



e-GGRT Training Webinar on Reporting GHG Data for Subpart L

U.S. Environmental Protection Agency
Greenhouse Gas Reporting Program (GHGRP)
February 19, 2015



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- On December 11, 2014 EPA amended certain provisions of subpart L, Fluorinated Gas Production, to reduce the level of detail in which emissions are reported, eliminate the mass-balance emission calculation method, and clarify the emission factor method.
- **The revised reporting requirements are applicable to all reporting years to date, from RY 2011 through RY 2014.** Facilities are required to fill out a subpart L form for each of these years. The new reports will replace the limited reports that were submitted under the temporary reporting provisions that were finalized in 2012 and extended in 2013 (77 FR 51477 and 78 FR 71904).
- In the same final rule, EPA added chemical-specific and default GWPs to Table A-1 to ensure that all fluorinated GHGs are assigned GWPs. **Subpart L reporters are required to use the most recent GWPs on Table A-1 to report their CO₂e emissions for all reporting years (RY 2011 through RY 2014).**

Webinar Outline / Overview



- Subpart L
 - Selecting a Subpart
 - Reporting Data
- Questions

Topics for Q & A

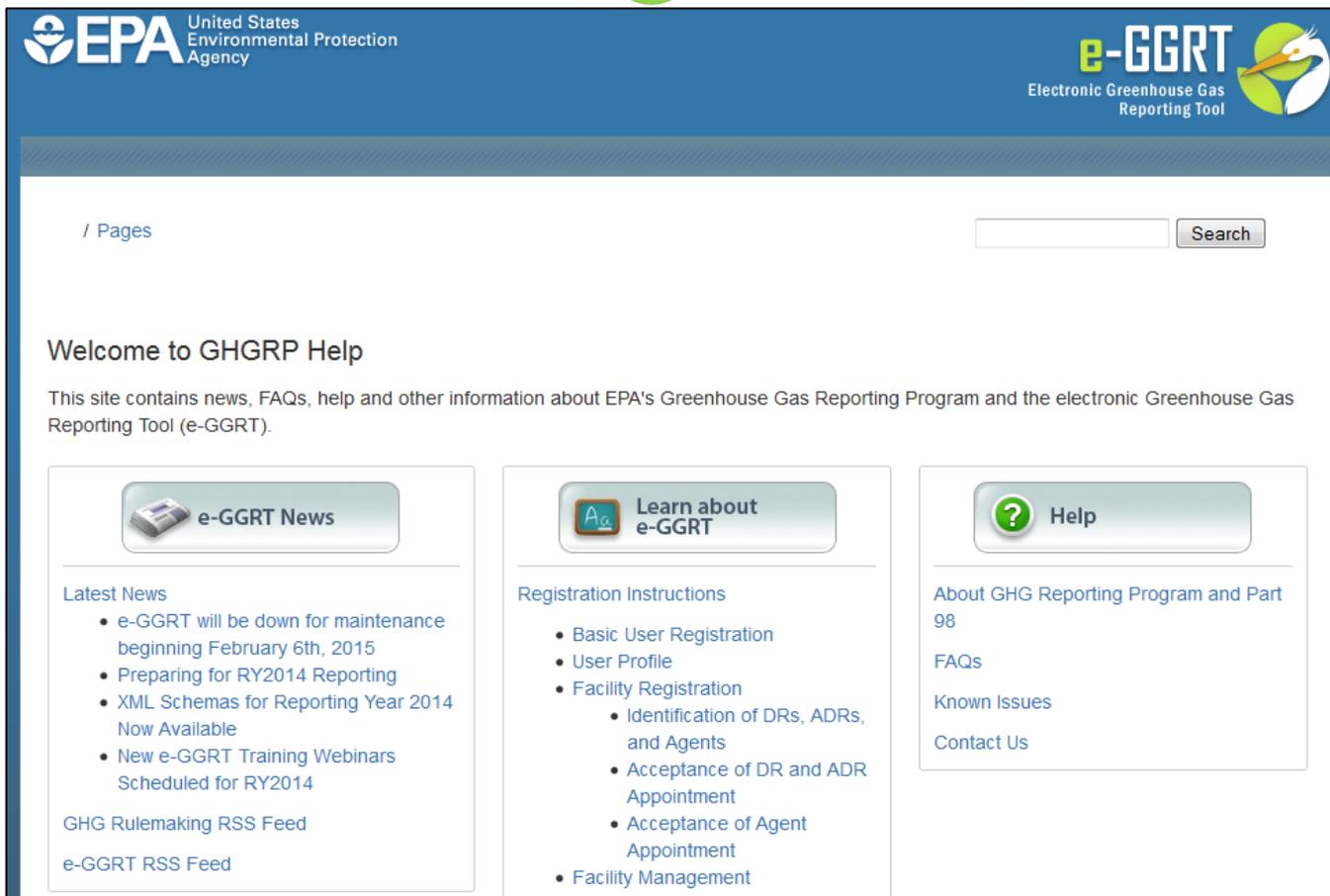


- Please submit questions regarding e-GGRT functionality to **GHGReporting@epa.gov**
- Other Subpart L resources:
<http://www.epa.gov/ghgreporting/reporters/subpart/l.html>

e-GGRT Help



- www.ccdsupport.com or
- Via Help links in e-GGRT  e-GGRT Help



The screenshot shows the e-GGRT Help website interface. At the top left is the EPA logo and text: "United States Environmental Protection Agency". At the top right is the "e-GGRT Electronic Greenhouse Gas Reporting Tool" logo featuring a stylized bird. Below the header is a search bar with a "Search" button. The main content area is titled "Welcome to GHGRP Help" and includes a brief description: "This site contains news, FAQs, help and other information about EPA's Greenhouse Gas Reporting Program and the electronic Greenhouse Gas Reporting Tool (e-GGRT)." Below this are three main navigation columns:

- e-GGRT News**: Includes "Latest News" with bullet points: "e-GGRT will be down for maintenance beginning February 6th, 2015", "Preparing for RY2014 Reporting", "XML Schemas for Reporting Year 2014 Now Available", and "New e-GGRT Training Webinars Scheduled for RY2014". It also lists "GHG Rulemaking RSS Feed" and "e-GGRT RSS Feed".
- Learn about e-GGRT**: Includes "Registration Instructions" with a list: "Basic User Registration", "User Profile", "Facility Registration" (with sub-points: "Identification of DRs, ADRs, and Agents", "Acceptance of DR and ADR Appointment", "Acceptance of Agent Appointment"), and "Facility Management".
- Help**: Includes "About GHG Reporting Program and Part 98", "FAQs", "Known Issues", and "Contact Us".

Selecting the Reporting Year



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e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING EPA REPORTS

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e-GGRT Help

General Reporting Information

e-GGRT Greenhouse Gas Data Reporting (2014)

Select Facility

ANNUAL GHG DATA REPORTING

You must select a facility to begin using any Data Reporting features, which include: Specifying which subparts the facility will be reporting, entering or updating corporate parent information (subpart A), entering GHG data and viewing validation reports, and lastly, preparing and submitting the Annual Report to EPA.

REPORTING YEAR

2011 GO

2010

2011

2012

2013

2014

view

OPEN

FACILITIES REPORTING for 2014

GHGRP ID	Facility or Supplier	Annual I
523697	Ottinger Gases (Arlington, VA)	Not generated

FACILITIES NOT REPORTING for 2014

GHGRP ID	Facility or Supplier	Not Reporting Reason
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Adding Subparts



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e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT **DATA REPORTING**

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e-GGRT Greenhouse Gas Data Reporting (2014)
Select Facility » **Facility or Supplier Overview**

FACILITY OR SUPPLIER OVERVIEW
This page allows you to add the source and/or supplier categories for which your facility or supplier will be reporting, then to access those data reporting screens using the OPEN buttons.

After data reporting is complete, you can initiate the annual report review and submission process from this page by using the SUBMIT button (or RESUBMIT for subsequent submissions if needed).

Facility's GHG Reporting Method: Data entry via e-GGRT web-forms (Change)

CO₂ equivalent emissions from facility subparts C-II, SS, and TT (metric tons)

Biogenic CO₂ emissions from facility subparts C-II, SS, and TT (metric tons)

CO₂ equivalent emissions from supplier subparts LL-QQ (metric tons)

VIEW GHG DETAILS

REPORT DATA

2014 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	Cannot Submit-View Critical Errors	OPEN

+ ADD or REMOVE Subparts

Adding Subpart: Subpart Selection



How to add a subpart and report data

e-GGRT Greenhouse Gas Data Reporting (2014)

Select Facility » Facility Overview » **Subpart Selection**

SUBPART SELECTION
Please check all relevant subparts for this facility or supplier. Further information can be found in the e-GGRT Help links to the left.

