

**Connecticut Department of Energy & Environmental Protection** Bureau of Air Management Engineering & Enforcement Division

### Instructions for Completing the Registration Form for the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution

Use these instructions to complete the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution Registration Form (DEEP-AIR-REG-001). All applicable regulations should be reviewed prior to completing this registration. It is the Registrant's responsibility to comply with all applicable regulations.

Questions? Visit the <u>Air Permitting</u> web page or contact the Air Permitting Engineer of the Day at 860-424-4152 (between 8:30 AM and 4:30 PM, Monday through Friday).

#### Introduction

The Clean Air Act (CAA), as amended in 1990, requires each state to develop a Title V operating permit program. This program applies to all major sources of air pollution and other sources subject to Federal Clean Air Act requirements such as Title 40 of the Code of Regulations (CFR) Parts 60, 61, 68, 72-78 and CAA Section 129(e). A Title V operating permit assembles into a single permit all state and federal air pollution control requirements applicable to each emissions unit at a given premises.

The Connecticut Department of Energy & Environmental Protection (DEEP) has established the Title V operating permit program, as delineated in section 22a-174-33 of the Regulations of Connecticut State Agencies (RCSA), to meet this federal requirement. This regulation requires the owner or operator of a Title V source to apply for and obtain a Title V operating permit. A Title V source is:

- a premises containing any emissions unit subject to a standard or other requirement contained in 40 CFR Parts 60, 61, 62, 63, 68, 72-78 or promulgated pursuant to CAA section 129(e), new source performance standards for solid waste combustion; and/or
- a premises, also known as a *major* stationary source, as defined in the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution, containing one or more emissions units which emit or have the potential to emit any regulated air pollutant and/or any hazardous air pollutant (HAP) at levels above those identified in RCSA sections 22a-174-33(a)(10)(E) and (F) as well as Green House Gases as listed in 40 CFR §70.2.

DEEP developed the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution (general permit) to provide businesses with a streamlined mechanism for

#### complying with Title V.

This general permit:

- is a premises wide permit;
- limits total actual emissions from the premises to either:
  - **below 50%** of applicable major stationary source levels, except GHG which is limited to below 100%, as indicated on an Approval of Registration; or
  - **up to but no more than 80%** of applicable major stationary source levels, except GHG which is limited to below 100%, as indicated on an Approval of Registration;
- does not supersede or make less stringent any other environmental standard required by the commissioner.

The owner or operator of a source subject to the Title V operating permit program may seek authorization under this general permit *instead* of obtaining a Title V operating permit. This general permit enables Title V sources to "cap" or limit their potential and actual emissions to levels **below 50%** or **up to but no more than 80%** of the applicable major stationary source thresholds, except GHG which is limited to below 100%.

#### Who May Register?

Any owner or operator of a major stationary source seeking to limit potential and actual emissions in lieu of obtaining a Title V operating permit may seek authorization under this general permit.

Premises with actual emissions which will commence or continue to be in excess of 80% of the major stationary source threshold do not qualify for authorization under the general permit. Note: If a premises is a major stationary source, and the owner or operator of the premises decides to *remain* a major stationary source, then it will be subject to the permitting requirements of the Title V operating permit program. *In this case*, contact DEEP for the Title V application package.

Also, premises with potential and actual emissions which fall *below* the major stationary source thresholds do not need to register. If you determine that your premises's potential and actual emissions fall below the major stationary source thresholds, do not submit the *Registration Form for the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution.* However, please keep records of your potential to emit calculations in order to verify your status in the future.

*Caution*: If your premises's actual emissions are within 10 to 20 percent of your requested emission limitation of **below 50%** or **up to but no more than 80%** of the major stationary source thresholds, except GHG which is limited to below 100%, you should carefully consider future business needs and allow for growth and/or expansion when evaluating which limitation to request or whether to seek authorization under the general permit.

Premises which are subject to a standard described in RCSA section 22a-174-33(a)(10)(A) or (B), not otherwise exempted or deferred from the Title V program in accordance with RCSA section 22a-174-33(c), will not be able to avail themselves of the general permit in lieu of the Title V permit. This, however, does not preclude a premises triggering the Title V source definition, by way of both a threshold and a standard described in RCSA section 22a-174-33(a)(10)(A) or (B), from utilizing this general permit in conjunction with a deferral or an exemption from the Administrator or RCSA section 22a-174-33. The owner or operator of a source subject to 40 CFR Parts 72-78 or the CAA Section 129(e), as referenced in RCSA

sections 22a-174-33(a)(10)(C) and (D), is not eligible for authorization under this general permit.

If you have further questions about the Title V program or applicability to your premises, please review RCSA section 22a-174-33, the *Instructions for Completing the Application for a New Title V Permit or the Renewal of an Existing Title V Permit* (DEEP-TV-INST-100), and the *New Title V Permit or Renewal of an Existing Title V Permit Application* (DEEP-TV-APP-100). Every premises is unique and must be evaluated on a premise-wide basis prior to determining if the general permit is appropriate.

#### How to Register

The registration package must include the following:

- Registration Form for the General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution (DEEP-AIR-REG-001);
- a registration fee; and
- all required Supporting Documents.

Submit one registration form for each premises.

## The registration will not be processed until DEEP receives the registration fee.

Submit the completed registration package to:

CENTRAL PERMIT PROCESSING UNIT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION 79 ELM STREET HARTFORD, CONNECTICUT 06106-5127

Note: A *Permit Application Transmittal Form* (DEEP-APP-001) is **not** required with this registration form. A Notice of Application is also **not** required for this registration form.

When submitting your registration, label the supporting documents as directed and always

include, on each document, the registrant's name as indicated on the registration form. When additional space is necessary to answer a question stated in the registration, please insert additional sheets by the appropriate question or affix them to the relevant attachment. Label each sheet with the registrant's name, along with the corresponding section or form number and question number indicated on the registration form.

## You should retain a copy of all documents for your files.

#### **Registration Instructions** (DEEP-AIR-REG-001)

Please read the registration form and instructions carefully. They have been designed to obtain specific information and any information that is missing or unclear will cause delays in the review process. If any questions are not applicable to your specific activity, please enter "N/A" in the space provided. If a question or supporting document is only required for specific activities it will be noted on the registration form or in the instructions.

