oil heat capacity (Btu/gal fuel oil) =			137,000 Btu/gal
Rated Mechanical Output:	**80** Hp		@	1,800 RPM
	60 kW			
Fuel Type:	**Diesel**		@	**0.0015** % Sulfur
Fuel Consumption Rate:	**4.26** gallons/hr			

Calculations Summary

Pollutant	Emission Factor	Emission Factor Units	Emission Factor Source	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tpy)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lb/hr)	Controlled Emission Rate (tpy)
PM	2.20E-03	lb/hp-hr	AP-42 Table 3.3-1	0.18	4.40E-02	0.0%	0.18	4.40E-02
PM_{10}	2.20E-03	lb/hp-hr	AP-42 Table 3.3-1	0.18	4.40E-02	0.0%	0.18	4.40E-02
$PM_{2.5}$	2.20E-03	lb/hp-hr	AP-42 Table 3.3-1	0.18	4.40E-02	0.0%	0.18	4.40E-02
SO_2	2.05E-03	lb/hp-hr	AP-42 Table 3.3-1	0.16	4.10E-02	0.0%	0.16	4.10E-02
NOx	3.10E-02	lb/hp-hr	AP-42 Table 3.3-1	2.48	0.62	0.0%	2.48	0.62
CO	6.68E-03	lb/hp-hr	AP-42 Table 3.3-1	0.53	0.13	0.0%	0.53	0.13
VOC	2.47E-03	lb/hp-hr	AP-42 Table 3.3-1	0.20	4.94E-02	0.0%	0.20	4.94E-02
Lead	NA	NA	NA	NA	NA	NA	NA	NA
CO_2	163.05	lb/MMBtu	40 CRF 98, Subp. C	9.51E+01	23.76	0.0%	95.06	23.76
CH_4	6.61E-03	lb/MMBtu	40 CRF 98, Subp. C	3.86E-03	9.64E-04	0.0%	0.00	9.64E-04
N_2O	1.32E-03	lb/MMBtu	40 CRF 98, Subp. C	7.71E-04	1.93E-04	0.0%	0.00	1.93E-04
CO_2e	163.61	lb/MMBtu	40 CRF 98, Subp. C	95.38	23.85	0.0%	95.38	23.85
1,3-Butadiene	3.91E-05	lb/MMBtu	AP-42 Table 3.3-2	2.28E-05	5.70E-06	0.0%	0.00	5.70E-06
Acetaldehyde	7.67E-04	lb/MMBtu	AP-42 Table 3.3-2	4.47E-04	1.12E-04	0.0%	0.00	1.12E-04
Acrolein	9.25E-05	lb/MMBtu	AP-42 Table 3.3-2	5.39E-05	1.35E-05	0.0%	0.00	1.35E-05
Benzene	9.33E-04	lb/MMBtu	AP-42 Table 3.3-2	5.44E-04	1.36E-04	0.0%	0.00	1.36E-04
Formaldehyde	1.18E-03	lb/MMBtu	AP-42 Table 3.3-2	6.88E-04	1.72E-04	0.0%	0.00	1.72E-04
Naphthalene	8.68E-05	lb/MMBtu	AP-42 Table 3.3-2	5.06E-05	1.27E-05	0.0%	0.00	1.27E-05
PAH (not including	8.12E-05	lb/MMBtu	AP-42 Table 3.3-2	4.73E-05	1.18E-05	0.0%	0.00	1.18E-05
Propylene	2.58E-03	lb/MMBtu	AP-42 Table 3.3-2	1.50E-03	3.76E-04	0.0%	0.00	3.76E-04
Toluene	4.09E-04	lb/MMBtu	AP-42 Table 3.3-2	2.38E-04	5.96E-05	0.0%	0.00	5.96E-05
Xylenes	2.85E-04	lb/MMBtu	AP-42 Table 3.3-2	1.66E-04	4.15E-05	0.0%	0.00	4.15E-05

Assumed PM=PM10=PM2.5

Water Gremlin Company
Natural Gas External Combustion Units: Potential Emission Calculations

Makeup Air Unit Information

Associated Items:	EQUI90	STRU5
	MAU1	RUPP; R1D.250-G10
Fuel:	Natural Gas	
Total Heat Capacity:	2.50	MMBtu/hr
Heat Value:	1020	MMBtu/MMscf
Operation Limit:	8760	hr/yr

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.02	8.2E-02	0.0%	1.9E-02	8.2E-02
PM_{10}	7.6	0.02	8.2E-02	0.0%	1.9E-02	8.2E-02
$PM_{2.5}$	7.6	0.02	8.2E-02	0.0%	1.9E-02	8.2E-02
SO_2	0.6	0.00	6.4E-03	0.0%	1.5E-03	0.01
NO_x	100	0.25	1.07	0.0%	0.25	1.07
CO	84	0.21	0.90	0.0%	0.21	0.90
VOC	5.5	0.01	5.9E-02	0.0%	1.3E-02	0.06

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	4.9E-07	2.1E-06	0.0%	4.9E-07	2.1E-06
Benzene	71-43-2	2.10E-03	5.1E-06	2.3E-05	0.0%	5.1E-06	2.3E-05
Beryllium	7440-41-7	1.20E-05	2.9E-08	1.3E-07	0.0%	2.9E-08	1.3E-07
Cadmium	7440-43-9	1.10E-03	2.7E-06	1.2E-05	0.0%	2.7E-06	1.2E-05
Chromium	7440-47-3	1.40E-03	3.4E-06	1.5E-05	0.0%	3.4E-06	1.5E-05
Cobalt	7440-48-4	8.40E-05	2.1E-07	9.0E-07	0.0%	2.1E-07	9.0E-07
Dichlorobenzene	25321-22-6	1.20E-03	2.9E-06	1.3E-05	0.0%	2.9E-06	1.3E-05
Formaldehyde	50-00-0	7.50E-02	1.8E-04	8.1E-04	0.0%	1.8E-04	8.1E-04
Hexane	110-54-3	1.80	4.4E-03	1.9E-02	0.0%	4.4E-03	1.9E-02
Lead		5.00E-04	1.2E-06	5.4E-06	0.0%	1.2E-06	5.4E-06
Manganese	7439-96-5	3.80E-04	9.3E-07	4.1E-06	0.0%	9.3E-07	4.1E-06
Mercury	7439-97-6	2.60E-04	6.4E-07	2.8E-06	0.0%	6.4E-07	2.8E-06
Naphthalene	91-20-3	6.10E-04	1.5E-06	6.5E-06	0.0%	1.5E-06	6.5E-06
Nickel	7440-02-0	2.10E-03	5.1E-06	2.3E-05	0.0%	5.1E-06	2.3E-05
POM		8.82E-05	2.2E-07	9.5E-07	0.0%	2.2E-07	9.5E-07
Selenium	7782-49-2	2.40E-05	5.9E-08	2.6E-07	0.0%	5.9E-08	2.6E-07
Toluene	108-88-3	3.40E-03	8.3E-06	3.7E-05	0.0%	8.3E-06	3.7E-05
Total HAPs		---	**4.63E-03**	**2.03E-02**	---	**4.63E-03**	**2.03E-02**

Notes:
Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98)
Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)	Maximum Uncontrolled Emissions (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	292	1,281	0.00	292	1,281
CH_4	25	2.20E-03	5.50E-03	2.41E-02	0.00	5.50E-03	2.41E-02
N_2O	298	2.20E-04	5.50E-04	2.41E-03	0.00	5.50E-04	2.41E-03
Total GHG (CO_2e)			292.7	1282.22	0.00	292.7	1,282

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

Water Gremlin Company
Natural Gas External Combustion Units: Potential Emission Calculations

Makeup Air Unit Information

Associated Items:	EQUI91	STRU6
	MAU2	CaptiveAire:CAH230
Fuel:	Natural Gas	
Total Heat Capacity:	6.05	MMBtu/hr
Heat Value:	1020	MMBtu/MMscf
Operation Limit:	8760	hr/yr

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.05	0.20	0.0%	4.5E-02	0.20
PM_{10}	7.6	0.05	0.20	0.0%	4.5E-02	0.20
$PM_{2.5}$	7.6	0.05	0.20	0.0%	4.5E-02	0.20
SO_2	0.6	0.00	1.6E-02	0.0%	3.6E-03	0.02
NO_x	100	0.59	2.60	0.0%	0.59	2.60
CO	84	0.50	2.18	0.0%	0.50	2.18
VOC	5.5	0.03	0.14	0.0%	3.3E-02	0.14