FACILITY SUBPARTS	GENERAL STATIONARY FUEL COMBUSTION
<input type="checkbox"/> D—Electricity Generation Description (SHOW HIDE)	<input type="checkbox"/> C—General Stationary Fuel Combustion (Standard Reporting) Description (SHOW HIDE)
<input type="checkbox"/> E—Adipic Acid Production Description (SHOW HIDE)	LANDFILL SUBPARTS
<input type="checkbox"/> F—Aluminum Production Description (SHOW HIDE)	<input type="checkbox"/> HH—Municipal Solid Waste Landfills Description (SHOW HIDE)
<input type="checkbox"/> G—Ammonia Manufacturing Description (SHOW HIDE)	<input type="checkbox"/> TT—Industrial Waste Landfills Description (SHOW HIDE)
<input type="checkbox"/> H—Cement Production Description (SHOW HIDE)	SUPPLIER SUBPARTS
<input type="checkbox"/> I—Electronics Manufacturing Description (SHOW HIDE)	<input type="checkbox"/> LL—Suppliers of Coal-based Liquid Fuels Description (SHOW HIDE)
<input type="checkbox"/> K—Ferroalloy Production Description (SHOW HIDE)	<input type="checkbox"/> MM—Suppliers of Petroleum Products Description (SHOW HIDE)
<input checked="" type="checkbox"/> L—Fluorinated Gas Production Description (SHOW HIDE)	<input type="checkbox"/> NN—Suppliers of Natural Gas and Natural Gas Liquids Description (SHOW HIDE)
	<input type="checkbox"/> OO—Suppliers of Industrial Greenhouse Gases Description (SHOW HIDE)



Opening Subpart L



EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING EPA REPORTS

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e-GGRT Greenhouse Gas Data Reporting (2014)
Select Facility » **Facility or Supplier Overview**

FACILITY OR SUPPLIER OVERVIEW

This page allows you to add the source and/or supplier categories for which your facility or supplier will be reporting, then to access those data reporting screens using the OPEN buttons.

After data reporting is complete, you can initiate the annual report review and submission process from this page by using the SUBMIT button (or RESUBMIT for subsequent submissions if needed).

Facility's GHG Reporting Method: Data entry via e-GGRT web-forms ([Change](#))

CO₂ equivalent emissions from facility subparts C-II, SS, and TT (metric tons)

Biogenic CO₂ emissions from facility subparts C-II, SS, and TT (metric tons)

CO₂ equivalent emissions from supplier subparts LL-QQ (metric tons)

[VIEW GHG DETAILS](#)

REPORT DATA

2014 Reporting Source or Supplier Category	Validation Messages?	Subpart Reporting
Subpart A—General Information	Cannot Submit-View Critical Errors	OPEN
Subpart L—Fluorinated Gas Production	Cannot Submit-View Critical Errors	OPEN

[ADD or REMOVE Subparts](#)

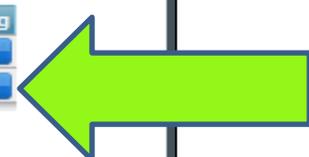
Note: If you have deferred prior year data to be reported with your RY2014 Annual Report, please [Click Here](#).

If all subparts are completed and Validation Messages addressed to your satisfaction, you are ready to prepare and submit an Annual Report.

SUBMIT ANNUAL REPORT

Report	Uploaded File Name	Status	Submitted Date	Certification Date	
					REPORT SUBMISSION

[VIEW REPORTS](#): Annual Report reviewable formats (including public non-CBI versions and trend reports) for all submissions this reporting year can be accessed on the View Reports page.



Subpart L Reporting Form



EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

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Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Summary Information](#)

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

The fluorinated gas production source category consists of processes that produce a fluorinated gas from any raw material or feedstock chemical, except for processes that generate HFC-23 during the production of HCFC-22. Use this page to report the approach used to determine the facility's mass emissions. For additional information about Subpart L reporting, please use the e-GGRT help link(s) provided.

* denotes a required field

PRODUCTION AND TRANSFORMATION PROCESSES

Did the facility produce only one fluorinated* gas product, including fluorinated gas products that are intermediates? Yes No

DESTRUCTION

Did the facility destroy previously produced* fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process? Yes No

CONTAINER VENTING

Did the facility vent residual fluorinated* GHGs from containers? Yes No

Subpart L Reporting Form – Multi Product



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e-GGRT Help

Ottinger Gases

Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Summary Information](#)

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

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* denotes a required field

PRODUCTION AND TRANSFORMATION PROCESSES

Did the facility produce only one fluorinated gas product, including fluorinated gas products that are intermediates? Yes No

Did the facility emit 1,000 or more metric tons of CO₂e of any one fluorinated GHG from production and transformation processes, summed across the facility as a whole? Yes No

DESTRUCTION

Did the facility destroy previously produced fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process? Yes No

CONTAINER VENTING

Did the facility vent residual fluorinated GHGs from containers? Yes No

Subpart L Reporting Form – Multi Product



e-GGRT Help

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Subpart L: Fluorinated Gas Production (2014)
Subpart Overview

SUBPART OVERVIEW
The fluorinated gas production source category consists of processes that produce a fluorinated gas from any raw material or feedstock chemical, except for processes that generate HFC-23 during the production of HCFC-22. Use this page to report annual emissions of fluorinated GHGs for the entire facility and the approach used to determine the facility's mass emissions. For additional information about Subpart L reporting, please use the e-GGRT help link(s) provided.

Annual mass of F-GHGs (metric tons CO2e) **0.0**

Subpart L: View Validation

FACILITY SUMMARY INFORMATION (change)

Did the facility produce only one fluorinated gas product, including fluorinated gas products that are intermediates? No

Did the facility emit 1,000 or more metric tons of CO2e of any one fluorinated GHG from production and transformation processes, summed across the facility as a whole? Yes

Did the facility destroy previously produced fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process? Yes

Did the facility vent residual fluorinated GHGs from containers? Yes

PRODUCTION AND TRANSFORMATION

Process-Level Emissions by F-GHGs by F-GHG Group

Process	Process Type	Mass Emitted (metric tons of CO2e)	Delete
---------	--------------	------------------------------------	--------

ADD a Process

Facility-Level Emissions of F-GHGs (emitted at 1,000 or more of mtCO2e)
Use the "ADD or REMOVE" link below to build a list of applicable F-GHGs. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. Enter emissions from the facility as a whole for production and transformation processes.

F-GHG	CASRN	GVP	Mass Emitted (metric tons)
-------	-------	-----	----------------------------

ADD or REMOVE F-GHGs to Report

Enter Emissions Info

Facility-Level Emissions of F-GHGs (emitted at less than 1,000 mtCO2e) by F-GHG Group
Use the "ADD or REMOVE" link below to build a list of applicable F-GHG Groups. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information.

F-GHG Group	Mass Emitted (metric tons of CO2e)
-------------	------------------------------------

ADD or REMOVE F-GHG Groups to Report

Enter Emissions Info

DESTRUCTION

Destruction of Previously Produced F-GHG -- All Destruction Processes Combined
Use the "ADD or REMOVE" link below to build a list of applicable F-GHGs. Then, use the "Enter Destruction Info" button to enter required destruction information. Enter emissions from all destruction processes combined. Report emissions that result from the destruction of previously produced F-GHGs, e.g., F-GHGs that are returned from the field and are destroyed because they are irretrievably contaminated.

F-GHG	CASRN	GVP	Mass Emitted (metric tons)
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ADD or REMOVE F-GHGs to Report

Enter Destruction Info

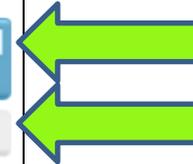
CONTAINER VENTING

Venting of Residual F-GHGs from Containers from the Field -- All Containers Combined
Use the "ADD or REMOVE" link below to build a list of applicable F-GHGs. Then, use the "Enter Venting Info" button to enter required venting information. Enter emissions from all containers combined.