Please be advised that these instructions are not a substitute for any state or federal statutes or regulations. Be sure to refer to the applicable statutes and regulations while completing your registration.

If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the <u>Request to Change</u> <u>Company/Individual Information</u> to the address indicated on the form. If there is a change in name of the entity holding a DEEP license or a change in ownership, contact the Office of Planning and Program Development (OPPD) at 860-424-3003.

Any person proposing to transfer a DEEP permit must submit a completed *License Transfer Form* (DEEP-APP-006) and transfer fee to DEEP. The *License Transfer Form* may be used for changes in owners and operators of the licensed activity. For further information concerning license transfers, please contact OPPD at 860-424-3003.

When completing this form, please use the following standards:

- *Name* - Provide the full, legal *company/firm* name. (If identifying an entity registered with the Secretary of the State, fill in the name exactly as it is shown on the registration. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at CONCORD.) If identifying an *individual*, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr., Sr., II, III, etc.). If the registrant is a governmental body, identify the city or town of such body followed by the relevant department, board or division.
- *Phone* Unless otherwise indicated, the phone number provided should be the number where the corresponding individual can be contacted during daytime business hours.
- *Contact Person* Provide the name of the specific individual within the company whom DEEP may contact.
- *E-Mail* Registrants must provide an accurate e-mail address when completing their registration form. The e-mail address may be used for future correspondence from DEEP to your business.

Note: By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject application. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify DEEP if your e-mail address changes. *Registrant Name* – Provide the full, legal name of the registrant.

Subject to EPA "Once In Always In" Policy – Indicate if the premises would be subject to EPA's May 16, 1995 "once in always in" policy if it became a Title V source. Optional.

#### Part I. Registration Type

Indicate if the registration is a new registration or a re-registration to an existing approval of registration.

For a re-registration list the existing approval of registration number.

Indicate the requested emission limitation on regulated air pollutants as either **below 50%** or **up to but no more than 80%** and GHG to less than 100% of Title V thresholds as defined in RCSA section 22a-174-33(a)(10)(E) and (F).

#### Part II. Fee Information

A fee of \$2,760.00 must be submitted for the approval of registration you are seeking. The registration will not be processed without the fee. The payment should be in the form of a check or money order made payable to the **Department of Energy & Environmental Protection** or by such other method as the commissioner may allow.

Indicate if the registrant is a municipality. For municipalities, the 50% discount applies.

#### Part III. Registrant Information

*Registrant Name* – Provide the full, legal name of the registrant.

 Registrant Information – Provide the information concerning the registrant. Indicate if the registrant is the owner and/or operator of the emissions unit(s) that are the subject of the registration.

Indicate if there are co-registrants. If yes,

attach separate sheets providing the required information.

- 2. Primary Contact for Departmental Correspondence and Inquiries - If different than the registrant, provide the information of the individual authorized to act for the registrant during the processing of the registration form.
- Engineer or Consultants Employed or Retained to Assist in Preparing the Registration Form – If different than the registrant, provide the information of any engineer, or consultant employed or retained to assist in preparing the registration form. Also indicate the type of service or assistance provided. (Note: You are not required to employ or retain an engineer or consultant to prepare this registration form.)

Indicate if additional sheets are required to identify all engineers or consultants employed or retained. If so, attach separate sheets providing the required information.

#### **Part IV: Premises Information**

1. *Premises Information:* Provide the information concerning the premises. The premises name should be the name by which the premises is commonly known and/or uniquely identified.

The information given as the premises address should be the address of the property at which the proposed activity will take place. Include the street address and municipality. If the property does not have a street number, describe the location in terms of the distance and direction from an obvious landmark such as an intersection with another roadway, a bridge, or a river. For example, "...on River Street, approximately 1000 feet north of its intersection with Bear Swamp Road."

2. *Premises Owner* – If different than the registrant, provide the information

concerning the owner of the premises.

#### 3. Industry Codes -

3a. SIC (Standard Industrial Classification) Code: Provide the primary SIC code applicable to the premises or type of business conducted by the registrant. If a premises has more than one SIC code, provide the code which identifies the type of activity in which the premises engages at least 50% of the time.

SIC codes can be determined from the *Standard Industrial Classification Manual* produced by the Executive Office of the President, Office of Management and Budget and sold by the National Technical Information Service. A copy of this book is available at most local public libraries.

3b. *NAICS (North American Industrial Classification System) Code:* Provide the primary NAICS code applicable to the premises or type of business conducted by the registrant. If the premises has more than one NAICS code, provide the code which identifies the type of activity in which the premises engages at least 50% of the time.

NAICS codes can be determined from the *U.S. NAICS Manual* produced by the U.S. Census Bureau. A copy of this book is available at most local public libraries.

- 4. *Latitude & Longitude:* Provide the latitude and longitude, in degrees, minutes and seconds, of the approximate center of the premises. Indicate the method used. If a USGS map was used, provide the quadrangle name.
- 5. *Indian Lands:* Indicate if the premises is located on federally recognized Indian lands.
- 6a. *VOC RACT:* Indicate if the premises is subject to RCSA section 22a-174-32, Reasonably Available Control Technology

for Volatile Organic Compounds. If yes, complete Part VIII of the registration form.

- 6b. *VOC RACT Plan:* Indicate if the subject owner or operator has submitted a VOC RACT Plan pursuant to RCSA section 22a-174-32(d). If yes, provide submittal date. If no, submit such plan with the registration form as Attachment C.
- 40 CFR Part 60: Indicate if any emissions units on the premises are subject to any New Source Performance Standard (40 CFR Part 60). If yes, provide the emissions unit(s) and the respective subpart(s).
- 8. *40 CFR Part 63:* Indicate if any emissions units on the premises are subject to any Maximum Achievable Control Technology standard (40 CFR Part 63). If yes, provide the emissions unit(s) and the respective subpart(s).

#### Part V: Emissions Unit Inventory

#### Useful Resources for Preparing Your Emissions Unit Inventory

If you have had contact with the Air Bureau before, you may have received emission statements or pre-inspection questionnaire (PIQ) forms from the bureau. These documents provide an excellent starting point for preparing an emissions unit inventory. Even if you have these documents, it still is important to conduct a premises tour to make sure you inventory *all* the air emissions units at your premises, including those that do not appear on your emission statement or PIQ forms. (Examples of emissions units are: emergency generators, boilers, degreasers, spray booths, etc.).

