



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Georgia 2016 Point Source Emission Reporting

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Planning & Support Program
Air Protection Branch
Georgia Environmental Protection Division

**Point Source Emission Reporting
Training Webinar**
March 22, 2017



TRAINING OUTLINE

2016 emissions should be submitted to Georgia EPD by
June 30, 2017.

1. Georgia Point Source Emission Reporting Requirements
 - Federal and state regulations
 - Application of Point Source Emission Data
 - 2016 EI Participation, Threshold and Pollutants Reported
2. Georgia Point Source Emission Reporting Procedures
 - Georgia Environmental Connections Online (GECO) Emission Inventory System (EIS) (<http://geco.georgiaair.org/EIS/>)
3. Detailed Information for Facility Inventory (FI) and Emission Inventory (EI) Reporting
4. Changes in 2016 Point Source Emission Reporting
5. Hands-on Demonstration for an Example Facility Submittal



Section 1

Georgia Point Source Emission Reporting Requirements



FEDERAL AND STATE REGULATIONS/RULES

1. Required by federal regulation 40 CFR Part 51 - Air Emissions Reporting Requirements (AERR) and EPA Air Planning Agreement
 - Consolidated Emissions Reporting Rule (CERR) published on June 10, 2002.
 - Replaced the old CERR rule with the Air Emissions Reporting Requirements (AERR) rule issued on December 17, 2008.
 - New revisions to AERR rule was issued on February 6, 2015.
2. GA EPD collects the annual emissions inventory under authority of Georgia Rule 391-3-1-.02(6)(b)(1)
3. States are required to report 2016 **actual** point source emission data to EPA by **December 31, 2017**.



APPLICATION OF POINT SOURCE EMISSION DATA

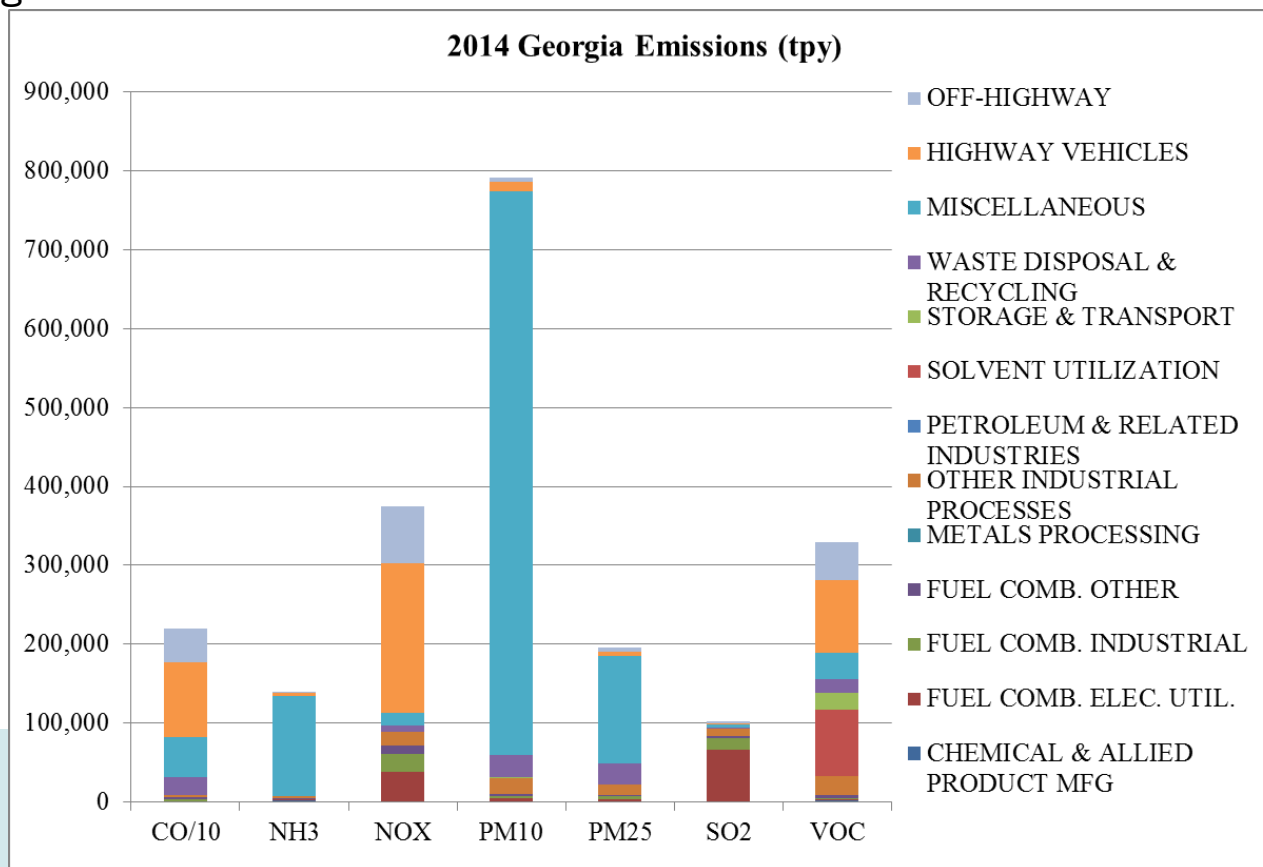
1. Data repository for air emissions data used to create the National Emissions Inventory (NEI)
2. Attainment/nonattainment designations for criteria air pollutants
3. State Implementation Plans (SIPs) for attainment and maintenance of the National Ambient Air Quality Standard (NAAQS)
4. Rule development
5. Prevention of Significant Deterioration (PSD) permit reviews
6. Air Quality & Human Health Effects Research
7. Trends reports and analyses



NATIONAL EMISSIONS INVENTORY (NEI)

NEI is developed during three year cycle reporting (i.e. 2011, 2014...)

- Emissions from all source categories and point sources with PTE greater than a lower threshold
- Every year cycle reporting: Only large point sources with PTE greater than a higher threshold





2016 EI PARTICIPATION AND THRESHOLD

1. All Part 70 Major Sources are subject.

2. Exceptions

- Permitted but not constructed
- Federally Enforceable Permit Limit
 - e.g., Synthetic Minor (SM) sources or Major HAP sources
- Shutdown during the Calendar Year

3. 2016 Emission Thresholds by Pollutants

Pollutant	Thresholds (tpy)
SO ₂	2,500
VOC	250
NO _x	2,500
CO	2,500
PM ₁₀	250
PM _{2.5}	250
NH ₃	250



EI POLLUTANTS REPORTED

1. Ammonia (NH_3)
2. Carbon Monoxide (CO)
3. Lead (Pb)
4. Nitrogen Oxides (NO_x)
5. Sulfur Dioxide (SO_2)
6. Volatile Organic Compounds (VOCs)
7. $\text{PM}_{2.5}$ Primary
8. PM_{10} Primary
9. PM Condensable
10. $\text{PM}_{2.5}$ Filterable
11. PM_{10} Filterable



Section 2

Georgia Point Source Emission Reporting Procedures



GECO EIS – ACCESS GECO EIS

- Report 2016 point source emission data through GECO EIS
 - GECO: Georgia Environmental Connections Online
 - EIS: Emission Inventory System
 - Access GECO EIS through <http://geco.georgiaair.org/EIS/>
 - System updates, workshop materials, and other related information are available at <http://epd.georgia.gov/air/emissions-inventory-system-eis>.
- First time user
 - Register with your email and log in
 - Request access to a facility by contacting Stacy Allman at 404-363-7033.