F-GHG	CASRN	GVP	Mass Emitted (metric tons)
-------	-------	-----	----------------------------

ADD or REMOVE F-GHGs to Report

Enter Venting Info



Subpart L Reporting Form – Multi Product



- 1 Report emissions for *each production or transformation process* by F-GHG group.
 - Define process details (name, type, characterize, emission method used)
 - Provide process vent emissions by F-GHG group (metric tons CO₂e).
 - Provide equipment leak emissions by F-GHG group (metric tons CO₂e).
- 2 Report emissions *across all production and transformation processes for each F-GHG emitted $\geq 1,000$ mtCO₂e* by individual F-GHG (metric tons)
- 3 Report emissions *across all production and transformation processes for each F-GHG emitted $< 1,000$ mtCO₂e* by F-GHG group (metric tons CO₂e)
- 4 Report emissions from *destruction of previously produced F-GHGs* by individual F-GHG (metric tons) emitted
- 5 Report *container venting* emissions by individual F-GHG (metric tons)

Calculating CO₂e Emissions by F-GHG Group



- For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group.
 - If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP.
 - If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.
- *Example:* Emissions consist of two “Saturated HFEs with 3 or more carbon-hydrogen bonds”:
 - 10 tons HFE-365mcf₂ w/chemical-specific GWP = 58
 - 10 tons HFE-374me₂ w/default GWP = 270
 - Report emissions of $10 \times 58 + 10 \times 270 = 3,280$ tons CO₂e
- Use the newest GWPs for reporting years 2011 thru 2014

Subpart L



Questions so far?

Subpart L Reporting Form – Multi Product



SUBPART OVERVIEW

The fluorinated gas production source category consists of processes that produce a fluorinated gas from any raw material or feedstock chemical, except for processes that generate HFC-23 during the production of HCFC-22. Use this page to report annual emissions of fluorinated GHGs for the entire facility and the approach used to determine the facility's mass emissions. For additional information about Subpart L reporting, please use the e-GGRT help link(s) provided.

 **55,391.0**
Annual mass of F-GHGs (metric tons CO2e)

 **Subpart L: View Validation**

FACILITY SUMMARY INFORMATION [\(change\)](#)

Did the facility produce <u>only one</u> fluorinated gas product, including fluorinated gas products that are intermediates?	No
Did the facility emit 1,000 or more metric tons of CO2e of any one fluorinated GHG from production and transformation processes, summed across the facility as a whole?	Yes
Did the facility destroy previously produced fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process?	Yes
Did the facility vent residual fluorinated GHGs from containers?	Yes

1

PRODUCTION AND TRANSFORMATION

Process-Level Emissions by F-GHGs by F-GHG Group

Process	Process Type	Mass Emitted (metric tons of CO2e)	Delete
 ADD a Process			

Facility-Level Emissions of F-GHGs (emitted at 1,000 or more of mtCO2e)

Use the "ADD or REMOVE" link below to build a list of applicable f-GHGs. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. Enter emissions from the facility as a whole for production and transformation processes.

f-GHG	CASRN	GWP	Mass Emitted (metric tons)
 ADD or REMOVE F-GHGs to Report			
			Enter Emissions Info

Facility-Level Emissions of F-GHGs (emitted at less than 1,000 mtCO2e) by F-GHG Group

Use the "ADD or REMOVE" link below to build a list of applicable f-GHG Groups. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information.

f-GHG Group	Mass Emitted (metric tons of CO2e)
Fully fluorinated GHGs	10000
 ADD or REMOVE F-GHG Groups to Report	
Enter Emissions Info	

Subpart L Reporting Form – Process Information



e-GGRT Help

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Subpart L: Fluorinated Gas Production (2014)

Subpart Overview » Production and Transformation Processes

PRODUCTION AND TRANSFORMATION PROCESS * denotes a required field

PROCESS INFORMATION

Unique Name/Identifier*
(This identifier should be consistent from year to year)

Process Type*

Characterize the process* (check all that apply)

- Reaction
- Distillation
- Packaging

Method the Facility used to determine emissions of fluorinated GHG groups from the process vents?

- Mass Balance
- Emission Factor and/or Emission Calculation Factor

Process Vent Information

Use the "ADD or REMOVE" link below to build a list of applicable f-GHG groups you must report process vent information for using the EF and ECF approach. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

f-GHG Group	Mass Emitted (metric tons of CO ₂ e)
+ ADD or REMOVE F-GHG Groups to Report	Enter Emissions Info

Equipment Leak Information

Use the "ADD or REMOVE" link below to build a list of applicable f-GHG groups you must report equipment leak information for using the EF and ECF approach. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

f-GHG Group	Mass Emitted (metric tons of CO ₂ e)
+ ADD or REMOVE F-GHG Groups to Report	Enter Emissions Info

Process Information—Emissions from Vents



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Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Production and Transformation Processes](#) » [Select F-GHG Groups](#)

GHG GROUPS TO BE REPORTED * Must have selected one or more F-GHG Groups to save.

PROCESS INFORMATION

Unique Name/Identifier	Test Process 1
Process Type	Production Process
Characterize the process	Reaction
Method the Facility used to determine emissions of fluorinated GHG groups from the process vents?	Emission Factor and/or Emission Calculation Factor

F-GHG Groups for Subpart L Reporting *

Select the F-GHG group whose emissions you wish to report.

F-GHG Group	Default GWP
<input checked="" type="checkbox"/> Fully fluorinated GHGs	10000
<input checked="" type="checkbox"/> Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	3700
<input type="checkbox"/> Saturated HFCs with 3 or more carbon-hydrogen bonds	930
<input type="checkbox"/> Saturated hydrofluoroethers (HFEs) and hydrochlorofluoroethers (HCFEs) with 1 carbon-hydrogen bond	5700
<input type="checkbox"/> Saturated HFEs and HCFEs with 2 carbon-hydrogen bonds	2600
<input type="checkbox"/> Saturated HFEs and HCFEs with 3 or more carbon-hydrogen bonds	270
<input type="checkbox"/> Fluorinated formates	350
<input type="checkbox"/> Fluorinated acetates, carbonofluoridates, and fluorinated alcohols other than fluorotelomer alcohols	30
<input type="checkbox"/> Unsaturated perfluorocarbons (PFCs), unsaturated HFCs, unsaturated hydrochlorofluorocarbons (HCFs), unsaturated halogenated ethers, unsaturated halogenated esters, fluorinated aldehydes, and fluorinated ketones	1
<input type="checkbox"/> Fluorotelomer alcohols	1
<input type="checkbox"/> Fluorinated GHGs with carbon-iodine bond(s)	1
<input type="checkbox"/> Other fluorinated GHGs	1

SAVE **CANCEL**

Process Information—Emissions from Vents



e-GGRT Help

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Subpart L: Fluorinated Gas Production (2014)
Subpart Overview » Production and Transformation Processes

PRODUCTION AND TRANSFORMATION PROCESS * denotes a required field

PROCESS INFORMATION

Unique Name/Identifier *
(This identifier should be consistent from year to year)

Process Type *

Characterize the process (check all that apply) *
 Reaction
 Distillation
 Packaging

Method the Facility used to determine emissions of fluorinated GHG groups from the process vents? *
 Mass Balance
 Emission Factor and/or Emission Calculation Factor

Process Vent Information
Use the "ADD or REMOVE" link below to build a list of applicable f-GHG groups you must report process vent information for using the EF and ECF approach. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

f-GHG Group	Mass Emitted (metric tons of CO2e)
Fully fluorinated GHGs	
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	

[+ ADD or REMOVE F-GHG Groups to Report](#)

Equipment Leak Information
Use the "ADD or REMOVE" link below to build a list of applicable f-GHG groups you must report equipment leak information for using the EF and ECF approach. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

f-GHG Group	Mass Emitted (metric tons of CO2e)
Fully fluorinated GHGs	
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	

[+ ADD or REMOVE F-GHG Groups to Report](#)



Process Information—Emissions from Vents



PROCESS VENT EMISSIONS	
PROCESS INFORMATION	
Unique Name/Identifier	Test Process 1
Process Type	Production Process
Characterize the process	Reaction
Method the Facility used to determine emissions of fluorinated GHG groups from the process vents?	Emission Factor and/or Emission Calculation Factor
PROCESS-LEVEL EMISSIONS OF THE F-GHG GROUP	
Fluorinated GHG Group	Fully fluorinated GHGs
For this generically-identified process, report the methods used to determine the mass emissions of each fluorinated GHG group emitted from process vents (check all that apply)	<input checked="" type="checkbox"/> Process Vent Emission Calculation Factor <input type="checkbox"/> Process Vent Specific Emission Factor
GWP-weighted mass of all fluorinated GHGs in this group emitted from all process vents combined	<input type="text" value="2000"/> (metric tons CO2e)
For this process enter the range (Table L-2) that encompasses the effective destruction efficiency, DEffective, calculated for this process using Equation L-35. The effective destruction efficiency must be reported on a CO2e basis. (The same value should be entered for all F-GHG groups from the process.)	<input type="text" value="Select"/>
PROCESS-LEVEL EMISSIONS OF THE F-GHG GROUP	
Fluorinated GHG Group	Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds
For this generically-identified process, report the methods used to determine the mass emissions of each fluorinated GHG group emitted from process vents (check all that apply)	<input type="checkbox"/> Process Vent Emission Calculation Factor <input type="checkbox"/> Process Vent Specific Emission Factor
GWP-weighted mass of all fluorinated GHGs in this group emitted from all process vents combined	<input type="text" value="1000"/> (metric tons CO2e)
For this process enter the range (Table L-2) that encompasses the effective destruction efficiency, DEffective, calculated for this process using Equation L-35. The effective destruction efficiency must be reported on a CO2e basis. (The same value should be entered for all F-GHG groups from the process.)	<input type="text" value="Select"/>
MISSING DATA PROCEDURES	
Were the annual emissions of one or more F-GHG groups based on a missing data procedure?	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input type="button" value="SAVE"/> <input type="button" value="CANCEL"/>	

Missing Data Procedures



MISSING DATA PROCEDURES

Were the annual emissions of one or more F-GHG groups based on a missing data procedure?