It will also be useful to gather any air permits, registrations, or administrative orders that you have at this time. These documents are also helpful in preparing an emissions unit inventory.

**Note:** If you have R&D facilities, emissions units in the R&D facility must be included in the emissions unit inventory for your premises. **Note:** Emissions units which are subject only to general premises-wide applicable requirements need not be included in this registration form. Such emissions units include:

- Any insignificant emissions unit as listed in RCSA section 22a-174-33(g)(3);
- Any emissions unit or activity listed in White Paper for Streamlined Development of Part 70 Permit Applications, Attachment A (EPA guidance memorandum, July 10, 1995); or
- Any emissions unit that is subject to only generic requirements which may apply identically to one or more emissions units at the premises.

However, if the commissioner determines that the emissions from such emissions units are needed to determine the eligibility of this premises for the general permit, the applicability of the Title V regulation or to impose any applicable requirement, then the registrant shall include such emissions units.

#### 1. Emissions Unit (EU) Information:

- a. *EU No.:* Create an emissions unit number for each emissions unit on the premises. The emissions unit will be used as a simple method to reference each emissions unit, without having to provide the make, model, and serial number of the emissions unit each time. Begin this identifying number with the letters "EU" (e.g. EU-1, EU-2, ... EU-999). For example, two identical Cleaver Brooks boilers could be represented as EU-1 and EU-2.
- b. *EU Description:* Provide the description of each emissions unit such as the make, model, or serial number.
- c. *Control Equipment Description:* Provide a description of the control equipment

associated with each emissions unit, if applicable. If not applicable, indicate "N/A".

d. *Permit, Registration or Regulation Number:* Provide the permit, registration or regulation number associated with each emissions unit, if applicable. If an emissions unit is not currently operating under a permit, registration or regulatory section, indicate "N/A". **DO NOT include an Approval of Registration under the GPLPE.** 

Registrants requesting the emission limitation on regulated air pollutants of **up to but no more than 80%** and GHG to less than 100% of Title V thresholds as defined in RCSA sections 22a-174-33(a)(10)(E) and (F) in Part I of the registration form must complete sections e and f of Part V. One or more emissions units on the premises must be in a source category with monitoring requirements in Section 5(c) of the general permit.

- e. *Source Category:* Provide the source category of each emission unit as applicable. The source categories are VOC (specify type), Fuel Burning, Mineral Processing and Asphalt. Indicate "N/A" if none of the categories are applicable.
- f. *Monitoring Description*: Provide a description of the monitoring for each emissions unit with a source category listed in section e above. Monitoring descriptions are Record Keeping, CEM, Stack Testing and Manufacturer Data. Indicate "N/A" if none of the categories are applicable.

Indicate if additional sheets are required to identify all emissions units on the premises. If so, attach separate sheets providing the required information and enter the page number and total pages at the top of each sheet (page x of y).

- 2. Grouped Emissions Unit (GEU) Information:
  - a. *GEU No*.: Create an emissions group number for each emissions group formed. All emissions group numbers shall begin with the letters "GEU" followed by a sequential numbering system (e.g. GEU-1, GEU-2,...GEU-999). As an example, the identical Cleaver Brooks boilers mentioned above could be given an emissions group number such as "GEU-1", then "EU-1" and "EU-2" would be identified in 2b.
  - b. *EUs:* Provide the emissions unit numbers of any group of emissions units which share the same SCC code that are to be considered one group. Combining similar or identical emissions units into groups will make it easier to calculate the air emissions for the premises. Emissions units that do not have the same SCC numbers or do not have the same emission factors associated with them cannot be combined into an emissions group.

Indicate if additional sheets are required to identify all grouped emissions units. If so, attach separate sheets providing the required information and enter the page number and total pages at the top of each sheet (page x of y).

#### Part VI: Premises Emissions Summary for PM-2.5, PM-10, SOx, NOx, VOC, CO, Lead and GHG

Parts VI and VII serve as premises emissions summaries. Before completing these sections you must calculate, by emissions unit or grouped emissions unit, your potential and actual emissions.

See Section 4(c)(F) of the general permit for the time period and source of data required. The

hierarchy in Section 5(b) of the general permit allows AP-42 emission factors to be used to calculate emissions as specified and only if the other sources of data are not available. Please be aware if you choose to rely on AP-42 emission factors to calculate emissions, and subsequent stack testing data or other more accurate sources of data become available, you will be required to use such data to calculate actual emissions and determine whether the premises may properly be covered by the general permit.

To calculate GHG emissions, see Appendix B of these instructions for 40 CFR Part 98, Table A– 1, Table C-1 and Table C-2. <u>Federal Register</u> (October 30, 2009)

- 1. Premises Name: Provide the premises name.
- 2. *Ozone Non-Attainment Status:* Identify the ozone non-attainment status of the area in which the premises is located as either serious or severe non-attainment. Major stationary source threshold levels depend on this status.

Every town in the state is classified as a *serious* ozone non-attainment area except for the following towns, which are classified as *severe* ozone non-attainment areas:

New Milford
Newtown
Norwalk
Redding
Ridgefield
Sherman
Stamford
Stratford
Trumbull
Weston
Westport
Wilton

3. *Major Stationary Source Classification:* Specify the pollutant(s) (PM-2.5, PM-10, SOx, NOx, VOC, CO, Lead or GHG) for which the premises is classified as a major stationary source.

A premises is classified as a major stationary source if the potential emissions from such premises exceed one or more of the following thresholds:

- 100 TPY of any individual air pollutant;
- 50 TPY of VOC or NOx in a serious non-attainment area for ozone;
- 25 TPY of VOC or NOx in a severe nonattainment area for ozone; or
- 100,000 TPY of GHG (CO<sub>2</sub>e basis).
- 4. *Emissions Unit or Grouped Emissions Unit Number*: List the emissions unit or grouped emissions unit number for each emissions unit at the premises which emits PM-2.5, PM-10, SOx, NOx, VOC, CO, Lead or GHG. This number should be the same emissions unit number or grouped emissions number you assigned to the equipment in Part V.