GECO EIS – START REPORTING PROCESS

- On the Home Page
 - List of facilities associated with your account
 - Click on the AIRS Number for the facility
- On the “Online Application Status” page
 - Summary of applications that a facility should work on
 - Click on “Emissions Inventory” to report 2016 emissions
- FI – Facility Inventory
 - Refers to the information on physical and operational assets of the facility such as emission units and process, release points
 - Remains more or less the same from year to year.
- EI – Emission Inventory
 - Refers to the information on emissions, throughputs and operating details
 - Changes from year to year

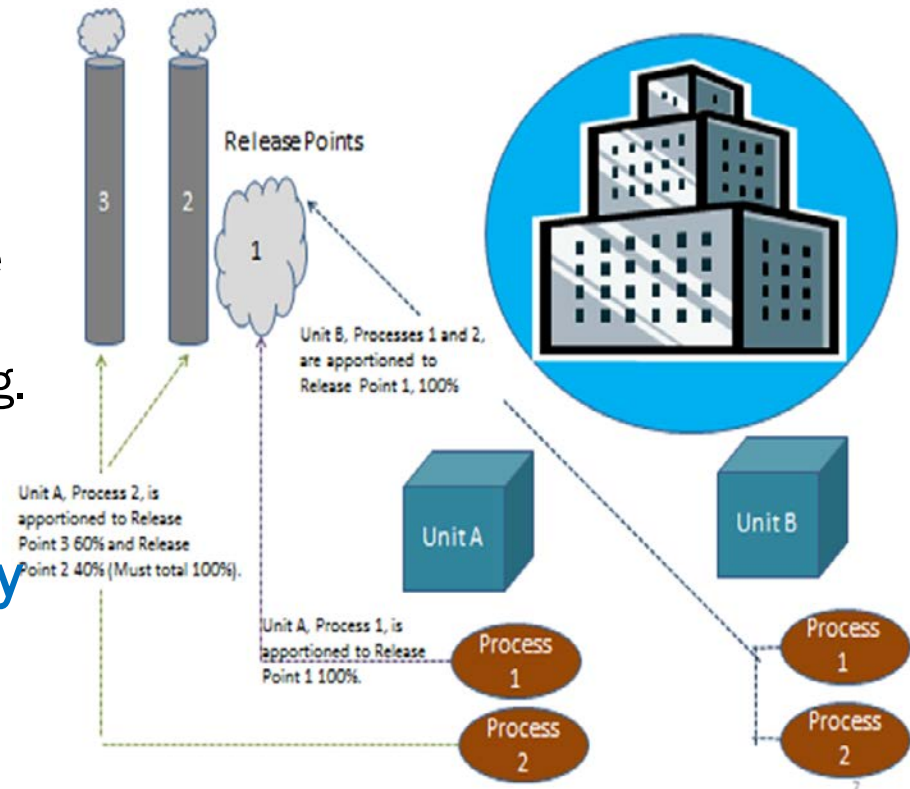


FI – FACILITY INVENTORY

Physical assets of the Facility

- Site-level information and location
- Emissions Units
- Release Points - Two types
 - Stacks - single emission release point site
 - Fugitives- release point area (e.g. tank or conveyors)

FI does not change much from year to year



Operational Assets of the Facility

- Processes
- Control Approaches



EI – EMISSION INVENTORY

- All emission and operation information associated with a process reported in the FI.
 - Emission for all EI pollutants
 - Operating details (Throughput)
 - Supplemental calculation parameters
- Reporting period: Annual
- Information changes from year to year



GECO EIS – PARTICIPATION DETERMINATION (1)

- Facility Operational Status during 2016
 - If the facility did not operate in 2016, the facility is not required to report 2016 emissions.

The screenshot shows a web browser window with the URL geco.georgiaair.org/EIS/rp_facilitystatus.aspx. The page title is "Air Protection Branch". The user is logged in as "Jing Wang" with "Airs No. 103900001" and the facility is "Durango-Georgia Paper Company". The navigation bar includes "Facility Home", "My Home", "Training", "Contact Us", and "Sign". The left sidebar has links for "Home", "Help & Reports", "Facility Inventory Help", "Emission Inventory Help", "Reports", and "EIS Change Log". The main content area is titled "Facility Operational Status" and contains a form with the following elements:

- A question: "Did the facility operate at any time during calendar year 2014?" with radio buttons for "Yes" (selected) and "No".
- A dropdown menu for "Current Facility Status?" set to "Operating".
- A text input field with the placeholder "Type optional comments here".
- A note: "If the facility did not operate during 2014 the facility will not participate in the Emissions Inventory process."
- A "Continue" button.

- Determine facility-wide potential to emit (PTE)
 - Title V Permit Application or Permit Narrative (<http://gatv.georgiaair.org/GATV/default.asp>)
 - PTE Guidelines (<https://epd.georgia.gov/air/documents/potential-emit-guidelines>)



GECO EIS – PARTICIPATION DETERMINATION (2)

- If a facility operated in 2016 and the PTE for all pollutants listed in the table below are less than the threshold, the facility is not required to report 2016 emissions.
- If a facility operated in 2016 and the PTE of any pollutant listed in the table below is equal to or greater than the threshold, the facility is required to report 2016 emissions for all pollutants.

Emission Thresholds for Type A Sources in Calendar Year 2016

Pollutant	Thresholds (tpy)
SO ₂	2,500
VOC	250
NO _x	2,500
CO	2,500
PM ₁₀	250
PM _{2.5}	250
NH ₃	250



GECO EIS – PARTICIPATION DETERMINATION (3)

- If a facility is not required to report 2016 emissions
 - Georgia EPD engineers will evaluate the participation determination by comparing PTE with 2016 emission thresholds.
- If a facility is required to report 2016 emissions
 - The facility may choose to pre-populate data from a previous year (e.g. 2015, 2014, etc.).
 - Annual process throughput and emissions values can not be pre-populated.

The screenshot shows a web browser window with the URL `geco.georgiaair.org/EIS/rp_prepop.aspx`. The page title is "Air Protection Branch". The user is logged in as "Jing Wang" with "Airs No.: 03900001" and the facility is "Durango-Georgia Paper Company". The navigation bar includes "Facility Home", "My Home", "Training", and "Co". The left sidebar has "Home" and "Help & Reports" (with links for "Facility Inventory Help", "Emission Inventory Help", and "Reports"), and an "EIS Change Log" button. The main content area is titled "Emission Inventory Prepopulation" and contains the following text: "The facility will be participating in the Emissions Inventory process." and "You may choose to have the Emissions Inventory prepopulated with data from a previous year. If you wish to skip this option and begin with blank forms, choose 'Do not prepopulate' in the list and click 'Continue.'". Below this text is a section titled "What would you like to do?" with a dropdown menu labeled "Choose the year:" and a "Continue" button.



GECO EIS – FI, EI, HELP AND REPORTS

Home

Facility Inventory

Facility & Contact Info

Release Points

Emission Units

Processes

Emission Inventory

Emissions Reporting

Process Bulk Entry

Pollutant Bulk Entry

Submit EI

Reset EI Data

Help & Reports

Facility Inventory Help

Emission Inventory Help

Reports

EIS Change Log

- Always available for editing except during the EPA Submittal.
- Prepopulated with the most recently submitted facility information.

- Only available for editing during specific Reporting Period Event.
- Facilities can choose to pre-populate the EI data with data from your most recent submittal during the participation determination process.

- Detailed help information for FI and EI reporting
- Reports for data submitted

- EIS system change log



GECO EIS – REPORT 2016 EMISSIONS

Home

Facility Inventory

Facility & Contact Info

Release Points

Emission Units

Processes

Emission Inventory

Emissions Reporting

Process Bulk Entry

Pollutant Bulk Entry

Submit EI

Reset EI Data

Help & Reports

Facility Inventory Help

Emission Inventory Help

Reports

1. Review facility & Contact info and update as needed
2. Click various links to report corresponding information
3. Click “Facility Inventory Help” and “Emission Inventory Help” if you have any questions
4. Click “submit EI” after you finish reporting all information
5. Click “Report” if you want to check the data that you have reported
6. Click “Reset EI data” to clean up EI data reported

EIS Change Log



GECO EIS – FI SUMMARIES

- Click “Release Points”, “Emission Units” or “Processes” for Facility Inventory to show summary list for corresponding information

geco.georgiaair.org/EIS/releasepoint_summary.aspx

emissions inventory

Air Protection Branch

Welcome, Jing Wang | Airs No.:03900001
Facility: Durango-Georgia Paper Company

Facility Home My Home **Training** Contact Us Sign Out

Home

- Facility Inventory**
 - Facility & Contact Info
 - Release Points
 - Emission Units
 - Processes
- Emission Inventory**
 - Emissions Reporting
 - Process Bulk Entry
 - Pollutant Bulk Entry
 - Submit EI
- Reset EI Data**
- Help & Reports**
 - Facility Inventory Help
 - Emission Inventory Help
 - Reports

[EIS Change Log](#)

Active Fugitive Release Points

Fugitive ID	Fugitive Description	Operating Status	Last EPA Submittal
999TES	DSFS	Operating	
99TEST	test	Operating	
CV01E	Fugitive from conveyors	Operating	
FUG100	test fugitive	Operating	
FUGRG	TEST	Operating	
FUGNEW	Test Fug	Operating	
FUGSTK	test	Operating	
ST999	Desc	Operating	
STTEST	Desc	Operating	
TESTFU	desc	Operating	
TESTIN	description	Operating	

