

# CHAPTER 6—UPDATING AN EMISSIONS INVENTORY QUESTIONNAIRE

This chapter tells how to update an emissions inventory questionnaire. Review all of the information in this book before attempting to update these forms.

Be certain to review all data on your EIQ printout for accuracy. Update EIQ items as necessary, using the blank space provided (usually below or to the right of the item). If the EIQ has no blank space for a specific item on the EIQ, write the updated data next to the item, circling or highlighting it if possible. **Important:** Any items left unchanged, including emission rates, will be assumed to be correct for 2008 and will be entered into the STARS database as part of your 2008 inventory.

The emissions inventory forms and instructions are available in a **separate document**, *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B). This document appears online at <[www.tceq.state.tx.us/goto/ieas](http://www.tceq.state.tx.us/goto/ieas)>, or you may obtain a hard copy by contacting the EAS. Any EI forms referred to in this chapter appear in that companion document.

## Updating EIQ Data

### *Special Notes*

#### **Sample Calculations**

30 TAC 101.10(c) requires all regulated entities to submit sample calculations **representative** of the sources and pollutants from their site. Submit sample calculations showing actual annual emissions determination for each different process type present in the EI, including enough data so that the determination results may be reasonably reproduced. Generic sample calculations cannot be accepted, since they do not contain representative process data and do not demonstrate actual annual emissions determinations.

Use the following guidelines when sending representative calculations:

- When several sources of the same type are present and a single calculation methodology was used to determine emissions:
  - Include calculations for the source with the highest level of emissions.
  - Include typical process data for all of the similar sources where sample calculations are not supplied. Typical process data would include heat inputs and fuel types for combustion sources and chemical types and throughputs for storage tanks and loading sources.
- When several sources of the same type are present but different

calculation methodologies were used to determine their emissions:

- Include calculations for the source with the highest emissions for each calculation methodology.
- Include typical process data for all of the similar sources where sample calculations are not supplied. Typical process data would include heat inputs and fuel types for combustion sources and chemical types and throughputs for storage tanks and loading sources.

### **Use Permanent Ink**

Please use permanent ink instead of pencil when updating the EI. Pencil tends to smudge and can be difficult to read, increasing the chance of data-entry errors or omissions. Permanent ink, especially ink in colors other than black, is clearer and more legible. There are no restrictions on ink color, but colors other than black make EI updates more noticeable.

## **Electronic EIQs**

Update the EI and submit all of the information discussed in this chapter in the TCEQ-approved electronic format, as outlined in the *STARS Electronic Reporting User's Guide*, available online at [www.tceq.state.tx.us/goto/starsguide](http://www.tceq.state.tx.us/goto/starsguide). The pages for Account and Contact information, Criteria Emissions Totals, Site Quantifiable Event Totals, and Certifying Signatures enclosed with the electronic EIQ must be signed and remitted with the electronic AEIU.

If an electronic AEIU is submitted online, the sample calculations and supporting documentation are due by March 31, 2009, or as directed.

## **Account Information**

General information on the regulated entity is printed at the top of the EI's second page, as shown in the example on page 78, section 1A. For a detailed description of the items in this section, consult *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B) on completing an Account Information form.

To make changes to the company name, site name, or site centroid coordinates, draw a line through the incorrect information, and provide the updated information in the corresponding blank. To make any significant changes to any of the other account information, notify Central Registry of the changes and send the EAS a copy of the notification.

## **Emissions Inventory Contact Information**

EI contact information is printed at the bottom of the EI's second page, as shown on page 78, section 1B. For a detailed description of the

requirements concerning emissions inventory contact information, please consult the *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B).

To correct any of the information in this section, draw a line through the incorrect information and enter the updated information in the blank, or complete and submit the Contact Information form.

