

Greenhouse Gas Reporting Program Update

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San Antonio
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Overview

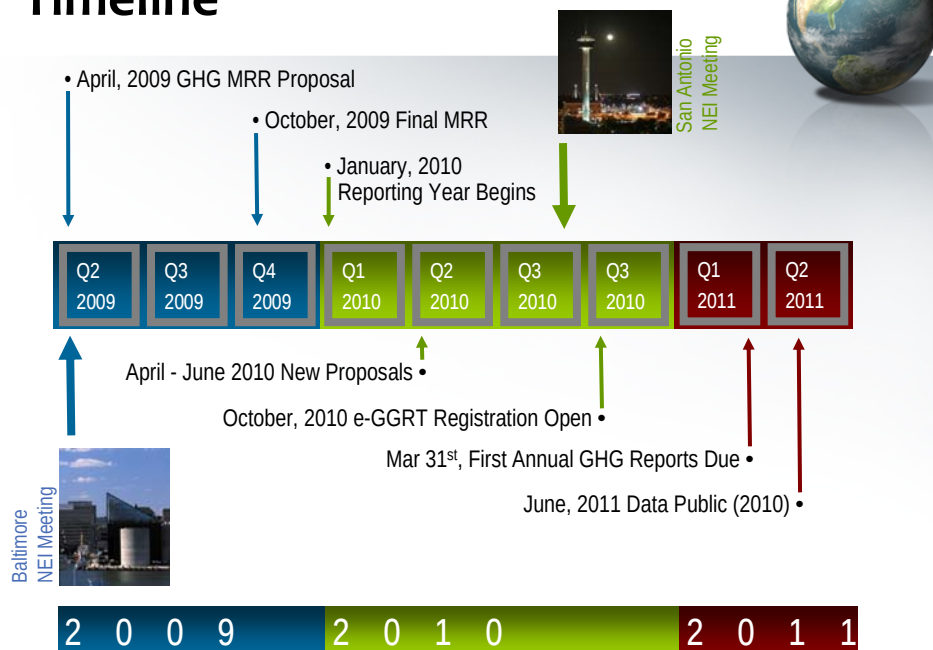
- Status of GHG Reporting Program
 - 2009 Final Rule
 - Subsequent Rulemakings
- Status of GHG Data System
 - Sneak Peak at e-GGRT
 - State-EPA GHG Integrated Project Team
- Looking Forward



Status of GHG Reporting Program



Timeline



GHG Reporting Program (GHGRP)



- 40 CFR Part 98 (GHG Mandatory Reporting Rule)
- Requires reporting of greenhouse gas (GHG) emissions from all sectors of the economy in the United States
- Provides accurate and timely data to inform future climate change policies and programs
- Does not require control of GHG

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Key Elements of the Rule



- Annual reporting of GHG by:
 - 29 source categories
 - 5 types of suppliers of fuel and industrial GHG
 - Motor vehicle and engine suppliers (except light duty sector)
- 25,000 metric tons CO₂e per year reporting threshold for most sources; capacity-based thresholds where feasible
- Monitoring began **January 1, 2010**; first reports due **March 31, 2011**
- **Direct reporting to EPA, electronically**
- EPA verification

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Source Categories Reporting



Electricity Generation (Part 75)
Adipic Acid Production
Aluminum Production
Ammonia Manufacturing
Cement Production
HCFC-22 Production
HFC-23 Destruction Processes
Lime Manufacturing
Nitric Acid Production
Petrochemical Production
Petroleum Refineries
Phosphoric Acid Production
Silicon Carbide Production
Soda Ash Production
Titanium Dioxide Production
Municipal Solid Waste Landfills
Manure Management¹
Underground Coal Mines²

Ferroalloy Production
Glass Production
Hydrogen Production
Industrial Wastewater Treatment²
Industrial Waste Landfills²
Iron and Steel Production
Lead Production
Magnesium Production²
Pulp and Paper Manufacturing
Zinc Production

¹will not be implemented in 2010 due to Congressional restriction

² first report due in **2012**

Additional Categories Proposed in 2010



- CO₂ injection
- Electrical equipment manufacture and refurbishment
- Electronics manufacturing
- Fluorinated GHG production
- Geologic sequestration
- Import/export of pre-charged equipment and closed cell foams
- Petroleum and natural gas systems
- Sulfur hexafluoride (SF₆) from electrical equipment

Facilities with these source categories could be covered by the rule based on GHG emissions from stationary fuel combustion sources.

