



# Emissions Reporting and Inventory Center ERIC

USER TRAINING  
April 2007



# Presentation Overview

- Part 1: Data Elements and Hierarchy
- Part 2: Hands-On ERIC Training
- Part 3: Transition Year User Instructions
- Part 4: Case Examples



# Introducing ERIC Part 1 Data Elements and Hierarchy

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# What is ERIC?

- Enhances, integrates, replaces EIS and TEDI
- Provides Online interactive access
- Provides flexible and enhanced user options
  - Drop down menus
  - Reduces redundant reporting
  - Intuitive report format
  - Multiple input options
  - Real time validation checks
- Online reports and queries
- Meets current and upcoming EPA requirements
- Automates reporting to EPA by LDEQ



# Data Entry Options

- Online data entry – can enter data directly into web-based application
- Data upload – acceptance of a variety of formatted data submittals including Microsoft Excel (active) and XML (future option)
- Online QA checks performed prior to certification, will help reduce revisions and updates



# ERIC Status

- LDEQ implementing Log In and Registration process
- ERIC being implemented for RY2006
- This is a transition year with flexible reporting requirements



# ERIC Reporting Schedule

- RY2006 Emissions Data
- Due July 1, 2007
- Includes
  - Criteria pollutant and toxics data
  - Facility and Point Source level
  - All previously required data elements
- Most new data elements are optional for RY2006



# Data Elements Terminology

- Facility - Location at which business is conducted. Agency Interest.
- Source - Equipment or unit that generates emissions. This is the operating equipment, not the control equipment or the stack/vent;
  - *Typically corresponds to an EPN*
  - *Note that piping components, valves, flanges, PRVs, etc. should not be included as individual sources in the source inventory for ERIC.*



# An ERIC Source is NOT

- A PRV
- An individual valve
- An individual flange



# Data Elements Terminology

- Process - Description of the operational mode and material throughput of a source generating emissions;
  - *Includes an SCC and material throughput*
  - *An emission factor, if used, is related to a Process*
- Control System - Equipment through which emissions are routed for control
  - *e.g., ESP, scrubber, thermal oxidizer*



# Data Elements Terminology

- Release Point - Physical location of release of pollutants to atmosphere
  - *UTM coordinates*
  - *Stack or area source dimensions*
- Emission Estimation Methodology - Method to calculate emissions for each pollutant emitted by a particular process
  - *CEMS, AP-42, stack test data, engineering judgment*



# Data Elements Terminology

- Emissions Path – Combination of a source, a process, and a release point; may also include a control system.
- Emissions Type – Four types:
  - Routine Emissions;
  - Startup/Shutdown Emissions;
  - Variance Emissions;
  - Emergency Releases/Upsets/Malfunction Emissions
  - **THIS FIELD NOT ACTIVATED for RY2006**



# Data Elements Terminology

- Emissions Record - An emissions record includes
  - the emissions path
  - the pollutant
  - tons or pounds emitted
- Source > Process > Control > Release Point > Pollutant > Quantity > Unit



# Data Elements

## Primary Identifiers

- Facility-generated IDs
- Up to 6 characters
- For Source, Process, Control System, and Release Point Records
- Must be unique across the entire inventory for each ID type
- Must remain the same for an item over time



# Data Hierarchy

Inventory Information - Exactly one record

Identifies the reporting period and type of report

Facility Information - Exactly one record

Includes identifying information for the facility

Contact Information - At least three records

- EI Facility Contact
- Responsible Official, and
- EI Billing Party
- EI Consultant, *optional*



# Data Hierarchy

Source Information - 1 or more records

One for each source at the facility

Process Information - 1 or more records per source

One for each mode that the source operated in during the reporting period.

Emission Factor Information – 0 or more records for each Process

One for each pollutant for which an emission factor is used to estimate emissions.



# Data Hierarchy

Control System Information - 0 or more records

Not tied to a specific source

Associated with a source on the emissions record

May be included in one or more emissions paths

Control Efficiency - 1 or more records for each

Control System record

Specified for each pollutant controlled



# Data Hierarchy

Release Point Information - 1 or more records

Not tied to a specific source

Associated with a source on the emissions record

Portable Facility Location - 0 or more records for each release point record.

Only used to indicate alternate locations at which a portable facility operated

Permitted under LAC 33:III.513

Not to be used for portable sources at a major source such as diesel generators



# Data Hierarchy

Emissions Records - One record of

- Tons or pounds emitted
- For each pollutant, and
- For each emissions path
  - source, process, control equipment, and release point



# Example 1 - Spray Booth

- Spray Booth = Source Information
  - Source ID: **SPB003**
- Process(es) = Coating Material(s)
  - Process records for two different coating materials: **CT001, CT002**
- Control System Information = Filter
  - Control System ID: **SPBFL3**
- Release Point Information = Roof vent
  - Release Point ID: **SPBVT3**



# Example 1, Spray Booth

## Emissions Path:

SPB003 → CT001 → SPBFL3 →  
SPBVT3

## Emissions Records:

SPB003 → CT001 → SPBFL3 →

SPBVT3: VOC, 100.00 tons

SPB003 → CT002 → SPBFL3 →

SPBVT3: VOC, 10.00 tons



# Example 2 - Reactor

- A Reactor makes 2 products, using different combinations of raw materials with different sets of emissions factors
- Product 1 Campaign
  - Routes to Scrubber
- Product 2 Campaign
  - Routes to Flare



