# Combined Air Emissions E-Enterprise for the Environment

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## E-Enterprise and Air Emissions

- E-Enterprise for the Environment is jointly governed by state/local/tribes (SLTs) and the EPA to collaboratively modernize business processes:
  - To improve **environmental results**
  - To enhance services to the regulated community and the public by making government more efficient and effective
- A "Combined Air Emissions" project has arisen from two similar proposals in the spring of 2014, made by Arizona and the EPA
- In summer 2014, the E-Enterprise Leadership Council (senior level state and EPA members) selected five project for scoping and return-oninvestment (ROI) analyses
- Implementation depends on the results of the ROI and would include continued SLT-EPA collaboration

# The Team and Supporters

#### **EPA**

- Sally Dombrowski (NEI)
- Kong Chiu (GHGRP)
- Anhar Karimjee (GHGRP)
- Tim Antisdel (TRI)
- David Turk (TRI)
- Bob Schell (CEDRI)
- Ketan Patel (CEDRI)
- Ron Evans
- Kathleen Root, R3
- Alice Chow, R<sub>3</sub>
- Tamara Saltman

### State/local/tribes

- Henry Darwin (co-chair), AZ
- Michael Burton, AZ
- Tammy Manning, NC
- Dennis Burling, NE
- Steven Potter, CT
- Kathy Pendleton, TX
- Paul Mairose, SWCAA
- Nick Page, IA
- Jason Marcel, IA

## Supporting Roles

- Beth Graves (ECOS)
- Shana Harbour (EPA)
- Lee Kyle (EPA, FRS)
- Matthew Kelly (EPA, FRS)
- Kim Green-Goldsborough (EPA)
- Tobias Schroeder
- Julia Gamas

# Air Emissions - Project Goals

- Reduce industry burden for air emissions reporting
- Improve timeliness and transparency of data
- Create consistent information across air emissions programs
- Improve data quality
- Make data more accessible and useable
- Support more timely decision making

# E-Enterprise Air Emissions Project Focuses on Point Sources

Focuses on four major air reporting programs

## TRI

Toxics Release Inventory

- Air Toxics to all media
- Many industries
- "Best" methods
- Direct facility
- Mature program

## **GHGRP**

Greenhouse Gas Reporting Program

### Program

- GreenhouseGases
- Select industries
- Prescriptive methods
- Direct facility
- Young program

## CEDRI

Compliance and Emissions Data Reporting Interface

#### Reporting Interface

- Air toxics focused stack test data
- Many industries
- Stack test methods
- Direct facility
- New approach

## NEI

National Emissions Inventory

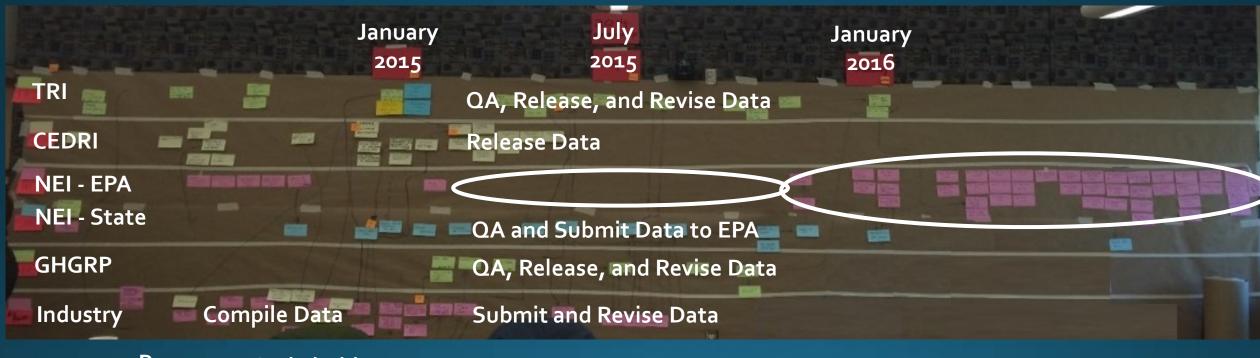
- Criteria pollutants and air toxics
- All industries, depending on size
- "Best" methods
- Facilities → S/L/T
   → EPA
- Evolving program

