Data Element and Record Structure Design Document

Emissions Inventory Enhancement Project

Initial Draft – February 2, 2007

New Emissions Inventory Structure

The data currently in the Legacy EIS database are organized into Plant records, Point records, Source Classification Code (SCC) records, Pollutant records, SCC-Pollutant records, and Comment records. The Legacy TEDI data are organized into Company records and Chemical records. The new Emissions Inventory (EI) system combines EIS and TEDI into one reporting system. For each inventory report, the new EI contains one Facility Information record. Each source of emissions is represented by a Source Information Record, and each release point (stack, vent, material pile, area) is represented by a Release Point Information record. Similarly, each control device at the facility is represented by a Control System record. The inventory defines the Source, Control System and Release Point as separate items, even if they are physically integrated.

Each Source at the facility has one or more "operating modes" referred to as a "Process". A Process describes the manner of operation of a source that corresponds to a specific emissions factor, calculation, or measurement basis. Examples of different processes for a source might be different fuel types for a boiler, or different raw materials in a reactor vessel. The term "Process" as it is used for Emissions Inventory purposes is different than the term used to describe an industrial process or process unit. In the Emissions Inventory context, a Process refers to the operating conditions of a specific source that generates a specific emissions profile, which may change over the course of the inventory year.

The Source, Process, Control System (if applicable) and Release Point records come together to define an "Emissions Path". The Emissions Path is defined on the Emissions Record as the unique combination of a Source ID, Process ID, Control System ID (optionally), and Release Point ID. For each Emissions Path, the Emissions Records list emissions for each Emissions Type and Pollutant emitted through that path.

The structure of the new Emissions Inventory is shown in Figure 1.