Active Stack Release Points

Stack ID	Stack Description	Release Point Type	Stack Height (feet)	Gas Flow Rate (ACFS)	Operating Status	Last EPA Submittal
501A	Kiln No. 1 Stack Test	Vertical	200	0.1	Operating	6/2/2010
501B	Kiln No. 2 Stack	Vertical	102	55	Operating	6/2/2010



GECO EIS – FI DETAILS

- Click the link for each item to show detailed information

geco.georgiasir.org/EIS/fugitive_details.aspx?fug=999TES emissions inventory

Air Protection Branch

Welcome, Jing Wang | Airs No.: 03900001
Facility: Durango-Georgia Paper Company

Facility Home My Home **Training** Contact Us Sign Out

Home
Facility Inventory
Facility & Contact Info
Release Points
Emission Units
Processes
Emission Inventory
Emissions Reporting
Process Bulk Entry
Pollutant Bulk Entry
Submit EI
Reset EI Data
Help & Reports
Facility Inventory Help
Emission Inventory Help
Reports
EIS Change Log

Fugitive Release Point Details

Summary

Fugitive Release Point Add Duplicate Edit

<u>Fugitive ID:</u>	999TES
<u>Fugitive Description:</u>	DSFS
<u>Fugitive Operating Status:</u>	Operating as reported in 2013
<u>Fence Line Distance (ft):</u>	5
<u>Fugitive Height (ft):</u>	6
<u>Fugitive Width (ft):</u>	4
<u>Fugitive Length (ft):</u>	5
<u>Fugitive Angle (0 - 179):</u>	47
<u>Comment:</u>	
<u>Last Submitted to EPA:</u>	Never submitted
<u>Last Updated On:</u>	01/28/2015 04:25pm by Jing Wang

Fugitive Geographic Coordinate Information:



GECO EIS – FI ADD/DUPLICATE/EDIT

- Click “Add” on the “Details” page to add new data items
- Click “Duplicate” on the “Details” page to add new data items by duplicating the existing data item
- Click “Edit” to edit detailed information for an EIS data item
 - Note some Details pages have multiple Edit options
 - Click “Save” to save updated information.

The screenshot displays the 'Edit Fugitive Release Point Details' page in the GECO EIS web application. The page has a blue header with the 'Air Protection Branch' logo and a navigation menu on the left. The main content area contains a form for editing a Fugitive Release Point. The form includes the following fields:

- Fugitive ID:** 99TEST
- Fugitive Description:** test
- Fugitive Operating Status:** Operating (dropdown menu)
- Fence Line Distance (ft):** OPTIONAL
- Fugitive Height Measure (ft):** OPTIONAL
- Fugitive Width Measure (ft):** OPTIONAL
- Fugitive Length Measure (ft):** OPTIONAL
- Fugitive Angle Measure (0 - 179):** OPTIONAL
- Comment:** (text area)

At the bottom of the form, there is a 'Save' button and a 'Return to Details' button. Below the form, there is a section titled 'Release Point Apportionments' with a note: 'The Release Point is not used in any Process Release Point Apportionments and can be deleted on the Edit page.'



GECO EIS – EI

- Click “Emissions Reporting” to add emission processes in the 2016 reporting period
 - Prepopulate or Add
 - Report emission inventory and process operating details for each process

[Home](#)

[Facility Inventory](#)

[Facility & Contact Info](#)

[Release Points](#)

[Emission Units](#)

[Processes](#)

[Emission Inventory](#)

[Emissions Reporting](#)

[Process Bulk Entry](#)

[Pollutant Bulk Entry](#)

[Submit EI](#)

[Reset EI Data](#)

[Help & Reports](#)

[Facility Inventory Help](#)

[Emission Inventory Help](#)

[Reports](#)

[EIS Change Log](#)

Process Reporting Period Summary

Processes in the 2016 Reporting Period

Emission Unit ID	Process ID	Process Description	Control Approach	Last EPA Submittal	
500A	10	Kiln - Oil	Unit	Not Submitted	Remove

Processes NOT in the 2016 Reporting Period

Emission Unit ID	Process ID	Process Description	Control Approach	Last EPA Submittal		
500A	1	Lumber dried	Unit	12/20/2012	Add	Prepopulate
500A	1A	test	Unit	Not Submitted	Add	Prepopulate
500A	2	test	Unit	Not Submitted	Add	Prepopulate
500A	56	test	Unit	Not Submitted	Add	Prepopulate



GECO EIS – EI BULK ENTRY

- Click “Process Bulk Entry” to enter 2016 throughput quantities for the processes described by the indicated emission unit and process IDs.
 - Note: To change the throughput unit you must visit the Edit Process Operating Details page
- Click “Pollutant Bulk Entry” to enter 2016 emissions quantities for the processes described by the indicated emission unit and process IDs
 - Note: emission quantities entered are in tons per year.



GECO EIS - SUBMITTAL ERRORS/WARNINGS

- To identify errors/warning before final submission by a facility
 - Click “Submit EI”, then “Show Lists of All Possible Errors and Warnings”
- Errors are required to be fixed before final submission
- A “warning” refers to an issue that may need to be addressed, but not required to be fixed before final submission.

The screenshot displays the GECO EIS web application interface. The browser address bar shows the URL `geco.georgiaair.org/EIS/rp_submit.aspx`. The page header is blue and contains the text "Air Protection Branch" and "Welcome, Jing Wang | Airs No.:03900001". Below the header, there is a navigation bar with links: "Facility Home", "My Home", "Training" (highlighted), "Contact Us", and "Sign Out".

The main content area is titled "Submit Emissions Inventory Data". It contains the following text:

Click the button below to begin the submittal process for the facility's Emissions Inventory data for . The data will be checked for errors before allowing submittal. To cancel and return to the Emissions Inventory home page, click cancel.

If there are no errors, the button to allow submittal will appear. If alerted that warnings are present please review those areas before submitting to prevent the possibility of having EPD cancel your submittal due to bad or incorrect data.

After submitting the data a confirmation number will be shown. Prior to EPD's review process you will be able to withdraw the submittal and make changes. Withdrawing the submittal will not delete the data already entered; you will lose the confirmation number and date of submittal. However, EPD does retain the date that the facility initially submitted the Emissions Inventory data.

At the bottom of the page, there are three buttons: "Begin Submittal Process", "Cancel", and "Show Lists of All Possible Errors and Warnings".

The footer of the page contains the text: "©2009 • Georgia Environmental Protection Division, Air Protection Branch • All rights reserved".



Section 3

Detailed Information for FI and EI



FI – FACILITY INVENTORY

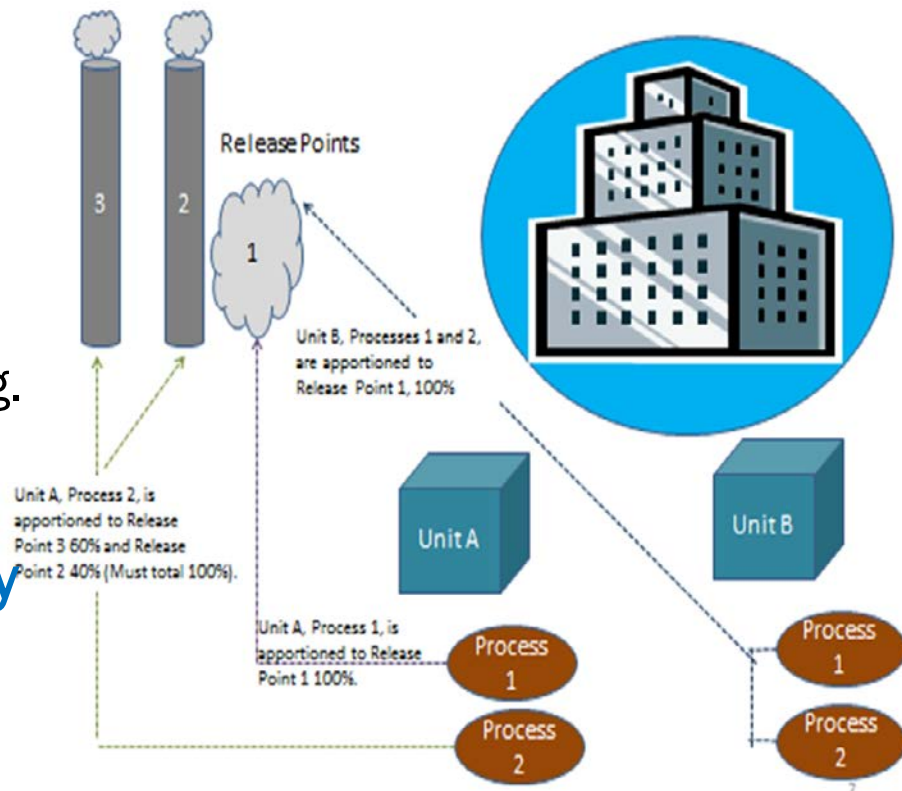
Physical assets of the Facility

- Site-level information and location
- Emissions Units
- Release Points - Two types
 - Stacks - single emission release point site
 - Fugitives- release point area (e.g. tank or conveyors)