Also Proposed in 2010

- Technical Corrections and Technical Revisions
- Corporate Parent, NAICS code, Co-generation information (FINAL 9/2010)
- Confidential Business Information

What Do Facilities Report?



- Identifying information
- Annual GHG emissions excluding biomass CO₂, metric tons CO₂e
- Annual CO₂ emissions from biomass combustion, metric tons*
- Annual emissions of each GHG for each source category, metric tons each gas
- Other emissions data required by an applicable subpart (e.g., by unit or process line)
- Verification data required by each subpart (e.g., data used to calculate emissions)
- Description of best available methods used
- Data elements for which a missing data procedure was used
- Certification by the “designated representative”

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What Suppliers Are Covered?



- All producers of:
 - Petroleum products
 - Coal-based liquids
 - Industrial GHGs (F-GHG and N₂O)
 - CO₂
- Exporters of 25,000 metric tons CO₂e per year
- Importers of 25,000 metric tons CO₂e per year
- Natural gas and natural gas liquids
 - All fractionators
 - All local gas distribution companies

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What Is Not Reported ?



- Indirect emissions (e.g., electricity use)
- Mobile source emissions (e.g., fleet emissions, off-road equipment)
- Emission offsets
- Carbon sequestration

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Status of GHG Data System



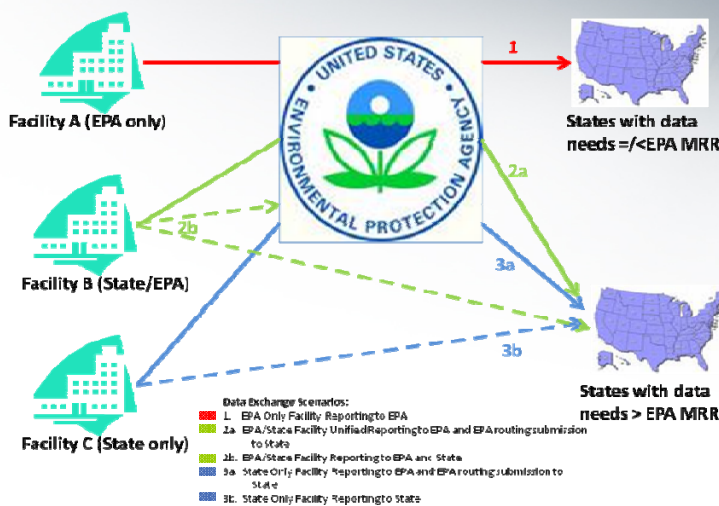
- Developing electronic web-based application
- Developing underlying database
- Setting up Live Help Desk & Help URL
- Developing GHG Data publication portal
- Working with States on GHG Data Reporting & Exchange

State-EPA Workgroup



- **Integrated Project Team (IPT) launched in 2009**
- **Phase 1: Identify & Document State Requirements**
 - State consultations- differences from federal rule
 - Integrate State Requirements into EPA Electronic Reporting Schema
 - Enhanced federal reporting tool
 - Expanded federal data collection
- **Phase 2: Plan, design, develop and document the GHG Data Exchange**
 - Facility to EPA and EPA to State data flow(s)
 - Must consider:
 - States w/ no GHG data needs or rules
 - States w/ GHG data needs and/or rules $\leq$ EPA rule
 - States w/ GHG data needs and/or rules $>$ EPA rule

Data Flows



Rob Willis, Ross & Assoc.

Schema



- Reporting Schema
 - Draft released in June, 2010
 - URL: www.epa.gov/
 - Final schema & documentation late 2010
- Exchange Schema
 - Under development
 - GHG-CERS Crosswalk

Introducing e-GGRT



- All reporting under the GHG Reporting Program will be electronic.
- EPA's Electronic Greenhouse Gas Reporting Tool (e-GGRT) is under development.
- Web-based system for facility/supplier to EPA reporting
 - Web-forms will guide reporters through data entry and submission.
 - Built-in emissions calculations.
 - Will include a mechanism to submit file directly using Extensible Markup Language (XML) format.