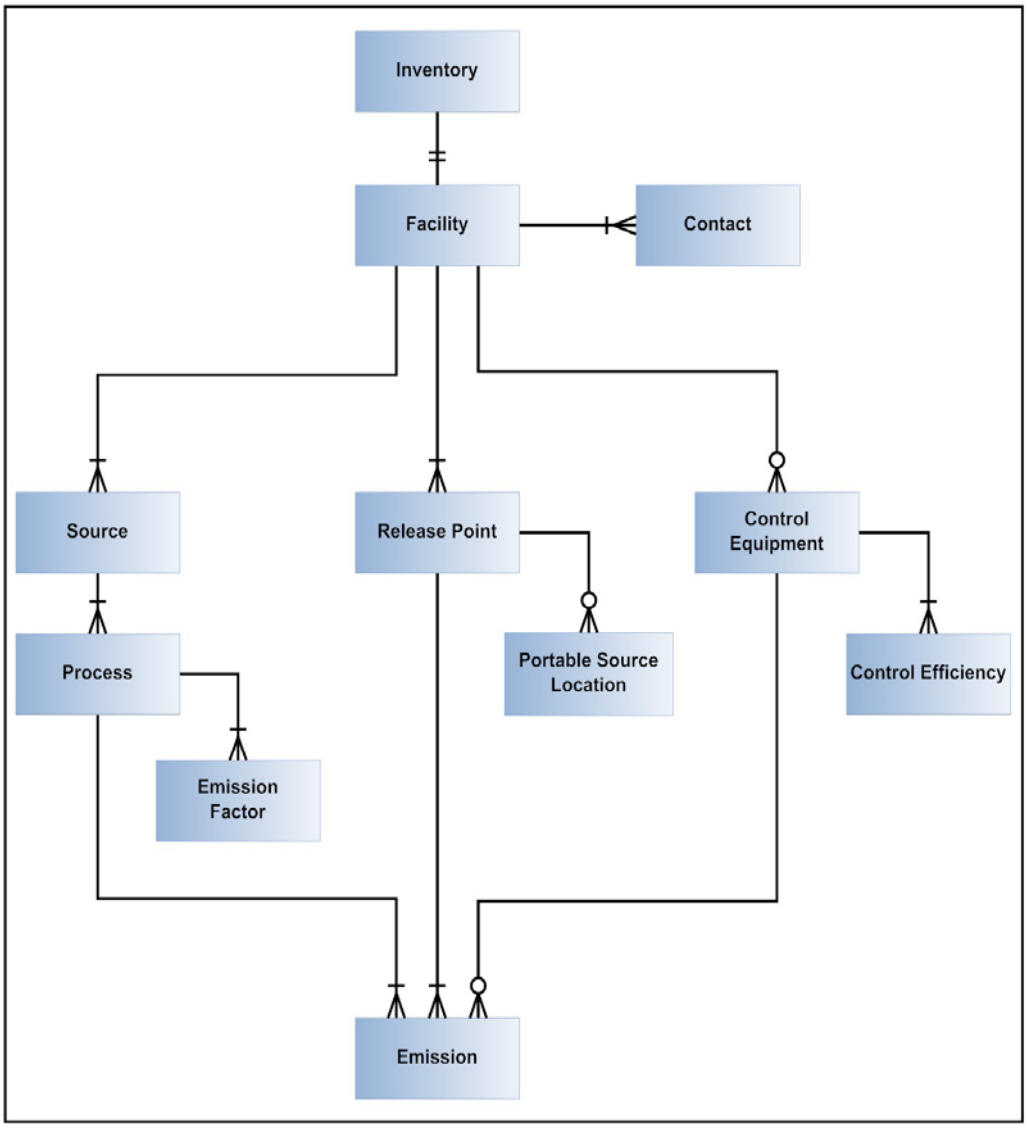

Figure 1. New Emissions Inventory Structure

New Emissions Inventory 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.
- Process - Description of the operational mode and material throughput of a source generating emissions.
- Control System - Equipment through which emissions are routed for control or abatement.
- Release Point - Physical location of release of pollutants to atmosphere.
- Emissions Path - An emissions path must indicate a source, a process and a release point; the emissions path may also include a control system.
- Emissions Type – Emissions are reported according to four types: Routine Emissions; Startup/Shutdown Emissions; Variance Emissions; Emergency Releases/Upsets/Malfunction Emissions.
- Emissions Record – An emissions record includes the emissions path, emissions type, pollutant and tons emitted.

Hierarchy:

All data elements must be reported if applicable. There are no "optional" data elements. The inventory must contain the following:

- Inventory Information - Exactly one record, identifies the reporting period.
- Facility Information - Exactly one record, includes identifying information for the facility.
- Contact Information - At least three records (one each for EI Facility Contact, Responsible Official, and EI Billing Party), can also include EI Consultant.
- Source Information - One or more records (one for each source at the facility).
- Process Information - One or more records per source - one for each mode that the source operated in during the year.
- Emission Factor - One record per process per pollutant emitted by that process.
- Control Equipment Information - Zero or more records. A control system record is not tied to a specific source - it is associated with a source on the emissions record, and may be included in one or more emissions path.
- Control Efficiency - One or more records for each Control System record; control efficiencies are specified for each pollutant controlled by the system.
- Release Point Information - One or more records. A release point is not tied to a specific source - it is associated with a source on the emissions record and may be included in one or more emissions path.
- Portable Source Location - Zero or more records for each release point record. Only used to indicate alternate locations at which a portable source operated. For Facilities that are portable in their entirety, Portable Source Location records are also used to indicate the location of the Facility over the year.
- Emissions Records - One record (tons emitted) for each pollutant, emissions type, emission path (source, process, control system, and release point).

Emissions Types:

Emissions records will be reported for each emissions path by the following types:

- Routine Emissions - Emissions generated from ongoing, normal operations. Emissions reported as Routine typically will be or should be authorized by a permit. Emergency/upset/malfunction events and emissions authorized under a variance should be reported as separate emissions types from routine emissions. If emissions during startup and shutdown differ by pollutant or emission rate from ongoing normal operations, or are permitted as a separate activity, they should be reported as a separate emissions type from routine emissions.
- Startup/Shutdown Emissions - Emissions that occur during startup and shutdown operations. Startup means the setting in operation of a source for any purpose. Shutdown means the cessation of operation of a source for any purpose. Startup/Shutdown procedures will vary by source and startup/shutdown procedures, where established, may be considered when calculating and reporting these emissions. If emissions during startup and shutdown differ by pollutant or emission rate from ongoing normal operations or are permitted as a separate activity, they should be reported separately from routine emissions. Startup/Shutdown Emissions may be aggregated and reported as one source if they are permitted in that manner. Where startup/shutdown emissions are not permitted separately, they should be reported as a separate emissions type under the specific source and release point associated with the emissions.
- Variance Emissions - Emissions authorized through a variance issued under LAC 33:III.917. Variance emissions should be reported as a separate emissions type under the specific source and release point associated with the emissions.
- Emergency Releases/Upsets/Malfunction Emissions - Emissions from any situation arising from sudden, unavoidable, and reasonably unforeseeable events beyond the control of the owner or operator, including acts of God, which require immediate corrective action to restore normal operation. Situations that are scheduled or a part of normal operations are not to be reported in this category.