FI does not change much from year to year

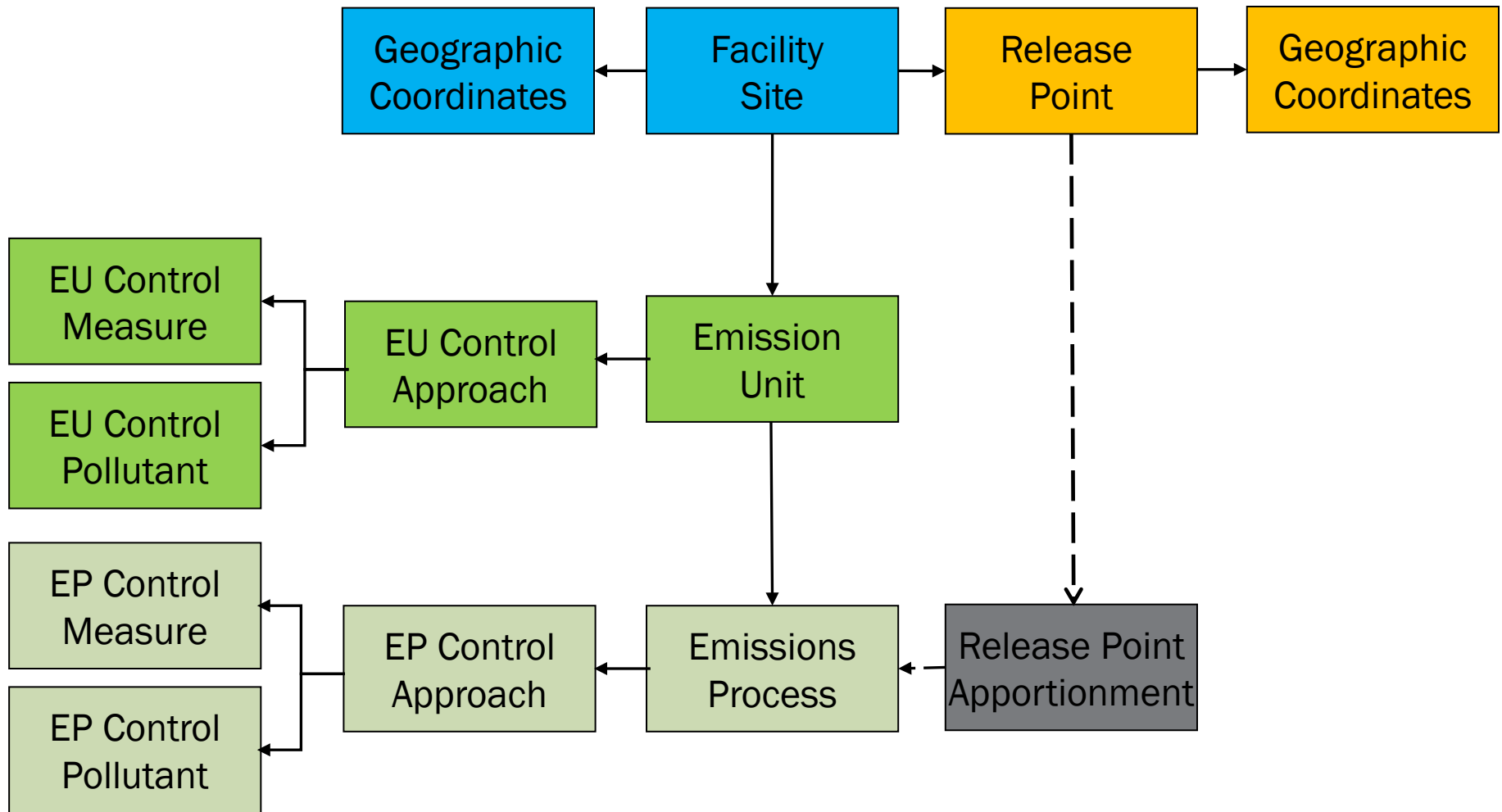
Operational Assets of the Facility

- Processes
- Control Approaches





FI – DATA STRUCTURE





FI – EMISSION UNITS

- Physical pieces of equipment, usually a Title V Significant Emission Unit.
 - Consistent with unit information in permit (Section 3.1)
- FI does not readily allow for Emission Unit Groups
- Emission Unit Control Approach

Emission Unit Details - GEICO F...

geico.georgiaair.org/EIS/emissionunit_details.aspx?eu=500A

Home
Facility Inventory
Facility & Contact Info
Release Points
Emission Units
Processes
Emission Inventory
Emissions Reporting
Process Bulk Entry
Pollutant Bulk Entry
Submit EI
Reset EI Data
Help & Reports
Facility Inventory Help
Emission Inventory Help
Reports

EIS Change Log

Emission Unit Details

Summary

Emission Unit

Add Duplicate Edit

Emission Unit ID: 500A

Emission Unit Description: Kiln No. 1

Unit Type: Mixer

Operating Status: Operating

Unit Placed In Operation: 12/01/2012

Comment: This is a comment.TETEEteetet 3

Last Submitted to EPA: 06/02/2010

Last Updated on: 04/13/2015 10:46am by Jing Wang

Emission Unit Control Approach

Edit

Control Approach Description: Mixer Control

Percent Control Approach Capture Efficiency:

Percent Control Approach Effectiveness:

First Inventory Year:

Last Inventory Year:

Control Approach Comment:

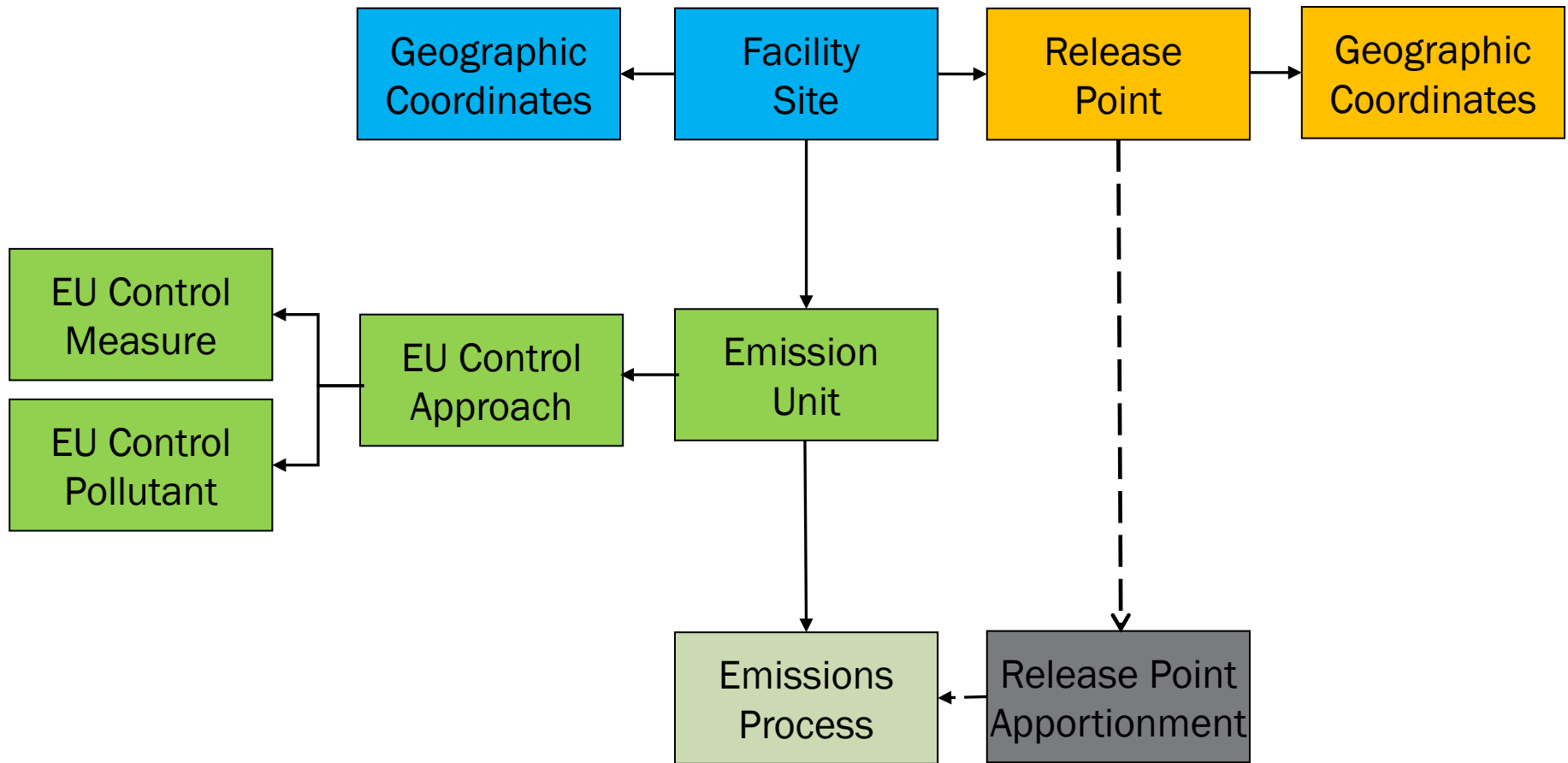
Last Updated on: 04/13/2015 10:47am by Jing Wang