Registering for Electronic Reporting System



- **e-GGRT** will handle user and facility registration for GHGRP in accordance with 98.4
- Beginning in Fall 2010, facility or supplier representatives can create **e-GGRT** user accounts and:
 - Register facilities and suppliers
 - Identify **Designated Representatives** and **Alternate Designated Representatives**
 - Submit **Certificates of Representation** to EPA
 - Identify **Agents**
 - Submit **Notices of Delegation** to EPA
- Deadline for the 2010 reporting year:
 - Certificates of Representation must be submitted to EPA no later than **January 30, 2011**.
 - Register early !
 - User account set-up includes electronic signature agreement processing; allow **at least 10 days** before the deadline to set-up user account and register facilities or suppliers.

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Sneak Peak at e-GGRT



The screenshot shows the e-GGRT web application interface. At the top, there is a navigation bar with the EPA logo and the text "United States Environmental Protection Agency". The navigation bar includes links for "HOME", "FACILITY REGISTRATION", and "FACILITY MANAGEMENT". A yellow arrow labeled "Tab Navigation" points to the "FACILITY REGISTRATION" tab. Below the navigation bar, there is a sidebar on the left with a yellow arrow labeled "Context Sensitive Help" pointing to it. The main content area is divided into several sections:

- ACTION REQUIRED:** A table with two columns: "Action" and "Facility or Supplier". It shows a row for "Sign Notice of Delegation" for "Gilbertsville Electric".
- FACILITIES PENDING REGISTRATION:** A table with three columns: "Facility or Supplier", "Your Role", and "Registration Status". It shows a row for "Lancaster Carbon Emitters, Inc." with the role "Registrar" and status "Pending".
- REGISTER A FACILITY:** A green button.
- YOUR FACILITIES:** A table with two columns: "Facility or Supplier" and "Your Role". It shows rows for "Gilbertsville Electric" (DR), "Montgo Power Supply West" (ADR), and "Mega Methane Producers" (Agent).
- ACCEPT AN INVITATION:** A section titled "Responding to a Facility Invitation?" with a text input field for "Paste the Invitation Code into the field below, then click 'GO'" and a "GO" button.
- e-GGRT Announcements:** A section with a date "November 10, 2010" and a title "e-Vite for Appointments". It contains a paragraph of placeholder text.

At the bottom right, there is a footer that reads "e-GGRT version 1.0 | e-GGRT Home".

Sneak Peak at e-GGRT (2)

EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME | FACILITY REGISTRATION | FACILITY MANAGEMENT | DATA REPORTING | REPORTS

ABOUT REGISTRATION | **FACILITY SETUP** | VERIFICATION | ACCEPT ASSIGNMENTS

Sub-Tab Navigation

Subway Map Progress

Facility Info | Appoint DR & ADR | Setup Agents | Confirm & Submit

Information populated below, based upon your selection from the facility search, EPA's Facility Registration System (FRS). Update the information and provide Owner or Operator. * denotes a required field

ADDRESS INFORMATION

Facility or Supplier Name * Lancaster Carbon Emitters, Inc.

Street Address * 11005 York County Road

City * Boyertown

State * Pennsylvania

ZIP Code * 19512

OWNERS AND OPERATORS

Owner or Operator * Jacob Zern Fuel, Inc.

+ ADD Another Owner or Operator

FRS Web-Service

←BACK NEXT→

e-GGRT version 1.0 | FR1-5

e-GGRT Sneak Peak (3)

EPA United States Environmental Protection Agency

e-GGRT Electronic Greenhouse Gas Reporting Tool

HOME | FACILITY REGISTRATION | FACILITY MANAGEMENT | **DATA REPORTING** | REPORTS

OVERVIEW | FACILITY-LEVEL | **SUBPARTS** | REVIEW | SUBMIT

Unit Level Overview

Real-Time Validation

Lancaster Carbon Emitters, Inc. (2010)

Subpart G: Ammonia Manufacturing

Subpart Overview

OVERVIEW OF SUBPART REPORTING REQUIREMENTS

For this subpart, you are required to report a set of data for each ammonia manufacturing process unit at your facility. E-GGRT will use that data to calculate the total CO₂ process emissions for the unit. In addition to the data for each unit, you are required to provide urea production information for your facility.