Reporting of GCXVII, Insignificant Activities, and Fugitive Emissions

ALL emissions that occur during the reporting period MUST be reported, regardless of the emissions type or the source or activity that generates the emissions. Emissions authorized under GCXVII or as Insignificant Activities must be reported, but may be aggregated under a single Source ID for each permit (not facility-wide if more than one permit covers the facility). Fugitive emissions may also be reported as a single Source ID for each permit under which the facility operates.

Primary Identifiers:

The primary identifiers for each Source, Control System, and Release Point records are facility-generated IDs of up to six characters. The facility-assigned identifiers must be unique across the entire inventory for each ID type and must be consistently reported for the same pieces of equipment and release points each year. For example, each Source must have a unique Source ID, but the same ID value may be used for a particular Source and Release Point. Equipment that is replaced "in kind" must have a different ID than the equipment replaced.

Relationship to Legacy NEDS Points:

Each NEDS Point in the Legacy EIS system will now be represented by a Source Information record AND a Release Point Information record. If the NEDS Point data included control equipment, one or more Control System records will also be created. Facilities should expect to see these different items in their 2006 inventory "starter" file. The Source Information records will be mapped to the Subject Item ID specified in the crosswalk provided to LDEQ by facilities in November 2006, where possible.

Examples:

Two examples are provided on the following pages to assist the reader in understanding how the various records in the new Emissions Inventory reporting system are used.

EXAMPLE 1: Spray booth with filter and roof vent.

In this example, the emissions are being reported for a coating spray booth. The booth is self-contained and is equipped with a filter and a roof vent. This scenario is represented in the inventory by a Source Information record that describes the spray booth, a Control System record that describes the filter, and a Release Point Information record that describes the roof vent.

There may be several Process records defined for this source that represent different coating materials. Each Process record will describe the throughput of the specific coating material throughout the year and the operating parameters for the spray booth while using that material. Emission Factor records will be attached to the Process record defining the emission factors for various pollutants for the spray booth while spraying that material.

Since the booth is not movable, the Release Point record will define the location and no additional portable source location records will be required.

The Control System record will describe the characteristics of the filter, and individual control efficiencies for different pollutants will be recorded in the associated Control Efficiency records.

In generating IDs for these records, the facility is free to choose identifiers that they find useful. For example, the facility may choose to use the same identifier (e.g., `SPB003`) for the Source ID, Release Point ID, and Control System ID to remind themselves that all of the records apply to the spray booth. Alternately, they might choose to combine more information into the IDs:

Source ID	`SPB003`
Release Point ID	`SPBVT3`
Control System ID	`SPBFL3`

How the IDs are used is dependent on the number of each type of source at the facility and how the facility wishes to use the IDs (the only restriction is that the IDs MUST remain the same over time for the same equipment – once the booth has been reported as SPB003, the identifier can not be changed).

Let's assume that there are two processes for the spray booth (representing two different coatings) – CT0001 and CT0002. Both of these Process records are specifically tied to SPB003 since they list the spray booth ID on the Process record. The emissions for the spray booth while using the first coating material are listed as:

SPB003 -> CT0001 -> SPBFL3 -> SPBVT3

These are the IDs listed on the emissions records, and they indicate that the reported emissions came from spray booth SPB003 while operating process CT0001, emissions were controlled by the filter SPBFL3 and released through the vent SPBVT3.

EXAMPLE 2: Reactor with 2 Different Processes, Control Devices and Release Points

In this example, the reactor is used to make two different products during the year. When making the first product, emissions are routed through a scrubber for control during normal operations but to a flare during startup activities. The scrubber is routed to a stack that receives vents from other points in the facility. When making the second product, the scrubber is bypassed and emissions from the reactor are routed to a vent header that routes to the flare, which controls multiple vents at the facility.

The reactor itself is described in the Source Information record. Because each product uses a different combination of raw materials with a unique set of emissions factors, each is defined in the inventory by a separate Process ID. Each control device, the scrubber and the flare, is identified by a separate Control System record. The Control System record is independent of the Source record but is associated with the Source on the relevant Emissions Record. Note that in this example the flare receives emissions from other Sources as well, so this Control System ID will be associated with multiple Sources in multiple Emissions Records in the inventory. Two Release Point Information records are included.

