

# CHAPTER 3—EMISSIONS INVENTORY STRUCTURE

Emissions inventory information must be stored in a standardized manner that accurately represents a site's processes. This chapter begins with a section on identifying emission sources and a general discussion of how to represent these sources in the standardized emissions inventory format. The representation of sources in this standardized format is referred to as *EI structure*. Examples of common industrial processes and their appropriate structural representation are discussed. Finally, the chapter concludes with a section on modifying existing EI structure.

## Identifying Emission Sources

To develop an accurate EI, emission sources at the site must be identified. Using all available tools—including, but not limited to, plot plans, site maps, comprehensive process flow diagrams, and knowledge of the site's processes, list all equipment and operations that may result in air emissions, such as:

- combustion sources
- storage tanks
- loading operations
- a fugitive area representing grouped piping components in similar service
- wastewater collection and treatment systems
- process areas (for example, building vents, process vents, or reactors)
- evaporative losses (for example, in surface coating, solvent degreasing, railcar or tank truck cleaning, or printing operations)
- plant roads

## Guidelines for Including Sources in Emissions Inventory Structure

Depending upon the type of emissions source, the owner or operator of the regulated entity must add the emissions source to the EI as an individual source, group the emissions source with other similar sources, or may omit the source from the EI.

## **Sources that Must Be Added to the EI and that May Be Grouped as Collective Sources**

Each emissions source at a site must be added with associated emissions to the EI if it meets any of the following criteria:

- It emits 1 ton or more of any regulated pollutant.
- It emits 0.1 ton or more of any toxic chemical or hazardous air pollutant.
- It emits 0.001 ton or more of any individual HAP or aggregate HAPs listed in any TCEQ-enforceable document such as a permit, regulation, or commission order.
- It emits 0.001 ton or more of mercury or lead.
- It is separately identified in any TCEQ-enforceable document such as a permit, regulation, or commission order.
- Please note: a registered permit by rule (PBR) that includes a certification of federally enforceable emission limits (e.g., using Form PI-7-CERT, designated form TCEQ-20182) is a TCEQ-enforceable document.

If individual sources do not meet the requirements listed above, these sources are not required to be reported in the EI, provided that the collective emissions from all such unreported sources total less than 5 tons of any regulated pollutant and less than 1 ton of aggregate HAPs. If individual sources do not meet the requirements listed above, but exceed the collective emissions totals outlined above, then these sources must either be:

- individually added with associated emissions to the EI, or
- grouped according to the “Collective Sources” section of this chapter, and added with associated emissions to the EI as a collective source.

The TCEQ encourages the grouping of similar small emission sources. When creating a new path for grouped sources (grouped facilities) refer to the guidelines in the “Collective Sources” section. If small sources or small facilities are grouped in a permit, group these sources in a similar manner when adding them to the EI.

Individual fugitive components are not considered individual facilities (sources) and must be reported as collective sources following the guidance in this section and Technical Supplement 3.

## Representing the Structure of a Regulated Entity in the Emissions Inventory

For EI purposes, the term facility refers to a source, unit, device, structure, or area capable of generating air contaminants. The point where air contaminants are emitted to the environment is called the emission point. Some contaminants are controlled by an abatement device prior to being emitted at the emission point.

### ***Facilities and Facility Identification Numbers***

Each facility at the site must be identified. Examples of a facility include:

- a reciprocating engine
- a spray booth
- a chemical storage tank
- a flare

Each facility at the site must be given a unique alphanumeric code called a facility identification number (FIN). The FIN cannot be longer than 10 characters. Examples of possible FINs for the facilities listed above are:

- COMP01
- SPRBTH
- TANK03
- FLR

Every FIN must be linked to at least one emission point.

### ***Emission Points and Emission Point Numbers***

An emission point is the spatial location (point) where emissions enter the atmosphere. Every facility has at least one emission point. Examples of emission points include:

- an engine exhaust stack
- a spray-booth vent
- a process fugitive area
- a building vent

Each emission point must be given a unique alphanumeric code called an emission point number. The EPN cannot be longer than 10 characters. Examples of possible EPNs for the emission points listed above are:

- STK1A
- VENT

- FUG
- BLDGVENT

Every EPN must be linked to at least one facility.

## ***Abatement Devices and Control Identification Numbers***

An abatement device, also called a control device, is a piece of equipment or a recognized operational procedure that limits, controls, or abates emissions. Each abatement device at the site must be identified. Examples of abatement devices include:

- a flare
- a scrubber
- a condenser
- a vapor recovery unit

Each abatement device must be given a unique alphanumeric code called a control identification number. The CIN cannot be longer than 10 characters. Examples of possible CINs for the abatement devices listed above are:

- FLR
- SCRUB4
- VAPORCOND
- VRU

Every CIN must be associated with at least one facility (identified by a FIN) that is linked to an emission point (identified by an EPN).

Some control devices, such as thermal oxidizers and flares, also create emissions and must be represented as both facilities and control devices. For more information on this subject, refer to “Representing Combustive Abatement Devices” later in this chapter.

## ***Emission Paths***

An emission path is the route a contaminant must travel from the facility to the abatement device to the atmosphere via the emission point. Every emission path must include at least one facility and one emission point.

## ***Collective Sources (Collective Facilities)***

Emissions sources or facilities that emit small quantities of regulated pollutants, have similar source classification codes (SCCs), and generate similar emissions may be grouped as one collective emissions source (collective facility). A collective emissions source must be given a unique FIN and be added to the EI. To be grouped within a collective emissions

source, each small emissions source or small facility must meet all of the following criteria:

- the source emitted less than 1 ton of each regulated pollutant;
- the source emitted less than 0.1 ton of any toxic chemical or hazardous air pollutant; and
- the source is not required to be included in the inventory's structure under any other TCEQ enforceable document, such as a permit or a commission order.

For example, 20 similar aggregate storage piles each emitted 0.5 tpy of PM<sub>10</sub>. These emissions must be represented in the EIQ since collectively the storage piles emitted 10 tpy of PM<sub>10</sub>. If the storage piles are not individually represented in any permits, they could be grouped together as a collective emissions source under a single facility.

If small sources or small facilities are grouped in the regulated entity's air permits, group these sources as collective FINs in a similar manner when adding them to the EIQ. Use the following guidelines when adding collective sources to the EIQ.

### **Facility Guidelines**

Group only those sources with similar SCC and similar emissions as one collective facility. Create different collective FINs for each distinct type of process and equipment. Complete the appropriate Facility Information form for each collective source and assign representative average or median parameters for required characteristics. Examples of different source types that may be grouped in a collective FIN include:

- solvent cleaning areas and equipment
- painting areas and equipment
- piping components in similar service
- VOC loading operations
- tanks
- internal combustion sources (e.g., generators)
- external combustion sources
- other sources as appropriate

### **Emission Point Guidelines**

Unless all of the sources in a collective facility group vent to a common control device, a collective facility group must have a fugitive area emission point.

- Complete the Emission Point Information—Fugitive form for the fugitive area emission point. The length and width of the fugitive

area is the length and width of the fugitive area, and the height of the fugitive area is the average height of the point where the fugitive emissions enter the atmosphere. For a trench or impoundment, enter a default height of 3 feet.

- If the collective emission point is represented in any air permits for the site, the TCEQ requires using the same naming convention as the air permit when assigning the EPN; otherwise, the EPN can begin with the character string “GRP” such as EPN: GRPTANKS or EPN: GRPSOURCES.
- When supplying UTM coordinates for the collective emission point, use the UTM coordinates for the site centroid.

### **Abatement Device Guidelines**

Add abatement devices to collective facilities. If the abatement device only abates certain sources in the grouped facilities, note this in the “Path Comments” portion of the EIQ.

For assistance with collective source structure, please contact the EAS Help Line at 512-239-1773.

## ***Representing Combustive Abatement Devices***

Most abatement devices do not generate their own emissions and must therefore appear only as control devices within the EI structure. However, a combustive abatement device generates emissions while burning contaminants and must be represented in the EI structure as an emission source and as an abatement device.

Emergency flare structure is similar to process flare structure, except that the emergency flare may not need to be linked to each individual facility, per guidance below. If an emergency flare controls emissions from a large number of sources, then associating it with each facility would greatly increase the inventory’s size without substantially improving its quality. For emergency flares, the emissions path will be from the process to the abatement device to the flare. Therefore, the owner or operator would create the path FIN: PROCESS / CIN: FLARE / EPN: FLARE. All undestroyed waste gas emissions must be reported in this path. Another emissions path must be created to report the emissions generated by the combustion of the waste gas at the flare. The products of combustion must be reported at the path representing the flare as the source and flare as the emissions point, FIN: FLARE / EPN: FLARE.