Emissions Unit Control Measures

Control Device	Last EPA Submittal
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FI – EMISSION UNIT CONTROL APPROACH





FI – EMISSION PROCESSES

- Using Source Classification Codes (SCC)
 - Cascading-dropdown for SCC selection
- Release Point Apportionment
- Emission Process Control Approaches

Process Details - GECO Facility ...

geco.georgiaair.org/EIS/process_details.aspx?eu=500A&rep=1

Facility & Contact Info
Release Points
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Emission Inventory
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Process Bulk Entry
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Reset EI Data
Help & Reports
Facility Inventory Help
Emission Inventory Help
Reports

EIS Change Log

Process

Add Edit

Emission Unit ID: 500A
Emission Unit Status: Operating
Emission Unit Description: Kiln No. 1
Process ID: 1
Process Description: Lumber dried
Source Classification Code: 30901007
Process Comment:
Last Submitted to EPA: 12/20/2012
Last Updated On: 03/01/2013 12:51pm by Noel DoHarris

Release Point Apportionment Information

Edit

Release Point ID	Release Point Description	Release Point Type	Apportionment %	Last Submission to EPA
501B	Kiln No. 2 Stack	Vertical	100%	

Process Control Approach

An Emission Unit Control Approach exists, no Process Control Approach can be added.

Annual Reporting Period Emissions

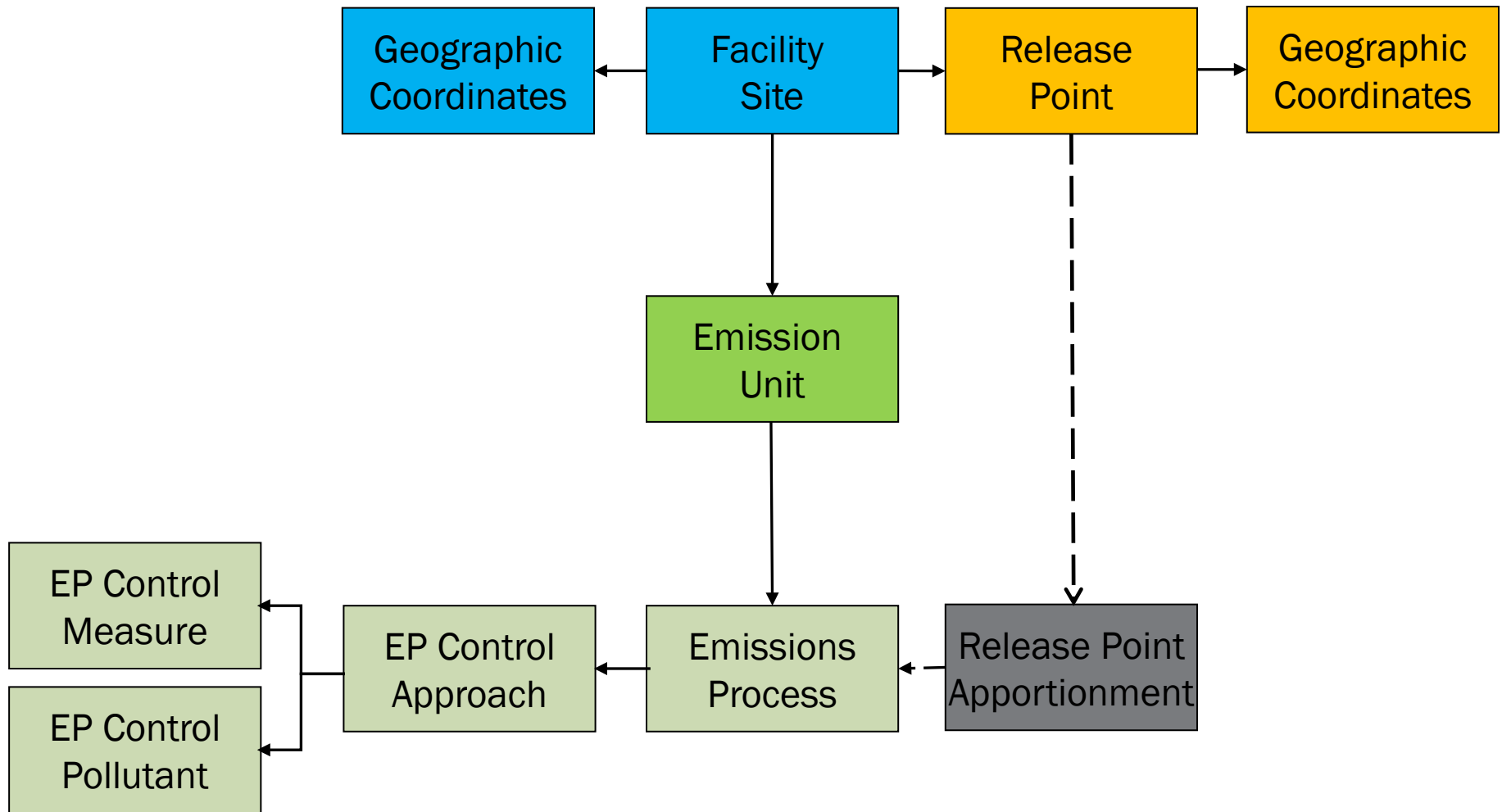
Pollutant	Reporting Period Type	2014	2013	2012	2011	2010
Volatile Organic Compounds	Annual	No Data	No Data	12.5	No Data	5

Summary

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FI – EMISSION PROCESSES CONTROL APPROACH