To illustrate the optionality of the control equipment, this example includes emissions from the reactor vessel during an emergency release where both the scrubber and flare are bypassed, and the emissions are released directly through a pressure release valve. The PRV is represented as a separate release point in the inventory.

Each emissions record for the reactor represents the emissions of a pollutant and emissions type generated by one process, through one control device, emitted through one of the associated stacks. In this example, the following emissions records are included.

Source	Process	Control System	Release Point	Emissions Type	Pollutant	Tons
RCT001	PRD001	SCR001	SCVT01	ROUTINE	VOC	10.01
RCT001	PRD001	SCR001	SCVT01	ROUTINE	HCl	0.50
RCT001	PRD001	FLR001	FLVT01	STARTUP	VOC	2.00
RCT001	PRD002	FLR001	FLVT01	ROUTINE	VOC	5.01
RCT001	PRD002	FLR001	FLVT01	ROUTINE	NOx	3.00
RCT001	PRD002	FLR001	FLVT01	UPSET	NOx	1.00
RCT001	PRD001		PRV029	UPSET	VOC	0.34

Comparison of Legacy EIS System Data Elements

to

New EI System Data Elements

EI Data Elements		Description	Justification
Data Elements in yellow are elements previously collected in the legacy EI.			AERR - proposed Air Emissions Reporting Rule
All data elements are required to be reported if applicable.			CAIR - Clean Air Interstate Rule
			CERR - Consolidated Emissions Reporting Rule
			NEI - National Emissions Inventory
Inventory Information			
This section occurs once per inventory submittal, and describes the inventory year and signatory.			
	Inventory Year	Calendar year for which emissions estimates are calculated	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Reporting Period Start Date	Typically January 1st of the reporting year.	CERR, AERR, NEI
	Reporting Period End Date	Typically December 31st of the reporting year.	CERR, AERR, NEI
	Responsible Official Signature	This will be created by the online submission process	LAC 33:III.919
	Responsible Official Signature Date	This will be created by the online submission process	LAC 33:III.919
Facility Information			
The facility information section occurs once per inventory submittal, and describes the facility for which the inventory is being submitted. A facility corresponds to one Agency Interest (AI) Number.			
	Facility ID (AI Number)	Unique ID assigned by LDEQ to each facility	CERR, AERR, CAIR, NEI
	Name	Short name of facility	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Description	Description of business conducted at facility	NEI
	Status	Operating status of the facility during the emissions inventory year (active, idle, permitted but not built, ownership transferred, demolished, shutdown).	Air Quality Analysis
	Address	Facility physical address	CERR, AERR, CAIR, LAC 33:III.919, NEI
	City	Facility city	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Parish	Facility parish	CERR, AERR, CAIR, LAC 33:III.919, NEI
	State	Facility state (preset to LA)	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Zip Code	Facility zip code	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Longitude	Longitude of facility front gate	Modeling
	Latitude	Latitude of facility front gate	Modeling
	UTM Easting	UTM easting of facility front gate	LAC 33:III.919
	UTM Northing	UTM northing of facility front gate	LAC 33:III.919
	UTM Zone	UTM zone of facility front gate (15 or 16)	LAC 33:III.919
	Owner Company Name	Name of company that owns the facility	
	Operator Company Name	Name of company that operates the facility, if different than owner	
	SIC Primary	Standard Industrial Classification (SIC) for the entire facility	CERR, AERR, CAIR, LAC 33:III.919, NEI
	NAICS Primary	North American Industrial Classification System (NAICS) for the entire facility	NEI
Contact Information			
The contact information section is repeated for each applicable contact type. The inventory must contain contact information for the EI Facility Contact, Responsible Official, and EI Billing Party.			
	Contact Type	EI Facility Contact, EI Consultant, Responsible Official, EI Billing Party	LAC 33:III.919
	Name	Full name of contact person	LAC 33:III.919
	Company	Name of company that contact person works for	LAC 33:III.919
	Title	Contact person title	LAC 33:III.919
	Email Address	Email address of contact	LAC 33:III.919
	Phone Number	Phone number of contact	LAC 33:III.919
	Mailing Address	Mailing address of contact	LAC 33:III.919
	City	Contact city	LAC 33:III.919
	State	Contact state	LAC 33:III.919
	Zip Code	Contact zip code	LAC 33:III.919
Source Information			
This section describes a single source at the facility. The inventory should contain one source information record for each source. The Source ID is the primary identifier for the source record. If the source has been entered in TEMPO, the Subject Item ID field should be completed. Separate area source records should be created for GC XVII emissions, Insignificant Activities emissions, and Fugitive emissions, if applicable.			
	Source ID	Unique ID assigned by facility and reported consistently over time, up to six characters	CERR, AERR, CAIR, NEI
	NEDS Point ID	The NEDS point id for the source from the legacy EIS data.	Reference only. No new NEDS IDs will be created.
	Subject Item ID #	Subject item ID assigned by DEQ to the source. Read only.	
	Source Description	Description of source	NEI
	Source Type	The type of equipment or unit that generates the emissions. Examples include heaters, boilers, flares, storage tanks, cooling towers, fugitive emissions, and spills.	Air Quality Analysis