For assistance with establishing correct flare structure, please contact the EAS.

## Appropriate Structural Representation of Common Industrial Processes

This section discusses appropriate structural representation of some common emissions sources. For assistance with establishing the correct structure for a process, please contact the EAS.

### ***Cooling Towers***

In order to promote data consistency within the STARS database, represent each cooling tower as one facility with one associated stack emission point, regardless of whether it is a natural-draft or a mechanical-draft tower. A mechanical-draft tower with multiple cells must also be considered one facility with one stack emission point; the number of cells must be represented as one of the parameters under the FIN group and profile characteristics on the EIQ.

Cooling towers are typically designed with drift eliminators. A drift eliminator is part of a cooling tower's basic design and is not considered an abatement device from a structural standpoint.

### ***Glycol Units and Amine Units***

For the purposes of establishing EI structure, treat an amine unit as a glycol unit, using the following guidance.

Two paths are required to represent each glycol unit:

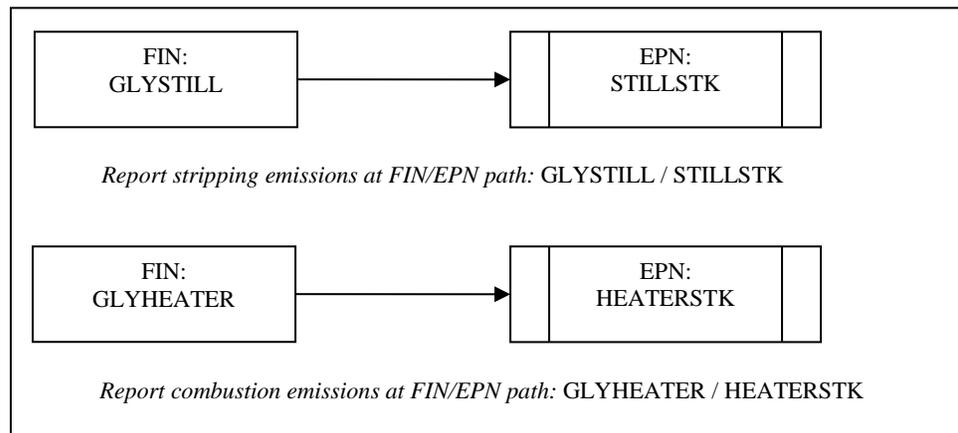
1. a still path for reporting emissions from gas stripping
2. a heater path for reporting emissions from combustion

An additional path for the flash tank is required if air emissions from the flash tank are authorized separately from the glycol still emissions.

The correct way to represent emissions for each path depends on how those emissions are vented or routed. The flash tank is not explicitly listed in the examples below; please contact the EAS for further assistance.

#### **Venting to Separate Stacks**

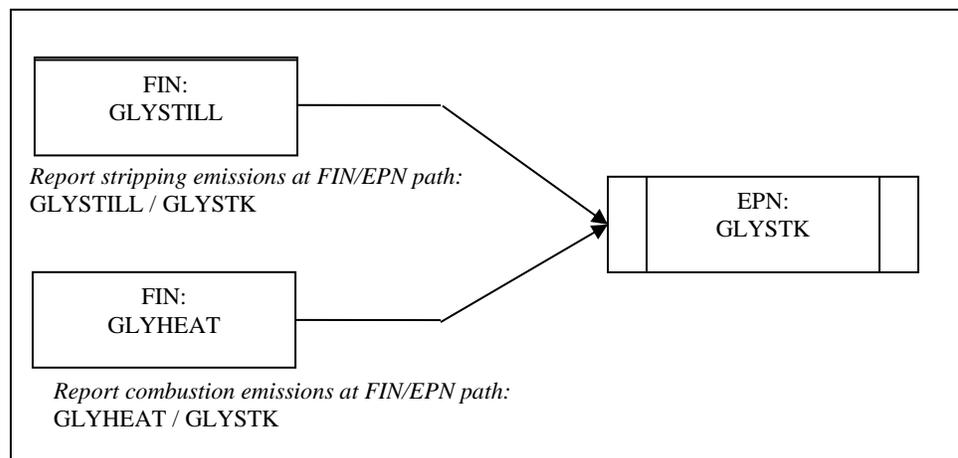
When still and heater emissions are vented through separate stacks, represent each unit as a separate facility linked to its own emission point. In other words, each unit must be represented as its own emission path, as shown in Figure 3-1. Report the stripping emissions at the glycol still FIN / glycol still vent EPN path. Report the combustion emissions from the heater at the heater FIN / heater stack EPN path.



**Figure 3-1. Glycol Unit—Separate Still and Heater Vents**

### Venting to a Common Stack

If glycol still emissions and heater emissions both vent through a common stack, represent the glycol still and heater as two facilities that are linked to a single emission point. This structure is shown in Figure 3-2. Report the stripping emissions at the glycol still FIN / heater stack EPN path. Report the combustion emissions from the heater at the heater FIN / heater stack EPN path.



**Figure 3-2. Glycol Unit—Common Still and Heater Vents**

### Routing Still Emissions to a Flare

If glycol still emissions are routed to a flare, the glycol still and heater must be represented as shown in Figure 3-3. Represent the glycol heater as its own facility linked to its own emission point. Represent the glycol still and flare as separate facilities linked to a single emissions point, with an abatement device added to the glycol still. Report glycol heater combustion emissions at the heater FIN / heater stack EPN path. Report undestroyed stripping emissions at the glycol still FIN / flare CIN / flare

EPN path. Finally, report the flare combustion emissions at the flare FIN / flare EPN path.

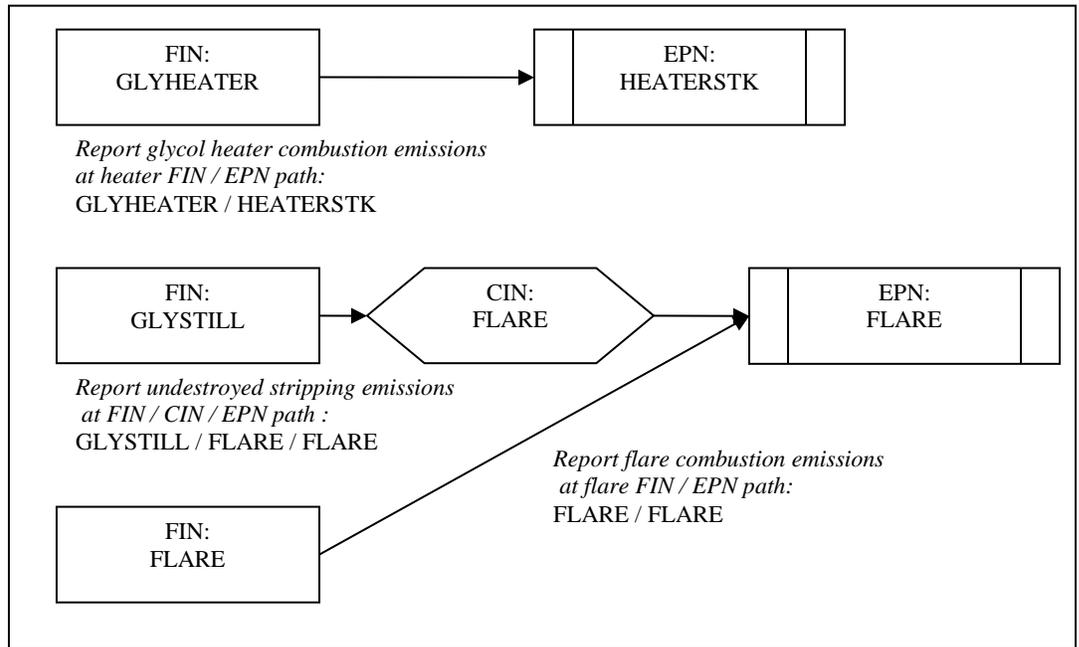


Figure 3-3. Glycol Unit—Flared Still Emissions

### Routing Still Emissions through the Heater

If glycol still emissions are routed through the heater and combusted, the still and heater must be represented as shown in Figure 3-4. Represent the glycol still and glycol heater as separate facilities linked to a single emission point, with an abatement device added to the glycol still. Report undestroyed stripping emissions at the glycol still FIN / heater CIN / heater stack EPN path. Report combustion emissions at the heater FIN / heater stack EPN path.