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	1.2E-06	5.2E-06	0.0%	1.2E-06	5.2E-06
Benzene	71-43-2	2.10E-03	1.2E-05	5.5E-05	0.0%	1.2E-05	5.5E-05
Beryllium	7440-41-7	1.20E-05	7.1E-08	3.1E-07	0.0%	7.1E-08	3.1E-07
Cadmium	7440-43-9	1.10E-03	6.5E-06	2.9E-05	0.0%	6.5E-06	2.9E-05
Chromium	7440-47-3	1.40E-03	8.3E-06	3.6E-05	0.0%	8.3E-06	3.6E-05
Cobalt	7440-48-4	8.40E-05	5.0E-07	2.2E-06	0.0%	5.0E-07	2.2E-06
Dichlorobenzene	25321-22-6	1.20E-03	7.1E-06	3.1E-05	0.0%	7.1E-06	3.1E-05
Formaldehyde	50-00-0	7.50E-02	4.4E-04	1.9E-03	0.0%	4.4E-04	1.9E-03
Hexane	110-54-3	1.80	1.1E-02	4.7E-02	0.0%	1.1E-02	4.7E-02
Lead		5.00E-04	3.0E-06	1.3E-05	0.0%	3.0E-06	1.3E-05
Manganese	7439-96-5	3.80E-04	2.3E-06	9.9E-06	0.0%	2.3E-06	9.9E-06
Mercury	7439-97-6	2.60E-04	1.5E-06	6.8E-06	0.0%	1.5E-06	6.8E-06
Naphthalene	91-20-3	6.10E-04	3.6E-06	1.6E-05	0.0%	3.6E-06	1.6E-05
Nickel	7440-02-0	2.10E-03	1.2E-05	5.5E-05	0.0%	1.2E-05	5.5E-05
POM		8.82E-05	5.2E-07	2.3E-06	0.0%	5.2E-07	2.3E-06
Selenium	7782-49-2	2.40E-05	1.4E-07	6.2E-07	0.0%	1.4E-07	6.2E-07
Toluene	108-88-3	3.40E-03	2.0E-05	8.8E-05	0.0%	2.0E-05	8.8E-05
Total HAPs		---	**1.12E-02**	**4.90E-02**	---	**1.12E-02**	**4.90E-02**

Notes:
Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98)
Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)	Maximum Uncontrolled Emissions (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	708	3,100	0.00	708	3,100
CH_4	25	2.20E-03	1.33E-02	5.83E-02	0.00	1.33E-02	5.83E-02
N_2O	298	2.20E-04	1.33E-03	5.83E-03	0.00	1.33E-03	5.83E-03
Total GHG (CO_2e)			708.4	3,103	0.00	708.4	3,103

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

Water Gremlin Company
Natural Gas External Combustion Units: Potential Emission Calculations

Makeup Air Unit Information

Associated Items:	EQUI92	STRU7
	MAU3	CaptiveAire; CAH230
Fuel:	Natural Gas	
Total Heat Capacity:	5.61	MMBtu/hr
Heat Value:	1020	MMBtu/MMscf
Operation Limit:	8760	hr/yr

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.04	0.18	0.0%	4.2E-02	0.18
PM_{10}	7.6	0.04	0.18	0.0%	4.2E-02	0.18
$PM_{2.5}$	7.6	0.04	0.18	0.0%	4.2E-02	0.18
SO_2	0.6	0.00	1.4E-02	0.0%	3.3E-03	0.01
NO_x	100	0.55	2.41	0.0%	0.55	2.41
CO	84	0.46	2.02	0.0%	0.46	2.02
VOC	5.5	0.03	0.13	0.0%	3.0E-02	0.13

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	1.1E-06	4.8E-06	0.0%	1.1E-06	4.8E-06
Benzene	71-43-2	2.10E-03	1.2E-05	5.1E-05	0.0%	1.2E-05	5.1E-05
Beryllium	7440-41-7	1.20E-05	6.6E-08	2.9E-07	0.0%	6.6E-08	2.9E-07
Cadmium	7440-43-9	1.10E-03	6.0E-06	2.6E-05	0.0%	6.0E-06	2.6E-05
Chromium	7440-47-3	1.40E-03	7.7E-06	3.4E-05	0.0%	7.7E-06	3.4E-05
Cobalt	7440-48-4	8.40E-05	4.6E-07	2.0E-06	0.0%	4.6E-07	2.0E-06
Dichlorobenzene	25321-22-6	1.20E-03	6.6E-06	2.9E-05	0.0%	6.6E-06	2.9E-05
Formaldehyde	50-00-0	7.50E-02	4.1E-04	1.8E-03	0.0%	4.1E-04	1.8E-03
Hexane	110-54-3	1.80	9.9E-03	4.3E-02	0.0%	9.9E-03	4.3E-02
Lead		5.00E-04	2.7E-06	1.2E-05	0.0%	2.7E-06	1.2E-05
Manganese	7439-96-5	3.80E-04	2.1E-06	9.2E-06	0.0%	2.1E-06	9.2E-06
Mercury	7439-97-6	2.60E-04	1.4E-06	6.3E-06	0.0%	1.4E-06	6.3E-06
Naphthalene	91-20-3	6.10E-04	3.4E-06	1.5E-05	0.0%	3.4E-06	1.5E-05
Nickel	7440-02-0	2.10E-03	1.2E-05	5.1E-05	0.0%	1.2E-05	5.1E-05
POM		8.82E-05	4.8E-07	2.1E-06	0.0%	4.8E-07	2.1E-06
Selenium	7782-49-2	2.40E-05	1.3E-07	5.8E-07	0.0%	1.3E-07	5.8E-07
Toluene	108-88-3	3.40E-03	1.9E-05	8.2E-05	0.0%	1.9E-05	8.2E-05
Total HAPs		**---**	**1.04E-02**	**4.55E-02**	**---**	**1.04E-02**	**4.55E-02**

Notes:
Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98)
Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)	Maximum Uncontrolled Emissions (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	656	2,874	0.00	656	2,874
CH_4	25	2.20E-03	1.23E-02	0	0.00	1.23E-02	5.40E-02
N_2O	298	2.20E-04	1.23E-03	0	0.00	1.23E-03	5.40E-03
Total GHG (CO_2e)			656.8	2,877	0.00	656.8	2,877

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

Water Gremlin Company
Natural Gas External Combustion Units: Potential Emission Calculations

Makeup Air Unit Information

Associated Items:	EQUI93	STRU8
	MAU5	CaptiveAire;CAH36
Fuel:	Natural Gas	
Total Heat Capacity:	4.95	MMBtu/hr
Heat Value:	1020	MMBtu/MMscf
Operation Limit:	8760	hr/yr

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.04	0.16	0.0%	3.7E-02	0.16
PM_{10}	7.6	0.04	0.16	0.0%	3.7E-02	0.16
$PM_{2.5}$	7.6	0.04	0.16	0.0%	3.7E-02	0.16
SO_2	0.6	0.00	1.3E-02	0.0%	2.9E-03	0.01
NO_x	100	0.49	2.13	0.0%	0.49	2.13
CO	84	0.41	1.79	0.0%	0.41	1.79
VOC	5.5	0.03	0.12	0.0%	2.7E-02	0.12

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	9.7E-07	4.3E-06	0.0%	9.7E-07	4.3E-06
Benzene	71-43-2	2.10E-03	1.0E-05	4.5E-05	0.0%	1.0E-05	4.5E-05
Beryllium	7440-41-7	1.20E-05	5.8E-08	2.6E-07	0.0%	5.8E-08	2.6E-07
Cadmium	7440-43-9	1.10E-03	5.3E-06	2.3E-05	0.0%	5.3E-06	2.3E-05
Chromium	7440-47-3	1.40E-03	6.8E-06	3.0E-05	0.0%	6.8E-06	3.0E-05
Cobalt	7440-48-4	8.40E-05	4.1E-07	1.8E-06	0.0%	4.1E-07	1.8E-06
Dichlorobenzene	25321-22-6	1.20E-03	5.8E-06	2.6E-05	0.0%	5.8E-06	2.6E-05
Formaldehyde	50-00-0	7.50E-02	3.6E-04	1.6E-03	0.0%	3.6E-04	1.6E-03
Hexane	110-54-3	1.80	8.7E-03	3.8E-02	0.0%	8.7E-03	3.8E-02
Lead		5.00E-04	2.4E-06	1.1E-05	0.0%	2.4E-06	1.1E-05
Manganese	7439-96-5	3.80E-04	1.8E-06	8.1E-06	0.0%	1.8E-06	8.1E-06
Mercury	7439-97-6	2.60E-04	1.3E-06	5.5E-06	0.0%	1.3E-06	5.5E-06
Naphthalene	91-20-3	6.10E-04	3.0E-06	1.3E-05	0.0%	3.0E-06	1.3E-05
Nickel	7440-02-0	2.10E-03	1.0E-05	4.5E-05	0.0%	1.0E-05	4.5E-05
POM		8.82E-05	4.3E-07	1.9E-06	0.0%	4.3E-07	1.9E-06
Selenium	7782-49-2	2.40E-05	1.2E-07	5.1E-07	0.0%	1.2E-07	5.1E-07
Toluene	108-88-3	3.40E-03	1.7E-05	7.2E-05	0.0%	1.7E-05	7.2E-05
Total HAPs		**---**	**9.16E-03**	**4.01E-02**	**---**	**9.16E-03**	**4.01E-02**