# Example 2 - Reactor

## Emissions Records:

RCT001 → PRD001 → SCR001 → SCVT01:  
VOC, 10.01 tons

RCT001 → PRD002 → FLR001 → FLVT01:  
VOC, 8.00 tons



# Introducing ERIC Part 2 Hands On

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# Portal Accounts

- You must have a DEQ Portal Account to Use ERIC
  - Portal Accounts Belong to Specific People
  - Associated with ERIC accounts
- Register for a Portal Account at DEQ Web Site



# ERIC Accounts

- ERIC Account
  - AI/Owner Company
  - Each owner has separate accounts
  - Linked to Portal User Accounts
  - User Roles
- Pre-Registration Process
  - Log in to portal, enter AI and pre-registration code



# Accessing ERIC Accounts

- Request Access
  - Others who need access must request it
  - ERIC Account Administrator (at Facility) grants or rejects requests (NOT LDEQ!)
  - You manage access to your account
  - You grant access and roles to requestors on User Admin page



# To Get Started

- Training Web Site:
  - <http://apps.environdenver.com/eric>
- Instructions at Site (printed copies available)
- Create Test Portal Account
- Enter Pre-Registration Information
- Log Out and Log Back In



# “Account Home”

- Inventory Status
  - “Editing” status means the inventory is in progress and is only on the ERIC site (not submitted to TEMPO)
  - “Submitted” means the inventory is in TEMPO and can only be viewed or brought forward for creating a revised inventory
  - “Revised” status means a more recent revision has been submitted for a particular inventory (only the most current version can be revised)
  - Only one “Editing” inventory active at any given time
- Page displays current list of inventories



# Validation

- QA Checks
  - Basic checks done on each screen (data type, range of values)
  - Required fields NOT checked until you submit
  - You can run QA checks at any time
  - Printable list of items to address



# Helpful Hints

- Form Editing
  - Multiple items (e.g. sources) listed in summary table
  - Add New button to add item, or use Duplicate + button to copy an existing item
  - Must hit Save button to save data!
  - On Emissions form, wait for dropdowns to update after selecting Source or Release Point



# Helpful Hints

- Using a Web Browser
  - Don't use the browser "Back" button
  - Edit mode -> use Save or Cancel buttons
  - Don't use "Refresh" if you just submitted a form using Save button – it will try to resubmit the data!
  - Your session will time out after a period of inactivity – don't leave a form in Edit mode



# Introducing ERIC Part 3 Transition Year User Instructions

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# 2006 Starter File Data Relationship to NEDS Points

- For each NEDS Point there will be
  - One Source ID and
  - One Process ID and
  - One Release Point ID
  - May be a Control System ID
- Crosswalk SI Number for the NEDS Point will be mapped to the Source ID where possible
- **You will need to verify facility's records**
- **You may reassign primary identifiers this year**



# Do not edit RY2005 EIS and TEDI in ERIC

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# RY2006

## Optional Data Elements

- Facility: latitude and longitude
- Source: Subject Item ID; serial number; construction date; initial startup date; permanent shutdown date; NAICS; ORIS Code; max nameplate; engine rating; firing type; MACT codes; MACT compliance status
- Process: MACT Code and Compliance Status; Fuel ash content and sulfur content; Heat Input
- Control system: Primary and secondary control efficiency
- Release Point: width and length (area sources); orientation; lat and long; horizontal accuracy measure and horizontal collection method
- Emission Record: Number of SU/SD



# Minimum Decimal Places And Reporting Thresholds

- Criteria pollutants reported in tons
  - Two decimal places minimum
  - Not required to report emissions  $< 0.005$  tons for an emissions path
- Toxics reported in pounds
  - Two decimal places minimum
    - 3 decimal places if MER  $< 50$  lbs/yr, and
    - 6 decimal places for dioxins and furans
  - Not required to report emissions  $< 0.005$  pounds for an emissions path



# Grouping Similar Sources

- May group similar sources/process if, in aggregate, emissions are
  - < 5 tons Criteria Pollutants
  - < MER for Toxic Air Pollutants
- Create an emissions path for the group
  - Source, process, release point



# Insignificant Activities GCXVII and Fugitives

- May aggregate IA
  - By Permit (not facility-wide)
- May aggregate GCXVII
  - By Permit (not facility-wide)
- May report by activity type
- May aggregate Fugitives
  - By Permit (not facility-wide)



# Insignificant Activities and GCXVII

- Report as area source with dimensions of area where activity occurs
- Report Insignificant Activity Lists A and D
- Do not report Insignificant Activity Lists B or C



# ERIC reporting should logically follow emissions calculation approach



# Emission Factors

- Report if used to calculate emissions

$$E = \text{Activity} * EF$$

- An emission factor is expressed as mass of pollutant per unit of emissions related activity
  - lb PM/ton of glass pulled
  - lb NO<sub>x</sub>/MMBtu
  - gr PM/dscf



# Control Systems

- Report a control system if you used an associated control efficiency in your emissions calculation
  - ESP → 95% PM/PM10 control
  - SCR → 65% NO<sub>x</sub> control
  - Thermal Oxidizer → 90% VOC control



# Permitted CAPs Transition Year Guidance

- If you reported a CAP as a single NEDS ID for RY2005, you may report the CAP as a single ERIC source for RY2006
  - Create an emissions path for the CAP
- If you reported sources under a CAP as individual NEDS IDs for RY2005, then report as individual ERIC sources for RY2006



# Permitted CAPs General Guidance

- If emissions are calculated for sources under a CAP individually, then report as individual ERIC sources
- If emissions are calculated across the CAP in aggregate, then report the CAP as a single ERIC emissions path



# Use the emission calculation approach for

- Fuel gas systems
- Flare gas vapor recovery systems
- Common vent header systems
- Shared control devices



# Introducing ERIC

## Part 4

### Case Examples

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