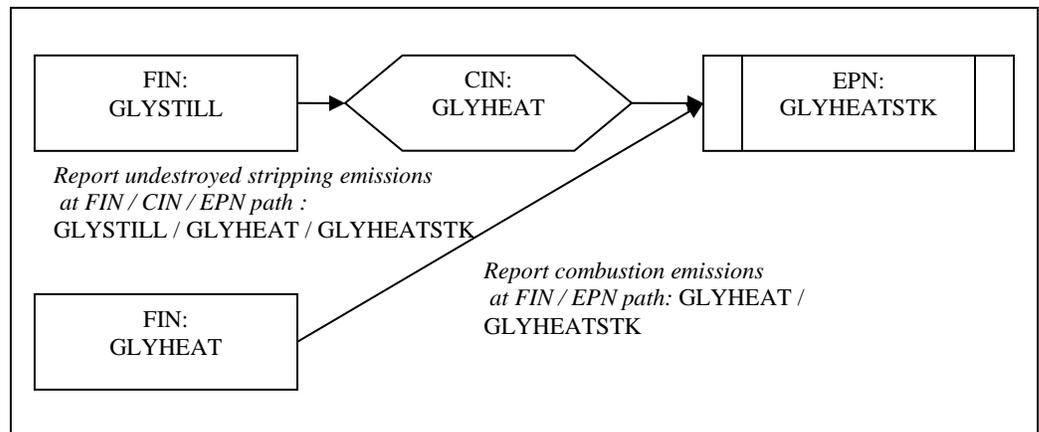


Figure 3-4. Glycol Unit—Still Emissions Routed through Heater

## Sulfur Recovery Units

A sulfur recovery unit (SRU) is not an abatement device, but rather a unit generating hydrogen sulfide emissions. Some common SRU structures are shown in Figures 3-5 through 3-8.

### An Unabated SRU

If the SRU emissions are not controlled by an abatement device, represent the SRU as a single facility linked to a single emission point, as shown in Figure 3-5. Report the hydrogen sulfide (H<sub>2</sub>S) emissions at the SRU FIN / SRU EPN path.

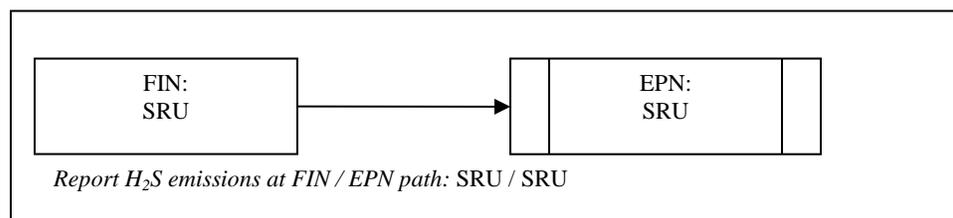


Figure 3-5. Sulfur Recovery Unit—Unabated

### Controlled by a Scrubber

If the SRU emissions are controlled by a scrubber, represent the SRU as a single facility linked to a single emission point, with an abatement device added to the SRU, as shown in Figure 3-6. Report unscrubbed H<sub>2</sub>S emissions at the SRU FIN / scrubber CIN / scrubber EPN path.

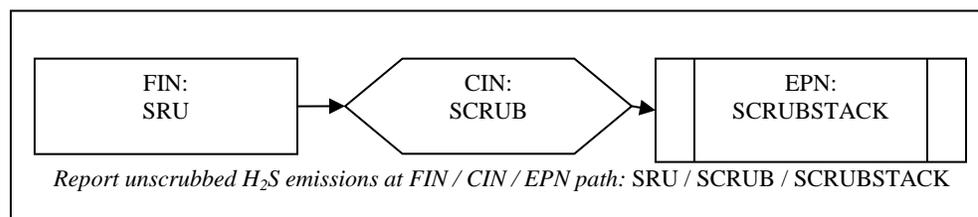
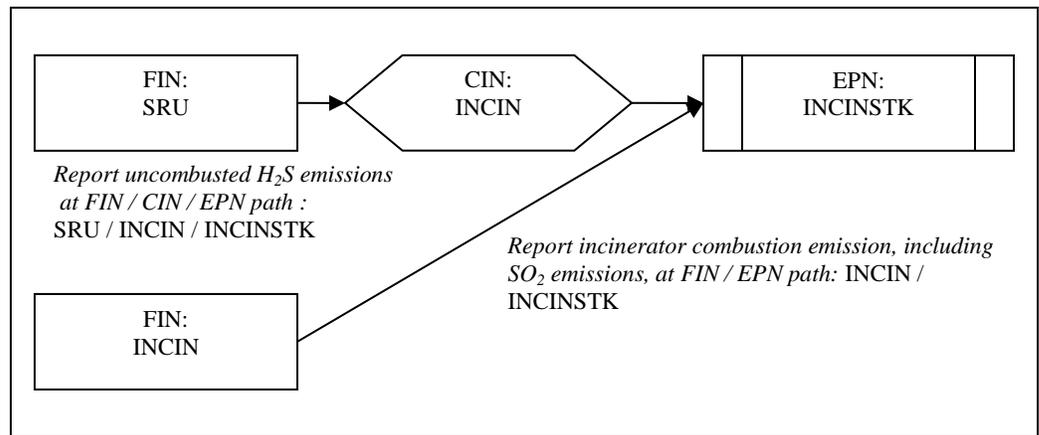


Figure 3-6. Sulfur Recovery Unit with Scrubber

### Routing SRU Emissions to an Incinerator

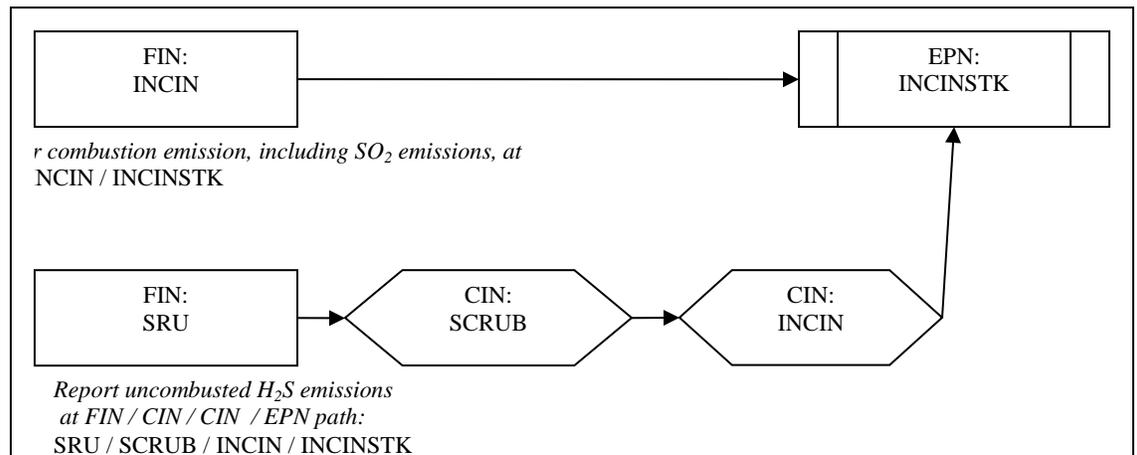
If the SRU emissions are controlled by an incinerator, represent the SRU and incinerator as two separate facilities linked to a single emission point, with an abatement device added to the SRU, as shown in Figure 3-7. Report undestroyed H<sub>2</sub>S emissions at the SRU FIN / incinerator CIN / incinerator EPN path. Report combustion emissions at the incinerator FIN / incinerator EPN path.



**Figure 3-7. Sulfur Recovery Unit with Incinerator**

### Routing SRU Emissions through a Scrubber Prior to an Incinerator

If the SRU emissions are first controlled by a scrubber and then routed to an incinerator, represent the SRU and incinerator as two separate facilities linked to a single emission point, with two different abatement devices added to the SRU, as shown in Figure 3-8. Report the uncombusted H<sub>2</sub>S emissions at the SRU FIN / scrubber CIN / incinerator CIN / incinerator stack EPN path. Report the incinerator combustion emissions at the incinerator FIN / incinerator stack EPN path.