Notes:
Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98)
Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)	Maximum Uncontrolled Emissions (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	579	2,536	0.00	579	2,536
CH_4	25	2.20E-03	1.09E-02	4.77E-02	0.00	1.09E-02	4.77E-02
N_2O	298	2.20E-04	1.09E-03	4.77E-03	0.00	1.09E-03	4.77E-03
Total GHG (CO_2e)			579.6	2,539	0.00	579.6	2,539

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

Water Gremlin Company
Natural Gas External Combustion Units: Potential Emission Calculations

Makeup Air Unit Information

Associated Items:	EQUI94	STRU9
	MAU6	RUPP; RAM227
Fuel:	Natural Gas	
Total Heat Capacity:	5.40	MMBtu/hr
Heat Value:	1020	MMBtu/MMscf
Operation Limit:	8760	hr/yr

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.04	0.18	0.0%	4.0E-02	0.18
PM_{10}	7.6	0.04	0.18	0.0%	4.0E-02	0.18
$PM_{2.5}$	7.6	0.04	0.18	0.0%	4.0E-02	0.18
SO_2	0.6	0.00	1.4E-02	0.0%	3.2E-03	0.01
NO_x	100	0.53	2.32	0.0%	0.53	2.32
CO	84	0.44	1.95	0.0%	0.44	1.95
VOC	5.5	0.03	0.13	0.0%	2.9E-02	0.13

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	1.1E-06	4.6E-06	0.0%	1.1E-06	4.6E-06
Benzene	71-43-2	2.10E-03	1.1E-05	4.9E-05	0.0%	1.1E-05	4.9E-05
Beryllium	7440-41-7	1.20E-05	6.4E-08	2.8E-07	0.0%	6.4E-08	2.8E-07
Cadmium	7440-43-9	1.10E-03	5.8E-06	2.6E-05	0.0%	5.8E-06	2.6E-05
Chromium	7440-47-3	1.40E-03	7.4E-06	3.2E-05	0.0%	7.4E-06	3.2E-05
Cobalt	7440-48-4	8.40E-05	4.4E-07	1.9E-06	0.0%	4.4E-07	1.9E-06
Dichlorobenzene	25321-22-6	1.20E-03	6.4E-06	2.8E-05	0.0%	6.4E-06	2.8E-05
Formaldehyde	50-00-0	7.50E-02	4.0E-04	1.7E-03	0.0%	4.0E-04	1.7E-03
Hexane	110-54-3	1.80	9.5E-03	4.2E-02	0.0%	9.5E-03	4.2E-02
Lead		5.00E-04	2.6E-06	1.2E-05	0.0%	2.6E-06	1.2E-05
Manganese	7439-96-5	3.80E-04	2.0E-06	8.8E-06	0.0%	2.0E-06	8.8E-06
Mercury	7439-97-6	2.60E-04	1.4E-06	6.0E-06	0.0%	1.4E-06	6.0E-06
Naphthalene	91-20-3	6.10E-04	3.2E-06	1.4E-05	0.0%	3.2E-06	1.4E-05
Nickel	7440-02-0	2.10E-03	1.1E-05	4.9E-05	0.0%	1.1E-05	4.9E-05
POM		8.82E-05	4.7E-07	2.0E-06	0.0%	4.7E-07	2.0E-06
Selenium	7782-49-2	2.40E-05	1.3E-07	5.6E-07	0.0%	1.3E-07	5.6E-07
Toluene	108-88-3	3.40E-03	1.8E-05	7.9E-05	0.0%	1.8E-05	7.9E-05
Total HAPs		**---**	**9.99E-03**	**4.38E-02**	**---**	**9.99E-03**	**4.38E-02**

Notes:
Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98)
Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)	Maximum Uncontrolled Emissions (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	632	2,767	0.00	632	2,767
CH_4	25	2.20E-03	1.19E-02	5.20E-02	0.00	1.19E-02	5.20E-02
N_2O	298	2.20E-04	1.19E-03	5.20E-03	0.00	1.19E-03	5.20E-03
Total GHG (CO_2e)			632.3	2,770	0.00	632.3	2,770

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

Water Gremlin Company
Natural Gas External Combustion Units: Potential Emission Calculations

Makeup Air Unit Information

Associated Items:	EQUI95	STRU10
	MAU9	Titan; TA220NGHRH2SPD
Fuel:	Natural Gas	
Total Heat Capacity:	2.20	MMBtu/hr
Heat Value:	1020	MMBtu/MMscf
Operation Limit:	8760	hr/yr

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.02	7.2E-02	0.0%	1.6E-02	7.2E-02
PM_{10}	7.6	0.02	7.2E-02	0.0%	1.6E-02	7.2E-02
$PM_{2.5}$	7.6	0.02	7.2E-02	0.0%	1.6E-02	7.2E-02
SO_2	0.6	0.00	5.7E-03	0.0%	1.3E-03	0.01
NO_x	100	0.22	0.94	0.0%	0.22	0.94
CO	84	0.18	0.79	0.0%	0.18	0.79
VOC	5.5	0.01	5.2E-02	0.0%	1.2E-02	0.05

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	4.3E-07	1.9E-06	0.0%	4.3E-07	1.9E-06
Benzene	71-43-2	2.10E-03	4.5E-06	2.0E-05	0.0%	4.5E-06	2.0E-05
Beryllium	7440-41-7	1.20E-05	2.6E-08	1.1E-07	0.0%	2.6E-08	1.1E-07
Cadmium	7440-43-9	1.10E-03	2.4E-06	1.0E-05	0.0%	2.4E-06	1.0E-05
Chromium	7440-47-3	1.40E-03	3.0E-06	1.3E-05	0.0%	3.0E-06	1.3E-05
Cobalt	7440-48-4	8.40E-05	1.8E-07	7.9E-07	0.0%	1.8E-07	7.9E-07
Dichlorobenzene	25321-22-6	1.20E-03	2.6E-06	1.1E-05	0.0%	2.6E-06	1.1E-05
Formaldehyde	50-00-0	7.50E-02	1.6E-04	7.1E-04	0.0%	1.6E-04	7.1E-04
Hexane	110-54-3	1.80	3.9E-03	1.7E-02	0.0%	3.9E-03	1.7E-02
Lead		5.00E-04	1.1E-06	4.7E-06	0.0%	1.1E-06	4.7E-06
Manganese	7439-96-5	3.80E-04	8.2E-07	3.6E-06	0.0%	8.2E-07	3.6E-06
Mercury	7439-97-6	2.60E-04	5.6E-07	2.5E-06	0.0%	5.6E-07	2.5E-06
Naphthalene	91-20-3	6.10E-04	1.3E-06	5.8E-06	0.0%	1.3E-06	5.8E-06
Nickel	7440-02-0	2.10E-03	4.5E-06	2.0E-05	0.0%	4.5E-06	2.0E-05
POM		8.82E-05	1.9E-07	8.3E-07	0.0%	1.9E-07	8.3E-07
Selenium	7782-49-2	2.40E-05	5.2E-08	2.3E-07	0.0%	5.2E-08	2.3E-07
Toluene	108-88-3	3.40E-03	7.3E-06	3.2E-05	0.0%	7.3E-06	3.2E-05
Total HAPs		**---**	**4.06E-03**	**1.78E-02**	**---**	**4.06E-03**	**1.78E-02**

Notes:
Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98)
Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)	Maximum Uncontrolled Emissions (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	257	1,125	0.00	257	1,125
CH_4	25	2.20E-03	4.83E-03	2.12E-02	0.00	4.83E-03	2.12E-02
N_2O	298	2.20E-04	4.83E-04	2.12E-03	0.00	4.83E-04	2.12E-03
Total GHG (CO_2e)			257.1	1,126	0.00	257.1	1,126

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

Water Gremlin Company
Natural Gas External Combustion Units: Potential Emission Calculations

Makeup Air Unit Information

Associated Items:	EQUI96	STRU11
	MAU11	Industrial Air; QD230C
Fuel:	Natural Gas	
Total Heat Capacity:	4.61	MMBtu/hr
Heat Value:	1020	MMBtu/MMscf
Operation Limit:	8760	hr/yr

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.03	0.15	0.0%	3.4E-02	0.15
PM_{10}	7.6	0.03	0.15	0.0%	3.4E-02	0.15
$PM_{2.5}$	7.6	0.03	0.15	0.0%	3.4E-02	0.15
SO_2	0.6	0.00	1.2E-02	0.0%	2.7E-03	0.01
NO_x	100	0.45	1.98	0.0%	0.45	1.98
CO	84	0.38	1.66	0.0%	0.38	1.66
VOC	5.5	0.02	0.11	0.0%	2.5E-02	0.11

