1. Subpart I - Electronics Manufacturing	 2
1.1 Subpart I - Emissions Abatement Systems	 4
1.2 Subpart I - Facility Details	 5
1.3 Subpart I - F-GHG Emissions Information for PV, MEMS, and LCD Manufacturing (By Process)	 5
1.4 Subpart I - F-GHG Emissions Information for Semiconductor Manufacturing (By Process)	 6
1.5 Subpart I - Fluorinated Heat Transfer Fluid Information	 6
1.6 Subpart I - N2O Emissions from Chemical Vapor Deposition and Other Electronics Manufacturing Processes	 7
1.7 Subpart I - Recipe Information for Facilities Employing Recipe-specific Factors (By Recipe)	 7

Subpart I - Electronics Manufacturing



This page provides an overview of Subpart I reporting through e-GGRT. More detailed information regarding Subpart I reporting can be found in the Subpart I Webinar

Once you have added Subpart I to the list of subparts you will report and have clicked on the "Open" link next to Subpart I, you will see the following screen:

Click image to expand



Subpart I Reporting Form

Please see Reporting Form Instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart I calculation spreadsheet.

Use of Best Available Monitoring Methods (BAMM) Please note: Only report the use of BAMM on the Subpart I reporting form if you have reported BAMM on Subpart A - General Information. Only facilities or suppliers that have been approved by EPA to use BAMM or have automatically been granted BAMM under the rule should report use of BAMM.

- Subpart I Facility Details
- Subpart I F-GHG Emissions Information for PV, MEMS, and LCD Manufacturing (By Process)
- Subpart I F-GHG Emissions Information for Semiconductor Manufacturing (By Process)
- Subpart I Recipe Information for Facilities Employing Recipe-specific Factors (By Recipe)
- Subpart I N2O Emissions from Chemical Vapor Deposition and Other Electronics Manufacturing Processes
- Subpart I Fluorinated Heat Transfer Fluid Information
- Subpart I Emissions Abatement Systems

Subpart I also allows users to upload a upload a file which certifies that the abatement system or abatement system class in place at the facility was designed for f-GHG and N2O abatement. If the default DRE value was used to report controlled emissions for an abatement system or

abatement system class, you must upload a PDF file containing a certification that the abatement system or abatement system class was designed for f-GHG and N2O abatement. The filename of each file uploaded must be reported on the Abatement Systems sheet of the Subpart I Reporting Form and must be uploaded in the "Upload Supporting Forms" area on the Subpart I Upload Page.

Completed Subpart I Reporting Form

After you have successfully uploaded your completed Subpart I reporting form, the page will be updated to reflect the file you have uploaded. The Subpart I upload screen will display a summary of your reporting by chemical at the bottom of the page, as seen below.

JME FACILITY REGI	Helo, Nathew Cleaver My Profile Log							
e-GGRT Help	Test Facility 1 Subpart I: Electronics Manufacturing (2012)							
	Subpart Vierview							
	ORDEREN OF SUPPART DEPORTING RECURRENTIS Some in terms densing clusters clusters in the second metal CPGs from chemical approximation clusters clusters in the second metal CPGs from chemical approximation clusters clusters in the second metal clusters from chemical approximation clusters clusters in the second vectors cluster and emissions of fluorinted heat transfer fluids at the following heat and the source of the second vectors in the second vectors of the second the subject is a starty the Subject is provide a succession and the Subject is responsed from forms. Next, you all list download for and the SOURT involvem forms forms. Next, you all update the completed form and the SOURT involvem forms clusters that involved to access the the subject is provided to the data cluster with all update the completed form and the SOURT involvem forms. The second vector is the subject is the the subject is provided to the data cluster with all update the completed form and the SOURT involvem forms. The second vector is the subject is the the subject is the subject is the subject is the released reporting form.							
	For additional information about Subpart I reporting, please use the e-GGRT Help link Subpart I: View Validation							
	SUBPART I SUMMARY INFORMATION FOR THIS FACILITY							
	1) DOWNLOAD FORM B Subpart I Reporting Form							
	2.) UPLOAD COMPLETED FORM							
	Browse UPLOAD							
	(b) EPA has finalized a rule that defers the deadline for reporting certain data elements used as inputs to emission equations for direct emitters until March 3 (2015). See 7 EF FA 2050 (published August 25, 2011). In accordance with the nue, e-GRRT is not currently collecting this subset of inputs to emission equations. If you choose to report these mputs to EPA by including them in a lis equipable to this page, please note that the inputs may be subject to public release.							
	Uploaded File Name Attached By Date Delete							
	Subpart I Reporting Form - v42_SAMPE FOR help content xls							
	3.) UPLOAD SUPPORTING FILE(S)							
	Browse UPLOAD							
	Uf the default DRE value was used to report controlled emissions for an abstrement system or abstrement system class update a DPE fit according a confidence that the abstrement system or abstrement system class use designed for FLOE can block abstrement. The filterame of each file uploaded must be reported on the Abstrement Systems sheet of the Subpart I Reporting Ferm.							
	Uploaded File Name Attached By Date Delete							
	No files found.							
	No files found. SUBPART I EMISSIONS SUMMARY							
	No files fund. SUBPART I EMISSIONS SUMMARY GHG Name CAS Number Unrorunded Total Emissions (metric tons) (metric tons)							