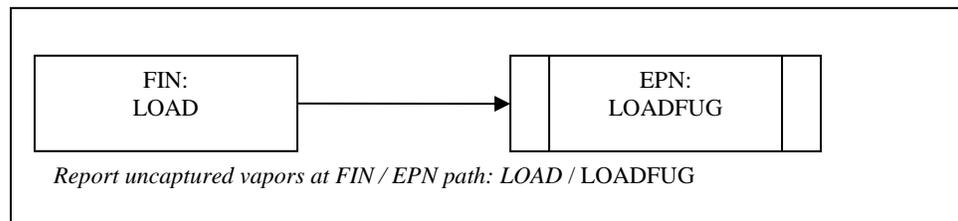
**Figure 3-8. Sulfur Recovery Unit with Scrubber Prior to Incinerator**

## Loading Operations

### Unabated Loading Operation

If loading emissions are not routed to an abatement device, represent the loading area by a single facility linked to a fugitive-type emission point, as

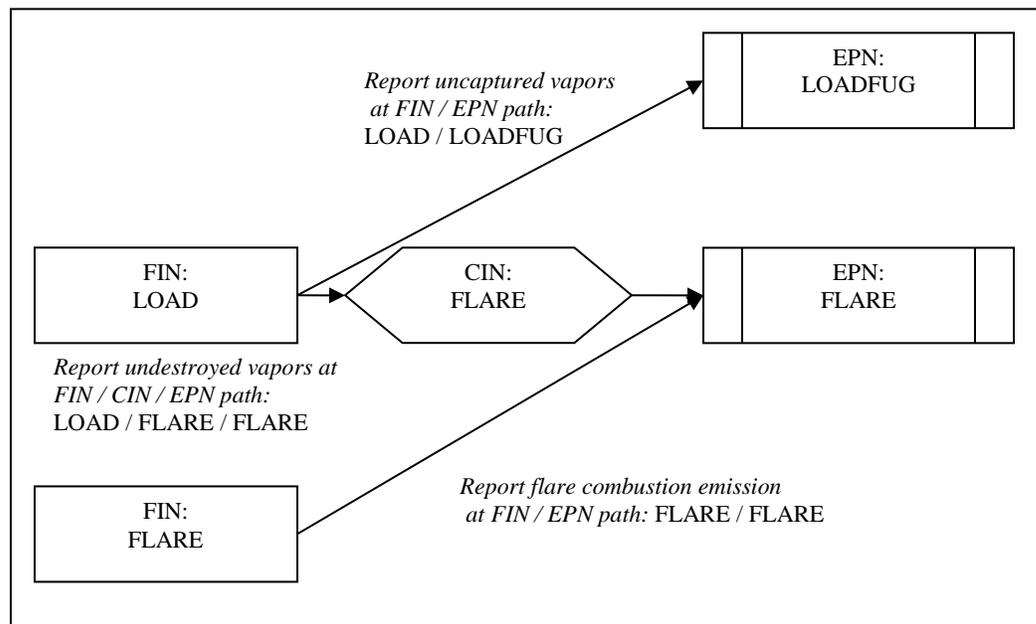
shown in Figure 3-9. Report uncaptured emissions at the loading FIN / loading EPN path.



**Figure 3-9. Loading Area—Unabated**

### Controlled by a Flare

If loading emissions are controlled by a flare, the emissions paths will be the loading operation linked to the fugitive loading area and the flare emission points. Represent the loading operation and flare as two separate facilities linked to a single emission point, with an abatement device added to the loading operation. Report the emissions from the captured, undestroyed vapors at the abatement device. Then report the uncaptured vapors that are not routed to the flare at a separate fugitive loading-area emission point linked to the loading-operation facility. Be sure to indicate the capture efficiency of the loading rack in the facility comment field. Figure 3-10 illustrates proper structure for a loading area controlled by a flare.



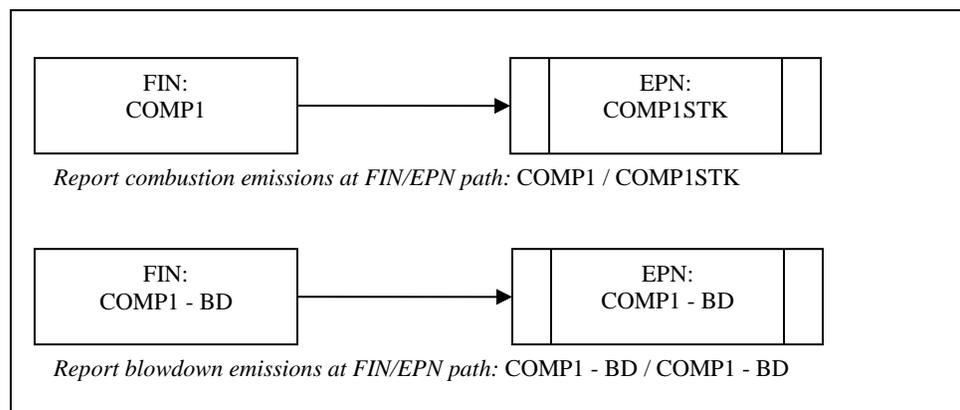
**Figure 3-10. Loading Area Controlled by a Flare**

## Blowdown Operations

Compressor engines and other process equipment are taken offline for periodic maintenance or emergency shutdown. Before maintenance can be performed, the gas in the lines is usually vented. These vented gases can result in significant emissions depending on the volume of gas released. The emissions can either be vented to the atmosphere or sent to a control device.

### Venting through Separate Stacks

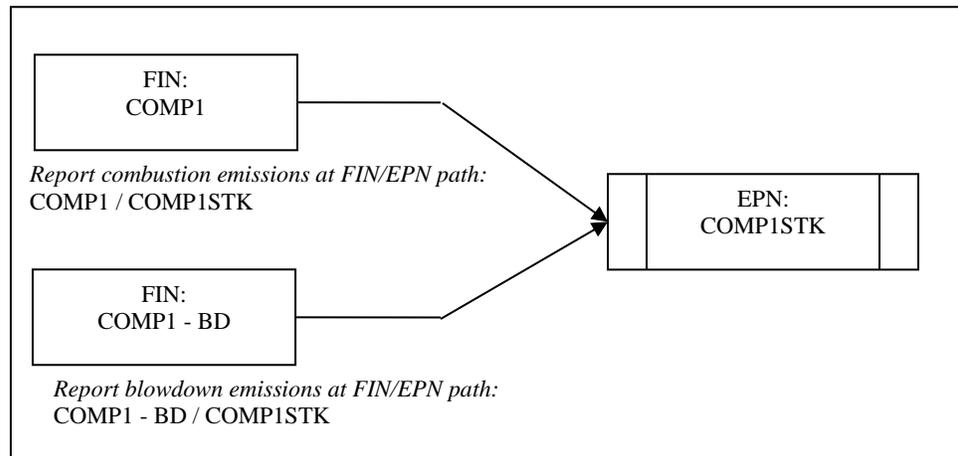
Blowdown emissions must be reported at a VOC Process facility path if combustion and blowdown emissions are vented through separate stacks, as shown in Figure 3-11. Represent the compressor engine and compressor blowdowns as two separate facilities linked to two different emission points. Combustion emissions are reported at the engine FIN / engine stack EPN path, and the blowdown emissions at the blowdown FIN / blowdown stack EPN path.



**Figure 3-11. Blowdown Operations—Separate Compressor Engine and Blowdown Vents**

### Venting to a Common Stack

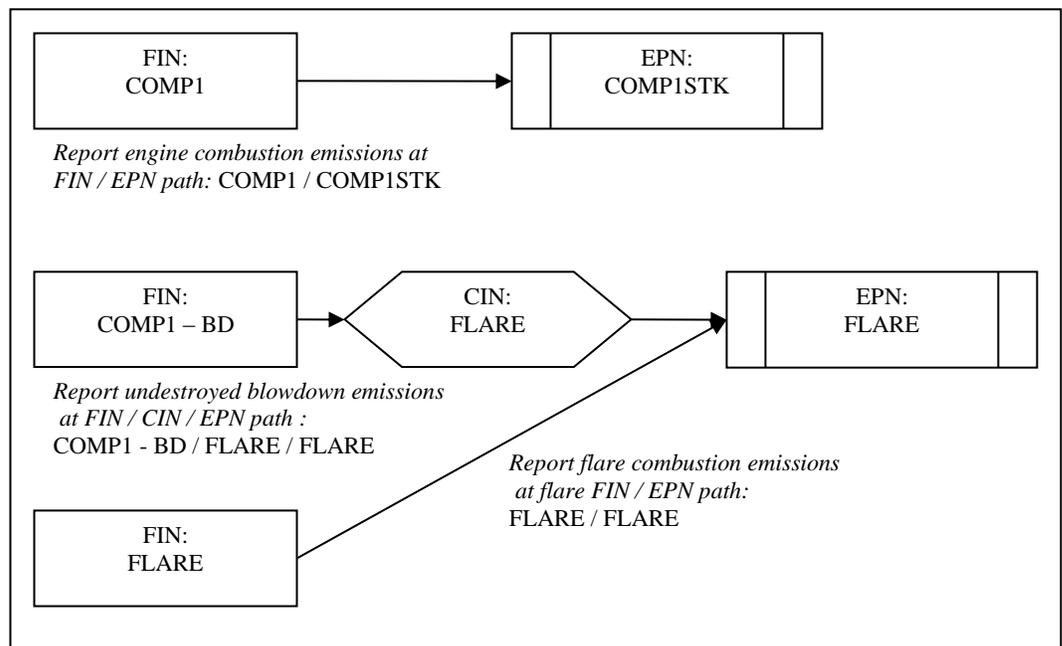
If combustion and blowdown emissions are vented through the same stack, represent the structure as shown in Figure 3-12. Represent the compressor engine and compressor blowdowns as two facilities linked to a single emission point. Report the combustion emissions at the engine FIN / engine stack EPN path and the blowdown emissions at the blowdown FIN / compressor stack EPN path.