FACILITY-LEVEL INFORMATION SUMMARY

Annual Urea Prod. (metric tons)	Status
Incomplete	OPEN

UNIT-LEVEL SUMMARY

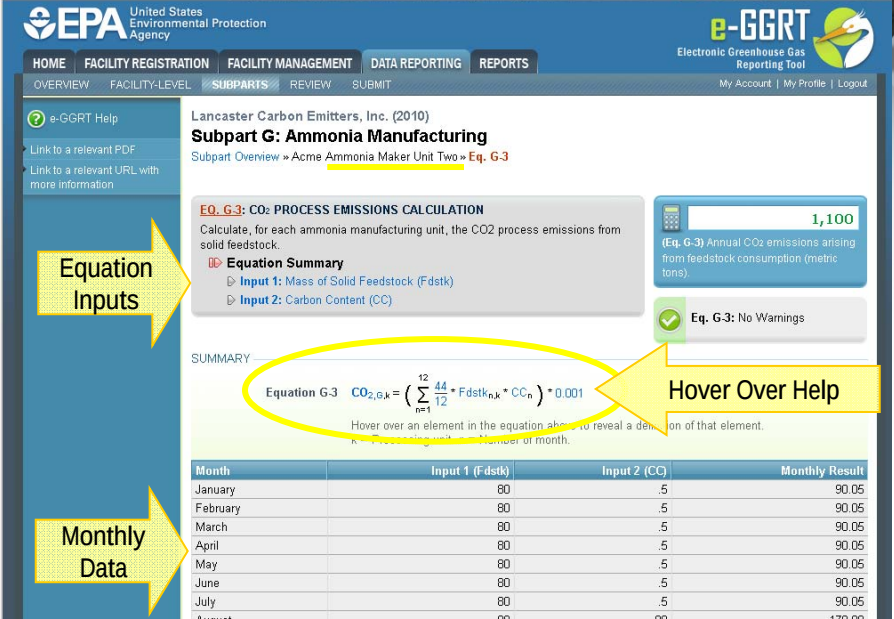
Unit Name/Identifier	Feedstock	CO ₂ (metric tons)	Status	Emissions Data
Acme Ammonia Maker Unit One	Gaseous	1,521	Complete	OPEN
Acme Ammonia Maker Unit Two	Solid	1,100	Complete	OPEN
Acme Ammonia Maker Unit Three	Not selected		Incomplete	OPEN

[ADD a UNIT](#)

Subpart G: View Warnings

e-GGRT version 1.0 | G(a)-0

e-GGRT Sneak Peak (4)



Equation Inputs

Monthly Data

Hover Over Help

Eq. G-3: CO₂ PROCESS EMISSIONS CALCULATION
Calculate, for each ammonia manufacturing unit, the CO₂ process emissions from solid feedstock.

Equation Summary

- Input 1: Mass of Solid Feedstock (F_{dstk})
- Input 2: Carbon Content (CC)

SUMMARY

Equation G-3
$$CO_{2,G,k} = \left(\sum_{n=1}^{12} \frac{44}{12} * F_{dstk,n,k} * CC_n \right) * 0.001$$

Hover over an element in the equation above to reveal a definition of that element.
k = Processing unit number, or month.

Month	Input 1 (F _{dstk})	Input 2 (CC)	Monthly Result
January	80	.5	90.05
February	80	.5	90.05
March	80	.5	90.05
April	80	.5	90.05
May	80	.5	90.05
June	80	.5	90.05
July	80	.5	90.05
August	80	.5	179.00

Looking Forward

- Complete Data System Requirements & Development
- Begin User / Facility Registration
- Trainings and webinars including slides (e-GGRT training webinars start Oct 6, 2010)
- Finalize State-EPA Data Exchange
- Begin Reporting Year 2010 Data Collection
- Verify Data
- Publish Data
- Update Data System for Reporting Year 2011 Requirements

Thank You !



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