- Yes
 No

Data element for which missing data procedures were used, and the reason for the missing data

Number of hours a missing data procedure was used to determine F-GHG emissions

 (hours)

Provide the method used to estimate the missing data

If the data element is reportable under subpart L, provide estimates of missing data

SAVE

CANCEL

Process Information—Equipment Leaks



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Subpart L: Fluorinated Gas Production (2014)
[Subpart Overview](#) » [Production and Transformation Processes](#)

PRODUCTION AND TRANSFORMATION PROCESS * denotes a required field

PROCESS INFORMATION

Unique Name/Identifier *
(This identifier should be consistent from year to year)

Process Type *

Characterize the process * (check all that apply)
 Reaction
 Distillation
 Packaging

Method the Facility used to determine emissions of fluorinated GHG groups from the process vents?
 Mass Balance
 Emission Factor and/or Emission Calculation Factor

SAVE **CANCEL**

Process Vent Information
Use the "ADD or REMOVE" link below to build a list of applicable F-GHG groups you must report process vent information for using the EF and ECF approach. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

F-GHG Group	Mass Emitted (metric tons of CO2e)
Fully fluorinated GHGs	2000
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	1000

[+ ADD or REMOVE F-GHG Groups to Report](#) [Enter Emissions Info ↗](#)

Equipment Leak Information
Use the "ADD or REMOVE" link below to build a list of applicable F-GHG groups you must report equipment leak information for using the EF and ECF approach. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

F-GHG Group	Mass Emitted (metric tons of CO2e)
Fully fluorinated GHGs	
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	

[+ ADD or REMOVE F-GHG Groups to Report](#) [Enter Emissions Info ↗](#)



Process Information—Equipment Leaks



e-GGRT Help

Lucy Inc
Subpart L: Fluorinated Gas Production (2014)
[Subpart Overview](#) » [Production and Transformation Processes](#) » [Equipment Leaks](#)

PROCESS-LEVEL EQUIPMENT LEAKS

PROCESS INFORMATION

Unique Name/Identifier	Test Process 1
Process Type	Production Process
Characterize the process	Reaction
Method the Facility used to determine emissions of fluorinated GHG groups from the process vents?	Emission Factor and/or Emission Calculation Factor

PROCESS-LEVEL F-GHG GROUP EQUIPMENT LEAK EMISSIONS

Fluorinated GHG Group	Fully fluorinated GHGs
For this generically-identified process, report the methods used to determine the mass emissions of each fluorinated GHG group emitted from equipment leaks (check all that apply)	<input type="checkbox"/> Average EF Approach
	<input type="checkbox"/> Screening Ranges Approach w/ M21
	<input type="checkbox"/> EPA Correlation Approach w/ M21
	<input type="checkbox"/> Unit Specific Correlation Approach w/ M21
	<input type="checkbox"/> Screening Ranges Approach w/ Site Specific Leak Monitoring Method
	<input type="checkbox"/> EPA Correlation Approach w/ Site Specific Leak Monitoring Method
	<input type="checkbox"/> Unit Specific Correlation Approach w/ Site Specific Leak Monitoring Method
	<input type="checkbox"/> Other Site Specific Leak Monitoring
GWP-weighted mass of all fluorinated GHGs in this group emitted from equipment leaks	<input type="text" value="400"/> (metric tons CO2e)

PROCESS-LEVEL F-GHG GROUP EQUIPMENT LEAK EMISSIONS

Fluorinated GHG Group	Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds
For this generically-identified process, report the methods used to determine the mass emissions of each fluorinated GHG group emitted from equipment leaks (check all that apply)	<input type="checkbox"/> Average EF Approach
	<input type="checkbox"/> Screening Ranges Approach w/ M21
	<input type="checkbox"/> EPA Correlation Approach w/ M21
	<input type="checkbox"/> Unit Specific Correlation Approach w/ M21
	<input type="checkbox"/> Screening Ranges Approach w/ Site Specific Leak Monitoring Method
	<input type="checkbox"/> EPA Correlation Approach w/ Site Specific Leak Monitoring Method
	<input type="checkbox"/> Unit Specific Correlation Approach w/ Site Specific Leak Monitoring Method
	<input type="checkbox"/> Other Site Specific Leak Monitoring
GWP-weighted mass of all fluorinated GHGs in this group emitted from equipment leaks	<input type="text" value="500"/> (metric tons CO2e)

MISSING DATA PROCEDURES

Were the annual emissions from equipment leaks based on a missing data procedure? Yes No

Process Information—Equipment Leaks



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Subpart L: Fluorinated Gas Production (2014)
[Subpart Overview](#) » [Production and Transformation Processes](#)

PRODUCTION AND TRANSFORMATION PROCESS * denotes a required field

PROCESS INFORMATION

Unique Name/Identifier *
(This identifier should be consistent from year to year)

Process Type *

Characterize the process * (check all that apply)
 Reaction
 Distillation
 Packaging

Method the Facility used to determine emissions of fluorinated GHG groups from the process vents?
 Mass Balance
 Emission Factor and/or Emission Calculation Factor

Process Vent Information
Use the "ADD or REMOVE" link below to build a list of applicable f-GHG groups you must report process vent information for using the EF and ECF approach. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

f-GHG Group	Mass Emitted (metric tons of CO2e)
Fully fluorinated GHGs	2000
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	1000

[+ ADD or REMOVE F-GHG Groups to Report](#)

Equipment Leak Information
Use the "ADD or REMOVE" link below to build a list of applicable f-GHG groups you must report equipment leak information for using the EF and ECF approach. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

f-GHG Group	Mass Emitted (metric tons of CO2e)
Fully fluorinated GHGs	400
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	500

[+ ADD or REMOVE F-GHG Groups to Report](#)

Subpart L Reporting Form – Multi Product



PRODUCTION AND TRANSFORMATION

Process-Level Emissions by F-GHGs by F-GHG Group

Process	Process Type	Mass Emitted (metric tons of CO ₂ e)	Delete
Test Process 1	Production Process	3900	
Test Process 2	Transformation Process	15000	

[+ ADD a Process](#)

Facility-Level Emissions of F-GHGs (emitted at 1,000 or more of mtCO₂e)

Use the "ADD or REMOVE" link below to build a list of applicable f-GHGs. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. Enter emissions from the facility as a whole for production and transformation processes.

f-GHG	CASRN	GWP	Mass Emitted (metric tons)
-------	-------	-----	----------------------------

[+ ADD or REMOVE F-GHGs to Report](#)

[Enter Emissions Info ↑](#)

Facility-Level Emissions of F-GHGs (emitted at less than 1,000 mtCO₂e) by F-GHG Group

Use the "ADD or REMOVE" link below to build a list of applicable f-GHG Groups. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information.

f-GHG Group	Mass Emitted (metric tons of CO ₂ e)
Fully fluorinated GHGs	10000

[+ ADD or REMOVE F-GHG Groups to Report](#)

[Enter Emissions Info ↑](#)

DESTRUCTION

Destruction of Previously Produced F-GHG -- All Destruction Processes Combined

Use the "ADD or REMOVE" link below to build a list of applicable f-GHGs. Then, use the "Enter Destruction Info" button to enter required destruction information. Enter emissions from all destruction processes combined. Report emissions that result from the destruction of previously produced F-GHGs, e.g., F-GHGs that are returned from the field and are destroyed because they are irretrievably contaminated.

f-GHG	CASRN	GWP	Mass Emitted (metric tons)
-------	-------	-----	----------------------------

[+ ADD or REMOVE F-GHGs to Report](#)

[Enter Destruction Info ↑](#)

CONTAINER VENTING

Venting of Residual F-GHGs from Containers from the Field -- All Containers Combined

Use the "ADD or REMOVE" link below to build a list of applicable f-GHGs. Then, use the "Enter Venting Info" button to enter required venting information. Enter emissions from all containers combined.

f-GHG	CASRN	GWP	Mass Emitted (metric tons)
-------	-------	-----	----------------------------

[+ ADD or REMOVE F-GHGs to Report](#)

[Enter Venting Info ↑](#)

[↑ Facility Overview](#)

2

Selecting Individual F-GHGs to Report

Lucy Inc

Subpart L: Fluorinated Gas Production (2014)

Subpart Overview » Production and Transformation Process F-GHG Emissions - Select GHGs

GHGS TO BE REPORTED

Use this screen to select, using the checkboxes, the subset of fluorinated GHGs you must report. Any F-GHGs not on the list can be added as an "Other" GHG at the bottom of this screen.