**Figure 3-12. Blowdown Operations—Common Compressor Engine and Blowdown Vent**

### Blowdown Emissions Routed to a Flare

If blowdown operations are routed to a flare, represent the combustion and blowdown emissions as shown in Figure 3-13. Represent the compressor engine as a single facility linked to a single emission point. Represent the compressor blowdowns and flare as two facilities linked to a single emission point, with an abatement device added to the compressor blowdowns. Report the combustion emissions from the engine at the engine FIN / engine stack EPN path. Report the blowdown emissions at the blowdown FIN / flare CIN / flare EPN path and the combustion emissions from the flare at the flare FIN / flare EPN path.

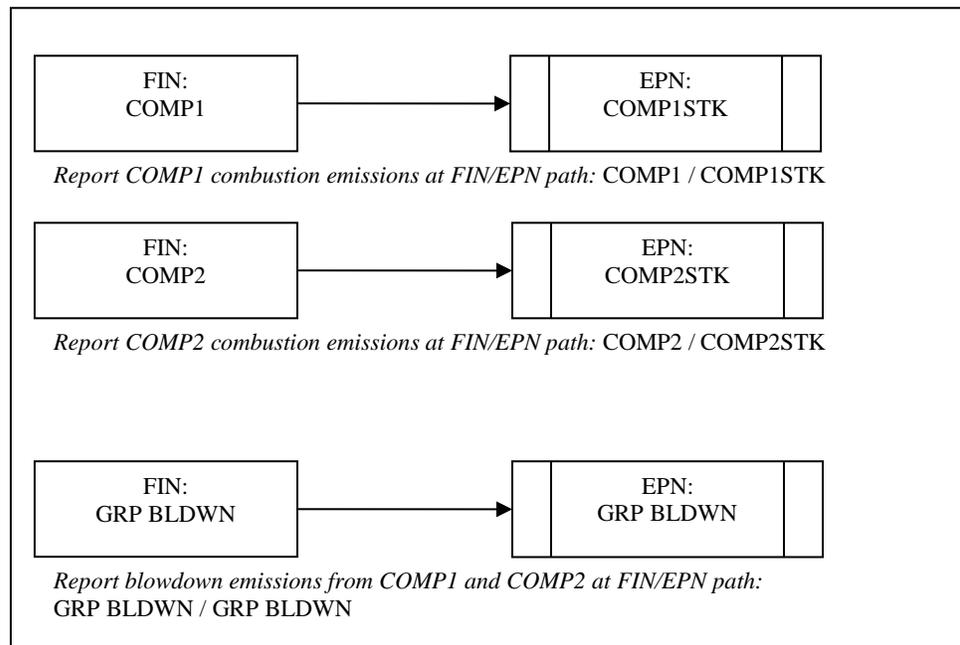


**Figure 3-13. Blowdown Operations—Flared Blowdown Emissions**

## Grouping as a Collective Emission Source

If the blowdown operations do not meet the requirements for reporting as individual sources, the emissions can be grouped together as a collective emission source. One facility and one emission point can represent two or more collective blowdown-operations facilities, as shown in Figure 3-14. Represent each compressor engine as a single facility attached to a single emission point. Represent the grouped compressor blowdowns as a single facility attached to a single emission point. Report combustion emissions from the compressor engine at the engine FIN / engine stack EPN page and the grouped blowdown emissions at the blowdown FIN / engine stack EPN path.

See “Collective Emission Sources” in this chapter for details on reporting requirements and how to represent the emission point for such sources.

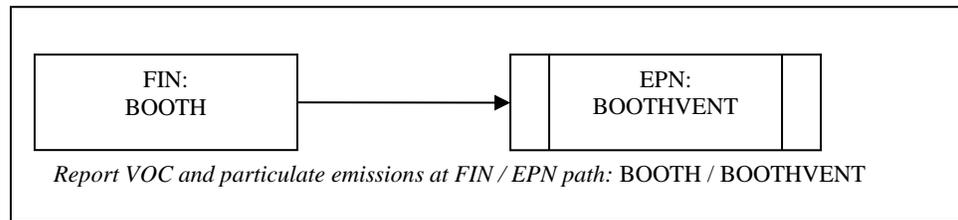


**Figure 3-14. Blowdown Operations—Grouped Compressor Blowdowns**

## Surface Coating Operations

### Unabated Paint Booth

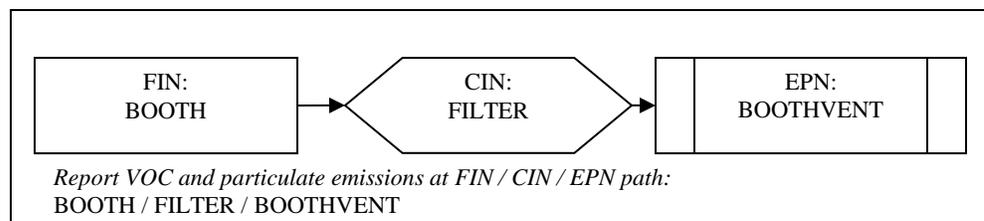
If emissions from a paint booth are completely uncontrolled, represent the booth as a single facility linked to a single emission point path, as shown in Figure 3-15. Report VOC and particulate emissions at the paint booth FIN / paint booth vent EPN path.



**Figure 3-15. Paint Booth—Unabated**

### Controlling Particulate Emissions with a Filter

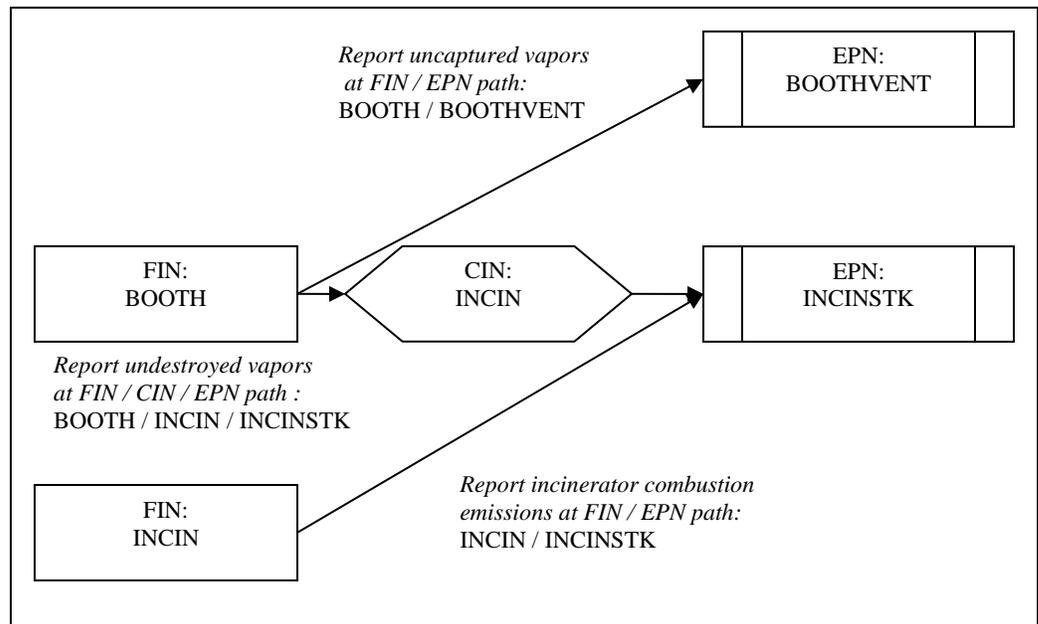
If emissions are filtered to control particulate emissions, represent the paint booth as a single facility linked to a single emission point, with the filter added as an abatement device for the paint booth, as shown in Figure 3-16. Report VOC and particulate emissions at the paint booth FIN / filter CIN / paint booth vent EPN path.