Indicate if additional sheets are required to identify every emissions unit at the premises. If so, attach separate sheets providing the required information and enter the page number and total pages at the top of each sheet (page x of y).

5-12. Potential and Actual Emissions: For each emissions unit or grouped emissions unit, provide the potential and actual emissions of PM-2.5, PM-10, SOx, NOx, VOC, CO, Lead and GHG based on the most recent consecutive twelve month period data is available preceding the date of registration or during such other time period designated by the commissioner. Such consecutive twelve month period shall end less than or equal to three months prior to the date of calculation, unless otherwise designated by the commissioner. Refer to Section 5(b) of the GENERAL PEMIT for determining the source of data for calculating such emissions. These values should be expressed in tons per year (TPY).

Copies of the calculations used in obtaining the potential and actual emissions must be submitted as Attachment A, including the source of the data.

- 13. Totals (TPY) (This Page): For each pollutant, add the amounts of potential emissions on this sheet and provide the total. Repeat for actual emissions. (This will give you the subtotal of potential and actual emissions for each pollutant for the emissions units on this page.)
- 14. *Premises Totals:* Provide the premises totals for potential and actual emissions for each of the pollutants. If more than one sheet was used to accommodate all of the emissions units, add the subtotals from each sheet and provide the *premises totals* in the spaces provided on the *first* of the multiple pages.

#### **Part VII: Premises Emissions Summary for Hazardous Air Pollutants (HAPs)**

Parts VI and VII serve as premises emissions summaries. Before completing these sections you must calculate, by emissions unit or grouped emissions unit, your potential and actual emissions.

- 1. Premises Name: Provide the premises name.
- 2. Listed Federal Hazardous Air Pollutants: Indicate whether any of the 187 Federal Hazardous Air Pollutants (HAP) listed in Appendix A of these instructions are used or emitted.

#### If No, continue on to Part VIII.

If Yes, indicate whether the premises is a major stationary source for any single HAP or combination of HAPs. A major stationary source for HAPs is any premises which emits or has the potential to emit 10 TPY or more of any single HAP, which has been listed pursuant to Section 112(b) of the CAA, except hydrogen sulfide, or 25 TPY or more of any combination of HAPs.

3. *Emissions Unit or Grouped Emissions Unit Number:* Provide the emissions unit or grouped emissions unit number for each emissions unit at the premises which emits HAPs. This number should be the same emissions unit number or emissions group number you assigned to the equipment in Part V.

Indicate if additional sheets are required to identify every emissions unit at the premises that emits HAPs. If so, attach separate sheets providing the required information and enter the page number and total pages at the top of each sheet (page x of y).

- 4. *HAP Name:* Provide the name of each Hazardous Air Pollutant which is used or emitted. (Appendix A of these instructions lists the 187 HAPs subject to the provisions of Section 112 of the 1990 Clean Air Act Amendments.)
- 5. *CAS Number:* Enter the Chemical Abstracts Service (CAS) Number for each HAP provided. (This number is included in the HAP list in Appendix A of these instructions.)

Potential and Actual Emissions: For each emissions unit or grouped emissions unit, provide the potential and actual emissions of each HAP listed based on the most recent consecutive twelve month period data is available preceding the date of registration or during such other time period designated by the commissioner. Such consecutive twelve month period shall end less than or equal to three months prior to the date of calculation, unless otherwise designated by the commissioner. Refer to Section 5(b) of the general permit for determining the source of data for calculating such emissions. These values should be expressed in tons per year (TPY).

Copies of the calculations used in obtaining the potential and actual emissions must be submitted as Attachment A.

- 6. *Totals (TPY) (This page):* For each HAP listed, add the amounts of potential emissions on this sheet and provide the total. Repeat for actual emissions. (This will give you the subtotal of potential and actual emissions for each HAP for the emissions units listed on this page.)
- 7. *Premises Totals (TPY) (Each HAP):* Provide the premises totals for potential and actual emissions for each of the HAPs. If more than one sheet was used to accommodate all of the emissions units, add the subtotals from each sheet and enter the *premises totals* in the spaces provided on the *first* of your multiple pages.
- 8. *Premises Total All HAPs*: Add together *all* of the potential HAPs emissions, then add together *all* of your actual HAPs emissions. These calculations are necessary to determine whether you are a major stationary source for a combination of HAPs.
- 9. *Classified as Major for HAPs?:* Indicate if the premises has potential emissions equal to or greater than 10 TPY for an individual HAP or 25 TPY for all HAPS or is not classified as major stationary source for HAPs.

#### Part VIII: Documentation of Actual VOC Emissions

If the premises is subject to RCSA section 22a-174-32, Reasonably Available Control Technology (RACT) for VOCs, the owner or operator is required to complete this part and document that the actual emissions of VOC from the premises for each calendar year, or portion thereof, after December 31, 1995 do not exceed the levels specified in Section 3(a)(3) of the general permit.

#### Part IX: Supporting Documents

All registration forms submitted to DEEP must include Attachments A and B; and Attachment C, if applicable. Indicate with a check mark in the appropriate box by each applicable attachment as verification that all applicable attachments have been submitted.

Please label all attachments as referenced in the registration form and these instructions and be sure to include the name of the registrant.

#### Attachment A: Emissions Calculations, REQUIRED

Submit, as Attachment A, a copy of all calculations used to determine both potential and actual emissions for each EU and GEU, including the source of the data.

#### Attachment B: Applicant Compliance Information Form (DEEP-APP-002), REQUIRED

CGS section 22a-6m provides for DEEP review of a registrant's record of compliance with the environmental laws of Connecticut, any other state and the federal government. Under the law, DEEP may consider the registrant's environmental compliance record, as well as the record of the registrant's principals and any parent companies or subsidiaries, when reviewing a permi

t application. All registrations must include a completed *Applicant Compliance Information Form* (DEEP-APP-002) as Attachment B.

## Attachment C: VOC RACT Compliance Plan, IF APPLICABLE

If the premises is subject to RCSA section 22a-174-32, RACT for VOCs, the owner or operator is required to submit a compliance plan in accordance with RCSA section 22a-174-32(d). If such plan has not been previously submitted, submit, as Attachment C, such compliance plan.