GHGs for Subpart L Reporting

Gas Name	CAS Number	Formula/Description	GWP
<input type="checkbox"/> (E)-HFC-1225ye	5595-10-8	CF3CF=CHF(E)	0.06
<input type="checkbox"/> (Octafluorotetramethyl-ene)hydroxymethyl group	NA	X-(CF2)4CH(OH)-X	73
<input type="checkbox"/> (Z)-HFC-1225ye	5528-43-8	CF3CF=CHF(Z)	0.22
<input type="checkbox"/> (Z)-HFC-1336	692-49-9	CF3CH=CHCF3(Z)	1.58
<input type="checkbox"/> 1,1,1,2,2,3,3-Heptafluoro-3-(1,2,2,2-tetrafluoroethoxy)-propane	3330-15-2	CF3CF2CF2OCHFCF3	6490
<input type="checkbox"/> 1,1,1,3,3,3-Hexafluoropropan-2-yl formate	856766-70-8	HCOOCH(CF3)2	333
<input type="checkbox"/> 1,1,2,2-Tetrafluoro-1-(fluoromethoxy)ethane	37031-31-5	CH2FOCF2CF2H	871
<input type="checkbox"/> 1,1,2,2-Tetrafluoro-3-methoxy-propane; Methyl 2,2,3,3-tetrafluoropropyl ether	60596-17-6	CHF2CF2CH2OCH3	0.5
<input type="checkbox"/> 1,1,2-Trifluoro-2-(trifluoromethoxy)-ethane	84011-06-3	CHF2CHFOCF3	1240
<input type="checkbox"/> 1,1,3,3,4,4,6,6,7,7,9,9,10,12,12,13,13,15,15-eicosafluoro-2,5,8,11,14-Pentaoxapentadecane	173350-38-4	HCF2O(CF2CF2O)4CF2H	3630
<input type="checkbox"/> 1,1-Difluoroethyl 2,2,2-trifluoroacetate	1344118-13-3	CF3COOCF2CH3	31
<input type="checkbox"/> 1,1-Difluoroethyl carbonofluoride	1344118-11-1	FCOOCF2CH3	27
<input type="checkbox"/> 1,2,2,2-Tetrafluoroethyl formate	481631-19-0	HCOOCHFCF3	470
<input type="checkbox"/> 1-Ethoxy-1,1,2,2,3,3,3-heptafluoropropane	22052-88-4	CF3CF2CF2OCH2CH3	61

<input type="checkbox"/> Trifluoromethyl formate	85358-65-2	HCOOCF3	588
<input type="checkbox"/> Trifluoromethyl sulphur pentafluoride	373-80-8	SF5CF3	17700
<input type="checkbox"/> Gas 1	7783-54-25	ABC	

ADD an "Other" GHG to Report

SAVE CANCEL

DEFINE "OTHER" F-GHG

Use this screen to define an F-GHG you are required to report but does not appear in the list of F-GHGs on the previous screen.

* denotes a required field

FLUORINATED GHG EMITTED

Gas Name*	(e.g., Nitrogen trifluoride)
Gas Description*	(e.g., NF3)
Chemical Abstract Registry Number (CAS No.)	(e.g., 7783-54-2)

Select the Fluorinated GHG Group of which this "Other" F-GHG is a member *

F-GHG Group	Default GWP
<input type="radio"/> Fully fluorinated GHGs	10000
<input type="radio"/> Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	3700
<input type="radio"/> Saturated HFCs with 3 or more carbon-hydrogen bonds	930
<input type="radio"/> Saturated hydrofluoroethers (HFEs) and hydrochlorofluoroethers (HCFEs) with 1 carbon-hydrogen bond	5700
<input type="radio"/> Saturated HFEs and HCFEs with 2 carbon-hydrogen bonds	2600
<input type="radio"/> Saturated HFEs and HCFEs with 3 or more carbon-hydrogen bonds	270
<input type="radio"/> Fluorinated formates	350
<input type="radio"/> Fluorinated acetates, carbonofluorides, and fluorinated alcohols other than fluorotelomer alcohols	30
<input type="radio"/> Unsaturated perfluorocarbons (PFCs), unsaturated HFCs, unsaturated hydrochlorofluorocarbons (HCFCs), unsaturated halogenated ethers, unsaturated halogenated esters, fluorinated aldehydes, and fluorinated ketones	1
<input type="radio"/> Fluorotelomer alcohols	1
<input type="radio"/> Fluorinated GHGs with carbon-iodine bond(s)	1
<input type="radio"/> Other fluorinated GHGs	1

SAVE CANCEL

Subpart L Reporting Form – Multi Product



Did the facility produce only one fluorinated gas product, including fluorinated gas products that are intermediates? No

Did the facility emit 1,000 or more metric tons of CO₂e of any one fluorinated GHG from production and transformation processes, summed across the facility as a whole? Yes

Did the facility destroy previously produced fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process? Yes

Did the facility vent residual fluorinated GHGs from containers? Yes

PRODUCTION AND TRANSFORMATION

Process-Level Emissions by F-GHG by F-GHG Group

Process	Process Type	Mass Emitted (metric tons of CO ₂ e)	Delete
Test Process 1	Production Process	3900	✖
Test Process 2	Transformation Process	15000	✖

[+ ADD a Process](#)

Facility-Level Emissions of F-GHGs (emitted at 1,000 or more of mtCO₂e)
Use the "ADD or REMOVE" link below to build a list of applicable f-GHGs. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information. Enter emissions from the facility as a whole for production and transformation processes.

f-GHG	CASRN	GWP	Mass Emitted (metric tons)
PFC-116 (Perfluoroethane)	76-16-4	12200	0.5
PFC-14 (Perfluoromethane)	75-73-0	7390	1

[+ ADD or REMOVE F-GHGs to Report](#) [Enter Emissions Info](#)

Facility-Level Emissions of F-GHGs (emitted at less than 1,000 mtCO₂e) by F-GHG Group
Use the "ADD or REMOVE" link below to build a list of applicable f-GHG Groups. Then, use the "Enter Emissions Info" button to enter required emissions and emissions related information.

f-GHG Group	Mass Emitted (metric tons of CO ₂ e)
Fully fluorinated GHGs	5000
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	410

[+ ADD or REMOVE F-GHG Groups to Report](#) [Enter Emissions Info](#)

DESTRUCTION

Destruction of Previously Produced F-GHG -- All Destruction Processes Combined
Use the "ADD or REMOVE" link below to build a list of applicable f-GHGs. Then, use the "Enter Destruction Info" button to enter required destruction information. Enter emissions from all destruction processes combined. Report emissions that result from the destruction of previously produced F-GHGs, e.g., F-GHGs that are returned from the field and are destroyed because they are irretrievably contaminated.

f-GHG	CASRN	GWP	Mass Emitted (metric tons)
HFC-125	354-33-6	3500	0.01
HFC-134a	811-97-2	1430	0.02
Sulfur hexafluoride	2551-62-4	22800	0.03

[+ ADD or REMOVE F-GHGs to Report](#) [Enter Destruction Info](#)

Ottinger Gases

Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Production and Transformation Process F-GHG Emissions](#)

PRODUCTION AND TRANSFORMATION PROCESS F-GHG EMISSIONS

FACILITY-LEVEL EMISSIONS OF THE CHEMICAL

For each fluorinated GHG being reported (shown by Gas Name | Cas Number below) enter the total mass emitted.