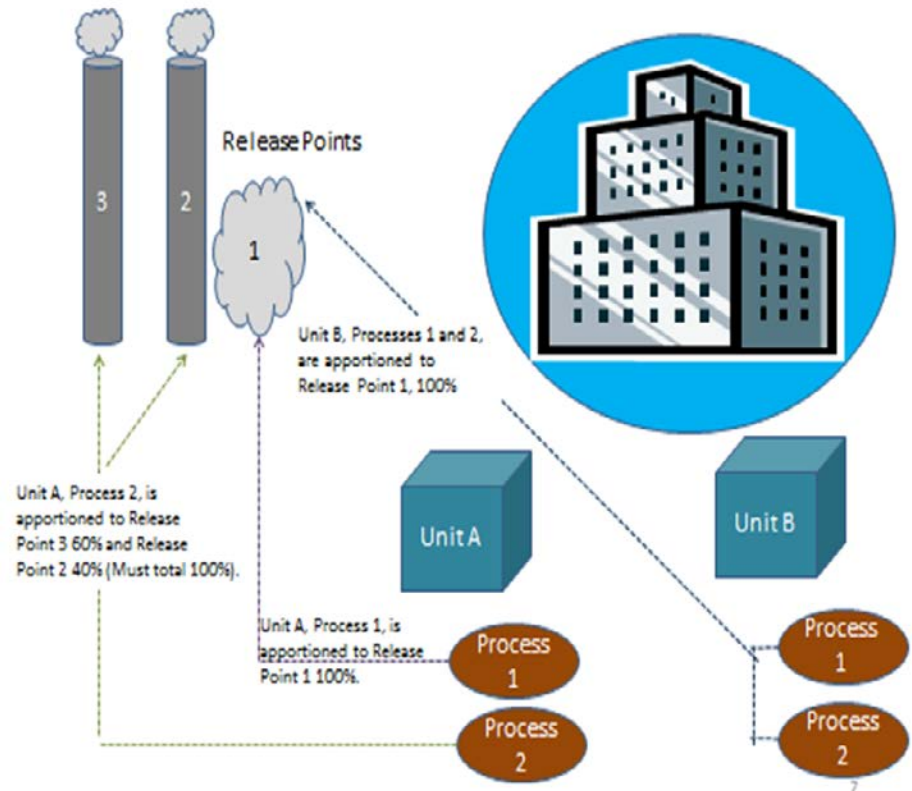
FI – CONTROL APPROACH

- Control Approach describes the method in which pollutants are controlled by defined measures for an emission unit or a process
 - Control Measure: List of control devices or technologies used in a control approach
 - Control Pollutant: List of pollutants controlled by a control approach
- An Emission Unit can NOT have both a process and an emission unit control approach
 - An Emission Unit Control Approach applies to all Processes related to an emission unit
 - An Emission Process Control Approach applies to only the specific Process



FI – RELEASE POINT APPORTIONMENT

- Allows for multiple Release Points to be added to a process based on a percentage
- The total percentage of all Release Points for a process should be 100%
- On the “Process Details” page, additional Apportionments can be added



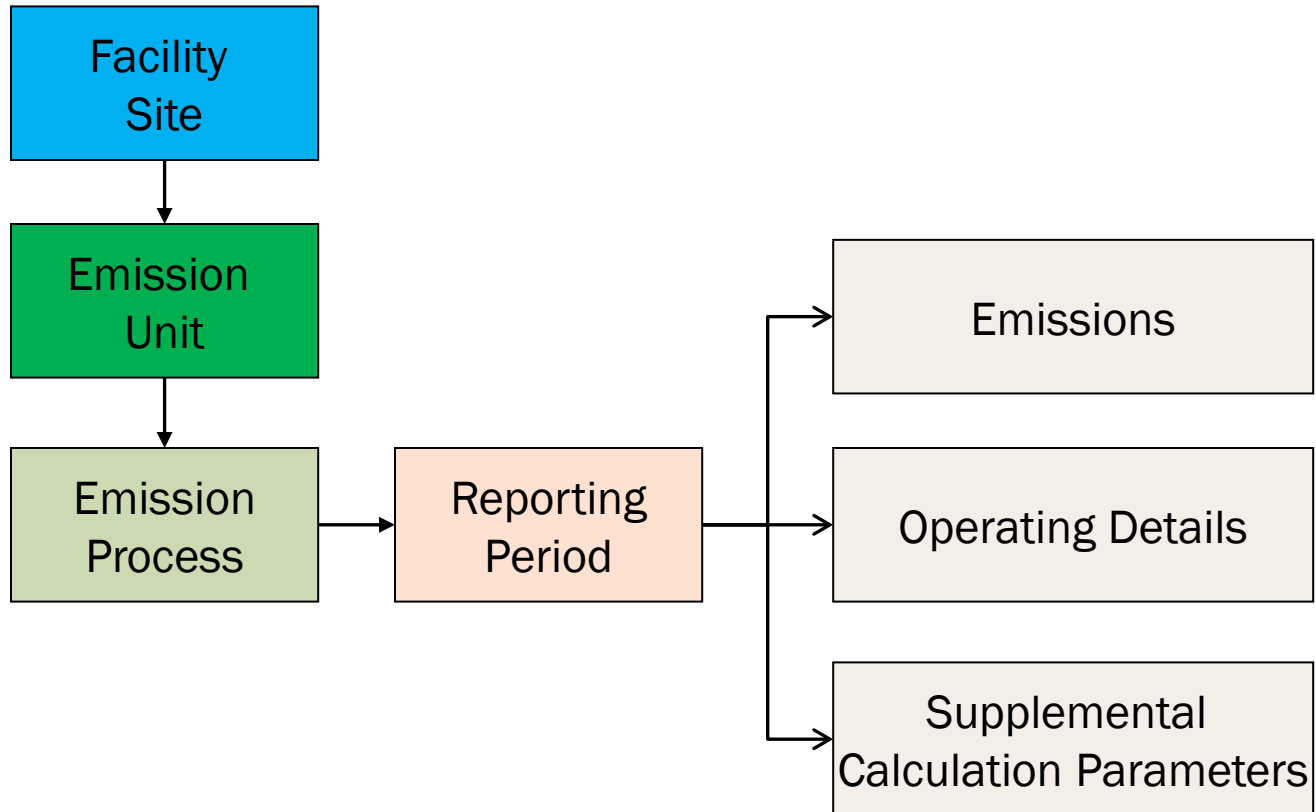


EI – EMISSION INVENTORY

- All emission and operation information associated with a process reported in the FI.
 - Emission for all EI pollutants
 - Operating details (Throughput)
 - Supplemental calculation parameters
- Reporting period: Annual
- Information changes from year to year



EI – DATA STRUCTURE





EI – EMISSIONS

- Summary page lists all processes in the FI
 - Processes in the 2016 Reporting Period
 - Processes not in the 2016 Reporting Period
- New processes added to the FI for the first time
 - Need to be added to the 2016 reporting period individually
- An error results if the amount entered is less than 0.001 tons/day.

Reporting Period Summary - G... x

geco.georgiaair.org/EIS/rp_summary.aspx

pm10 definition epa

Air Protection Branch

Welcome, Jing Wang | Airs No.:03900001
Facility: Durango-Georgia Paper Company

Facility Home My Home **Training** Contact Us Sign Out

Home
Facility Inventory
Facility & Contact Info
Release Points
Emission Units
Processes
Emission Inventory
Emissions Reporting
Process Bulk Entry
Pollutant Bulk Entry
Submit EI
Reset EI Data
Help & Reports
Facility Inventory Help
Emission Inventory Help
Reports

EIS Change Log

Process Reporting Period Summary

Processes in the 2014 Reporting Period

Emission Unit ID	Process ID	Process Description	Control Approach	Last EPA Submittal
500A	1	Lumber dried	Unit	Not Submitted Remove
500A	2	test	Unit	Not Submitted Remove

Processes NOT in the 2014 Reporting Period

Emission Unit ID	Process ID	Process Description	Control Approach	Last EPA Submittal
500A	10	Kiln - Oil	Unit	Not Submitted Add Prepopulate
500A	1A	test	Unit	Not Submitted Add Prepopulate



EI – OPERATING DETAILS

- Process Operating Details
 - Calculation Parameter Type (Migration Default is Existing)
 - Actual Annual Throughput Activity
 - Material Processed or Fuel Used
- Daily, Weekly, Annual Information
- Seasonal Operational Percentages (optional)
- Fuel Burning Information (optional)



EI – SUPPLEMENTAL CALCULATION PARAMETERS

- Georgia EPD requires reporting the following information to verify reported emissions.
 - Together with annual throughput data
- Emission Calculation Method
- Emission Factors
 - Need to report emission factors if they are used to estimate emissions
 - EPA online emission factor database WebFIRE available at <http://cfpub.epa.gov/webfire/>, Need a valid SCC to search



SUMMER DAY EMISSIONS

- Defined VOC and NO_x Summer-Day Emissions for Metro-NAA as the average daily emissions of VOC or NO_x for the period May 1 through September 30 (153 days)
 - If process operated every day during this period, the average daily emissions = $(\text{total emissions for May 1} - \text{September 30}) / (153 \text{ days})$.
 - If a process operates less than every day during this period, the average daily emissions = $(\text{total emissions for May 1} - \text{September 30}) / (\text{number of operating days from May 1} - \text{September 30})$.
- Submittal Checks for Summer day emissions
 - If a process operates during the summer months and emits VOC or NO_x and does not report summer day emissions an error will be reported.