EI Data Elements		Description	Justification
	Permit Number	Permit number in which source is permitted	Air Quality Analysis
	Permitted Emission Point #	EIQ #	Air Quality Analysis
	Serial Number	Serial number of equipment, if available	Air Quality Analysis
	Construction Date	Date source was constructed, not put into operation	Air Quality Analysis
	Initial Startup Date	Date source actually started operating	Air Quality Analysis
	Permanent Shutdown Date	Date source was permanently taken out of service/no longer operating - do not use for temporary shutdowns.	Air Quality Analysis
	Status	Operating status of the source during the emissions inventory year (active, idle, permitted but not built, shutdown).	Air Quality Analysis
	SIC	Standard Industrial Classification (SIC) for the source	LAC 33:III.919, NEI
	NAICS	North American Industry Classification Code (NAICS) for the source	NEI
	ORIS Code	An ORIS code is a 4 digit number assigned by the Energy Information Agency (EIA) at the U.S. Department of Energy to power plants owned by utilities.	NEI
	Maximum Design Rate	Maximum design heat input (MMBTU/hr)	CERR, AERR, CAIR, NEI
	Maximum Nameplate Capacity	For electrical generators powered by combustion unit(s), the maximum electrical generating output in megawatts (MW) that the generator is capable of producing on a steady-state basis and during continuous operation.	CERR, AERR, NEI
	Engine Rating	Power rating in HP for engines	Air Quality Analysis
	Firing Type	Describes the burner type for boilers; front, opposed, tangential, internal, or other. If other please provide a basic description.	Air Quality Analysis
	MACT Code(s)	The Maximum Achievable Control Technology (MACT) standards and emission limits are developed by the EPA. The MACT codes are 4-digit codes assigned to all MACT categories and subcategories. There are 130 different codes. Enter all codes that apply.	NEI
	MACT Compliance Status	MACT has 7 compliance status descriptions. 1.) Major Source (>10/25 tpy), compliance date has not yet occurred. 2.) Major Source (>10/25 tpy), compliance date has occurred. 3.) Area Source (<10/25 tpy), category listed, and subject to section 112 and 129 standards. 4.) Area Source (<10/25 tpy), category listed but not subject to section 112 and 129 standards as a synthetic and minor source. 5.) Area Source (<10/25 tpy) category listed, but not subject to section 112 and 129 as a true or natural minor source. 6.) Rule only affects major sources; area may be flagged. 7.) Rule only covers certain HAPS; all HAPs flagged. Enter the compliance status for each MACT code for the Source.	NEI
Process Information			
The process information record describes the operating mode of a specific source. A source may have more than one operating mode (process) during the inventory year. For example, if the source is a boiler, it may burn natural gas for part of the year, and fuel oil for the remainder of the year. These two operating modes (different fuel types) would be entered as two process records in the inventory. The process record is associated with a specific source.			
	Process ID	Unique ID assigned by facility and reported consistently over time, up to six characters	CERR, AERR, CAIR, NEI
	Source ID	Facility-assigned source ID to which this process record applies.	CERR, AERR, CAIR, NEI
	Process Description	A text description of the emission process .	NEI
	Confidentiality	Flag indicating that process information is confidential.	
	SCC	Source Classification Code (SCC) - a ten-digit EPA-developed code used to associate air pollution estimates with unique, identifiable industrial processes.	CERR, AERR, CAIR, NEI
	MACT Code(s)	The Maximum Achievable Control Technology (MACT) standards and emission limits are developed by the EPA. The MACT codes are 4-digit codes assigned to all MACT categories and subcategories. There are 130 different codes. Enter all codes that apply.	NEI
	MACT Compliance Status	MACT has 7 compliance status descriptions. 1.) Major Source (>10/25 tpy), compliance date has not yet occurred. 2.) Major Source (>10/25 tpy), compliance date has occurred. 3.) Area Source (<10/25 tpy), category listed, and subject to section 112 and 129 standards. 4.) Area Source (<10/25 tpy), category listed but not subject to section 112 and 129 standards as a synthetic and minor source. 5.) Area Source (<10/25 tpy) category listed, but not subject to section 112 and 129 as a true or natural minor source. 6.) Rule only affects major sources; area may be flagged. 7.) Rule only covers certain HAPS; all HAPs flagged. Enter the compliance status for each MACT code for the Source.	NEI
	Material Name	Name of input material for source (fuel, raw material).	NEI
	Material Throughput - Annual	Annual throughput of material.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Material Throughput - Annual (units)	Units of measure for material throughput.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Material Throughput - Ozone Season	Average daily throughput during ozone season, if required for the Parish.	CERR, AERR, CAIR, LAC 33:III.919, NEI