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	9.0E-07	4.0E-06	0.0%	9.0E-07	4.0E-06
Benzene	71-43-2	2.10E-03	9.5E-06	4.2E-05	0.0%	9.5E-06	4.2E-05
Beryllium	7440-41-7	1.20E-05	5.4E-08	2.4E-07	0.0%	5.4E-08	2.4E-07
Cadmium	7440-43-9	1.10E-03	5.0E-06	2.2E-05	0.0%	5.0E-06	2.2E-05
Chromium	7440-47-3	1.40E-03	6.3E-06	2.8E-05	0.0%	6.3E-06	2.8E-05
Cobalt	7440-48-4	8.40E-05	3.8E-07	1.7E-06	0.0%	3.8E-07	1.7E-06
Dichlorobenzene	25321-22-6	1.20E-03	5.4E-06	2.4E-05	0.0%	5.4E-06	2.4E-05
Formaldehyde	50-00-0	7.50E-02	3.4E-04	1.5E-03	0.0%	3.4E-04	1.5E-03
Hexane	110-54-3	1.80	8.1E-03	3.6E-02	0.0%	8.1E-03	3.6E-02
Lead		5.00E-04	2.3E-06	9.9E-06	0.0%	2.3E-06	9.9E-06
Manganese	7439-96-5	3.80E-04	1.7E-06	7.5E-06	0.0%	1.7E-06	7.5E-06
Mercury	7439-97-6	2.60E-04	1.2E-06	5.1E-06	0.0%	1.2E-06	5.1E-06
Naphthalene	91-20-3	6.10E-04	2.8E-06	1.2E-05	0.0%	2.8E-06	1.2E-05
Nickel	7440-02-0	2.10E-03	9.5E-06	4.2E-05	0.0%	9.5E-06	4.2E-05
POM		8.82E-05	4.0E-07	1.7E-06	0.0%	4.0E-07	1.7E-06
Selenium	7782-49-2	2.40E-05	1.1E-07	4.7E-07	0.0%	1.1E-07	4.7E-07
Toluene	108-88-3	3.40E-03	1.5E-05	6.7E-05	0.0%	1.5E-05	6.7E-05
Total HAPs		**---**	**8.53E-03**	**3.73E-02**	**---**	**8.53E-03**	**3.73E-02**

Notes:
Emission factors obtained from AP-42, Chapter 1.4, Tables 1.4-2, 1.4-3, 1.4-4 (07/98)
Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)	Maximum Uncontrolled Emissions (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	539	2,361	0.00	539	2,361
CH_4	25	2.20E-03	1.01E-02	0	0.00	1.01E-02	4.44E-02
N_2O	298	2.20E-04	1.01E-03	0	0.00	1.01E-03	4.44E-03
Total GHG (CO_2e)			539.5	2,363	0.00	539.5	2,363

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

Water Gremlin Company

Toolroom 2: Abrasive Blasting: Potential Emission Calculations

Blast Unit Information

Associated Items:	**EQUI98**	**STRU13**
Blast Media:	Glass Beads	
Flow Rate of Gun	231	lb of abrasive/hr
Emission Rate	0.010	lb pollutant/lb of abrasive
Manual Units	1	
Manual Gun/Unit	1	
Manual Tip Size (1)	0.25	inches
Manual Max Pressure	90	psi
Operation Limit:	8760	hr/yr

Pollutant	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
PM	2.31	10.12	0.0%	2.31	10.12
PM_{10}	2.31	10.12	0.0%	2.31	10.12
$PM_{2.5}$	2.31	10.12		2.31	10.12

Notes: Manual blasting unit consists of one gun. Tips for blasting units are not included in the chart of the STAPPA/ALAPCO document. Flow rates, material densities, and emission factors for abrasives taken from STAPPA/ALAPCO Abrasive Blasting guidance (5/91). PM2.5 emission rate conservatively assumed to equal PM10 and PM emissions.

Water Gremlin Company

Toolroom 1 Abrasive Blasting: Potential Emission Calculations

Blast Unit Information

Associated Items:	**EQUI97**	**STRU12**
Blast Media:	Glass Beads	
Flow Rate of Gun	314	lb of abrasive/hr
Emission Rate	0.010	lb pollutant/lb of abrasive
Manual Units	1	
Manual Gun/Unit	1	
Manual Tip Size (1)	0.25	inches
Manual Max Pressure	125	psi
Operation Limit:	8760	hr/yr

Pollutant	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
PM	3.14	13.75	0.0%	3.14	13.75
PM_{10}	3.14	13.75	0.0%	3.14	13.75
$PM_{2.5}$	3.14	13.75		3.14	13.75

Notes: Manual blasting unit consists of one gun. Tips for blasting units are not included in the chart of the STAPPA/ALAPCO document. Flow rates, material densities, and emission factors for abrasives taken from STAPPA/ALAPCO Abrasive Blasting guidance (5/91). PM2.5 emission rate conservatively assumed to equal PM10 and PM emissions.

Water Gremlin Company

Die Cast Abrasive Blasting: Potential Emission Calculations

Blast Unit Information

Associated Items:	**EQUI99**	**STRU14**
Blast Media:	Glass Beads	
Flow Rate of Gun	210	lb of abrasive/hr
Emission Rate	0.010	lb pollutant/lb of abrasive
Manual Units	1	
Manual Gun/Unit	1	
Manual Tip Size (1)	0.25	inches
Manual Max Pressure	80	psi
Operation Limit:	8760	hr/yr

Pollutant	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
PM	2.10	9.22	0.0%	2.10	9.22
PM_{10}	2.10	9.22	0.0%	2.10	9.22
$PM_{2.5}$	2.10	9.22		2.10	9.22

Notes: Manual blasting unit consists of one gun. Tips for blasting units are not included in the chart of the STAPPA/ALAPCO document. Flow rates, material densities, and emission factors for abrasives taken from STAPPA/ALAPCO Abrasive Blasting guidance (5/91). PM2.5 emission rate conservatively assumed to equal PM10 and PM emissions.

Water Gremlin R&D Potential Emission Calculations

Hourly Lead Usage 1,152 lb/hr
Daily Lead Usage 13.8 tons/day

Melt Kettle Emissions (SCC 3-04-004-26) **Insignificant Activity Minn. R. 7007.1300, subp. 3(I)**

	Emission Factor	Potential Uncontrolled Emissions		
	(lb/ton lead)[a]	(lb/hr)[b]	(lb/day)	(tons/year)
$PM/PM_{10}/PM_{2.5}$	0.03	0.017	0.41	0.076
Pb	0.01	5.8E-03	0.14	0.025

Melt Kettle Fugitive Emissions (SCC 3-04-004-14) **Insignificant Activity Minn. R. 7007.1300, subp. 3(I)**

	Emission Factor	Potential Uncontrolled Emissions		
	(lb/ton lead)[d]	(lb/hr)[b]	(lb/day)	(tons/year)
$PM/PM_{10}/PM_{2.5}$	0.002	1.2E-03	0.028	5.0E-03
Pb	0.0006	3.5E-04	8.3E-03	1.5E-03

Casting Fugitive Emissions (SCC 3-04-004-25) **Insignificant Activity Minn. R. 7007.1300, subp. 3(I)**

	Emission Factor	Potential Uncontrolled Emissions		
	(lb/ton lead)[d]	(lb/hr)[b]	(lb/day)	(tons/year)
$PM/PM_{10}/PM_{2.5}$	0.002	1.2E-03	0.028	5.0E-03
Pb	0.0007	4.0E-04	9.7E-03	1.8E-03

Total Emissions

	ESP Control	Potential Uncontrolled Emissions			Potential Controlled Emissions		
	Efficiency[e]	(lb/hr)[b]	(lb/day)	(tons/year)	(lb/hr)	(lb/day)	(tons/year)
$PM/PM_{10}/PM_{2.5}$	94%	0.020	0.47	0.09	1.2E-03	0.028	0.005
Pb	0%	0.007	0.16	0.029	0.007	0.16	0.029

[a] AP-42 Table 12.11-2, Kettle Refining

[b] Daily emissions divided by 24 hrs/day

[c] AP-42 Table 12.11-2, Casting

[d] AP-42 Table 12.11-4, Fugitive Emissions

[e] Control efficiency from Minn. R. 7011.0070 - ESP with total enclosure. It should be noted that the ESP will also control 94% of the Pb emissions. It was not included in the calculations because a Pb control efficiency is not listed in the rule.

[f] Assumed PM10 = PM2.5

Water Gremlin Company
Die Casting: Potential Emission Calculations
Insignificant Activity Minn. R. 7007.1300, subp. 3(I) - Each individual die cast machine is an insignificant activity.