1A

## ACCOUNT INFORMATION

EIQ Year: 2008

RN:RN123456789 \_\_\_\_\_ Account:HG6789X \_\_\_\_\_  
 Company: JOHNSON GAS COMPANY \_\_\_\_\_ Last EI Date:12/31/2007  
 Company is Owner/Operator: BOTH\_\_ Site Independently Owned (Y/N): Y \_ No. of Employees: \_\_  
 Site Name: CREEK COMPRESSOR STATION \_\_\_\_\_  
 Primary SIC: 1311- CRUDE PETROLEUM AND NATURAL GAS \_\_\_\_\_  
 Secondary SIC: \_\_\_\_\_  
 Location: TWO MILES SOUTHWEST OF CORBIN ON FM2345 \_\_\_\_\_  
 Near City: HOUSTON \_\_\_\_\_ County: HARRIS \_\_\_\_\_ Region:12 \_\_\_\_\_  
 UTM Zone: 15 \_\_\_\_\_ Latitude: 155258 \_\_\_\_\_  
 UTM North Meters: ~~1756493~~ 3225729 \_\_\_\_\_ Longitude: 942521 \_\_\_\_\_  
 UTM East Meters: ~~347693~~ 208957 \_\_\_\_\_  
 Site Status:0 \_\_\_\_\_ Oper Schedule:24\_\_hr/day, 7\_\_da/wk, 52\_\_wk/yr Tot Oper Hrs: 8760\_\_  
 Seasonal Operating Percentages(NOTE: Spring%+Summer%+Fall%+Winter% must be equal to 100%)  
 Spring: 25%\_\_\_\_\_ Summer: 25%\_\_\_\_\_ Fall: 25%\_\_\_\_\_ Winter: 25%\_\_\_\_\_

1B

## EMISSIONS INVENTORY CONTACT INFORMATION

Name: CODY MCLAIN \_\_\_\_\_ Title: ENVIRONMENTAL COORDINATOR \_\_\_\_\_  
 Mailing Address: ~~11783 CANYON BLUFF DRIVE~~ P.O. BOX 13087 \_\_\_\_\_  
 City: AUSTIN \_\_\_\_\_ State:TX \_\_\_\_\_ Zip Code:78753-0001 78711-3087  
 Bus Phone:(512)555-1144 \_\_\_\_\_ Fax:(512) 555-1515 \_\_\_\_\_ Email: CMCLAIN@JGC.COM \_\_\_\_\_

## PLANT CONTACT INFORMATION

Name: ~~MATOAKA JOHNSON~~ I.M. BOSS \_\_\_\_\_ Title: ~~PRESIDENT~~ PLANT MANAGER \_\_\_\_\_  
 Mailing Address: ~~PO BOX 2575~~ P.O. BOX 13087 \_\_\_\_\_  
 City: AUSTIN \_\_\_\_\_ State:TX \_\_\_\_\_ Zip Code: ~~78753-2575~~ 78711-3087  
 Bus Phone: ~~(512)555-1144~~ (512)-239-1773 Fax: (512)555-1515 \_\_\_\_\_ Email: ~~m@jgc.com~~ BOSS@JGC.COM

Figure 6-1. Sample EIQ Page for Account Information and Emissions Inventory Contact Information

## Criteria Emissions Totals

This section contains five columns for emissions reporting: *Annual*, *Ozone*, *EE* (Emissions Events), *SMSS* (scheduled maintenance, startup, and shutdown activities), and *EE/SMSS* (totals from EE and SMSS emissions). An example appears on page 81, section 2A. There are seven rows, each representing a criteria pollutant. Each column contains two subcolumns: one with a printed number and one with a blank. The printed number is the site-wide emissions total reported on the most recent submitted emissions inventory. In the blank to the right of that number, enter the site-wide emissions total for the current emissions inventory and **do not** draw a line through the printed emissions totals.

The VOC totals only include emissions from volatile organic compounds. Emissions from non-reactive hydrocarbons such as acetone should not be included in the VOC totals. NO<sub>x</sub> emissions are reported under contaminant code 70400 (nitrogen oxides). For emissions inventory purposes, the total NO<sub>x</sub> emissions include emissions reported under contaminant codes 70400 (nitrogen oxides), 70401 (nitric oxide), and 70402 (nitrogen dioxide). Emissions reported under contaminant code 70403 (nitrous oxide) should not be included in the NO<sub>x</sub> totals.

**Note that these reported emissions totals are not entered into STARS.** Instead, the reported totals are used for comparison to ensure that STARS correctly sums the emissions reported within the EIQ itself. Emissions totals reported in “Criteria Emissions Totals” section must also be reported at the appropriate paths within the EIQ.

Also note that the “EE/SMSS” column is now used by STARS to automatically calculate total emissions from emissions events and SMSS activities. Therefore, emissions from emissions events and SMSS activities must be reported in either the “EE” or “SMSS” column as appropriate.