If you attempt to upload a file but your file is not accepted by e-GGRT, it is generally because your file has a fatal flaw or is missing essential data. The reason why the file was not acceptable is displayed as a screen error on the upload page. For an example of a screen error message, see below.

Click image to expand



During the upload, e-GGRT will generate a validation report which will list potential deficiencies or issues with your reporting form. Click on the "Subpart I: View Validation" link to review your validation report. An explanation of the validation report and the process for correcting validation issues prior to submission is presented in Reporting Form Validation

Once you have addressed the validation issues to the extent you believe necessary, and once you have completed any other applicable subparts, you must generate, review, certify, and submit your annual report as described in How to Submit an Annual Report

Subpart I - Emissions Abatement Systems

Subpart I - Emissions Abatement Systems

Please see Reporting Form Instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart I calculation spreadsheet.

Indicate if the facility has any abatement systems

- Select the appropriate radio button
- If you don't have any abatement systems through which F-GHGs or N₂O flow, then no further information is required

1.)	Does your facility have any abatement systems through which fluorinated GHGs or N_2O flow	🔿 Yes
	and which are designed for abatement of fluorinated GHGs or N ₂ O?	O No

Fill out the abatement system information table.

- The name of the abatement system or class of abatement systems used at the facility
- The manufacturer
- The model number(s) (for a class, list each model number separated by a comma)
- The file name for the certification statement if you used the default DRE value to report controlled emissions
- The number of systems in each class for which the DRE was properly measured
- The method used to determine the "class" DRE value
- · The method used to select individual abatement systems for testing
- The type of product associated with the abatement system or class of abatement systems
- The tool types associated with the abatement system or class of abatement systems

- · The model numbers of the tools associated with the abatement system or class of abatement systems
- The process sub-types or process types associated with each abatement system or class of abatement systems
- · Certify the abatement system has been installed, maintained and operated in accordance with the manufacturer's specifications
- The name of each F-GHG or N₂O in the effluent stream
- The manufacturer DRE value for the abatement system

Subpart I - Facility Details

Subpart I - Facility Details

Please see Reporting Form Instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart I calculation spreadsheet.

Fill out the general information table.

- GHGRP ID is required. (the GHGRP ID on the reporting form must match the facility ID in e-GGRT)
- Reporting Year is required. (for RY2012 this must be reported as "2012")

1.) Fill out the following table with general information about this facility:

Facility Name:	
GHGRP ID:	
Reporting Period:	
Comments: (optional)	

Fill out the facility type and manufacturing information table.

- · The types of products manufactured at your facility
 - If you are a semiconductor manufacturer, indicate the size (or sizes) of wafers you manufacture.
- The manufacturing capacity you calculated using the method in Equation I-5,
- The annual production.

2.) Enter the facility type and manufacturing information required in the table below:

						Only for sen	niconductor manufactu	ring facilities	
Does facility mar semiconduc [§98.96	ufacuture tors?	Does facility manufacture MEMS, PVs, and/or LCDs? [§98.96]	Annual Manufacturing Capacity of the Facility as Determined by Eq. I-5 (square meters) [§98.96(a)]	Annual Production in Terms of Substrate Area (square meters) [§98.96(e)]	Does facility manufacture 150 millimeter wafers? [§98.96(b)]	Does facility manufacture 200 millimeter wafers? [§98.96(b)]	Does facility manufacture 300 millimeter wafers? [§98.96(b)]	Does facility manufacture wafers larger than 300 millimeters? [§98.96(b)]	If facility manufactures wafers smaller than 150 mm in diameter, please list the specific size(s) manufactured [§98.96(b)]
Yes		No	18600	14500	Yes	Yes	No	No	100, 200

Fill out the apportioning model information table.