Emission Unit ID No.	Die Casting Equipment ID	Smog Hog #	Particulate Emissions (PM/PM10/PM2.5)					
			Actual Lead Usage (lbs)	Actual Hours of Operation	Actual Lead Production (ton/hr)	Emission Factor (lb/ton)	PTE lb/hr	PTE ton/yr
	DC08	3	286,485	3,274	0.04	0.04	3.50E-03	1.53E-02
	DC09	1	472,778	4,910	0.05	0.04	3.85E-03	1.69E-02
	DC10	3	261,850	4,722	0.03	0.04	2.22E-03	9.72E-03
	DC12	1	229,628	2,557	0.04	0.04	3.59E-03	1.57E-02
	DC14	2	263,280	3,373	0.04	0.04	3.12E-03	1.37E-02
	DC15	2	388,278	3,782	0.05	0.04	4.11E-03	1.80E-02
	DC16	11	1,670,274	6,919	0.12	0.04	9.66E-03	4.23E-02
	DC17	3	236,378	3,583	0.03	0.04	2.64E-03	1.16E-02
	DC19	12	865,650	3,263	0.13	0.04	1.06E-02	4.65E-02
	DC21	2	1,101,077	5,192	0.11	0.04	8.48E-03	3.72E-02
	DC22	7	352,531	1,639	0.11	0.04	8.60E-03	3.77E-02
	DC23	19	1,848,490	6,528	0.14	0.04	1.13E-02	4.96E-02
	DC24		8,194	172	0.02	0.04	1.90E-03	8.33E-03
	DC25	6	259,042	3,500	0.04	0.04	2.96E-03	1.30E-02
	DC26	10	569,899	4,250	0.07	0.04	5.36E-03	2.35E-02
	DC27	10	908,296	5,784	0.08	0.04	6.28E-03	2.75E-02
	DC28	11	1,509,524	5,951	0.13	0.04	1.01E-02	4.44E-02
	DC29	11	1,041,590	6,304	0.08	0.04	6.61E-03	2.89E-02
	DC32	9	1,085,022	4,615	0.12	0.04	9.40E-03	4.12E-02
	DC33	1	671,771	4,083	0.08	0.04	6.58E-03	2.88E-02
	DC34	12	1,196,022	6,603	0.09	0.04	7.25E-03	3.17E-02
	DC35	8	472,652	2,473	0.10	0.04	7.64E-03	3.35E-02
	DC36	5	1,884,868	4,800	0.20	0.04	1.57E-02	6.88E-02
	DC37	5	871,396	5,363	0.08	0.04	6.50E-03	2.85E-02
	DC38	17	3,420,677	4,922	0.35	0.04	2.78E-02	1.22E-01
	DC39	17	990,622	5,608	0.09	0.04	7.07E-03	3.09E-02
	DC40	18	610,297	4,423	0.07	0.04	5.52E-03	2.42E-02
	DC41	19	67,621	671	0.05	0.04	4.03E-03	1.76E-02
	DC42	16	1,130,295	1,907	0.30	0.04	2.37E-02	1.04E-01
	DC44	20	1,340,613	5,120	0.13	0.04	1.05E-02	4.59E-02
	DC45	20	3,949,325	5,209	0.38	0.04	3.03E-02	1.33E-01
	DC48	18	1,349,309	5,999	0.11	0.04	9.00E-03	3.94E-02
Total		---	---	---	---	---	0.28	1.04

Notes:

1. Information on actual lead usage was received from Denise L'Allier-Pray at Water Gremlin on 10/10/2018
2. Emission factor is obtained AP-42 Section 12.11 Table 12.11-2
3. Emissions are adjusted by a safety factor of 2 to account for potential emission rate.

Water Gremlin Company
Natural Gas External Combustion Units: Potential Emission Calculations

Each individual natural gas combustion unit qualifies as an Insignificant Activity pursuant to Minn. R. 7007.1300, subp. 3(I).

Makeup Air Unit Information

Fuel:	Natural Gas	
Total Heat Capacity:	54.59	MMBtu/hr
Heat Value:	1020	MMBtu/MMscf
Operation Limit:	8760	hr/yr

Pollutant	Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/yr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Maximum Controlled Emissions (lbs/hr)	Maximum Controlled Emissions (tons/yr)
PM	7.6	0.41	1.78	0.0%	0.41	1.78
PM_{10}	7.6	0.41	1.78	0.0%	0.41	1.78
$PM_{2.5}$	7.6	0.41	1.78	0.0%	0.41	1.78
SO_2	0.6	0.03	0.14	0.0%	3.2E-02	0.14
NO_x	100	5.35	23.44	0.0%	5.35	23.44
CO	84	4.50	19.69	0.0%	4.50	19.69
VOC	5.5	0.29	1.29	0.0%	0.29	1.29

Hazardous Air Pollutant		Emission Factor (lb/MMscf)	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
Arsenic	7440-38-2	2.00E-04	1.1E-05	4.7E-05	0.0%	1.1E-05	4.7E-05
Benzene	71-43-2	2.10E-03	1.1E-04	4.9E-04	0.0%	1.1E-04	4.9E-04
Beryllium	7440-41-7	1.20E-05	6.4E-07	2.8E-06	0.0%	6.4E-07	2.8E-06
Cadmium	7440-43-9	1.10E-03	5.9E-05	2.6E-04	0.0%	5.9E-05	2.6E-04
Chromium	7440-47-3	1.40E-03	7.5E-05	3.3E-04	0.0%	7.5E-05	3.3E-04
Cobalt	7440-48-4	8.40E-05	4.5E-06	2.0E-05	0.0%	4.5E-06	2.0E-05
Dichlorobenzene	25321-22-6	1.20E-03	6.4E-05	2.8E-04	0.0%	6.4E-05	2.8E-04
Formaldehyde	50-00-0	7.50E-02	4.0E-03	1.8E-02	0.0%	4.0E-03	1.8E-02
Hexane	110-54-3	1.80	0.10	0.42	0.0%	0.10	0.42
Lead		5.00E-04	2.7E-05	1.2E-04	0.0%	2.7E-05	1.2E-04
Manganese	7439-96-5	3.80E-04	2.0E-05	8.9E-05	0.0%	2.0E-05	8.9E-05
Mercury	7439-97-6	2.60E-04	1.4E-05	6.1E-05	0.0%	1.4E-05	6.1E-05
Naphthalene	91-20-3	6.10E-04	3.3E-05	1.4E-04	0.0%	3.3E-05	1.4E-04
Nickel	7440-02-0	2.10E-03	1.1E-04	4.9E-04	0.0%	1.1E-04	4.9E-04
POM		8.82E-05	4.7E-06	2.1E-05	0.0%	4.7E-06	2.1E-05
Selenium	7782-49-2	2.40E-05	1.3E-06	5.6E-06	0.0%	1.3E-06	5.6E-06
Toluene	108-88-3	3.40E-03	1.8E-04	8.0E-04	0.0%	1.8E-04	8.0E-04
Total HAPs		**---**	**0.10**	**0.44**	**---**	**0.10**	**0.44**

Notes:
Naphthalene is included separately and as POM. Naphthalene is subtracted from Total HAPs so as not to be double counted.

Pollutant	GWP	Emission Factor (lbs/MMBtu)[d]	Maximum Uncontrolled Emissions (lb/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)
CO_2	1	116.98	6,386	27,970	0.00	6,386	27,970
CH_4	25	2.20E-03	1.20E-01	5.26E-01	0.00	0	5.26E-01
N_2O	298	2.20E-04	1.20E-02	5.26E-02	0.00	0	5.26E-02
Total GHG (CO_2e)			6,392.4	27,999	0.00	6,392.4	27,999

Notes:
Emission Factors obtained from 40 CFR 98. Converted from kg to lb.

RTU Equipment Inventory

Gas-fired units

Location: South Campus

# of Units	Manufacturer	Model No	Btu/hr	Total Btu/hr
3	Sterling	TF250ANS110	250,000	750,000
3	Lennox	KGA060S4D	150,000	450,000
1	Lennox	KGA120S4B	180,000	180,000
1	Lennox	KGA092S4B	130,000	130,000
2	Lennox	KGA048S4D	65,000	130,000

Location: North Campus

# of Units	Manufacturer	Model No	Btu/hr	Total Btu/hr
16	Lennox	GCS1651256P	125,000	2,000,000
35	Coleman Suncutter	7436-901	Cooling Only	0
8	Carrier	48HJE008531	180,000	1,440,000
7	Lennox	GCS166537514	75,000	525,000
28	Carrier	48TJE007601	115,000	3,220,000
27	Bryant	558CPX00600	Cooling Only	0
26	ComfortAire	40411	Electric	0
24	Lennox	TGA08B2DH1Y	150,000	3,600,000
4	InnerCity Products	PGMB04BH125IN1	125,000	500,000
37	Carrier	48TJE012611	224,000	8,288,000
10	York	S3A020	Cooling Only	0
9	York	S3A020	Cooling Only	0
15	Lennox	LGA156HS1G	260,000	3,900,000
20	Lennox	LGA120HH1G	235,000	4,700,000
14	Lennox	LGA156HS1G	260,000	3,640,000
36	Bryant BDP	580DEV060115	115,000	4,140,000
2	Snyder General	CUR100FN14	140,000	280,000
1	Carrier	48HFT006510	120,000	120,000
13	Lennox	GCS16-13532705Y	270,000	3,510,000
12	Carrier	48HDT005510	120,000	1,440,000
11	Carrier	48HDT005510	120,000	1,320,000
17	Lennox	LGA120HH1G	235,000	3,995,000

Total Btu: 48,258,000

MAU Equipment Inventory

Gas-fired units

Location: North Campus

# of Units	Manufacturer	Model No	Btu/hr	Total Btu/hr
2	CaptiveAire	CAH20	1,424,348	2,848,696
1	CaptiveAire	A2-D.500-G15-MPU	550,000	550,000
1	Industrial Air	DAC120HRS	972,000	972,000
1	Industrial Air	DAC122HRS	1,512,000	1,512,000