#### Part X: Certification

After the registration has been completed it must be reviewed and signed in accordance with the provisions of RCSA section 22a-174-2a(a). A registration will be considered insufficient unless all required signatures are provided.

RCSA section 22a-174-2a requires that any document, including but not limited to, a permit application, report or certification, submitted to the commissioner shall be signed by certain named individuals or positions, as identified in RCSA section 22a-174-2a(a).

Signatory responsibilities for corporations, partnerships, sole proprietorships, municipalities, State, Federal or other public agencies as well as methods for designating a duly authorized representative are also explained in RCSA section 22a-174- 2a(a).

Indicate if additional sheets are required for signatures. If so, attach separate sheets providing the required information.

#### Affirmative Action, Equal Employment Opportunity and Americans with Disabilities

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act (ADA). Please contact us at (860) 418-5910 or <u>deep.accommodations@ct.gov</u> if you: have a disability and need a communication aid or service; have limited proficiency in English and may need information in another language; or if you wish to file an ADA or Title VI discrimination complaint.

# Appendix A. List of 187 Hazardous Air Pollutants Subject to the Provisions of Section 112 of the 1990 Clean Air Act Amendments

Chemical Name	Chemical Abstracts Service Number (CAS No.)
1. Acetaldehye	75-07-0
2. Acetamide	60-35-5
3. Acetonitrile	75-05-8
4. Acetophenone	98-86-2
5. 2-Acetylaminofluorene	53-96-3
6. Acrolein	107-02-8
7. Acrylamide	79-06-1
8. Acrylic acid	79-10-7
9. Acrylonitrile	107-13-1
10. Allyl chloride	107-05-1
11. 4-Aminobiphynyl	92-67-1
12. Aniline	62-53-3
13. o-Anisidine	90-04-0
14. Antimony Compounds	
15. Arsenic Compounds (inorganic including arsine)	
16. Asbestos	1332-21-4
17. Benzene	71-43-2

Chemical Name	Chemical Abstracts Service Number (CAS No.)
18. Benzidine	92-87-5
19. Benzotrichloride	98-07-7
20. Benzyl chloride	100-44-7
21. Beryllium Compounds	
22. Biphenyl	92-52-4
23. Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7
24. Bis(chloromethyl) ether	542-88-1
25. Bromoform	75-25-2
26. 1,3-Butadiene	106-99-0
27. Cadmium Compounds	
28. Calcium Cyanamide	156-62-7
29. Captan	133-06-2
30. Carbaryl	63-25-2
31. Carbon disulfide	75-15-0
32. Carbon tetrachloride	56-23-5
33. Carbonyl sulfide	463-58-1
34. Catechol	120-80-9

Chemical Name	Chemical Abstracts Service Number (CAS No.)
35. Chloramben	133-90-4
36. Chlordane	57-74-9
37. Chlorine	7782-50-5
38. Chloroacetic acid	79-11-8
39. 2-Chloroacetophenone	532-27-4
40. Chlorobenzene	108-90-7
41. Chlorobenzilate	510-15-6
42. Chloroform	67-66-3
43. Chloromethyl methyl ether	107-30-2
44. Chloroprene	126-99-8
45. Chromium Compounds	
46. Cobalt Compounds	
47. Coke Oven Emissions	
48. Cresol/Cresylic acid (mixed isomer)	1319-77-3
49. m-Cresol	108-39-4
50. 0-Cresol	95-48-7
51. p-Cresol	106-44-5
52. Cumene	98-82-8
53. Cyanide Compounds <sup>1</sup>	
54. 2,4-D(2,4-Dichlorophenoxyacetic Acid)(including salt and esters)	94-75-7

Chemical Name	Chemical Abstracts Service Number (CAS No.)
55. 1,1-dichloro-2,2-bis(p-chlorophenyl) ethylene (DDE)	354-70-44
56. Diazomethane	334-88-3
57. Dibenzofuran	132-64-9
58. 1,2-Dibromo-3-chloropropane	96-12-8
59. Dibutyl phthalate	84-74-2
60. 1,4-Dichlorobenzene	106-46-7
61. 3,3'-Dichlorobenzidine	91-94-1
62. Dichloroethyl ether (Bis[2-chloroethyl]ether)	111-44-4
63. 1,3-Dichloropropene	524-75-6
64. Dichlorvos	62-73-7
65. Diethanolamine	111-42-2
66. N,N-Dimethylaniline(Diethyl aniline (N,N))	121-69-7
67. Diethyl sulfate	64-67-5
68. 3,3'-Dimethoxybenzidine	119-90-4
69. Dimethyl aminoazobenzene	60-11-7
70. 3,3'-Dimethyl benzidine	119-93-4
71. Dimethyl carbamoyl chloride	79-44-7
72. Dimethyl formamide	68-12-2
73. 1,1 Dimethyl hydrazine	57-14-7
74. Dimethyl Phthalate	131-11-3

Chemical Name	Chemical Abstracts Service Number (CAS No.)
75. Dimethyl sulfate	77-78-1
76. 4,6-Dinitro-o-cresol (including salts)	534-52-1
77. 2,4-Dinitrophenol	51-28-5
78. 2,4-Dinitrotoluene	121-14-2
79. 1,4-Dioxane (1,4-Diethyleneoxide)	123-91-1
80. 1,2-Diphenylhydrazine	122-66-7
81. Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8
82. 1,2-Epoxybutane	106-88-7
83. Ethyl acrylate	140-88-5
84. Ethylbenzene	100-41-4
85. Ethyl carbamate (Urethane)	51-79-6
86. Ethyl chloride (Chloroethane)	75-00-3
87. Ethylene dibromide (Dibromoethane)	106-93-4
88. Ethylene Dichloroide (1,2-Dichloroethane)	107-06-2
89. Ethylene glycol	107-21-1
90. Ethyleneimine (Aziridine)	151-56-4
91. Ethylene oxide	75-21-8
92. Ethylene thiourea	96-45-7
93. Ethylidene dichloride (1,1-Dichloroethane)	75-34-3
94. Formaldehyde	50-00-0