- The metric used in the engineering model for apportioning gas consumption between recipes, process sub-types, or process types.
- The start and end dates for when you monitored gas consumption to validate the apportioning model.
- Indicate whether the gases selected for monitoring correspond to the largest quantities consumed on a mass basis by your facility during the reporting year for the plasma etching and chamber cleaning process types.
- The relative percent difference between the modeled and actual gas consumption under the plasma etching process type when you performed the apportioning model verification.

3.) Enter the apportioning model data required in the table below:

Quantifiable Metric used in Engineering Model to Apportion Gas Consumption [§98.96(m)(i)]	Start Date Selected under §98.94(c)(2)(i) [MM/DD/YYYY] [§98.96(m)(ii)]	End Date Selected under §98.94(c)(2)(i) [MM/DD/YYYY] [§98.96(m)(ii)]	Certification that the gases you selected under §98.94(c)(2)(ii) correspond to the largest quantities consumed on a mass basis, at your facility in the reporting year for the plasma etching process type and the chamber cleaning process type. [§98.96(m)(iii)]	Result of calculation comparing actual to modeled etch gas consumption under §98.94(c)(2)(iii) (%) [§98.96(m)(iv)]
Wafer Starts	01/01/2011	01/29/2011	Certified	4.50%

Subpart I - F-GHG Emissions Information for PV, MEMS, and LCD Manufacturing (By Process)

Subpart I - F-GHG Emissions Information for PV, MEMS, and LCD Manufacturing (By Process)

Please see Reporting Form Instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart I calculation spreadsheet.

Fill out the PV, MEMS, and/or LCD manufacturing processes that DO NOT use recipe-specific emission factors information table.

- The names of the F-GHGs emitted from the manufacturing process (for "other F-GHG," provide the name, CAS number, and chemical formula)
- The process type (if an F-GHG is used in more than one process type, report the F-GHG multiple times and select the different process types)
- The method used to calculate emissions
- The emissions of each F-GHG for each process type

1.)	supjete the table below for each COIG emitted from a PV, MBLS. or LCD manufacturing process for which emissions were NOT settimated using recipe-specific data and the settimate of the settimate of the settimate of the settimated and the settimated and the settimated of the settimate of the settimate of the settimate of the settimate of the settimated and the settimated and the settimated and the settimated and the settimated and the settimated and the settimated and the settimated an									
	Name of each f-GHG emitted [§98.96(c)(1)]	CAS Lookup	Specify "Other f-GHG" Name [§98.96(c)(1)]	Specify "Other f-GHG" CAS No. [§98.96(c)(1)]	Specify "Other f-GHG" Chemical Formula [§88.96(c)(1)]	Process Type [§98.96(c)(1)]	Method of Emissions Calculation NOTE: If an emissions calculation methods are used for one f- GHG / process type combinator, please report the combination twice and select the different methods in this column [§98.98(d)]	Total Annual Emissions (metric tons/yr) [§98.96(c)(1)]	GWP Lookup (Note: if an f-GHG is not in Table A-1, these values will remain 0)	CO2e Conversion (metric tons/yr) (Note: if an f-GHG is not in Table A-1, these values will remain 0)
		#N/A							0	0
2		#N/A							0	0
3		#N/A							0	0
- 4		#N/A							0	0
-6		#N/A							0	0
6		#N/A							0	0
7		#N/A							0	0
8		#N/A							0	0
- 9		#N/A							0	0
-	وجوجا فالبي معيداوم الماحا الي	HN/0	and the statement of	the support of the support of the	and a second	and the second sec	and the second se	and the second secon	and the second s	And the second s

Subpart I - F-GHG Emissions Information for Semiconductor Manufacturing (By Process)

Subpart I - F-GHG Emissions Information for Semiconductor Manufacturing (By Process)

Please see Reporting Form Instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart I calculation spreadsheet.

Fill out the semiconductor manufacturing processes that DO NOT use recipe-specific factors information table.