Total Btu: 5,882,696

Space Heater Equipment Inventory

Gas-fired units

Location: North Campus

# of Units	Manufacturer	Model No	Btu/hr	Total Btu/hr
1	Lennox	LF24-150A-2	150,000	150,000
1	Lennox	LF24-150A-2	150,000	150,000
1	Dayton	3E134E	90,000	90,000
1	Enerco	ER2-6ON	60,000	60,000

Total Btu: 450,000

Water Gremlin Company
Parts Washer: Potential Emission Calculations

Insignificant Activity Minn. R. 7007.1300, subp. 3(I)

Model 81 - Toolroom		
Actual Usage:	77	gallons
Actual Operation	6000	hours
**Note: Usage is adjusted by a factor of 2 for total hours of operation		
Parts Washer - Solution		
Safety-Kleen		
Petroleum Distillates (Hydrotreated Light)	100%	VOC
CAS # 64742-47-8		
Specific Gravity	0.82	
Density	6.7	lb/gal
VOC Content	6.7	lb/gal
Maximum Usage		
Maximum Usage	112.42	gallons/yr
Potential VOC Emissions (Assume all is emitted)	753	lbs
Potential VOC Emissions (Assume all is emitted)	**0.75**	**tons/yr**

Model 34 - Coating Room		
Actual Usage:	30	gallons
Actual Operation	6000	hours
**Note: Usage is adjusted by a factor of 2 for total hours of operation		
Parts Washer - Solution		
Safety-Kleen		
Petroleum Distillates (Hydrotreated Light)	100%	VOC
CAS # 64742-47-8		
Specific Gravity	0.82	
Density	6.7	lb/gal
VOC Content	6.7	lb/gal
Maximum Usage		
Maximum Usage	43.80	gallons/yr
Potential VOC Emissions (Assume all is emitted)	293	lbs
Potential VOC Emissions (Assume all is emitted)	**0.29**	**tons/yr**

Model 34 - North DC Room

Actual Usage:	30	gallons
Actual Operation	6000	hrs/year

**Note: Usage is adjusted by a factor of 2 for total hours of operation

Parts Washer - Solution

Safety-Kleen		
Petroleum Distillates (Hydrotreated Light)	100%	VOC
CAS # 64742-47-8		
Specific Gravity	0.82	
Density	6.7	lb/gal
VOC Content	6.7	lb/gal

Maximum Usage

Maximum Usage	43.80	gallons/yr
Potential VOC Emissions (Assume all is emitted)	293	lbs
Potential VOC Emissions (Assume all is emitted)	**0.29**	**tons/yr**

Kleer Flo - Billets Room

Actual Usage:	30	gallons
Actual PDL Operation	6000	hours

**Note: Usage is adjusted by a factor of 2 for total hours of operation

Parts Washer - Solution

Safety-Kleen		
Petroleum Distillates (Hydrotreated Light)	100%	VOC
CAS # 64742-47-8		
Specific Gravity	0.82	
Density	6.7	lb/gal
VOC Content	6.7	lb/gal

Maximum Usage

Maximum Usage	43.80	gallons/yr
Potential VOC Emissions (Assume all is emitted)	293	lbs
Potential VOC Emissions (Assume all is emitted)	**0.29**	**tons/yr**

Small Tub

Actual Usage:	5	gallons
Actual Operation	6000	hours

**Note: Usage is adjusted by a factor of 2 for total hours of operation

Parts Washer - Solution

Safety-Kleen		
Petroleum Distillates (Hydrotreated Light)	100%	VOC
CAS # 64742-47-8		
Specific Gravity	0.82	
Density	6.7	lb/gal
VOC Content	6.7	lb/gal

Maximum Usage

Maximum Usage	7.30	gallons/yr
Potential VOC Emissions (Assume all is emitted)	49	lbs
Potential VOC Emissions (Assume all is emitted)	**0.05**	**tons/yr**

Water Gremlin Company
Cooling Tower: Potential Emission Calculations **Insignificant Activity Minn. R. 7007.1300, subp. 3(I)**

Unit Information	
Description:	Cooling Tower
Material	Water
Drift Rate	0.05%
Cycles	4 gal/day
Make-up Water TDS	7700 lb solids/10^6 lb water
Hours Uncontrolled	8760
Hours Limited	8760

Make-up Water TDS from correspondence 3-13-15.

PM emission factor is based on AP-42 Section 13.4 "Wet Cooling Towers" (Rev 01/95) described procedures for estimating cooling tower water TDS.

Emission Rate (lb/hr) = Water Circulation Rate*Drift Rate*TDS
where
TDS = Make-up water TDS in lb solids per 10^6 lb water

Particulate Matter

Pollutant	Emission Rate (lb/hr)	Uncontrolled Emissions (tpy)	Control Efficiency	Controlled Emissions (tpy)	Limited Emissions (tpy)
PM	5.21E-06	2.28E-05	0.00%	2.28E-05	2.28E-05
PM_{10}	5.21E-06	2.28E-05	0.00%	2.28E-05	2.28E-05
$PM_{2.5}$	5.21E-06	2.28E-05	0.00%	2.28E-05	2.28E-05

No Pollutants other than particulate in Cooling Tower emissions. Assume PM10 and PM2.5 emissions equal to PM emission rate.

Water Gremlin Company
Chemical Usage: Potential Emission Calculations
Distiller - Detrex FC30-EW **Insignificant Activity Minn. R. 7007.1300, subp. 3(I)**

Typical Operation:	8,760 hrs/yr
Potential Operation:	8,760 hrs/yr

Chemical Information

MSDS Trade Name	TCE
Exhaust Concentration TCE (ppm)	60.48
Air Displaced (cfm)	0.245
MW of TCE	131.4
Percent by Weight	
VOC Content	100.00%
TCE	100.00%
Total HAPs	100.00%

Note: Exhaust concentration of TCE is from client on 10/9/2018

Emission rate is calculated from EPA Method 2

Emission Rate (lb/hr) = C_{gas} x MW x flow rate x Constant
where
C_{gas} = Concentration of gas Constant = 1.57E-07
MW = Molecular weight

Pollutant	Uncontrolled Emission Rate (lbs/hr)	Maximum Uncontrolled Emissions (tons/yr)	Pollution Control Efficiency (%)	Controlled Emissions (lb/hr)	Maximum Controlled Emissions (tons/yr)
VOC	3.06E-04	1.34E-03	0.0%	3.06E-04	1.34E-03
TCE	3.06E-04	1.34E-03	0.0%	3.06E-04	1.34E-03
Total HAPs	3.06E-04	1.34E-03	0.0%	3.06E-04	1.34E-03

Appendix C

Highlighted Applicable Regulations

1. 40 CFR Part 60, subp. IIII
2. 40 CFR Part 60, subp. A
3. 40 CFR Part 63, subp. ZZZZ

Title 40: Protection of Environment
PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES (CONTINUED)

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Contents

Displacement of ≥30 Liters per Cylinder
Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

SOURCE: 71 FR 39172, July 11, 2006, unless otherwise noted.

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WHAT THIS SUBPART COVERS

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§60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

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EMISSION STANDARDS FOR MANUFACTURERS

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§60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Remote areas of Alaska; and

(2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

(h) Stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with auxiliary emission control devices (AECDs) as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR 89.112 while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011; 81 FR 44219, July 7, 2016]

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§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237

KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Remote areas of Alaska; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011; 81 FR 44219, July 7, 2016]

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§60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

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EMISSION STANDARDS FOR OWNERS AND OPERATORS

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§60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $9.0 \cdot n^{-0.20}$ g/KW-hr ($6.7 \cdot n^{-0.20}$ g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

(f) Owners and operators of stationary CI ICE certified to the standards in 40 CFR part 1039 and equipped with AECDs as specified in 40 CFR 1039.665 must meet the Tier 1 certification emission standards for new nonroad CI engines in 40 CFR 89.112 while the AECD is activated during a qualified emergency situation. A qualified emergency situation is defined in 40 CFR 1039.665. When the qualified emergency situation has ended and the AECD is deactivated, the engine must resume meeting the otherwise applicable emission standard specified in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011; 81 FR 44219, July 7, 2016]

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§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

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§60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

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FUEL REQUIREMENTS FOR OWNERS AND OPERATORS

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§60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

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OTHER REQUIREMENTS FOR OWNERS AND OPERATORS

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§60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

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§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

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COMPLIANCE REQUIREMENTS

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§60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in

§60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §60.4201 or §60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

(j) Stationary CI ICE manufacturers may equip their stationary CI internal combustion engines certified to the emission standards in 40 CFR part 1039 with AECDs for qualified emergency situations according to the requirements of 40 CFR 1039.665. Manufacturers of stationary CI ICE equipped with AECDs as allowed by 40 CFR 1039.665 must meet all of the requirements in 40 CFR 1039.665 that apply to manufacturers. Manufacturers must document that the engine complies with the Tier 1 standard in 40 CFR 89.112 when the AECD is activated. Manufacturers must provide any relevant testing, engineering analysis, or other information in sufficient detail to support such statement when applying for certification (including amending an existing certificate) of an engine equipped with an AECD as allowed by 40 CFR 1039.665.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 81 FR 44219, July 7, 2016]

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§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO_x and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_x and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of stationary CI ICE equipped with AECDs for qualified emergency situations as allowed by 40 CFR 1039.665.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

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TESTING REQUIREMENTS FOR OWNERS AND OPERATORS

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§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

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Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the

NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

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§60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

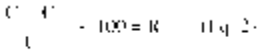
(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:



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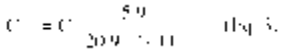
Where:

C_i = concentration of NO_x or PM at the control device inlet,

C_o = concentration of NO_x or PM at the control device outlet, and

R = percent reduction of NO_x or PM emissions.