EI Data Elements		Description	Justification
	Material Throughput - Ozone Season (units)	Units of measure for material throughput, if required for the Parish.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Ash Content (fuel) (annual average)	For solid fuels, enter the concentration of ash produced by the fuel, expressed as a percentage of total weight averaged for the emission inventory reporting year.	CERR, AERR, LAC 33:III.919, NEI
	Ash Content (fuel) (ozone season average)	For solid fuels, enter the concentration of ash produced by the fuel, expressed as a percentage of total weight averaged for the emission inventory ozone season.	Modeling
	Sulfur Content (fuel) (annual average)	Enter the concentration of sulfur in the fuel, expressed as a percentage of weight averaged for the emission inventory reporting year.	CERR, AERR, LAC 33:III.919, NEI
	Sulfur Content (fuel) (ozone season average)	Enter the concentration of sulfur in the fuel, expressed as a percentage of weight averaged for the emission inventory ozone season.	Modeling
	Heat Input - Annual	Total annual heat input (MMBTU/year) for combustion units	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Heat Input - Ozone Season	Ozone season total heat input (MMBTU) for combustion units.	Modeling
	Spring Throughput (%)	Seasonal operating percentages. The percentage of annual facility operations that occurs during the "Spring" season which includes March through May. Note that the percentages for the year must sum to 100.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Summer Throughput (%)	Seasonal operating percentages. The percentage of annual facility operations that occurs during the "Summer" season which includes June through August. Note that the percentages for the year must sum to 100.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Fall Throughput (%)	Seasonal operating percentages. The percentage of annual facility operations that occurs during the "Fall" season which includes September through November. Note that the percentages for the year must sum to 100.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Winter Throughput (%)	Seasonal operating percentages. The percentage of annual facility operations that occurs during the "Winter" season which includes January, February and December of the same calendar year. Note that the percentages for the year must sum to 100.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Hours per Day in operation	The actual number of hours per day for which the facility is normally active; between 0 and 24.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Days per week in operation	The actual number of days per week for which the facility is normally active; between 0 and 7.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Weeks per year in operation	The actual number of weeks per year for which the facility is normally active; between 0 and 52.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Annual Avg Hours per Year	Describes the facilities total annual actual operating hours; between 0 and 8,760. For leap year, the total maximum operating hours cannot exceed 8,784.	NEI
Emission Factor			
The emission factor record describes the emission factor calculation for a pollutant emitted by a specific process. There should be one emission factor record for each pollutant emitted by a process.			
	Process ID	Facility-assigned process ID to which this emission factor applies.	CERR, AERR, CAIR, NEI
	Pollutant Code	Unique code for each reported pollutant.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Emission Factor	Emission factor numeric value for specified pollutant.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Material Name	Material name for emission factor (must match material name on process record).	NEI
	Emission Factor Source	Source of information for emission factor (stack test, AP-42, etc).	CAIR
	Emission Factor Numerator Units	Unit of measure for emission factor numerator.	LAC 33:III.919, NEI
	Emission Factor Denominator Units	Unit of measure for emission factor denominator.	LAC 33:III.919, NEI
Control System Information			
The control system record describes a control equipment chain (series of one or more control devices) that is used to control or abate emissions from a source. The inventory must contain one control equipment record for each control equipment chain at the facility. Only the primary and secondary devices are entered specifically on the control equipment record. The net control efficiency of all devices is also entered.			
	Control System ID	Unique ID assigned by facility and reported consistently over time, up to six characters	
	Subject Item ID #	Subject item ID assigned by DEQ to the source. Read only.	
	Control System Description	Description of the control equipment chain.	NEI
	Primary Control Device Type	Type of primary control device, examples include flare, scrubber, condenser, vapor recovery unit.	CAIR, LAC 33:III.919, NEI
	Secondary Control Device Type	Type of secondary control device (if applicable).	LAC 33:III.919, NEI
Control Efficiency			
The control efficiency of a control device varies by pollutant. Use this section to enter the control efficiency for each pollutant controlled by a control device.			
	Control System ID	Facility assigned control system ID to which this control efficiency applies	
	Pollutant Code	Unique code for each reported pollutant (all criteria and various toxic air pollutants).	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Primary Control Efficiency (%)	Emission reduction efficiency of the primary control device.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Secondary Control Efficiency (%)	Emission reduction efficiency of the secondary control device	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Total Capture & Control Efficiency	Net emission reduction efficiency of all emissions collection devices	AERR, NEI