Chemical Name	Chemical Abstracts Service Number (CAS No.)
95. Glycol ethers <sup>2</sup>	
96. Heptachlor	76-44-8
97. Hexachlorobenzene	118-74-1
98. Hexachlorobutadiene	87-68-3
99. Hexachlorocyclopentadiene	77-47-4
100. Hexachloroethane	67-72-1
101. Hexamethylene diisocyanate	822-06-0
102. Hexamethylphosphoramide	680-31-9
103. Hexane	110-54-3
104. Hydrazine	302-01-2
105. Hydrochloric acid (Hydrogen chloride [gas only])	7647-01-0
106. Hydrogen fluoride (Hydrofluoric acid)	7664-39-3
107. Hydroquinone	123-31-9
108. Isophorone	78-59-1
109. Lead Compounds	
110. Lindane (all isomer)	58-89-9
111. Maleic anhydride	108-31-6
112. Manganese Compounds	
113. Mercury Compounds	
114. Methanol	67-56-1

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Chemical Name	Chemical Abstracts Service Number (CAS No.)
115. Methoxychlor	72-43-5
116. Methyl bromide (Bromomethane)	74-83-9
117. Methyl chloride (Chloromethane)	74-87-3
118. Methyl chloroform (1,1,1-Trichloroethane)	71-55-6
119. Methylhydrazine	60-34-4
120. Methyl iodide (Iodomethane)	74-88-4
121. Methyl isobutyl ketone (Hexone)	108-10-1
122. Methyl isocyanate	624-83-9
123. Methyl methacrylate	80-62-6
124. Methyl tert-butyl ether	1634-04-4
125. 4,4'-Methylenebis(2-chloroaniline)	101-14-4
126. Methylene chloride (Dichloromethane)	75-09-2
127. 4,4'-Methylenediphenyl diisocynate (MDI)	101-68-8
128. 4,4'-Methylenedianiline	101-77-9
129. Mineral fibers (fine) <sup>3</sup>	
130. Naphthalene	91-20-3
131. Nickel Compounds	
132. Nitrobenzene	98-95-3
133. 4-Nitrobiphenyl	92-93-3

Chemical Name	Chemical Abstracts Service Number (CAS No.)
134. 4-Nitrobiphenol	100-02-7
135. 2-Nitropropane	79-46-9
136. N-Nitroso-N-methyurea	684-93-5
137. N-Nitrosodimethylamine	62-75-9
138. N-Nitrosomorpholine	59-89-2
139. Parathion	56-38-2
140. Pentachloronitrobenzene (Quintobenzene)	82-68-8
141. Pentachlorophenol	87-86-5
142. Phenol	108-95-2
143. p-Phenylenediamine	106-50-3
144. Phosgene	75-44-5
145. Phosphine	7803-51-2
146. Phosphorus	7723-14-0
147. Phthalic anhydride	85-44-9
148. Polychloroinated biphenyls (Aroclors)	1336-36-3
149. Polycyclic Organic Matter <sup>5</sup>	
150. 1,3-Propane sultone	1120-71-4
151. beta-Propiolactone	57-57-8
152. Propionaldehyde	123-38-6
153. Propoxur (Baygon)	114-26-1

Chemical Name	Chemical Abstracts Service Number (CAS No.)
154. Propylene dichloride (1,2-Dichloropropane)	78-87-5
155. Propylene oxide	75-56-9
156. 1,2-propylenimine (2-Methylaziridine)	75-55-8
157. Quinoline	91-22-5
158. Quinone (p-Benzoquinone)	106-51-4
159. Radionuclides (including radon) <sup>4</sup>	
160. Selenium Compounds	
161. Styrene	100-42-5
162. Styrene oxide	96-09-3
163. 2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6
164. 1,1,2,2-Tetrachloroethane	79-34-5
165. Tetrachloroethylene (Perchloroethylene)	127-18-4
166. Titanium tetrachloride	7550-45-0
167. Tolune	108-88-3
168. Toluene-2,4-diamine	95-80-7
169. 2,4-Toluene diisocyanate	584-84-9
170. o-Toluidine	95-53-4

Chemical Name	Chemical Abstracts Service Number (CAS No.)
171. Toxaphene (chlorinated camphene)	8001-35-2
172. 1,2,4-Trichlorobenzene	120-82-1
173. 1,1,2-Trichloroethane	79-00-5
174. Trichloroethylene	79-01-6
175. 2,4,5-Trichlorophenol	95-95-4
176. 2,4,6-Trichlorophenol	88-06-2
177. Triethylamine	121-44-8
178. Trifluralin	1582-09-8
179. 2,2,4-Trimethylpentane	540-81-4
180. Vinyl acetate	108-05-4
181. Vinyl bromide	593-60-2
182. Vinyl chloride	75-01-4
183. Vinyllidene chloride (1,1-Dichloroethylene)	75-35-4
184. Xylene (mixed isomers)	1330-20-7
185. m-Xylene	108-38-3
186. 0-Xylene	95-47-6
187. p-Xylene	106-42-3

- NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.
- <sup>1</sup> XCN where X=H or any other group where a formal dissociation may occur. For example, KCN or Ca(CN)<sub>2</sub>
- <sup>2</sup> Includes mono- and di-ethers of ethylene glycol, -diethylene glycol, and triethylene glycol R-(OCH<sub>2</sub>CH<sub>2</sub>)n –OR where:
  - n = 1,2, or 3
  - R = alkyl or aryl groups
  - R = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH<sub>2</sub>CH)n-OH. Polymers are excluded from the glycol category.
- <sup>3</sup> Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.
- <sup>4</sup> Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to  $100 \, {}^{\circ}\text{C}$ .
- 5 A type of atom which spontaneously undergoes radioactive decay.