**Figure 3-16. Paint Booth—Particulate Emissions Abated by a Filter**

### Routing VOC Emissions to an Incinerator

If paint-booth emissions are routed to an incinerator to control VOC emissions, represent the booth and incinerator as two facilities linked to a single emissions point, with an abatement device added to the booth. Then link a second emission point to the booth to report emissions not captured by the booth ventilation system, as shown in Figure 3-17. Report the uncaptured emissions at the paint booth FIN / paint booth stack EPN path. Report the captured but undestroyed VOC emissions at the paint booth FIN / incinerator CIN / incinerator stack EPN path. Report the combustion emissions from the incinerator at the incinerator FIN / incinerator stack EPN path.



**Figure 3-17. Spray Booth Controlled by an Incinerator**

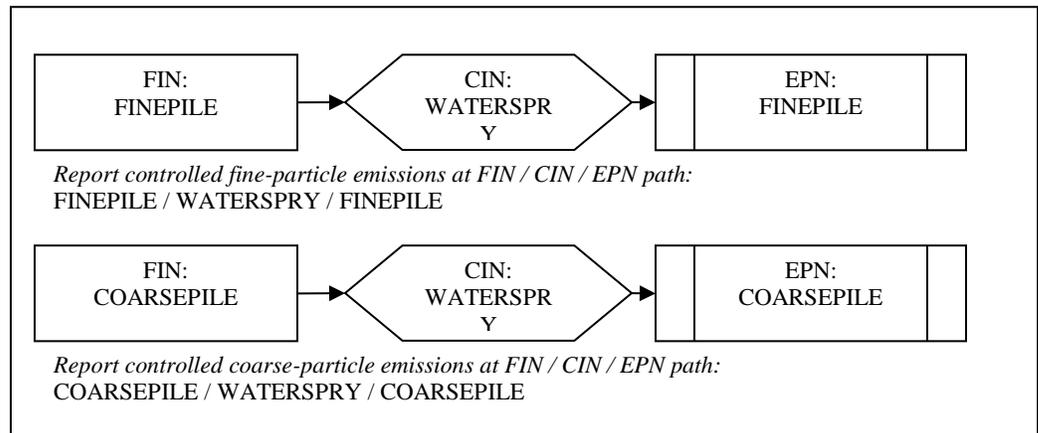
If coated surfaces are heat dried, be certain to include the drier in the EI structure.

## Aggregate Operations

Emissions sources from aggregate operations include storage piles and material transport and processing operations, such as crushing, grinding, milling, mixing, calcinating, and kilning. Represent each step in material storage, transport, and processing with a separate path composed of a unique FIN and EPN.

### Storage Piles

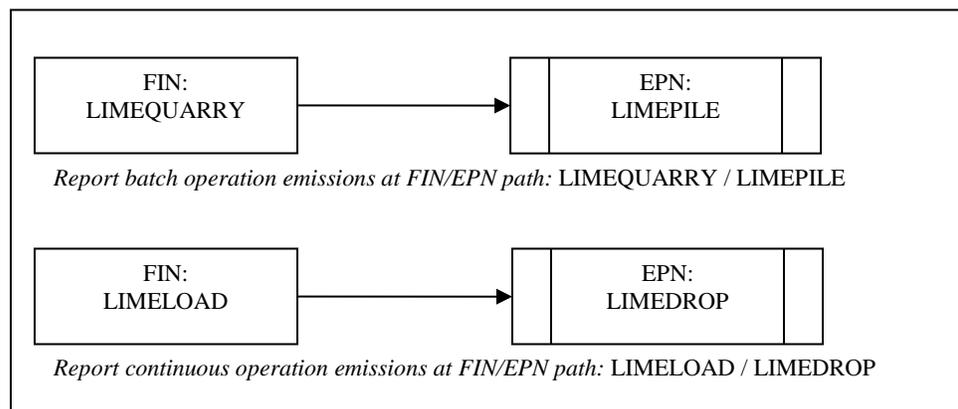
Classify aggregate storage piles by material type and particle size—for example, represent a site using a water-spray system to control emissions from a fine-particle pile and a coarse-particle pile composed of the same material as two facilities linked to two emission points, with a single abatement device added to each facility, as shown in Figure 3-18. For fine particulates, report emissions from the storage pile at the fine storage pile FIN / waterspray CIN / fine storage pile EPN path. Report coarse emissions at the coarse pile FIN / coarse pile EPN path.



**Figure 3-18. Fine and Coarse Piles—Emissions Controlled by Water Spray**

### Batch and Continuous Operations

Separate batch from continuous material-transport operations. For example, an operation moves limestone in batches from a quarry to a storage pile and then the limestone is fed continuously into a process stream. Represent this process as two separate facilities linked to two separate emission points, as shown in Figure 3-19. Report emissions from the batch operations at the batch FIN / batch pile EPN path. Report emissions from the continuous operations at the continuous operations FIN / continuous operations EPN path.

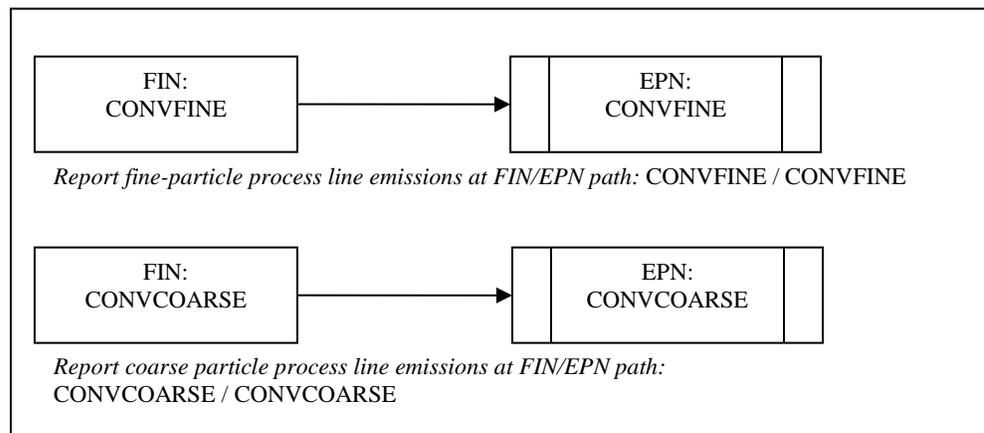


**Figure 3-19. Continuous and Batch Operations Separated**

### Conveyor Transport Operations

Rather than grouping all conveyor transport operations under a single FIN / EPN path, represent each of the conveyor's interdependent operating systems separately. For example, represent a conveyor system that has both a fine- and a coarse-particle process line as two facilities linked to two emission points, shown in Figure 3-20. For fine particulates, report emissions from the conveyor at the fine conveyor FIN / fine conveyor

EPN path. Report coarse emissions at the coarse conveyor FIN / coarse conveyor EPN path.



**Figure 3-20. Conveyor Transport—Interdependent Systems**

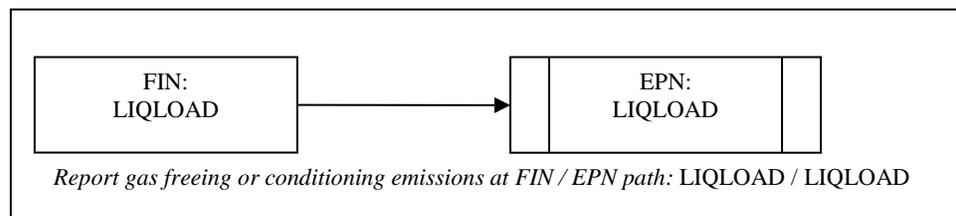
## Marine Operations

Rather than reporting all marine losses at a single FIN / EPN path, each individual equipment or process type must be uniquely identified in the EI. This section addresses correct structure for several common marine operations. Please contact the EAS for additional guidance on representing the structure of the marine facility.

## Loading and Unloading Bulk Liquids

### Unabated Loading Operations

If loading operations are uncontrolled, represent the emissions path from one or more vessels as a single facility linked to a single emission point, as shown in Figure 3-21. Report the gas freeing or conditioning emissions at the loading FIN / loading EPN path.