EI Data Elements		Description	Justification
Release Point Information			
The release point information record describes the physical release point of emissions. There should be one record for each release point (including area sources such as fugitive emissions, ponds, etc) at the facility. Facilities reporting emissions under general categories such as insignificant activities, or GC XVII should include the entire facility as a release point defined as an area source type for these emissions categories. If the release point has not been entered in TEMPO, or the facility is not aware of the TEMPO subject item ID, the release point ID field should be used to identify the release point record and the subject item ID field left blank. A subject item ID will be assigned to the release point once the inventory is submitted.			
	Release Point ID	Unique ID assigned by facility and reported consistently over time, up to six characters	CERR, AERR, CAIR, NEI
	Subject Item ID #	Subject item ID assigned by DEQ to the source. Read only.	
	Description	Description of emissions release point.	NEI
	Type	Release point type. Examples include vertical stack, horizontal stack, gooseneck stack, and area.	AERR, NEI
	Height	Physical height of release point above the surrounding terrain.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Diameter	Inside diameter of tower top (natural draft); of fan (mechanical draft); or of one fan (multicell tower).	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Width	Width of area for area release point types. This is the shorter dimension of the rectangular area over which the emissions occur.	Modeling
	Length	Length of area for area release point types. This is the longer dimension of the rectangular area over which the emissions occur.	Modeling
	Orientation	Orientation (bearing) of long axis for fugitive or area sources, measured in degrees of clockwise rotation from true north.	Modeling
	Exit Gas Flow Rate	Stack gas flow rate - actual cubic feet per second.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Exit Gas Velocity	Air exit velocity at tower top (natural draft), or velocity of the fan-propelled air under normal operating conditions (mechanical draft). If velocity is not directly known, divide the volumetric air flow rate by the cross sectional area of the release point.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Exit Gas Temperature	Air temperature at tower tip (if unknown, assume 10 -15 degrees warmer than ambient temperature).	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Exit Gas Moisture Content	The exit gas stream moisture content, designated as a percentage. Not ZERO; generally 5 -10%; you may want to use a psychometric chart.	Modeling
	Longitude	Longitude of release point.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Latitude	Latitude of release point.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	UTM Easting	UTM easting of release point.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	UTM Northing	UTM northing of release point.	CERR, AERR, CAIR, LAC 33:III.919, NEI
	UTM Zone	UTM zone of release point (15 or 16).	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Horizontal Accuracy Measure	Measure of accuracy of the release point coordinates (if using GPS reading, accuracy of GPS device).	NEI
	Horizontal Collection Method Code	Method used to determine the release point coordinates (USGS quad, satellite photo, GPS, Address Geocoding, other).	NEI
Portable Source Location			
Portable source location records are used to describe the specific locations that a portable source released emissions at over the inventory year. These records must tie to an existing release point record, providing one or more additional sets of coordinates to the coordinates on the release point record. For example, if a portable generator operated at three locations during the inventory year, the first location would be entered in the release point information record, and the other two locations would be entered as portable source locations.			
	Release Point ID	Facility-assigned release point ID for which this is a supplemental location.	CERR, AERR, CAIR, NEI
	Location ID	Unique ID assigned by facility and reported consistently over time.	
	Start Date	Date source started operating at this location.	Air Quality Analysis
	End Date	Date source stopped operating at this location.	Air Quality Analysis
	Parish	Parish in which portable source was located.	Air Quality Analysis
	Longitude	Longitude of release point.	Air Quality Analysis
	Latitude	Latitude of release point.	Air Quality Analysis
	UTM Easting	UTM easting of release point.	LAC 33:III.919
	UTM Northing	UTM northing of release point.	LAC 33:III.919
	UTM Zone	UTM zone of release point (15 or 16).	LAC 33:III.919
	Horizontal Accuracy Measure	Measure of accuracy of the release point coordinates (if using GPS reading, accuracy of GPS device).	NEI
	Horizontal Collection Method Code	Method used to determine the release point coordinates (USGS quad, satellite photo, GPS, Address Geocoding, other).	NEI