PFC-116 (Perfluoroethane) 76-16-4	<input type="text" value="0.5"/>	(metric tons)
PFC-14 (Perfluoromethane) 75-73-0	<input type="text" value="1"/>	(metric tons)

[SAVE](#) [CANCEL](#)

Ottinger Gases

Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Production and Transformation Process GHG Group Emissions](#)

PRODUCTION AND TRANSFORMATION PROCESS GHG GROUP EMISSIONS

FACILITY-LEVEL EMISSIONS OF F-GHG GROUPS

For fluorinated GHGs that are emitted from production and transformation processes in quantities of less than 1,000 mtCO₂e, summed across the facility as a whole, report GWP-weighted emissions by fluorinated GHG group as follows: Use the "ADD or REMOVE" link to build a list of applicable F-GHG groups. Then use the "Enter Emissions Info" button to enter the GWP-weighted emissions of all of the fluorinated GHGs in each group in tons of CO₂e.

Fully fluorinated GHGs	<input type="text" value="5000"/>	(metric tons CO ₂ e)
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	<input type="text" value="410"/>	(metric tons CO ₂ e)

[SAVE](#) [CANCEL](#)

Ottinger Gases

Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Destruction Process Emissions](#)

DESTRUCTION PROCESS OF PREVIOUSLY PRODUCED F-GHG

FACILITY-LEVEL EMISSIONS OF THE CHEMICAL

For each fluorinated GHG being reported (shown by Gas Name | Cas Number below) enter the total mass emitted.

HFC-125 354-33-6	<input type="text" value="0.01"/>	(metric tons)
HFC-134a 811-97-2	<input type="text" value="0.02"/>	(metric tons)
Sulfur hexafluoride 2551-62-4	<input type="text" value="0.03"/>	(metric tons)

[SAVE](#) [CANCEL](#)

Subpart L Simplified Reporting Form Instructions



- Complete Subpart L form for Fluorinated Gas Producers that Destroy Fluorinated GHGs (simplified reporting form in Excel).
- The SRF includes two parts:
 - Destruction device testing (all destruction processes)
 - Missing data for Destruction Processes for previously produced F-GHGs.
- All reporting years contained in one Excel file – fill in the tabs for applicable reporting years.
- Must be uploaded under the Subpart OO webform in eGGRT.
- Filename “*Subpart L_for Producers of F Gas that Destroy F-GHGs.xls*”, available at:

<http://www.ccdsupport.com/confluence/display/help/Reporting+Form+Instructions#>

Subpart L Simplified Reporting Form Instructions



Step 1. Download a Reporting Form

To download the reporting form(s) for a subpart:

1. Find the subpart in the table below
2. Click the linked filename(s) in the second column
3. Save the file(s) to your computer in a location of your choosing
4. If your facility uses CEMS to calculate emissions under this subpart, you must also download a separate CEMS Reporting Form by clicking the CEMS Reporting Form.xls link at the bottom of the table
5. Repeat 1-4 for each applicable subpart (*note that multiple Reporting Forms may be required for Subparts O, W, and OO*)

Subpart	Reporting Forms (click to download)	Current Release
C - General Stationary Fuel Combustion Sources	Subpart C Deferred Reporting Form	D.01
E - Adipic Acid Production	RY2010 - RY2014 now reported through e-GGRT Web forms Subpart E Deferred Reporting Form * Alternate_Method_Optional_App.pdf	R.02
H - Cement Production	Subpart H Deferred Reporting Form *	D.01
I - Electronics Manufacturing	RY2014 now reported through e-GGRT Web forms Subpart I Reporting Form For RY2011 - RY2013	R.03
L - Fluorinated Gas Production	Subpart L One Time Report For Facilities that Produce Fluorinated Gas and that Destroy f-GHGs (Coming Soon)	
O - HCFC-22 Production and HFC-23 Destruction	RY2010 - RY2014 now reported through e-GGRT Web forms Subpart O Deferred Reporting Form *	D.01
Q - Iron and Steel Production	Subpart Q Deferred Reporting Form *	D.01
R - Lead Production	Subpart R Reporting Form for RY2011 - RY2014 Subpart R Inputs Form for RY2014	R.02
S - Lime Manufacturing (CEMS only)	Subpart S Reporting Form (CEMS only) for RY2010 - RY2014)	R.02
V - Nitric Acid Production	Subpart V Reporting Form for RY2011 - RY2014 Subpart V Inputs Form for RY2014	R.02



Subpart L – Destruction Form (Testing Info)



Subpart L – Only for Facilities that Produce Fluorinated Gas and that Destroy F-GHG

Version R.01

COMPLETE REQUIRED INFORMATION AND UPLOAD SPREADSHEET TO E-GGRT ON WEB PAGE FOR UPLOADING OO REPORTS

<http://www.ccdsupport.com/confluence/display/help/Reporting+Destruction+Device+Performance+Tests+For+Subpart+L>

Simplified Reporting Form Contents

- Part 1 – Production Facility Information
- Part 2a – Destruction Device Information
- Part 2b – Destruction Device Testing Information
- Part 3 – Missing Data Procedures for Destruction of Previously Produced F-GHG

Part 1 – Facility Information

Instructions: Complete the following information for the production facility.

Production Facility Name:	
Reporting Year	2011
Reporter Name:	
Did you destroy fluorinated GHGs at your facility in 2011 in association with any of the following: production processes, transformation processes, or destruction of previously produced fluorinated GHGs?	Yes
Did you use missing data procedures to estimate emissions from destruction of previously produced fluorinated GHGs in 2011?	Yes

Based on your response, you are required to fill out Parts 2a and 2b - Destruction Device Information and Testing, for 2011.

Based on your response, you are required to fill out part 3 - Missing Data Procedures for Destruction of Previously Produced F-GHG, for 2011.

Space is provided for up to five destruction devices. Use additional copies of this file for additional devices

Part 2a – Destruction Device Information (1 of 5)

Instructions: Complete the following information for each destruction device:

Unique Name/Identifier (of Destruction Device):	
Description (optional):	
Date of most recent destruction device test:	
Applicable federal or state regulations that may apply to the destruction device:	

Space is provided for up to fifteen F-GHGs. Use additional copies of this file for additional F-GHGs.

Part 2b – F-GHG Performance Test Information

Instructions: Provide the chemical identity of the fluorinated GHGs used in the performance test conducted to determine the destruction efficiency, including surrogates. If you used surrogates, provide information on why the surrogate is sufficient to demonstrate the destruction efficiency for each fluorinated GHG vented to the destruction device.

Included F-GHG. If not listed, select "Search Extended List" to activate column "C" for a comprehensive list or select "Other F-GHG not listed" and enter the information required in columns "E" & "F", 38.416(c)(2), (c)(3), and (c)(10):	Included F-GHG:	If an F-GHG is not listed, enter its name and Chemical Abstract System Registry Number (CASRN). Chemical name and CASRN can often be found in the Substance Registry system.		Specify F-GHG Category for Purposes of Estimating GWP (if necessary) [38.3(c)(5)(ii)]	Is the fluorinated GHG a surrogate?	If the fluorinated GHG is a surrogate, provide information on why the surrogate is sufficient to demonstrate the destruction efficiency of the destruction device for the fluorinated GHGs for which the destruction device is used.
		Other F-GHG:	CASRN:			
Search Extended List	Other F-GHG chemical not listed	Other F-GHG chemical not listed			Yes	
Nitrogen trifluoride		Nitrogen trifluoride				

2011

2012

2013

2014



Subpart L – Destruction Form (Missing Data)



Space is provided for up to five destruction devices. Use additional copies of this file for additional devices

Part 3 – Missing Data Procedures for Destruction of Previously Produced F-GHG (1 of 5)

Part 3a – Destruction Device Information

Instructions: Complete the following information for each destruction device:

Unique Name/Identifier (of Destruction Device):	
Description (optional):	

Part 3b – Missing Data Procedures for Previously Produced F-GHG Destroyed by this Device

Instructions: Provide the following information for missing data procedures used to estimate emissions of F-GHG from this device from destruction of previously produced F-GHG:

Data element for which missing data procedures were used:	
The reason the data were missing:	
Number of hours a missing data procedure was used to determine F-GHG emissions (hours):	
Provide the method used to estimate the missing data:	
If the data element is reportable under Subpart L, provide estimates of missing data:	

Reporting Form Instructions



e-GGRT Help

Using e-GGRT for Subpart OO reporting

Lucy Inc

Subpart OO: Suppliers of Industrial Greenhouse Gases (2014)

Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

Subpart OO requires affected suppliers to report Greenhouse gas (GHG) emissions that would result from the release of the nitrous oxide (N₂O) and each fluorinated GHG that you produce, import, export, transform or destroy during the calendar year. If you are subject to other subparts (e.g. Subpart PP), you should return to the Facility Overview page, select the appropriate subpart(s) and complete the data reporting requirements of each subpart. To satisfy the Subpart OO reporting requirements you will first download the Subpart OO reporting form(s). Use the link provided to access the form(s) and find instructions for completing those forms. Next, you will upload the completed form(s). Finally, you must enter the net quantity of N₂O and each fluorinated GHG supplied, in metric tons, for your entire facility or importer and exporter operations, as applicable. To do so, first use the "Add a Greenhouse Gas" link to add each GHG and then use the OPEN button to enter the net quantity supplied. For additional information about Subpart OO reporting, please use the e-GGRT Help link(s) provided.