#### Appendix B: 40 CFR Part 98 (October 30, 2009 Federal Register) Table A–1 —Global Warming Potentials

[100-Year Time Horizon]

			Global warming
Name	CAS No.	Chemical Formula	potential (100 yr.)
Carbon dioxide	124–38–	CO <sub>2</sub>	1
Methane	74–82–	CH <sub>4</sub>	21
Nitrous oxide	10024–	N <sub>2</sub> O	310
HFC–23	75–46–	CHF <sub>3</sub>	11,700
HFC-32	75–10–	CH <sub>2</sub> F <sub>2</sub>	650
HFC-41	593–53–	CH <sub>3</sub> F	150
HFC-125	354–33–	C <sub>2</sub> HF <sub>5</sub>	2,800
HFC-134	359–35–	C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>	1,000
HFC–134a	811–97–	CH <sub>2</sub> FCF <sub>3</sub>	1,300
HFC-143	430–66–	C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	300
HFC–143a	420-46-	C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	3,800
HFC–152	624–72–	CH <sub>2</sub> FCH <sub>2</sub> F	53
HFC–152a	75–37–	CH <sub>3</sub> CHF <sub>2</sub>	140
HFC-161	353–36–	CH <sub>3</sub> CH <sub>2</sub> F	12
HFC–227ea	431–89–	C <sub>3</sub> HF <sub>7</sub>	2,900
HFC–236cb	677–56–	CH <sub>2</sub> FCF <sub>2</sub> CF <sub>3</sub>	1,340
HFC–236ea	431–63–	CHF <sub>2</sub> CHFCF <sub>3</sub>	1,370
HFC–236fa	690–39–	C <sub>3</sub> H <sub>2</sub> F <sub>6</sub>	6,300
HFC–245ca	679–86–	C <sub>3</sub> H <sub>3</sub> F <sub>5</sub>	560
HFC–245fa	460–73–	CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>	1,030
HFC–365mfc	406–58–	CH <sub>3</sub> CF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>	794
HFC-43-10mee	138495–	CF <sub>3</sub> CFHCFHCF <sub>2</sub> CF <sub>3</sub>	1,300
Sulfur hexafluoride	2551–	SF <sub>6</sub>	23,900
Trifluoromethyl sulphur pentafluoride	373–80–	SF <sub>5</sub> CF <sub>3</sub>	17,700
Nitrogen trifluoride	7783–	NF <sub>3</sub>	17,200
PFC-14 (Perfluoromethane)	75–73–	CF4	6,500
PFC-116 (Perfluoroethane)	76–16–	C2F6	9,200
PFC–218 (Perfluoropropane)	76–19–	C3F8	7,000
Perfluorocyclopropane	931–91–	C-C3F6	17,340
PFC-3-1-10 (Perfluorobutane)	355–25–	C4F10	7,000
Perfluorocyclobutane	115–25–	C-C4F8	8,700
PFC-4-1-12 (Perfluoropentane)	678–26–	C <sub>5</sub> F <sub>12</sub>	7,500
PFC-5-1-14	355–42–	C6F14	7,400
PFC-9-1-18	306–94–	C <sub>10</sub> F <sub>18</sub>	7,500
HCFE–235da2 (Isoflurane)	26675-	CHF2OCHCICF3	350
HFE-43-10pccc (H-Galden 1040x)	E173013	CHF2OCF2OC2F4OCHF2	1,870
HFE-125	3822–	CHF2OCF3	14,900
HFE-134	1691–	CHF2OCHF2	6,320
HFE–143a	421–14–	CH <sub>3</sub> OCF <sub>3</sub>	756
HFE–227ea	2356-	CF <sub>3</sub> CHFOCF <sub>3</sub>	1,540
HFE-236ca12 (HG-10)	78522–	CHF2OCF2OCHF2	2,800
HFE-236ea2 (Desflurane)	57041-	CHF <sub>2</sub> OCHFCF <sub>3</sub>	989

#### Appendix B: 40 CFR Part 98 (October 30, 2009 Federal Register) (continued) Table A–1 —Global Warming Potentials

[100-Year Time Horizon]

Name	CAS No.	Chemical formula	Global warming
HFE–236fa	20193–	CF <sub>3</sub> CH <sub>2</sub> OCF <sub>3</sub>	487
HFE–245cb2	22410–	CH <sub>3</sub> OCF <sub>2</sub> CF <sub>3</sub>	708
HFE–245fa1	84011–	CHF <sub>2</sub> CH <sub>2</sub> OCF <sub>3</sub>	286
HFE–245fa2	1885–	CHF <sub>2</sub> OCH <sub>2</sub> CF <sub>3</sub>	659
HFE–254cb2	425–88–	CH <sub>3</sub> OCF <sub>2</sub> CHF <sub>2</sub>	359
HFE–263fb2	460–43–	CF <sub>3</sub> CH <sub>2</sub> OCH <sub>3</sub>	11
HFE–329mcc2	67490-	CF <sub>3</sub> CF <sub>2</sub> OCF <sub>2</sub> CHF <sub>2</sub>	919
HFE–338mcf2	156053-	CF <sub>3</sub> CF <sub>2</sub> OCH <sub>2</sub> CF <sub>3</sub>	552
HFE-338pcc13 (HG-01)	188690-	CHF2OCF2CF2OCHF2	1,500
HFE-347mcc3	28523–	CH <sub>3</sub> OCF <sub>2</sub> CF <sub>2</sub> CF <sub>3</sub>	575
HFE–347mcf2	E173013	CF <sub>3</sub> CF <sub>2</sub> OCH <sub>2</sub> CHF <sub>2</sub>	374
HFE-347pcf2	406–78–	CHF <sub>2</sub> CF <sub>2</sub> OCH <sub>2</sub> CF <sub>3</sub>	580
HFE–356mec3	382–34–	CH <sub>3</sub> OCF <sub>2</sub> CHFCF <sub>3</sub>	101
HFE–356pcc3	160620-	CH <sub>3</sub> OCF <sub>2</sub> CF <sub>2</sub> CHF <sub>2</sub>	110
HFE–356pcf2	E173013	CHF <sub>2</sub> CH <sub>2</sub> OCF <sub>2</sub> CHF <sub>2</sub>	265
HFE–356pcf3	35042-	CHF <sub>2</sub> OCH <sub>2</sub> CF <sub>2</sub> CHF <sub>2</sub>	502
HFE-365mcf3	378–16–	CF <sub>3</sub> CF <sub>2</sub> CH <sub>2</sub> OCH <sub>3</sub>	11
HFE-374pc2	512–51–	$CH_3CH_2OCF_2CHF_2$	557
HFE–449sI (HFE–7100)	163702–	C <sub>4</sub> F <sub>9</sub> OCH <sub>3</sub>	297
HFE–569sf2 (HFE–7200)	163702–	C <sub>4</sub> F <sub>9</sub> OC <sub>2</sub> H <sub>5</sub>	59
Sevoflurane	28523–	CH <sub>2</sub> FOCH(CF <sub>3</sub> ) <sub>2</sub>	345
HFE-356mm1	13171–	(CF <sub>3</sub> ) <sub>2</sub> CHOCH <sub>3</sub>	27
HFE–338mmz1	26103–	$CHF_2OCH(CF_3)_2$	380
(Octafluorotetramethy-lene)hydroxymethyl	NA	X-(CF <sub>2</sub> ) <sub>4</sub> CH(OH)-X	73
HFE–347mmy1	22052–	CH <sub>3</sub> OCF(CF <sub>3</sub> ) <sub>2</sub>	343
Bis(trifluoromethyl)-methanol	920–66–	(CF <sub>3</sub> ) <sub>2</sub> CHOH	195
2,2,3,3,3-pentafluoropropanol	422–05–	CF <sub>3</sub> CF <sub>2</sub> CH <sub>2</sub> OH	42
PFPMIE	NA	CF3OCF(CF3)CF2OCF2OCF3	10,300