For a thorough discussion of the elements of this section, please consult Chapter 4, “Determining and Reporting Emissions,” and *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B) for instructions on completing an Account Emissions form.

## Site Quantifiable Event Totals

Site quantifiable event totals are reported in this section, as shown in the example on page 81, section 2B. The total number of reportable and non-reportable emission events; reportable and non-reportable scheduled maintenance, startup, or shutdown activities; and excess opacity events are required to be reported each year per 30 TAC 101.201 and 101.211. An explanation of each type of event is as follows.

*Total Number of Reportable Emission Events* is the total number of emission events that resulted in unauthorized emissions from any emissions point equal to or in excess of the reportable quantity (RQ) for any individual air contaminant. These events should have been reported previously to the TCEQ as required by 30 TAC 101.201.

*Total Number of Non-Reportable Emission Events* is the total number of emission events that did not result in unauthorized emissions from any emissions point equal to or in excess of the RQ for any individual air contaminant.

*Total Number of Reportable Scheduled Maintenance, Startup or Shutdown Activities* is the total number of SMSS activities that resulted in unauthorized emissions equal to or in excess of the RQ for any individual air contaminant. These activities should have been reported previously to the TCEQ as required by 30 TAC 101.211.

*Total Number of Non-Reportable Scheduled Maintenance, Startup or Shutdown Activities* is the total number of SMSS activities that did not result in unauthorized emissions from any emissions point equal to or in excess of the RQ for any individual air contaminant.

*Total Number of Excess Opacity Events* is the total number of excess opacity events where the opacity readings equaled or exceeded 15 percentage points above an applicable opacity limit, averaged over a six-minute period.

Enter the total number of each type of event in the blanks provided. If there were no events of a particular type, enter zero in the space provided. For additional information on completing this section, consult the Account Emissions form instructions in the *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B). For guidance on interpreting rules concerning EE and SMSS activities, contact the TCEQ regional office where the regulated entity is located.

TCEQ Emissions Inventory Questionnaire

Page: 3

ACCOUNT INFORMATION

RN: RN123456789 Account: HG6789X  
 Company: JOHNSON GAS COMPANY

EIQ Year: 2008

Last EI Date: 12/31/2007

2A

CRITERIA EMISSIONS TOTALS

Class	Annual (TPY) / Current	Ozone (PPD) / Current	SMSS (TPY) / Current	EE (TPY) / Current	EE / SMSS (TPY)
PM10	0.0000 / <u>4.0700</u>	0.0000 / <u>22.1196</u>	0.0000 / _____	0.0000 / _____	0.0000
PB	0.0000 / _____	0.0000 / _____	0.0000 / _____	0.0000 / _____	0.0000
SO2	0.0000 / <u>143.6177</u>	0.0000 / <u>780.5310</u>	0.0000 / _____	0.0000 / _____	0.0000
NOX	0.0000 / <u>138.49</u>	0.0000 / <u>752.6630</u>	0.0000 / <u>1.2050</u>	0.0000 / _____	0.0000
CO	0.0000 / <u>220.909</u>	0.0000 / <u>1200.5924</u>	0.0000 / <u>2.3498</u>	0.0000 / _____	0.0000
VOC	0.0000 / <u>44.2613</u>	0.0000 / <u>240.5505</u>	0.0000 / _____	0.0000 / _____	0.0000
PM2.5	0.0000 / <u>4.0700</u>	0.0000 / <u>22.1196</u>	0.0000 / _____	0.0000 / _____	0.0000

2B

SITE QUANTIFIABLE EVENT TOTALS

Note:

Report TOTAL NUMBER of each event type for the reported EIQ Year per 30 TAC Sections 101.201 and 101.211.

Reportable Emission Events: 3  
 Non-Reportable Emission Events: 5  
 Reportable Scheduled Maintenance, Startup, and Shutdown Events: 0  
 Non-Reportable Scheduled Maintenance, Startup, and Shutdown Events: 2  
 Excess Opacity Events: 0

Figure 6-2. Sample Account Emissions EIQ Page

## **Emissions Events Certifying Signature**

Page four of the EIQ contains two signature sections. The first is an Emissions Events Certification, as shown in the example on page 83, section 3A. This must be signed if and only if the regulated entity did not experience any emissions events.

If the owner or operator notified the TCEQ in accordance with 30 TAC 101.201 about **only** an excess opacity event where there were no emissions, the EE certification must be signed.