Subpart OO: [View Validation](#)

SUBPART OO SUMMARY INFORMATION FOR THIS FACILITY

1.) DOWNLOAD FORM

[Subpart OO GHG Reporting](#)

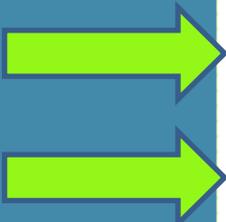
2.) UPLOAD COMPLETED FORM

No file selected.

Uploaded File Name	Attached By	Date	Delete
No files found.			

3.) ENTER GHG DATA

GHG Name	Net Quantity Supplied (metric tons)	Delete
No data found.		
ADD a Greenhouse Gas		



Subpart L



Questions so far?

Subpart L Reporting Form – One Product



EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME FACILITY REGISTRATION FACILITY MANAGEMENT DATA REPORTING EPA REPORTS

Hello, Sindhi hancee | My Profile | Logout

[e-GGRT Help](#)

Lucy Inc

Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Summary Information](#)

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

The fluorinated gas production source category consists of processes that produce a fluorinated gas from any raw material or feedstock chemical, except for processes that generate HFC-23 during the production of HCFC-22. Use this page to report the approach used to determine the facility's mass emissions. For additional information about Subpart L reporting, please use the e-GGRT help link(s) provided.

* denotes a required field

PRODUCTION AND TRANSFORMATION PROCESSES

Did the facility produce only one fluorinated* gas product, including fluorinated gas products that are intermediates? Yes No

Did facility emissions include one or more major F-GHG constituents of a Fluorinated gas product that is sold or transferred to another person? Yes No

DESTRUCTION

Did the facility destroy previously produced fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process? Yes No

CONTAINER VENTING

Did the facility vent residual fluorinated* GHGs from containers? Yes No





Subpart L Reporting Form – One Product

[e-GGRT Help](#) Lucy Inc
Subpart L: Fluorinated Gas Production (2014)
[Subpart Overview](#)

SUBPART OVERVIEW
The fluorinated gas production source category consists of processes that produce a fluorinated gas from any raw material or feedstock chemical, except for processes that generate HFC-23 during the production of HCFC-22. Use this page to report annual emissions of fluorinated GHGs for the entire facility and the approach used to determine the facility's mass emissions. For additional information about Subpart L reporting, please use the e-GGRT help link(s) provided.

Annual mass of F-GHGs (metric tons CO₂e) **0.0**

Subpart L: View Validation

FACILITY SUMMARY INFORMATION [\(change\)](#)

Did the facility produce <u>only one</u> fluorinated gas product, including fluorinated gas products that are intermediates?	Yes
Did facility emissions include one or more major F-GHG constituents of a Fluorinated gas product that is sold or transferred to another person?	Yes
Did the facility destroy previously produced fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process?	Yes
Did the facility vent residual fluorinated GHGs from containers?	No

PRODUCTION AND TRANSFORMATION

Process-Level Emissions by F-GHGs by F-GHG Group

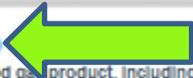
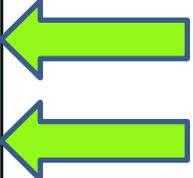
Process	Process Type	Mass Emitted (metric tons of CO ₂ e)	Delete
+ ADD a Process			

Emissions by Chemical — Major Constituents
For each fluorinated GHG that is emitted from production and transformation processes and that is a major F-GHG constituent of a product that is sold or transferred to another person, report emissions by chemical as follows: Use the "ADD or REMOVE" link to build a list of applicable F-GHGs. Then use the "Enter Emissions Info" button to enter required emissions information in tons.
Note: A "major F-GHG constituent" means a fluorinated GHG constituent of a fluorinated gas product that occurs in concentrations greater than 1 percent by mass.

F-GHG	CASRN	GWP	Mass Emitted (metric tons)
+ ADD or REMOVE F-GHGs to Report Enter Emissions Info			

Facility-Level Emissions by GHG Group
For fluorinated GHGs that are emitted from production and transformation processes and that are NOT a major F-GHG constituent of a product that is sold or transferred to another person, report GWP-weighted emissions by fluorinated GHG group as follows: Use the "ADD or REMOVE" link to build a list of applicable F-GHG groups. Then use the "Enter Emissions Info" button to enter the GWP-weighted emissions of all of the fluorinated GHGs in each group in tons of CO₂e.

F-GHG Group	Mass Emitted (metric tons of CO ₂ e)
+ ADD or REMOVE F-GHG Groups to Report Enter Emissions Info	



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Subpart L Reporting Form – One Product



- 1 Report emissions for the *production or transformation process* by F-GHG group and emission type.
 - Define process details (name, type, characterize, emission method used)
 - Provide process vent emissions by F-GHG group (metric tons CO₂e).
 - Provide equipment leak emissions by F-GHG group (metric tons CO₂e).
- 2 Report facility-level emissions for the production or transformation process by individual F-GHG for Major F-GHG constituents in products sold to others by individual F-GHG (metric tons)
- 3 Report facility-level emissions for the production or transformation process by F-GHG group (metric tons CO₂e) that are NOT major F-GHG constituents by
- 4 Report emissions from destruction of previously produced F-GHGs by individual F-GHG (metric tons)
- 5 Report emissions from container venting by individual F-GHG (metric tons)

Definition of “Major F-GHG Constituent”



- *A major constituent of a fluorinated gas product* means a fluorinated GHG constituent of a fluorinated gas product that occurs in concentrations greater than 1 percent by mass.

Subpart L Reporting Form – One Product



FACILITY SUMMARY INFORMATION ([change](#))

Did the facility produce only one fluorinated gas product, including fluorinated gas products that are intermediates? **Yes**

Did facility emissions include one or more major F-GHG constituents of a Fluorinated gas product that is sold or transferred to another person? **Yes**

Did the facility destroy previously produced fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process? **Yes**

Did the facility vent residual fluorinated GHGs from containers? **No**

PRODUCTION AND TRANSFORMATION

Process-Level Emissions by F-GHGs by F-GHG Group

Process	Process Type	Mass Emitted (metric tons of CO2e)	Delete
Test Process 1	Production Process		

[+ ADD a Process](#)

Emissions by Chemical — Major Constituents

For each fluorinated GHG that is emitted from production and transformation processes and that is a major F-GHG constituent of a product that is sold or transferred to another person, report emissions by chemical as follows: Use the "ADD or REMOVE" link to build a list of applicable F-GHGs. Then use the "Enter Emissions Info" button to enter required emissions information in tons.