#### Appendix B: 40 CFR Part 98 (October 30, 2009 Federal Register) (continued) Table C–1 —Default CO<sub>2</sub> Emission Factors and High Heat Values for Various Types of Fuel

Fuel type	Default high heat value	Default CO <sub>2</sub> emission factor
Coal and coke	mmBtu/short ton	kg CO2/mmBtu
Anthracite	25.09	103.54
Bituminous	24.93	93.40
Subbituminous	17.25	97.02
lignite	14 21	96.36
Coke	24.80	102.04
Mixed (Commercial sector)	21.00	05.26
Mixed (Collinerial sector)	21.39	95.20
Mixed (Industrial coking)	20.20	93.00
Mixed (industrial sector)	22.35	93.91
Mixed (Electric Power sector)	19.73	94.38
Natural gas	mmBtu/scf	kg CO <sub>2</sub> /mmBtu
Pipeline (Weighted U.S. Average)	1.028 × 10 <sub>¥3</sub>	53.02
Petroleum products	mmBtu/gallon	kg CO <sub>2</sub> /mmBtu
Distillate Fuel Oil No. 1	0.139	73.25
Distillate Fuel Oil No. 2	0.138	73.96
Distillate Fuel Oil No. 4	0.146	75.04
Residual Fuel Oil No. 5	0 140	72.03
Posidual Fuel Oil No. 6	0.150	72.00
	0.130	66.70
Sun Gas	0.143	00.72
Kerosene	0.135	75.20
Liquefied petroleum gases (LPG)	0.092	62.98
Propane	0.091	61.46
Propylene	0.091	65.95
Ethane	0.096	62.64
Ethylene	0.100	67.43
Isobutane	0.097	64.91
Isobuitviene	0.103	67.74
Butana	0.100	65 15
Dutane	0.101	67.72
	0.103	07.73
Naphtha (<401 deg F)	0.125	68.02
Natural Gasoline	0.110	66.83
Other Oil (>401 deg F)	0.139	76.22
Pentanes Plus	0.110	70.02
Petrochemical Feedstocks	0.129	70.97
Petroleum Coke	0.143	102.41
Special Naphtha	0.125	72.34
Unfinished Oils	0.139	74.49
Heavy Gas Oils	0.148	74.92
l ubricants	0 144	74 27
Motor Gasoline	0.125	79.27
Avioti o casolino	0.120	60.25
	0.120	72.20
Archerd Dead Oil	0.155	72.22
	0.158	75.36
Crude Oil	0.138	74.49
	mmBtu/short	
Fossil fuel-derived fuels (solid)	ton	kg CO2/mmBtu
Municipal Solid Waste 1	9.95	90.7
Tires	26.87	85.97
Fossil fuel-derived fuels (gaseous)	mmBtu/scf	kg CO2/mmBtu
Blast Furnace Gas	0.092 × 10¥3	
Coke Oven Gas	0.599 x 10¥3	274.32 46.85
	mmBtu/short	
Biomass fuels—solid	ton	ka CO2/mmBtu
Wood and Wood Residuels	15 29	Ng CO2/IIIIIDIU
wood and wood Residuals	15.36	93.80
Agricultural Byproducts	8.25	118.17
Peat	8.00	111.84
Solid Byproducts	25.83	105.51
Biomass fuels—gaseous	mmBtu/scf	kg CO2/mmBtu
Biogas (Captured methane)	0.841 × 10¥3	52.07
Biomass Fuels—Liquid	mmBtu/gallon	kg CO2/mmBtu
Ethanol (100%)	0.084	68.44
Biodiesel (100%)	0.128	73.84
Rendered Animal Fat	0.125	71.06
Venetable Oil	0.120	R1 55
	0.120	01.00

<sup>1</sup> Allowed only for units that do not generate steam and use Tier 1.

#### Appendix B: 40 CFR Part 98 (October 30, 2009 Federal Register) (continued)

#### Table C-2 —Default CH<sub>4</sub> and N<sub>2</sub>O Emission Factors for Various Types of Fuel

Fuel Type	Default CH <sub>4</sub> emission factor (kg CH <sub>4</sub> /mmBtu)	Default N <sub>2</sub> O emission factor (kg N <sub>2</sub> O/mmBtu)
Coal and Coke (All fuel types in Table C-1)	1.1 E-2	1.6 E-3
Natural Gas	1.0 E-3	1.0 E-4
Petroleum (All fuel types in Table C-1)	3.0 E-3	6.0 E-4
Municipal Solid Waste	3.2 E-2	4.2 E-3
Tires	3.2 E-2	4.2 E-3
Blast Furnace Gas	2.2 E-5	1.0 E-4
Coke Oven Gas	4.8 E-4	1.0 E-4
Biomass Fuels – Solid (All fuel types in Table C-1)	3.2 E-2	4.2 E-3
Biogas	3.2 E-3	6.3 E-4
Biomass Fuels – Liquid (All fuel types in Table C-1)	1.1 E-3	1.1 E-4

**Note:** Those employing this table are assumed to fall under the IPCC definitions of the "Energy Industry" or "Manufacturing Industries and Construction". In all fuels except for coal the values for these two categories are identical. For coal combustion, those who fall within the IPCC "Energy Industry" category may employ a value of 1 g of CH<sub>4</sub>/MMBtu.