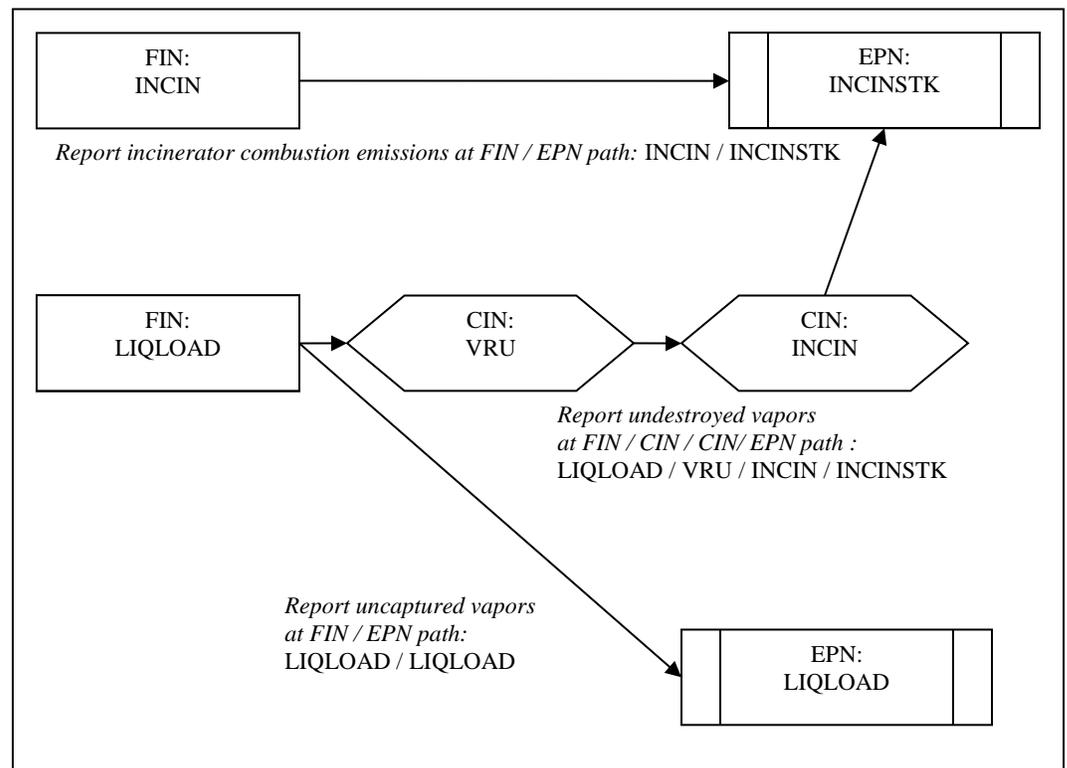


**Figure 3-21. Uncontrolled Bulk Material Liquid Emissions**

### Using a Vapor Recovery System

If loading operations use a vacuum-assisted vapor recovery system, any uncollected emissions must be reported at the vessel, with the balance of emissions reported at the onshore equipment serving as a control device. For example, if the vapors captured by the vapor recovery system are

routed to an incinerator, represent the loading operation and incinerator as two facilities linked to a single emission point, with both abatement devices added to the loading operation. Then link the loading facility to a separate fugitive emission point to report emissions not captured by the vapor recovery system, as shown in Figure 3-22. Report the uncaptured emissions at the loading FIN/loading fugitive EPN path. Report the captured but undestroyed emissions at the loading FIN / VRU CIN / incinerator stack EPN path. Finally, report the combustion emissions from the incinerator at the incinerator FIN / incinerator stack EPN path.

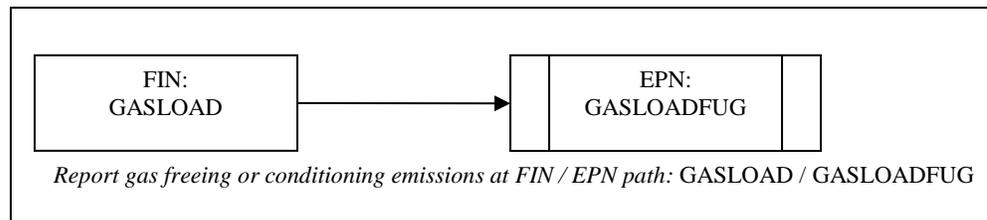


**Figure 3-22. Liquid Loading Controlled by a Vapor Recovery Unit and Routed to an Incinerator**

### **Loading and Unloading Bulk Liquefied Gaseous Materials**

Pressurized marine vessel compartments do not normally emit to the atmosphere. However, loading and unloading bulk liquefied gaseous materials may generate fugitive emissions from piping components and related equipment leaks. These emissions must be reported at the appropriate equipment leak fugitive area on the dock.

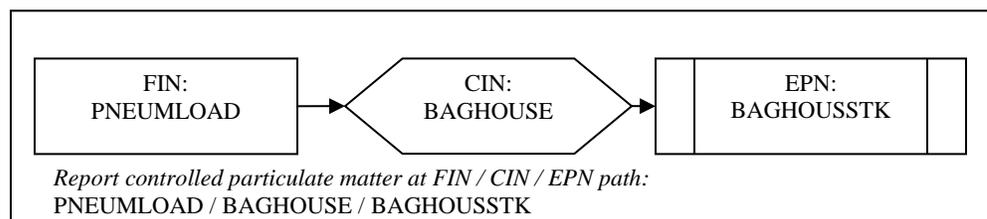
If gas freeing or gas conditioning is performed, represent the path as a single facility linked to a single emission point, as shown in Figure 3-23. Report the emissions at the loading FIN / loading fugitive EPN path.



**Figure 3-23. Uncontrolled Degassing and Cleaning Emissions**

### ***Loading and Unloading Solid Bulk Materials***

Although unloading operations are not limited to the use of hoppers or pneumatic systems, those are perhaps the most common methods. Pneumatic systems transfer material to silos or storage tanks, where air is separated from the material and vented to a baghouse or cyclone. Represent this loading operation as a single facility linked to a single emission point, with an abatement device added to the loading operation, as shown in Figure 3-24. Report the emissions at the loading FIN / baghouse CIN / baghouse stack EPN path.



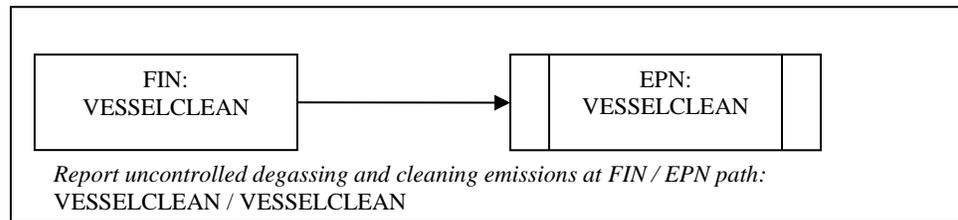
**Figure 3-24. Pneumatic Transfer of Solids Controlled by a Baghouse**

### ***Degassing and Cleaning Liquid Vessel Compartments***

Emissions from liquid vessel cleaning and degassing will occur either from the vessel itself (if the vessel does not have a vapor recovery system) or from the shore-based control equipment.

#### **Unabated Vessel Cleaning and Degassing**

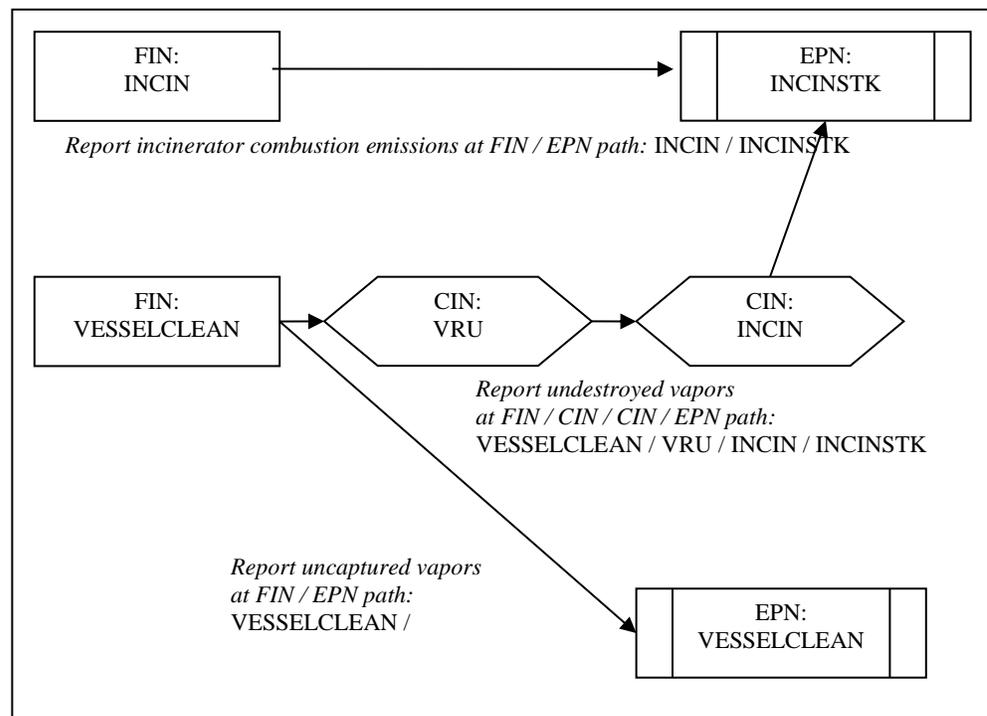
If the vessel does not have a vapor recovery system, represent the vessel cleaning and degassing as a single facility linked to a single emission point, as shown in Figure 3-25. Report the emissions at the cleaning FIN / cleaning EPN path.