- The names of the F-GHGs emitted from the semiconductor process (if you select "other F-GHG," provide the name, CAS number, and chemical formula)
- The process type (if an F-GHG is used in more than one process type, report the F-GHG multiple times and select the different process types)
- The method used to calculate emissions
- The emissions of each F-GHG

.)	mplete the table below for each FGHG emitted from a semiconductor manufacturing process for which emissions were NOT estimated using recipe-specific factors. If two insisions calculation methods are used for one FGHG / process type combination, please report the combination twice and select the different methods in column G.									
	Name of each f-GHG emitted [998.96(c)(1]]	CAS Lookup	Specify "Other f-GHG" Name [§98.96(c)(1)]	Specify "Other f-GHG" CAS No. [§98.96(c)(1)]	Specify "Other f-GHG" Chemical Formula [§96.96(c)(1)]	Process Type [§98.96(c)(1)]	Method of Emissions Calculation NOTE: If her emissions calculation methods are used for one 164YG / process type combination, please report the combination heric and select the different methods in this column [§98.56(ci)]	Total Annual Emissions (metric tons/yr) [§98.96(c)(1)]	GWP Lookup (Note: if an f-GHG is not in Table A-1, these values will remain 0)	CO2e Conversion (metric tons/yr) (Note: if an f- GHG is not in Table A-1, these values will remain 0)
- 1		#N/A							0	0
- 2		#N/A							0	0
3		#N/A							0	0
- 4		#N/A							0	0
- 5		#N/A							0	0
6		#N/A							0	0
7		#N/A							0	0
8		#N/A							0	0
9		#N(A							0	0
	and the second	MALIA	and a second	and a sub-latent second s	and the second difference of the second s	State of Sta	Construction of the local division of the lo	State of the local division of the local div	Contraction of the local division of the loc	

Subpart I - Fluorinated Heat Transfer Fluid Information

Subpart I - Fluorinated Heat Transfer Fluid Information

Please see Reporting Form Instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart I calculation spreadsheet.

Fill out the fluorinated heat transfer fluid information table.

• The names of the heat transfer fluids used at the facility

- The emissions calculation method
- The total annual emissions for each fluorinated heat transfer fluid used

1.) Complete the table below for each fluorinated heat transfer fluid used at your facility

	Fluorinated Heat Transfer Fluid (f-HTF) Name [§98.96(c)(4)]	CAS Lookup	Specify "Other f-HTF" Name [§98.96(c)(4)]	Specify "Other f-HTF" CAS No. [§98.96(c)(4)]	Specify "Other f-GHG" Chemical Formula [§98.96(c)(4)]	Method of Emissions Calculation [§98.96(d)]	Total Annual Emissions (metric tons/yr) [§98.96(c)(4)]
1 E	C-70 (Perfluorotripentylamine)	338-84-1				Equation I-16 (mass ba	18.9000
2		#N/A					

Subpart I - N2O Emissions from Chemical Vapor Deposition and Other Electronics Manufacturing Processes

Subpart I - N₂O Emissions from Chemical Vapor Deposition and Other Electronics Manufacturing Processes

Please see Reporting Form Instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart I calculation spreadsheet.

Fill out the chemical vapor deposition processes information table.

- The method used to calculate the emissions
- If facility-specific utilization factors were used, specify the method used to determine the factors
- N₂O emissions from chemical vapor deposition processes
- Certify that the measurements were made are representative of the facility.
- If the measurements were made before January 1, 2007, certify that the facility-specific utilization factors were determined using the correct International SEMATECH version specified in the rule

1.) Complete the table below for chemical vapor deposition processes at your facility that use and emit N2O.

Method of Reporting Emissions (198 94:01)	Source of the facility-specific N2O utilization factor; if used (\$98.96(7(5)	Specify "other" Source of the facility- specific N2O utilization factor [§98.96(f)(5]	Total Annual N2O Emissions from Chemical Vapor Deposition (metric tons/yr) [§98.96(c)(3)]	Certification that the measurements for all reported facility-specific N2O utilization factors were made using the International SEMATECH 40612422A-ENG (Incorporated by reference, see §87.7) or the International SEMATECH 40104187A-SPR (Incorporated by reference, see §87.7) (masurements were made prior to January 1, 2007. [§8-86(9)(4)]	Certification that the conditions under which the measurements were made for facility-specific N2O utilization facility specific N2O utilization facility specific neithing production processes. [§88.96(f)6)]
Developed facility-specific utilization factor	Eacility measured: International SEMATECH #06124825A,ENG		0.270	Codified	Codified

Fill out the other electronics manufacturing processes information table.