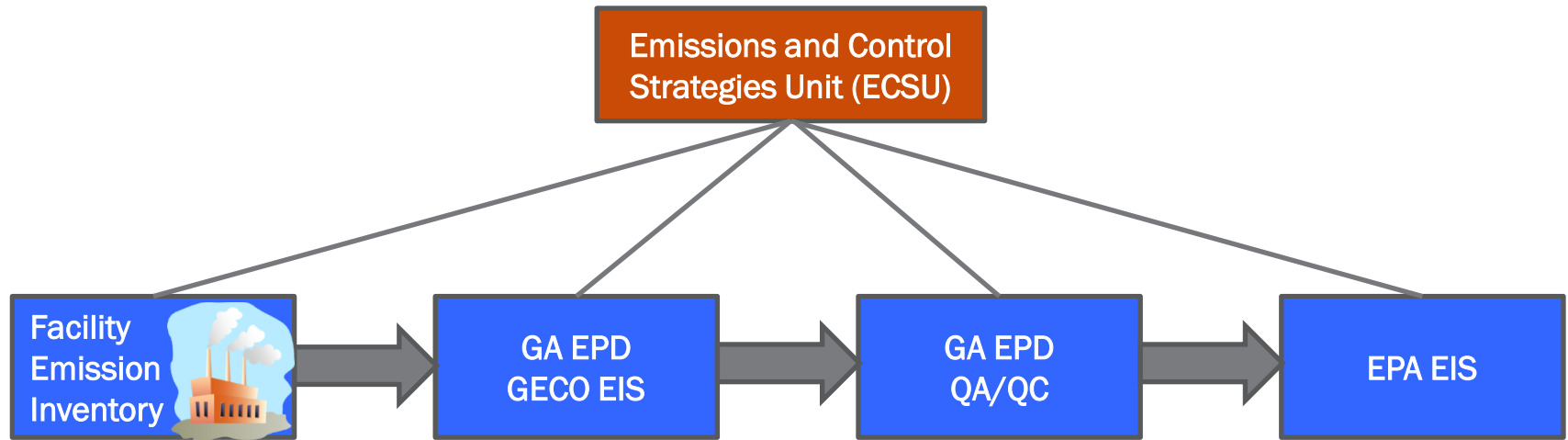


Section 4

Changes in 2016 Point Source Emission Reporting



EARLY DATA SUBMISSION DEADLINE



- ECSU will perform additional QA checks this year to improve data integrity, correctness and completeness.
 - Compare with emissions reported for previous years
 - Contact facilities for any error identified before data are submitted to EPA by the end of 2017.
 - It may take facilities less time to correct inventory data when errors are identified timely.
 - Data submission deadline was changed to **June 30, 2017** to ensure the time needed by the additional QA checks.



IMPROVE QUALITY OF DATA ELEMENTS USED FOR EMISSION CALCULATION

- Georgia EPD plan to calculate emissions using reported data elements
 - Emission Calculation Method
 - Emission Factor
 - Actual Annual Throughput
- These data elements are required to report by 2015 AERR final rule.
 - Both values and units
- Data quality of these data elements are poor in previous reported emission inventories.
- Guidance in Emission Inventory Help of GECO EIS
- Contact us if you have more questions



ADDITIONAL CHECKS

- Check Geographic Coordinate Information
 - GECO EIS Mapping tool and Facility Inventory Help
 - Facility: Location of the center of the production area
 - Release Point: Location of the stack or the center of the fugitive source
 - Inconsistencies between reported information and EPA locked Geographic Coordinate Information in EPA EIS
 - Georgia EPD plans to verify changes and send change requests to EPA if such changes are considered valid.
- Check Stack Parameters
 - Inconsistency between stack diameter, exit gas velocity and exit gas flow rate



COLLECT CONTROL INFORMATION

- Related Data Elements
 - Control Measure and Control Pollutant (where applicable).
 - Percent Control Approach Capture Efficiency (Capture Efficiency).
 - The amount of time, expressed as a percentage, that the captured air emissions were directed to the operating control scenario or uptime. The effectiveness should reflect control equipment downtime and maintenance degradation.
 - Percent Control Measures Reduction Efficiency (Control Pollutant Reduction Efficiency).
 - The estimated average percent reduction achieved for the captured pollutant when all control measures are operating as designed.
 - Percent Control Approach Effectiveness(Capture Effectiveness).
 - The percentage of air emission that is directed to the control equipment, or an estimate of that portion of an affected emissions stream that is collected and routed to the control measures, when the capture or collection system is operating as designed.
- They are optional now in GECO EIS, but required by 2015 AERR final rule.
- Support development of future control strategies

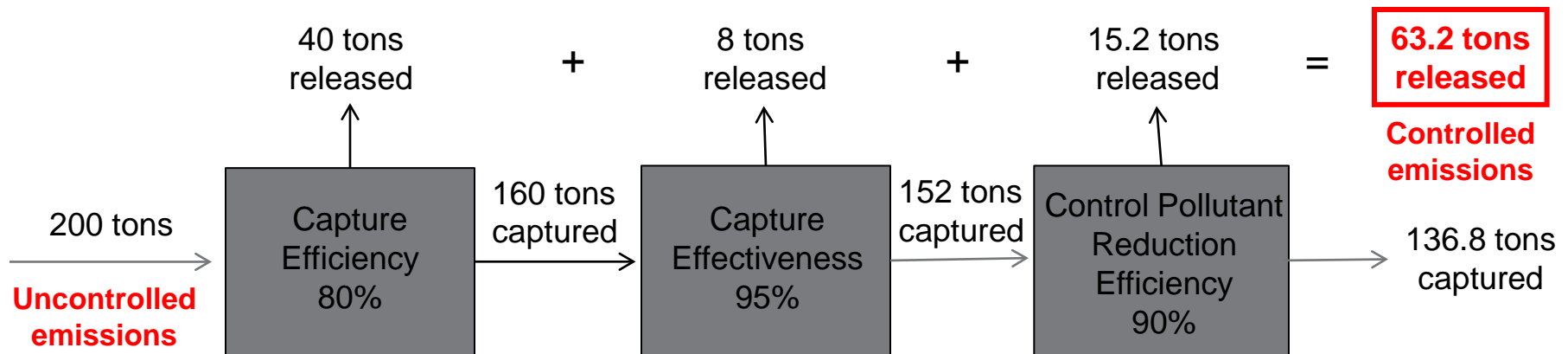


CONTROL APPROACH DIAGRAM

Controlled emissions = Uncontrolled emissions x (1 – [Capture Efficiency x Capture Effectiveness x Control Pollutant Reduction Efficiency])

Capture Effectiveness = 95% = (2000-100)/(2000)

- Emissions Process or Unit ran for 2000 hours
- The Control Scenario was operationally down for 100 hours.

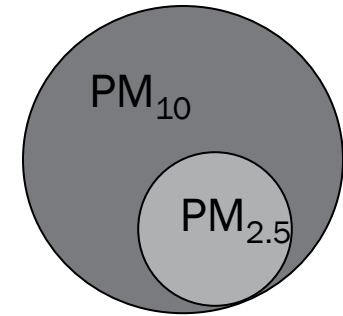
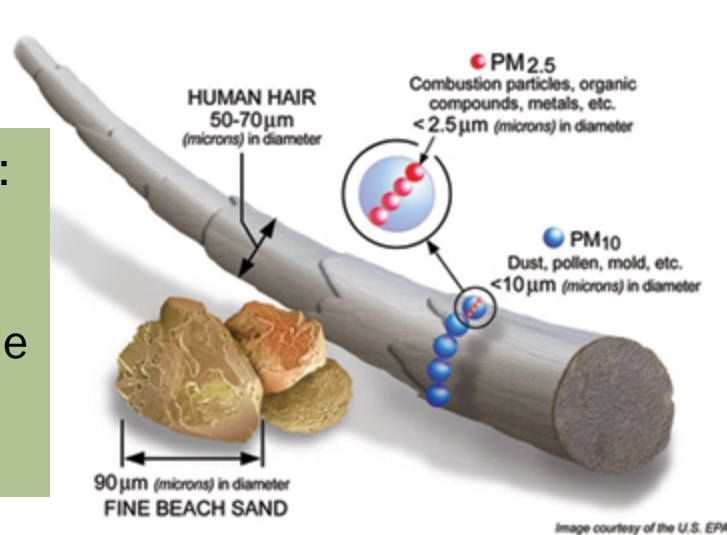




REPORTING PARTICULATE MATTER EMISSIONS

Any combination of:

1. PM_{2.5} Primary
2. PM₁₀ Primary
3. PM Condensable
4. PM_{2.5} Filterable
5. PM₁₀ Filterable



PM₁₀ - Particles less than 10 micrometers in diameter.