# Air Emissions - Approach

- Team with members from state and local agencies, EPA from all four reporting programs, and others at the EPA
- Starting fall 2014, developed a team charter, problem statement, and defined the scope of the project
- Developed detailed information on the "As Is" or baseline case
  - Key variables are program costs, reporting facility burden, and time to access collected data
- Developed detailed "value stream maps" (VSMs) for the four programs + the states
  - A flow chart that shows connections of value-added steps and timing
- Held a 3-day in person "lean" facilitated event (February 10-12), which identified a "To Be" solution
  - "Lean" is based on manufacturing concepts of identifying and eliminating inefficiencies
- Involved industry stakeholders through Fall 2014 meeting and lean event in February 2015
- Currently clarifying the "To Be" State and building ROI analysis

# Air Emissions – "As Is" Value Stream Maps

Example of 2014 inventory year

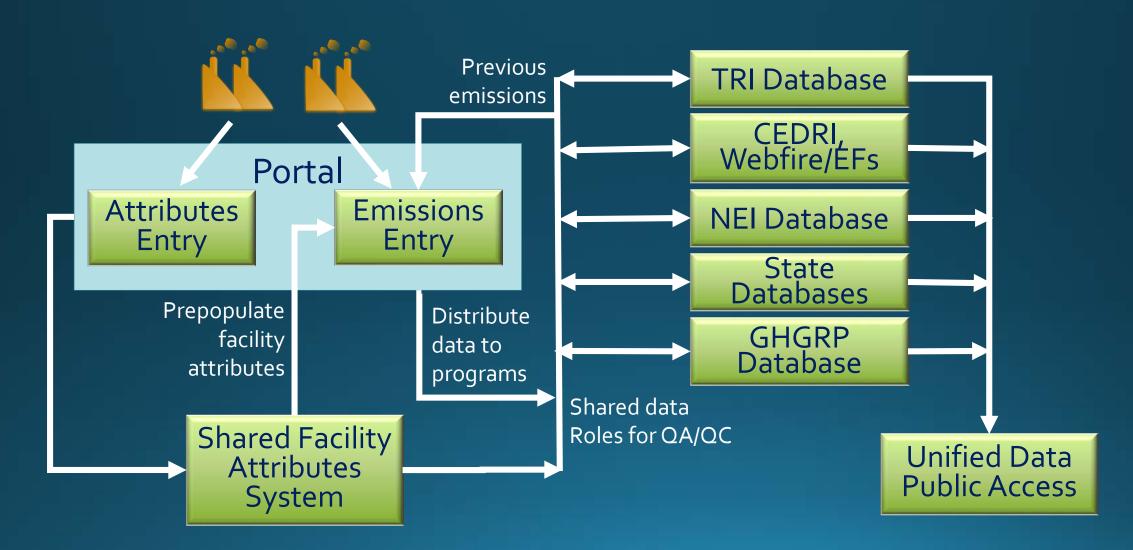


Prepare Stakeholder Reporting Notification/ Changes Outreach

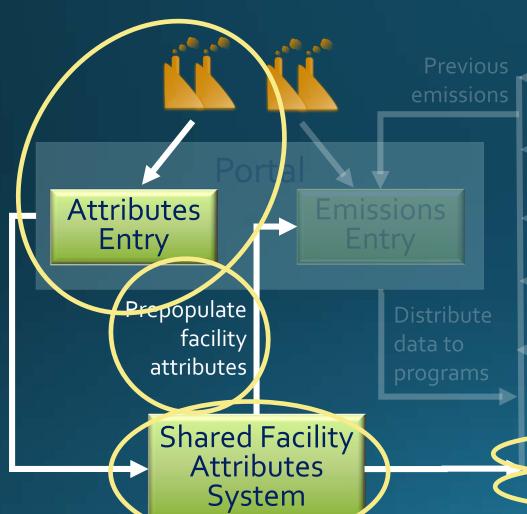
# Key Inefficiencies to be Eliminated

- Duplicative and inconsistent facility info / facility matching
- Duplicative data entry and revisions by facilities of data elements that are included in several separate emissions programs
- Wait time caused by current SLT-EPA NEI process
- Some duplicative post-submission quality assurance by EPA and SLTs
- Inconsistent emissions data across programs and associated work (e.g. reconciliation)
- NEI augmentation steps