- The method used to calculate the emissions
- · If facility-specific utilization factors were used, specify the method used to determine the factors
- N₂O emissions from other electronics manufacturing processes
- Certify that the measurements were made are representative of the facility.
- If the measurements were made before January 1, 2007, certify that the facility-specific utilization factors were determined using the correct International SEMATECH version specified in the rule

2.) Complete the table below for other electronics manufacturing processes at your facility that use and emit N2O.

Method of Reporting Emissions (\$98.96(d))	Source of the facility-specific N2O willization factor, if used [68.96(r)(0)	Specify "other" Source of the facility- specific N2O utilization factor [§98.96(1)(5]	Total Annual N2O Emissions from all other N2O-using manufacturing processes (metric tons/yr) [§98.96(c)(3)]	Certification that the measurements for all reported facility-specific N2O utilization factors were made using the International SEMATECH #08124825A-ENQ (incorporated by reference, see §87.) or the International SEMATECH #01104197A-XFR (incorporated by reference, see §87.) if measurements were made prior to January 1, 2007. [§88.86(f)(4)]	Certification that the conditions under which the measurements were made for facility-specific N20 utilization factors are representative of your facility's N20 emitting production processes. [§98.96(f)(6)]
Used default utilization factor from Table I-8			0.100	N/A – did not use facility-specific factors	N/A - did not use facility-specific factors

Subpart I - Recipe Information for Facilities Employing Recipe-specific Factors (By Recipe)

Subpart I - Recipe Information for Facilities Employing Recipe-specific Factors (By Recipe)

Please see Reporting Form Instructions on downloading the blank reporting form and uploading the completed reporting form. You may also refer to Optional Calculation Spreadsheet Instructions to download the Subpart I calculation spreadsheet.

Fill out the certification information table.

- Certify recipes included in a set are in fact similar as defined in §98.98
 - If yes, then select "Certified"
 - If no, then select "Used BAMM"
 - If only one recipe was used for each factor, then enter "Not applicable only individual recipes used"

- · Certify that you used the methods specified in the rule
- 1.) Certify the recipes used at your facility in the table below.

Certification that the recipes included in a set of similar recipes are similar, as defined in §98.98. [§98.96(f)(3)]	Certification that the measurements for all reported recipe-specific utilization and by- product formation rates were made using the International SEMATECH #06124825A-ENG (incorporated by reference, see §98.7), or the International SEMATECH #01104197A-XFR (incorporated by reference, see §98.7) if measurements were made prior to January 1, 2007. [§98.96(f)(4)]
Certified	Certified

Fill out the recipe information table.

- Enter an ID or name for each individual recipe (or set of similar recipes if you are using the same recipe-specific factor for two or more similar recipes)
- Recipe Type

2) Co

- Process type for each recipe
 - If the process involves etching then you must enter both the name of the film or substrate and types of features etched
 Feature type that is etched
- Source of the recipe-specific utilization and by-product formation rates
 Name for each F-GHG used in the recipe or sets of similar recipes
- Emissions for each F-GHG used in the recipe or sets of similar recipes (re-enter the recipe information for each F-GHG used in the recipe)

stylen for båh hörr for en finsjer som far java Tarlity.														
Recipe Name or ID (\$16.54(+)(2)	Description of Recipe (OPTIDNAL)	Resipe Type [358.96(c)/2]	Process Type (\$85.56(+)(2)	Film or Substrate Etched (\$88.94(52))	Specify "Other" Film or Substrase Exched er "Leve X" Type (# applicable) (§98.96(51)	Feature types that are esshed [\$58.9673.2]	Source of the recipe-specific utilization and by product formation rates gets strategy	Specity "Other" searce, if selected [\$55.9673,5]	Name of each FGHG emitted [\$4.94(x)22	CAS Lookup	Specify "Other 1 GHO" Name [[MI.Mi(r)(2]]	Specity "Other FidHD" CAS No. (\$98.90(c))28	Specify "Other 1- GHD" Chemical Premula [505.96(c)(2)]	Total Annual Envisions Imetric Sceniyr) (§98.94(c)(2))
										#NA				
										MIA				
										#113				
										MIA				
										1113				
										PERA				
										1112				
1														
1										1113				