(2) You must normalize the NO_x or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.



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Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2.

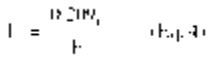
C_d = Measured concentration of NO_x or PM, uncorrected.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2 correction value, percent.

$\%O_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:



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Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3/J ($dscf/10^6$ Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad \text{(Eq. 5)}$$

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Where:

X_{CO2} = CO_2 correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2 correction value, percent.

(iii) Calculate the NO_x and PM gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad \text{(Eq. 6)}$$

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Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2.

C_d = Measured concentration of NO_x or PM, uncorrected.

$\%CO_2$ = Measured CO_2 concentration, dry basis, percent.

(e) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 7 of this section:

$$ER = \frac{\text{illegible}}{\text{KW-hour}} \quad \text{Eq. 7:}$$

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Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_x concentration in ppm.

$1.912x10^{-3}$ = Conversion constant for ppm NO_x to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \quad \text{(Eq. 8)}$$

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Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

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NOTIFICATION, REPORTS, AND RECORDS FOR OWNERS AND OPERATORS

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§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

(e) Owners or operators of stationary CI ICE equipped with AECDs pursuant to the requirements of 40 CFR 1039.665 must report the use of AECDs as required by 40 CFR 1039.665(e).

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

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SPECIAL REQUIREMENTS

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§60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

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§60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in remote areas of Alaska may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in §§60.4201(f) and 60.4202(g).

(c) Manufacturers, owners and operators of stationary CI ICE that are located in remote areas of Alaska may choose to meet the applicable emission standards for emergency engines in §§60.4202 and 60.4205, and not those for non-emergency engines in §§60.4201 and 60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §§60.4201 and 60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in remote areas of Alaska.

(e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in remote areas of Alaska from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011, as amended at 81 FR 44219, July 7, 2016]

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§60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

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General Provisions

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§60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

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Definitions

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§60.4219 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4211(f).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4211(f)(2)(ii) or (iii) and §60.4211(f)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means the calendar year in which an engine is manufactured (see "date of manufacture"), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see "date of manufacture"), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see "date of manufacture").

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Remote areas of Alaska means areas of Alaska that meet either paragraph (1) or (2) of this definition.

(1) Areas of Alaska that are not accessible by the Federal Aid Highway System (FAHS).

(2) Areas of Alaska that meet all of the following criteria:

(i) The only connection to the FAHS is through the Alaska Marine Highway System, or the stationary CI ICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary CI ICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the source is less than 12 megawatts, or the stationary CI ICE is used exclusively for backup power for renewable energy.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel

engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6696, Jan. 30, 2013; 81 FR 44219, July 7, 2016]

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Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO_x	HC	NO_x	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

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Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
Engine power	**Model year(s)**	**NO_x + NMHC**	**CO**	**PM**
KW<8 (HP<11)	2008 +	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008 +	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008 +	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

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Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	**Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)[1]**
KW<75 (HP<100)	2011

75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

[1]Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

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Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO_x	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011 +	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011 +	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 +[1]	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011 +[1]	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010 +[2]	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 +[3]	4.0 (3.0)		0.20 (0.15)

225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 +[3]	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009 +	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008 +	6.4 (4.8)		0.20 (0.15)

[1]For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[2]For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[3]In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

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Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

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Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed[1]	Torque (percent)[2]	Weighting factors

1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

[1]Engine speed: ±2 percent of point.

[2]Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

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Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:

Each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder	a. Reduce NO_x emissions by 90 percent or more;	i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device;		(a) For NO_x, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to

				Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure O_2 at the inlet and outlet of the control device;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for NO_x concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO_x concentration.
		iv. Measure NO_xat the inlet and outlet of the control device.	(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO_x concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO_x in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and number/location of traverse points at the exhaust of the stationary internal combustion engine;		(a) For NO_x, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter *and* the sampling

				port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O_2 concentration must be made at the same time as the measurement for NO_x concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO_x concentration.
		iv. Measure NO_xat the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO_x concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the	(1) Method 1 or 1A of 40 CFR	(a) Sampling sites must be located at the inlet and

		number of traverse points;	part 60, appendix A-1	outlet of the control device.
		ii. Measure O_2 at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.

		iv. Measure PM at the exhaust of the stationary internal combustion engine.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[79 FR 11251, Feb. 27, 2014]

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Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§60.12	Circumvention	Yes	

§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

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Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

NSPS-A

Subpart A Checklist

Air Quality Permit Program

Doc Type: Permit Application

1a) AQ Facility ID No.: 12300341 **1b) AQ File No.:** 2005

2) Facility Name: Water Gremlin Company

Instructions: An owner or operator may fill in this form in replacement of a highlighted copy of the New Source Performance Standard (NSPS) located in 40 CFR 60, Subpart A — General Provisions.

NSPS Provision	Check if applicable
Section 60.1 Applicability.	
(a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.	☒
(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.	☒
(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.	☒
Section 60.2 Definitions (reference rule for additional detail)	
Section 60.3 Units and abreviations (reference rule for additional detail)	
Section 60.4 Address (abreviated for facilities located in Minnesota)	
(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices. Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, U.S. Environmental Protection Agency, 77 West Jackson Boulevard, Chicago, IL 60604–3590.	☒
(b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:	☒
(Y) Minnesota Pollution Control Agency, Division of Air Quality, 520 Lafayette Road, St. Paul, MN 55155.	☒
Section 60.5 Determination of construction or modification.	
(a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.	☒
(b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.	☒
Section 60.6 Review of plans.	
(a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.	☒

NSPS Provision	Check if applicable
(b)(1) A separate request shall be submitted for each construction or modification project.	☒
(2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.	☒
(c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.	☒
Section 60.7 Notification and record keeping.	
(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:	☐
(1) A notification of the date construction (or reconstruction as defined under § 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.	☐
(2) [Reserved]	
(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.	☐
(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in § 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.	☐
(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with § 60.13(c). Notification shall be postmarked not less than 30 days prior to such date.	☐
(6) A notification of the anticipated date for conducting the opacity observations required by § 60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.	☐
(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by § 60.8 in lieu of Method 9 observation data as allowed by § 60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.	☐
(b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	☐
(c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:	☐
(1) The magnitude of excess emissions computed in accordance with § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.	☐
(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.	☐
(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.	☐
(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.	☐
(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.	☐

NSPS Provision	Check if applicable
(1) If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in § 60.7(c) need not be submitted unless requested by the Administrator.	☐
(2) If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in § 60.7(c) shall both be submitted.	☐

Figure 1—SAMPLE Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO_2/NO_X/TRS/H_2S/CO/Opacity)

Reporting period dates: From _____ to _____

Company:

Emission Limitation

Address:

Monitor Manufacturer and Model No.

Date of Latest CMS Certification or Audit

Process Unit(s) Description:Total source operating time in reporting period 1

Emission data Summary [1]	CMS performance summary [1]
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown	a. Monitor equipment malfunctions
b. Control equipment problems	b. Non-Monitor equipment malfunctions
c. Process problems	c. Quality assurance calibration
d. Other known causes	d. Other known causes
e. Unknown causes	e. Unknown causes
2. Total duration of excess emission	2. Total CMS Downtime
3. Total duration of excess emissions × (100) [Total source operating time], % [2]	3. [Total CMS Downtime] × (100) [Total source operating time], % [2]

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in § 60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name
Signature
Title
Date

NSPS Provision	Check if applicable
(e)(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:	☐
(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;	☐
(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and	☐
(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.	☐

NSPS Provision	Check if applicable
(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.	☐
(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.	☐
(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:	☐
(1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.	☐
(2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.	☐
(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.	☐
(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.	☐
(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.	☐
Section 60.8 Performace Tests	
(a) Except as specified in paragraphs (a)(1),(a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).	☐
(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.	☐

NSPS Provision	Check if applicable
(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.	☐
(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.	☐
(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.	☐
(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.	☐
(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.	☐
(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.	☐
(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:	☐
(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.	☐
(2) Safe sampling platform(s).	☐
(3) Safe access to sampling platform(s).	☐
(4) Utilities for sampling and testing equipment.	☐
(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.	☐
(g) The performance testing shall include a test method performance audit (PA) during the performance test. *(abridged – See rule for additional detail)*	☐
(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. *(abridged – See rule for additional detail)*	☐