## Air Emissions – "To Be" Result



# "To Be" Shared Facility Attributes



- Facility provides all details of facility needed for EPA and SLT air emissions systems such as name, address, latitude / longitude, units, processes, contacts, and controls
- Facility information collected once and shared among EPA programs and state/locals
- Could include SLT QA and/or a sign-off role where appropriate

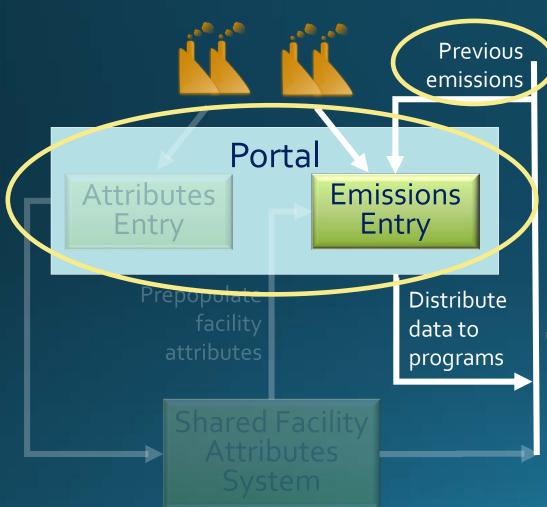
## Key potential benefits

- One cross-program definition / understanding of "facility" generally and each facility specifically
  - Supports emissions entry
    - Common IDs would eliminate crossprogram data matching for facilities and sub-facilities

Shared data

Roles for QA/QC

# "To Be" Single Data Entry Portal



- Facilities would report attributes and emissions through a single portal
  - Seek to unify the submission experience (i.e., interface) for industry
  - Accommodate multiple reporting deadlines as needed
- Allows coordinated communication to industry of changes to data submission forms
- Shares pre-population (smart submission) across programs
- Shares pre-submittal data validation

## Key potential benefits

Simpler for industry

Shared data

Roles for QA/Q0

- Makes NEI timeline much shorter
- Eliminates many inconsistencies in emissions data

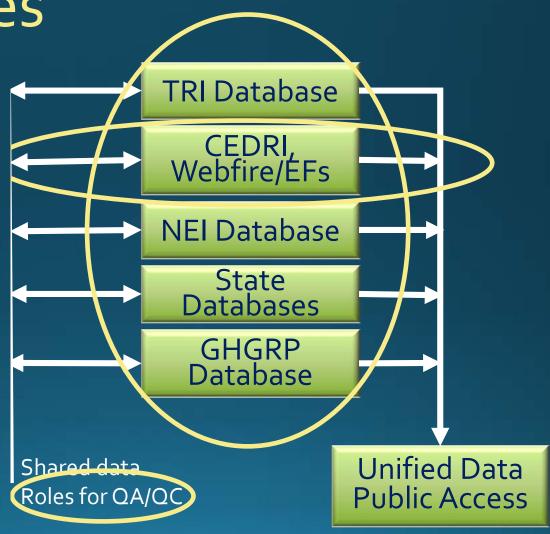
"To Be" Distributed and Connected Program Databases

 Back-end emissions databases for programs (including states) remain separate

- Post-submission QA roles would be defined across all programs (including states)
- Previously identified roles for CEDRI relating to other programs fits nicely into this model

## Key potential benefits

- Allows for improving interconnectivity
- Facilitates compliance test data for CEDRI to be used for emission factors and emissions
- Eliminates duplicative QA and different programs asking the same questions to facilities; makes data better faster



# Key Open Issues

## **Facility Attributes**

- How to leverage existing systems (i.e., Facility Registry Services (FRS) and state systems)?
- What is centrally maintained and what relies on appropriate state systems?
- How to handle the regulatory and statutory definitions of facility?

### **Portal**

- What is meant by "portal"?
- How would this impact and interface with existing systems, including state systems that already have this figured out?

## Distributed and connected program databases

- What connections are the low hanging fruit with clear benefits?
- How to use activity information that is considered CBI for some programs but not others?

# Next Step for the Project

- Finishing return on investment analysis in May and June
- Identifying short term wins and work to be done starting this year
- Outreach and collecting input from wider audiences
- Considering implementation issues

## Questions?

For more information on the E-Enterprise initiative, please see <a href="http://www2.epa.gov/e-enterprise">http://www2.epa.gov/e-enterprise</a>