Note: A "major F-GHG constituent" means a fluorinated GHG constituent of a fluorinated gas product that occurs in concentrations greater than 1 percent by mass.

f-GHG	CASRN	GWP	Mass Emitted (metric tons)
+ ADD or REMOVE F-GHGs to Report			

[Enter Emissions Info ↕](#)

Facility-Level Emissions by GHG Group

For fluorinated GHGs that are emitted from production and transformation processes and that are NOT a major F-GHG constituent of a product that is sold or transferred to another person, report GWP-weighted emissions by fluorinated GHG group as follows: Use the "ADD or REMOVE" link to build a list of applicable F-GHG groups. Then use the "Enter Emissions Info" button to enter the GWP-weighted emissions of all of the fluorinated GHGs in each group in tons of CO2e.

f-GHG Group	Mass Emitted (metric tons of CO2e)
+ ADD or REMOVE F-GHG Groups to Report	

[Enter Emissions Info ↕](#)

DESTRUCTION

Destruction of Previously Produced F-GHG -- All Destruction Processes Combined

Use the "ADD or REMOVE" link below to build a list of applicable f-GHGs. Then, use the "Enter Destruction Info" button to enter required destruction information. Enter emissions from all destruction processes combined. Report emissions that result from the destruction of previously produced F-GHGs, e.g., F-GHGs that are returned from the field and are destroyed because they are irretrievably contaminated.

f-GHG	CASRN	GWP	Mass Emitted (metric tons)
+ ADD or REMOVE F-GHGs to Report			

[Enter Destruction Info ↕](#)

[← Facility Overview](#)

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Subpart L Reporting Form – One Product/MB



Lucy Inc
Subpart L: Fluorinated Gas Production (2014)
 Subpart Overview » Production and Transformation Processes

PRODUCTION AND TRANSFORMATION PROCESSES

PROCESS INFORMATION

Unique Name/Identifier*
(This Identifier should be consistent from year to year)

Process Type*

Characterize the process* (check all that apply)
 Reaction
 Distillation
 Packaging

Method the Facility used to determine emissions of fluorinated GHG groups from the process vents?
 Mass Balance
 Emission Factor and/or Emission Calculation Factor

Process Emissions Information
 Report GWP-weighted emissions from the process by fluorinated GHG group as follows: Use the "ADD or REMOVE" link to build a list of applicable F-GHG groups. Then use the "Enter Emissions Info" button to enter the GWP-weighted emissions of all of the fluorinated GHGs in each group in tons of CO₂e. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

F-GHG Group	Mass Emitted (metric tons of CO ₂ e)
Fully fluorinated GHGs	
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	



Lucy Inc
Subpart L: Fluorinated Gas Production (2014)
 Subpart Overview » Production and Transformation Processes » Process Emissions

PROCESS EMISSIONS INFORMATION

PROCESS INFORMATION

Unique Name/Identifier Test Process 3

Process Type Production Process

Characterize the process Reaction

Method the Facility used to determine emissions of fluorinated GHG groups from the process vents? Mass Balance

PROCESS-LEVEL EMISSIONS OF THE F-GHG GROUP

Fluorinated GHG Group Fully fluorinated GHGs

GWP-weighted mass of all fluorinated GHGs in this group (metric tons CO₂e)

If you calculated the relative and absolute errors under the former §8.123(b)(1), enter the overall absolute or relative errors calculated for the process under the former §8.123(b)(1) in both in tons and decimal fraction.
 (tons)
 (decimal fraction)

Method used to estimate the total mass of fluorine in destroyed or recaptured streams

PROCESS-LEVEL EMISSIONS OF THE F-GHG GROUP

Fluorinated GHG Group Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds

GWP-weighted mass of all fluorinated GHGs in this group (metric tons CO₂e)

If you calculated the relative and absolute errors under the former §8.123(b)(1), enter the overall absolute or relative errors calculated for the process under the former §8.123(b)(1) in both in tons and decimal fraction.
 (tons)
 (decimal fraction)

Method used to estimate the total mass of fluorine in destroyed or recaptured streams

MISSING DATA PROCEDURES

Were the annual emissions of one or more F-GHG groups based on a missing data procedure? Yes No

Subpart L Reporting Form – One Product



FACILITY SUMMARY INFORMATION [\(change\)](#)

Did the facility produce **only one** fluorinated gas product, including fluorinated gas products that are intermediates? **Yes**

Did facility emissions include one or more major F-GHG constituents of a Fluorinated gas product that is sold or transferred to another person? **Yes**

Did the facility destroy previously produced fluorinated GHGs in destruction processes that are not part of a fluorinated gas production process or fluorinated gas transformation process? **Yes**

Did the facility vent residual fluorinated GHGs from containers? **No**

PRODUCTION AND TRANSFORMATION

Process-Level Emissions by F-GHGs by F-GHG Group

Process	Process Type	Mass Emitted (metric tons of CO2e)	Delete
Test Process 1	Production Process	3900	

[+ ADD a Process](#)

Emissions by Chemical — Major Constituents

For each fluorinated GHG that is emitted from production and transformation processes and that is a major F-GHG constituent of a product that is sold or transferred to another person, report emissions by chemical as follows: Use the "ADD or REMOVE" link to build a list of applicable F-GHGs. Then use the "Enter Emissions Info" button to enter required emissions information in tons.

Note: A "major F-GHG constituent" means a fluorinated GHG constituent of a fluorinated gas product that occurs in concentrations greater than 1 percent by mass.

F-GHG	CASRN	GWP	Mass Emitted (metric tons)
HFC-32	75-10-5	875	1

[+ ADD or REMOVE F-GHGs to Report](#) [Enter Emissions info](#)

Facility-Level Emissions by GHG Group

For fluorinated GHGs that are emitted from production and transformation processes and that are NOT a major F-GHG constituent of a product that is sold or transferred to another person, report GWP-weighted emissions by fluorinated GHG group as follows: Use the "ADD or REMOVE" link to build a list of applicable F-GHG groups. Then use the "Enter Emissions Info" button to enter the GWP-weighted emissions of all of the fluorinated GHGs in each group in tons of CO2e.

F-GHG Group	Mass Emitted (metric tons of CO2e)
Fully fluorinated GHGs	1500
Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds	1725

[+ ADD or REMOVE F-GHG Groups to Report](#) [Enter Emissions Info](#)

DESTRUCTION

Destruction of Previously Produced F-GHG -- All Destruction Processes Combined

Use the "ADD or REMOVE" link below to build a list of applicable f-GHGs. Then, use the "Enter Destruction Info" button to enter required destruction information. Enter emissions from all destruction processes combined. Report emissions that result from the destruction of previously produced F-GHGs, e.g., F-GHGs that are returned from the field and are destroyed because they are irretrievably contaminated.

F-GHG	CASRN	GWP	Mass Emitted (metric tons)
HFC-32	75-10-5	875	0.5

[+ ADD or REMOVE F-GHGs to Report](#) [Enter Destruction Info](#)

Lucy Inc

Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Production and Transformation Process F-GHG Emissions](#)

PRODUCTION AND TRANSFORMATION PROCESS F-GHG EMISSIONS

FACILITY-LEVEL EMISSIONS OF THE CHEMICAL

For each fluorinated GHG being reported (shown by Gas Name | Cas Number below) enter the total mass emitted.

HFC-32 | 75-10-5 (metric tons)

[SAVE](#) [CANCEL](#)

Lucy Inc

Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Production and Transformation Process GHG Group Emissions](#)

PRODUCTION AND TRANSFORMATION PROCESS GHG GROUP EMISSIONS

FACILITY-LEVEL EMISSIONS OF F-GHG GROUPS

For fluorinated GHGs that are emitted from production and transformation processes and that are NOT a major F-GHG constituent of a product that is sold or transferred to another person, report GWP-weighted emissions by fluorinated GHG group in tons CO2e. For each group, sum the GWP-weighted emissions of all of the F-GHGs in that group. If the F-GHG has a chemical-specific GWP in Table A-1, use that GWP. If the F-GHG does NOT have a chemical-specific GWP in Table A-1, use the default GWP of the fluorinated GHG group.

Fully fluorinated GHGs (metric tons CO2e)

Saturated hydrofluorocarbons (HFCs) with 2 or fewer carbon-hydrogen bonds (metric tons CO2e)

[SAVE](#) [CANCEL](#)

Lucy Inc

Subpart L: Fluorinated Gas Production (2014)

[Subpart Overview](#) » [Destruction Process Emissions](#)

DESTRUCTION PROCESS OF PREVIOUSLY PRODUCED F-GHG

FACILITY-LEVEL EMISSIONS OF THE CHEMICAL

For each fluorinated GHG being reported (shown by Gas Name | Cas Number below) enter the total mass emitted.

HFC-32 | 75-10-5 (metric tons)

[SAVE](#) [CANCEL](#)

Recap of Subpart L Reporting in eGGRT



- Facilities that produce fluorinated gas must fill out the subpart L web form in eGGRT.
 - Complete for RY2011, RY2012, RY2013, RY2014
- Complete Subpart L form for Fluorinated Gas Producers that Destroy Fluorinated GHGs (simplified reporting form in Excel), and upload under the subpart OO webform in eGGRT.
- Due March 31, 2015 for all reporting years.



- **e-GGRT Information & Help**
 - <http://www.ccdsupport.com>
 - Email: GHGreporting@epa.gov
- **GHG Reporting Rule Information & Help**
 - <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>
- **Other Subpart L resources**
 - <http://www.epa.gov/climatechange/emissions/subpart/l.html>

Subpart L



Questions?