PM_{2.5} - Particles less than 2.5 micrometers in diameter.

- Primary (PRI) – Primary particles emitted directly into the air from a source. Includes both filterable and condensable components.
- Filterable (FIL) – Filterable particles include any particulate matter that may be physically captured on a filter during sampling.
- Condensable (CON) – The matter in the gas phase which condenses to sub-micron particles after cooling.
 - All condensable PM is smaller than 2.5 microns in diameter
- PM₁₀-PRI = PM₁₀-FIL + PM-CON (± 1 Ton)
- PM₂₅-PRI = PM₂₅-FIL + PM-CON (± 1 Ton)



AERR – IS PM REQUIRED?

- **§51.15 What data does my state need to report to EPA?**
- (a) *Pollutants*. Report actual emissions of the following (see §51.50 for precise definitions as required):
- **(1) Required pollutants for triennial reports of annual (12-month) emissions for all sources and every-year reports of annual emissions from Type A sources:**
- (i) Sulfur dioxide (SO₂).
- (ii) Volatile organic compounds (VOC).
- (iii) Nitrogen oxides (NO_x).
- (iv) Carbon monoxide (CO).
- (v) Lead and lead compounds.
- **(vi) Primary PM_{2.5}. As applicable, also report filterable and condensable components.**
- **(vii) Primary PM₁₀. As applicable, also report filterable and condensable components.**
- (viii) Ammonia (NH₃).
- EPA defines “as applicable” to mean where emitted.



IMPROVE PM EMISSIONS QUALITY

- Any combination of PM2.5 Primary, PM10 Primary, PM Condensable, PM2.5 Filterable, PM10 Filterable
- If quality of PM emissions is poor, EPA used PM Augmentation tool to create emissions for all five PM pollutants which are consistent with each other.
 - Estimate missing information based on SLT-reported PM values, control devices and SCCs
 - PM Augmentation Tool (<https://www.epa.gov/air-emissions-inventories/pm-augmentation>)
- Goal: Improve PM emissions quality so that no need to use EPA PM Augmentation Tool
- Consistency QA checks can reject all emissions
 - PM10-PRI must be \geq PM10-FIL, PM25-PRI, and PM-CON
 - PM25-PRI must be \geq PM25-FIL and PM-CON
 - PM10-FIL must be \geq PM25-FIL



FAQS

- Emission Groups/Grouping for insignificant units?
Answer: FI does not readily allow for EU groups.
Insignificant emissions < 0.001 tons/year
- If a facility is in for one pollutant is it in for all pollutants?
Answer: Yes.



CONTACT INFORMATION

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AERR – EMISSION THRESHOLDS

TABLE 1 TO APPENDIX A OF SUBPART A—EMISSION THRESHOLDS¹ BY POLLUTANT FOR TREATMENT AS POINT SOURCE UNDER 40 CFR 51.30

Pollutant	Every-year (Type A sources) ²	Triennial	
		Type B sources	NAA sources ³
(1) SO ₂	≥2500	≥100	≥100.
(2) VOC	≥250	≥100	O ₃ (moderate) ≥100.
			O ₃ (serious) ≥50.
			O ₃ (severe) ≥25.
			O ₃ (extreme) ≥10.
(3) NO _x	≥2500	≥100	≥100.
(4) CO	≥2500	≥1000	O ₃ (all areas) ≥100.
			CO (all areas) ≥100.
(5) Lead		≥0.5 (actual)	≥0.5 (actual).
(6) Primary PM ₁₀	≥250	≥100	PM ₁₀ (moderate) ≥100.
			PM ₁₀ (serious) ≥70.
(7) Primary PM _{2.5}	≥250	≥100	≥100.
(8) NH ₃ ⁴	≥250	≥100	≥100.

¹ Thresholds for point source determination shown in tons per year of potential to emit as defined in 40 CFR part 70, with the exception of lead. Reported emissions should be in actual tons emitted for the required time period.

² Type A sources are a subset of the Type B sources and are the larger emitting sources by pollutant.

³ NAA = Nonattainment Area. The point source reporting thresholds vary by attainment status for VOC, CO, and PM₁₀.

⁴ NH₃ threshold applies only in areas where ammonia emissions are a factor in determining whether a source is a major source, *i.e.*, where ammonia is considered a significant precursor of PM_{2.5}.



AERR – FI DATA ELEMENTS

TABLE 2a TO APPENDIX A OF SUBPART A—FACILITY INVENTORY¹ DATA ELEMENTS FOR REPORTING EMISSIONS FROM POINT SOURCES, WHERE REQUIRED BY 40 CFR 51.30

Data elements
(1) Emissions Year.
(2) State and County FIPS Code or Tribal Code.
(3) Facility Site Identifier.
(4) Unit Identifier.
(5) Emission Process Identifier.
(6) Release Point Identifier.
(7) Facility Site Name.
(8) Physical Address (Location Address, Locality Name, State and Postal Code).
(9) Latitude and Longitude at facility level.
(10) Source Classification Code.
(11) Aircraft Engine Type (where applicable).
(12) Facility Site Status and Year.

TABLE 2a TO APPENDIX A OF SUBPART A—FACILITY INVENTORY¹ DATA ELEMENTS FOR REPORTING EMISSIONS FROM POINT SOURCES, WHERE REQUIRED BY 40 CFR 51.30—Continued

Data elements
(13) Release Point Stack Height and Unit of Measure.
(14) Release Point Stack Diameter and Unit of Measure.
(15) Release Point Exit Gas Temperature and Unit of Measure.
(16) Release Point Exit Gas Velocity or Release Point Exit Gas Flow Rate and Unit of Measure.
(17) Release Point Status and Year.
(18) NAICS at facility level.
(19) Unit Design Capacity and Unit of Measure (for some unit types).
(20) Unit Type.
(21) Unit Status and Year.

TABLE 2a TO APPENDIX A OF SUBPART A—FACILITY INVENTORY¹ DATA ELEMENTS FOR REPORTING EMISSIONS FROM POINT SOURCES, WHERE REQUIRED BY 40 CFR 51.30—Continued

Data elements
(22) Release Point Apportionment Percent.
(23) Release Point Type.
(24) Control Measure and Control Pollutant (where applicable).
(25) Percent Control Approach Capture Efficiency (where applicable).
(26) Percent Control Measures Reduction Efficiency (where applicable).
(27) Percent Control Approach Effectiveness (where applicable).

¹ Facility Inventory data elements need only be reported once to the EIS and then revised if needed. They do not need to be reported for each triennial or every-year emissions inventory.



AERR – EI DATA ELEMENTS

TABLE 2b TO APPENDIX A OF SUBPART A—DATA ELEMENTS FOR REPORTING EMISSIONS FROM POINT, NONPOINT, ONROAD MOBILE AND NONROAD MOBILE SOURCES, WHERE REQUIRED BY 40 CFR 51.30

Data elements	Point	Nonpoint	Onroad	Nonroad
(1) Emissions Year	Y	Y	Y	Y
(2) FIPS code	Y	Y	Y	Y
(3) Shape Identifiers (where applicable)		Y		
(4) Source Classification Code		Y	Y	Y
(5) Emission Type (where applicable)		Y	Y	Y
(8) Emission Factor	Y	Y		
(9) Throughput (Value, Material, Unit of Measure, and Type)	Y	Y	Y	
(10) Pollutant Code	Y	Y	Y	Y
(11) Annual Emissions and Unit of Measure	Y	Y	Y	Y
(12) Reporting Period Type (Annual)	Y	Y	Y	Y
(13) Emission Operating Type (Routine)	Y			
(14) Emission Calculation Method	Y	Y		
(15) Control Measure and Control Pollutant (where applicable)		Y		
(16) Percent Control Measures Reduction Efficiency (where applicable)		Y		
(17) Percent Control Approach Effectiveness (where applicable)		Y		
(18) Percent Control Approach Penetration (where applicable)		Y		