**Figure 3-25. Uncontrolled Degassing and Cleaning Emissions**

### Using a Vapor Recovery System

If the vessel has a vapor recovery system, the captured vapors are routed to shore-based control equipment. For example, if the vapors are routed to an incinerator, represent the vessel cleaning and degassing and the incinerator as two facilities linked to a single emission point, with two abatement devices added to the vessel cleaning and degassing facility. Then link a separate fugitive emission point to the vessel cleaning and degassing facility to report emissions not captured by the vapor recovery system, as shown in Figure 3-26. Report the uncaptured emissions at the vessel cleaning FIN / vessel cleaning EPN path. Report the captured but undestroyed emissions at the cleaning vessel FIN / VRU CIN / incinerator stack EPN path. Finally, report the combustion emissions from the incinerator at the incinerator FIN / incinerator stack EPN path.



**Figure 3-26. Degassing and Cleaning Emissions Captured by a VRU and Routed to an Incinerator**

## ***Wastewater Collection and Treatment***

Because wastewater collection and treatment involve several different processes, an entire wastewater collection and treatment system must not be represented by a single path. Instead, represent each of the system's processes, including collection, by a unique FIN / EPN path. For assistance with establishing or modifying the wastewater plant's structure, contact the EAS.

## ***Chemical Production***

Do not represent an entire chemical plant by a single facility linked to multiple emission points. If the emission sources are to be grouped by plant, each group must be assigned a unique plant identification number. Each source within a plant must be assigned a unique FIN / EPN path.

Chemical plant structures vary widely. For assistance with establishing or modifying the plant's structure, contact the EAS.

## **Modifying Existing Emissions Inventory Structure**

For Web EIs, most structural changes can be made in STEERS. Refer to the Web-Based EI Reporting Instructions for more information.

*Note:* the same principles for modifying existing EI structure apply to all inventory types.

For paper EIs, if the EI structure is incorrect, or if it has changed because new equipment has been added or existing equipment has been newly linked, the structure must be modified by submitting the appropriate forms available at the EAS Web page, <[www.tceq.texas.gov/goto/ieas](http://www.tceq.texas.gov/goto/ieas)>. The remainder of this chapter explains how to submit common structural modifications for paper EIs.

## ***Removing Structure***

For historical reasons, the TCEQ does not normally delete structure or emissions records. If a facility has been permanently shut down or removed from the site, simply change its status accordingly and zero all emission rates. If a facility operated at any time during the emissions inventory year, the operating status must be marked as "active."

## ***Changing Facility and Emission Point Designations***

The TCEQ does not normally allow changes to facility or emission point designations due to the historical nature of emissions data, except to correct errors or to align EI nomenclature with permit nomenclature. If revisions to facility or emission point designations are necessary, submit a Revision Request form available at the EAS Web page, <[www.tceq.texas.gov/goto/ieas](http://www.tceq.texas.gov/goto/ieas)>. Be sure to give a reason for the

requested revisions on that form. The TCEQ reserves the right to approve or disapprove all such revision requests.

### ***Adding a New Emission Point to an Existing Facility***

To add a new emission point to an existing facility:

- list the new path on one line of the Structural Overview form;
- complete an Emission Point Information form; and
- complete a Path Emissions form, noting that the facility “Already exists in STARS database.”
- Example: To link a new flare, EPN: FL, to an existing tank, FIN: TK:
- enter the new FIN: TK / CIN: FL / EPN: FL path on the Structural Overview form, since the flare will also act as a control device to control the tank’s emissions;
- complete an Abatement Device Information form for the flare;
- complete an Emission Point Information form for the flare, including the form’s Flare Information section;
- complete a Path Emissions form for the FIN: TK / CIN: FL / EPN: FL path, noting that the FIN: TK “Already exists in STARS database”;
- enter the new FIN: FL / EPN: FL path on the Structural Overview form because the flare is also an emissions source (a facility) in this case;
- complete the Facility Information for a Flare Combustion Unit form for the flare;
- complete a Path Emissions form for the FIN: FL / EPN: FL path; and
- complete a Material Throughput for Combustion Units form for the flare.

### ***Adding a New Facility to an Existing Emission Point***

To add a new facility to an existing emission point:

- list the new path on one line of the Structural Overview form;
- complete the appropriate Facility Information form as determined by the nature of the facility (combustion unit, storage tank, wastewater facility or other);
- complete a Path Emissions form, noting that the EPN “Already exists in STARS database”; and

- complete the appropriate Material Throughput form.

Example: To add a new tank, FIN: TK, and the emissions are routed to an existing flare, EPN: FL:

- enter the new FIN: TK / CIN: FL / EPN: FL path on the Structural Overview form;
- complete the Facility Information for Storage Tanks form for the tank;
- complete a Path Emissions form for the FIN: TK / CIN: FL / EPN: FL path, noting that the EPN: FL “Already exists in STARS database”; and
- complete a Material Throughput for Storage Tanks form for the tank.

### ***Linking an Existing Facility to an Existing Emission Point***

To connect an existing facility to an existing emission point:

- list the new path on one line of the Structural Overview form and
- complete a Path Emissions form, noting that the FIN and EPN each “Already exists in STARS database.”

Example: If an existing tank, FIN: TK, is being connected to an existing flare, EPN: FL:

- enter the new FIN: TK / CIN: FL / EPN: FL path on the Structural Overview form and
- complete a Path Emissions form for the FIN: TK / CIN: FL / EPN: FL path, noting that the FIN:TK and EPN:FL each “Already exists in STARS database.”

### ***Adding a New Abatement Device to an Existing FIN / EPN Path without Changing the Emission Point***

To add a new abatement device to an existing FIN / EPN path, leaving the emission point unchanged:

- list the new path on one line of the Structural Overview form;
- complete an Abatement Device Information form; and
- complete a Path Emissions form for the new path, noting that the FIN (facility) and EPN (emission point) each “Already exists in STARS database.”

Example: To add a catalytic converter, CIN: CC, to an existing engine path FIN: COMP / EPN: STK:

- enter the new FIN: COMP / CIN: CC / EPN: STK path on the Structural Overview form;
- complete an Abatement Device Information form for CIN: CC;
- and complete a Path Emissions form for the new path, noting that the FIN: COMP and EPN: STK each “Already exists in STARS database.”

### ***Adding a New CIN / EPN Path to an Existing Facility, Unlinking the Old Emission Point, and Linking the New CIN / EPN Path***

To add a new abatement device and emissions point to an existing FIN path, deactivate the old abatement device, and activate the new CIN / EPN path:

- list the new path on one line of the Structural Overview form;
- complete an Abatement Device Information form for the new control device;
- complete an Emission Point Information form for the new emission point;
- complete a Path Emissions form for the new path, noting that the facility “Already exists in STARS database”; and
- mark the status of the old path on the EIQ (where the facility is linked to the old emission point) as “DEACTIVATED” and supply the date.

### ***Adding an Existing Abatement Device to an Existing FIN / EPN Path without Changing the Emission Point***

To add an existing abatement device to an existing FIN / EPN path, leaving the emission point unchanged:

- list the new path on one line of the Structural Overview form and
- complete a Path Emissions form for the new path, noting that the facility, emission point, and abatement device “Already exists in STARS database.”

### ***Adding an Existing Abatement Device to an Existing Facility, Unlinking the Old Emission Point, and Linking the New CIN / EPN Path***

To add an existing abatement device to an existing facility, deactivate the old emission point, and activate the new CIN / EPN path:

- list the new path on one line of the Structural Overview form;

- complete an Emission Point Information form if the abatement device is not already an emission point elsewhere in the EIQ;
- complete a Path Emissions form for the new path, noting that the facility, emission point, and abatement device each “Already exists in STARS database”; and
- mark the status of the old path on the EIQ (where the old facility is linked to the old emission point) as “DEACTIVATED.”