NSPS Provision	Check if applicable
(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:	☐
(i) Preparing the sample;	☐
(ii) Confirming the true concentration of the sample;	☐
(iii) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.	☐
(iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;	☐
(v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;	☐
(vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;	☐
(vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.	☐
(viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;	☐
(ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.	☐
(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:	☐
(i) Checking audit samples to confirm their true value as reported by the AASP;	☐
(ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;	☐
(iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.	☐
(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). *(abridged – See rule for additional detail)*	☐
Section 60.9 Availablity of information	
The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§ 60.5 and 60.6 is governed by §§ 2.201 through 2.213 of this chapter and not by § 2.301 of this chapter.)	☒
Section 60.10 State authority	
The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:	

NSPS Provision	Check if applicable
(a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.	☒
(b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.	☒
Section 60.11 Compliance with standards and maintenance requirements	
(a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by § 60.8, unless otherwise specified in the applicable standard.	☐
(b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).	☐
(c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.	☐
(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.	☐
(e)(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in § 60.8 unless one of the following conditions apply. If no performance test under § 60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. *(abridged – See rule for additional detail)*	☐
(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under § 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.	☐
(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in § 60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.	☐
(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by § 60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and § 60.8 performance test results.	☐
(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under § 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under § 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under § 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under § 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under § 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in § 60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.	☐

NSPS Provision	Check if applicable
(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by § 60.8, the opacity observation results and observer certification required by § 60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by § 60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with § 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.	☐
(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.	☐
(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the **Federal Register.**	☐
(f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.	☐
(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.	☐
Section 60.12 Circumvention	
No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.	☒
Section 60.13 Monitoring requirements	
(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.	☐
(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under § 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.	☐
(c) If the owner or operator of an affected facility elects to submit continous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under § 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, *(abridged – See rule for additional detail)*	☐
(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under § 60.8 and as described in § 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under § 60.8 is conducted.	☐
(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.	☐
(d)(1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. *(abridged – See rule for additional detail)*	☐
(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a	☐

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known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.	
(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:	☐
(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.	☐
(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.	☐
(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.	☐
(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.	☐
(h)(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in § 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.	☐
(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:	☐
(i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.	☐
(ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.	☐
(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or	☐
(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.	☐
(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.	☐
(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.	☐
(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.	☐
(vii) Owners and operators complying with the requirements of § 60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.	☐
(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (*e.g.* hours with < 30 minutes of unit operation under § 60.47b(d)).	☐

NSPS Provision	Check if applicable
(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (*e.g.*, ppm pollutant and percent O_2 or ng/J of pollutant).	☐
(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.	☐
(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:	☐
(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.	☐
(2) Alternative monitoring requirements when the affected facility is infrequently operated.	☐
(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.	☐
(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.	☐
(5) Alternative methods of converting pollutant concentration measurements to units of the standards.	☐
(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.	☐
(7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.	☐
(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.	☐
(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.	☐
(j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:	☐
(1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in § 60.8 of this subpart or other tests performed following the criteria in § 60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).	☐
(2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., § 60.45(g) (2) and (3), §	☐

NSPS Provision	Check if applicable
60.73(e), and § 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.	
Section 60.14 Modification	
(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.	☒
(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:	☒
(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.	☒
(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.	☒
(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.	☒
(d) [Reserved]	
(e) The following shall not, by themselves, be considered modifications under this part:	☒
(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and § 60.15.	☒
(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.	☒
(3) An increase in the hours of operation.	☒
(4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by § 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.	☒
(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.	☒
(6) The relocation or change in ownership of an existing facility.	☒
(f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.	☒
(g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.	☒

NSPS Provision	Check if applicable
(h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.	☒
(i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.	☒
(j)(1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.	☒
(2) This exemption shall not apply to any new unit that:	☒
(i) Is designated as a replacement for an existing unit;	☒
(ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and	☒
(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. *(abridged – See rule for additional detail)*	☒
(l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.	☒
Section 60.15 Reconstruction	
(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.	☒
(b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:	
(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and	☒
(2) It is technologically and economically feasible to meet the applicable standards set forth in this part.	☒
(c) "Fixed capital cost" means the capital needed to provide all the depreciable components.	
(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information: (1) Name and address of the owner or operator. (2) The location of the existing facility. (3) A brief description of the existing facility and the components which are to be replaced. (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment. (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility. (6) The estimated life of the existing facility after the replacements. (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.	☒
(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.	☒
(f) The Administrator's determination under paragraph (e) shall be based on:	
(1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;	
(2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;	
(3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and	
(4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.	

NSPS Provision	Check if applicable
(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.	
Section 60.16 Priority list	
Section 60.17 Incorporations by reference	
Section 60.18 General control device and work practice requirements	
(a) *Introduction.* (1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.	X
(2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.	
(b) *Flares.* Paragraphs (c) through (f) apply to flares.	☐
(c)(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.	☐
(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).	☐
(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.	☐
(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max}, as determined by the following equation: $V_{max}=(X_{H2}-K_1)* K_2$ Where V_{max}=Maximum permitted velocity, m/sec. K_1=Constant, 6.0 volume-percent hydrogen. K_2=Constant, 3.9(m/sec)/volume-percent hydrogen. X_{H2}=The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 60.17).	☐
(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.	☐
(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.	
(4)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.	☐
(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).	☐
(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max}, as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.	☐
(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the method specified in paragraph (f)(6).	☐
(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.	☐

NSPS Provision	Check if applicable
(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.	☐
(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.	☐
(f)(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.	☐
(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.	☐
(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation: $H_T = K \sum_{i=1}^{n} C_i H_i$ Where: H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C; K = Constant, 1.740×10^{-7} $\left(\frac{1}{ppm}\right)$ $\left(\frac{g\ mole}{scm}\right)$ $\left(\frac{MJ}{kcal}\right)$ where the standard temperature for $\left(\frac{g\ mole}{scm}\right)$ is 20°C; C_i=Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in § 60.17); and H_i=Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 60.17) if published values are not available or cannot be calculated.	☐
(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.	☐
(5) The maximum permitted velocity, V_{max}, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation. $Log_{10}(V_{max})=(H_T+28.8)/31.7$ V_{max}=Maximum permitted velocity, M/sec 28.8=Constant 31.7=Constant H_T=The net heating value as determined in paragraph (f)(3).	☐
(6) The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation. $V_{max}=8.706+0.7084\ (H_T)$ V_{max}=Maximum permitted velocity, m/sec 8.706=Constant 0.7084=Constant H_T=The net heating value as determined in paragraph (f)(3).	☐
(g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, Appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, Appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.	☐

NSPS Provision	Check if applicable
(1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.	
(2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, Appendix A-7, Method 21 monitor.	
(3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.	
(4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.	
(5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.	
(6) *Leak* means:	☐
(i) Any emissions imaged by the optical gas instrument;	☐
(ii) Indications of liquids dripping;	☐
(iii) Indications by a sensor that a seal or barrier fluid system has failed; or	☐
(iv) Screening results using a 40 CFR part 60, Appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.	☐
(h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.	☐
(1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, Appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.	☐
(2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.	☐
(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.	☐
(4) The schedule for repair is as required in the applicable subpart.	☐
(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.	☐
(6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:	☐
(i) Skip period leak detection and repair;	
(ii) Quality improvement plans; or	
(iii) Complying with standards for allowable percentage of valves and pumps to leak.	
(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.	☐
(i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.	☐
(1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section	☐
(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.	☐

NSPS Provision	Check if applicable
(ii) Provide a date and time stamp for video records of every monitoring event.	☐
(2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.	☐
(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.	
(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.	☐
(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation. $E_{dic} = (E_{sds}) \sum_{i=1}^{k} x_i$ E_{dic} = Mass flow rate for the daily instrument check, grams per hour x_i = Mass fraction of detectable chemical(s) i seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, E_{sds}. E_{sds} = Standard detection sensitivity level from Table 1 to subpart A, grams per hour k = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.	☐
(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.	☐
(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.	☐
(iv) Establish a mass flow rate by using the following procedures:	☐
(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.	☐
(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.	☐
(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.	☐
(v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.	☐
(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under § 60.13(i).	☐
(3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.	☐
(4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:	☐
(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.	☐
(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.	☐

NSPS Provision	Check if applicable
(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.	☐
(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.	☐
(v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.	☐
(vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.	☐
(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.	☐
(5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.	☐
Section 60.19 General notification and reporting requirements	
(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.	☒
(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.	☒
(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.	☒
(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.	☒
(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.	☒
(f)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.	☒

NSPS Provision	Check if applicable
(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.	☒
(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.	☒
(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.	☒
(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.	☒

Table 1 to Subpart A to Part 60-Detection Sensitivity Levels (grams per hour)

Monitoring frequency per subpart [a]	Detection sensitivity level
Bi-Monthly	**60**
Semi-Quarterly	**85**
Monthly	**100**

[a] When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

(abridged – See rule for additional detail)

Title 40: Protection of Environment
PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Contents

SOURCE: 69 FR 33506, June 15, 2004, unless otherwise noted.

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WHAT THIS SUBPART COVERS

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§63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

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§63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

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§63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

No applicable requirements under 40 CFR 63, subp. A.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

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§63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this

subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

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