EI Data Elements		Description	Justification
Emissions Record			
The emissions record describes the emissions for a specified combination of process (source and operating mode), control equipment, and release point. The inventory should contain separate emission records for each pollutant emitted by each such combination, and separate records for typical emissions, startup/shutdown emissions, emergency releases/upsets/malfunction emissions, and emissions covered under variances.			
	Source ID	Facility-assigned source ID for this emission record.	CERR, AERR, CAIR, NEI
	Process ID	Facility-assigned process ID for this emission record.	CERR, AERR, CAIR, NEI
	Control System ID	Facility-assigned control system ID for this emission record.	
	Release Point ID	Facility-assigned release point ID for this emission record.	CERR, AERR, CAIR, NEI
	Location ID	Facility-assigned location ID if this is a portable source operating at a location other than the location on the release point record.	Air Quality Analysis
	Emission Record Type	Routine, Startup/Shutdown, Upset/Malfunction/Other, Variance. Separate emission records must be submitted showing the annual total and ozone season daily emissions for each category.	LAC 33:III.919
	Pollutant Code	Unique code for each reported pollutant (VOC, NOx, SO2, CO, and various toxic air pollutants).	CERR, AERR, CAIR, LAC 33:III.919, NEI
	Emissions (Annual Total)	Annual total emissions of specified pollutant (tons/year).	CERR, AERR, LAC 33:III.919, NEI
	Estimation Method (Annual Total)	A code indicating the method used to estimate emissions (AP-42, mass balance, etc)	Air Quality Analysis
	Emissions (Ozone Season Daily Average)	Ozone season average daily emissions of specified pollutant (pounds/day), if required for the Parish.	CERR, AERR, LAC 33:III.919, NEI
	Estimation Method (Ozone Season Daily Average)	A code indicating the method used to estimate emissions (AP-42, mass balance, etc) if required for the Parish.	Air Quality Analysis
	Number of Startups	Number of startup events for which this record applies - only for permitted startup/shutdown emissions records.	Air Quality Analysis
	Number of Shutdowns	Number of shutdown events for which this record applies - only for permitted startup/shutdown emissions records.	Air Quality Analysis
Emission Record Types:			
All emissions were previously collected in the legacy EI system. ALL emissions must still be reported in the new EI. However, the new EI reporting system allows the emissions to be characterized for better air quality analysis.			
	Routine Emissions	Emissions generated from ongoing, normal operations. Emissions reported as Routine typically will be or should be authorized by a permit. Emergency/upset/malfunction events and emissions authorized under a variance should be reported as separate emissions types from routine emissions. If emissions during startup and shutdown differ by pollutant or emission rate from ongoing normal operations, or are permitted as a separate activity, they should be reported as a separate emissions type from routine emissions.	Air Quality Analysis
	Startup/Shutdown Emissions	Emissions that occur during startup and shutdown operations. Startup means the setting in operation of a source for any purpose. Shutdown means the cessation of operation of a source for any purpose. Startup/Shutdown procedures will vary by source and startup/shutdown procedures, where established, may be considered when calculating and reporting these emissions. If emissions during startup and shutdown differ by pollutant or emission rate from ongoing normal operations or are permitted as a separate activity, they should be reported separately from routine emissions. Startup/Shutdown Emissions may be aggregated and reported as one source if they are permitted in that manner. Where startup/shutdown emissions are not permitted separately, they should be reported as a separate emissions type under the specific source and release point associated with the emissions.	Air Quality Analysis
	Variance Emissions	Emissions Emissions authorized through a variance issued under LAC 33:III.917. Variance emissions should be reported as a separate emissions type under the specific source and release point associated with the emissions.thorized by the department under LAC 33:III.917.	Air Quality Analysis
	Emergency Releases/Upsets/Malfunction Emissions	Emissions from any situation arising from sudden, unavoidable, and reasonably unforeseeable events beyond the control of the owner or operator, including acts of God, which require immediate corrective action to restore normal operation. Situations that are scheduled or a part of normal operations are not to be reported in this category.	Air Quality Analysis