## **Signature of Legally Responsible Party**

A complete inventory requires the signature of the individual responsible for certifying that the inventory is, to the best of his or her knowledge, accurate and complete. Fill in all of the blanks on this portion of the EIQ, as shown on page 83, section 3B.

If you have questions regarding the definition of the legally responsible party, please consult 30 TAC 122.165, Certification by a Responsible Official.

Note that the legally responsible party **must not** be a consultant.

TCEQ Emissions Inventory Questionnaire Page: 4

ACCOUNT INFORMATION EIQ Year: 2008  
 RN: RN123456789 Account: HG6789X  
 Company: JOHNSON GAS COMPANY Last EI Date: 12/31/2007

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Emissions Events Certification

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3A Pursuant to Texas Health and Safety Code 382.0215(f). I do hereby certify that 'NO Emissions Events' were experienced at this account during the Emissions Inventory Reporting Calendar year.  
 (Sign here if and only if you reported no emissions from emission events.)

Signature \_\_\_\_\_

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Signature of Legally Responsible Party

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3B I do hereby certify that information reported in this inventory is true, accurate, and fully represents the emissions that occurred during the Emissions Inventory Reporting Calendar year to the best of my knowledge.

<u><i>I.M. Boss</i></u>	<u>PLANT MANAGER</u>	<u>(512) 239-1773</u>
Signature	Title	Phone
<u>I.M. BOSS</u>	<u>2/28/2009</u>	<u>(512) 555-1515</u>
Printed Name	Date	Fax

Figure 6-3. Sample Account Information Certification EIQ Page

## Facility Information

Descriptions of most of the items in this section, along with information on accepted values, may be found in *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B) for each relevant Facility Information form. The following discussion focuses on updating facility data.

If you need to make corrections to any of the information in this section, please line through the incorrect information and provide the updated information in the corresponding blank, as shown on page 88, sections 4A through 4G. A discussion of each section follows.

4A

### Source Classification Code (SCC)

A facility's SCC is an **eight-digit** EPA-developed code that associates emissions determinations with identifiable industrial processes. TCEQ uses a facility's SCC for modeling, rulemaking, and SIP-related activities; therefore, a facility's SCC must be as accurate as possible.

The EPA maintains a current list of SCCs in Excel file format at [www.epa.gov/ttn/chief/codes/index.html](http://www.epa.gov/ttn/chief/codes/index.html). When using this Excel file, only use the codes that have a value of "POINT" in the "Sector" column, as only those codes are appropriate for the point source EI. Please do not enter SIC (Standard Industrial Classification) codes or AMS (area and mobile source) codes for SCCs on the EIQ.

4B

### Status, Status Date

If you wish to change the facility's status, enter the appropriate letter and enter the date when the status changed. Status options are:

- A (active): If the facility operated the entire reporting year.
- I (idle): If the facility was idle or temporarily shut down for the entire reporting year.
- S (shut down): If the facility has been permanently shut down and will never operate again. **Note that a facility, once shut down, cannot be reactivated.**
- D (demolished): If the facility has been removed from the site.
- N (permitted but never built).
- O (ownership transferred to a new party): If the facility has been sold, or if responsibility for it has been transferred to another owner, during the reporting year. Supply the new owner's TCEQ air regulated entity reference number.

4C

4D

### Operating Schedule and Annual Operating Hours

These fields should reflect a facility's **actual** annual operating schedule

and operating hours, **not** maximum potential hours of operation. Update these fields every reporting year with actual annual data for the facility.

If a facility's operating schedule is inconsistent throughout the reporting year, enter the actual number of weeks that the facility operated in the "Weeks per Year" blank, and enter average data for the fields "Days/Week" and "Hours/Day."

4E

### **Seasonal Operating Percentages**

Seasonal operating percentages represent the percentage of actual annual facility operations that occurs during each season. These percentages are normally based upon process rate data. For EI purposes, "spring" includes March through May; "summer" includes June through August; "fall" includes September through November; and "winter" includes January, February, and December of the same calendar year. Note that the percentages must be reported as whole numbers (no decimals) and must sum to 100.

4F

4G

### **FIN Group Type, Profile, and Characteristics**

In STARS, every facility has a group type associated with it; a list of current group types is available in Table 6-1. You will notice that these group types also appear on the Facility Information forms. Associating each facility with a group type allows the EAS to collect data on sources of interest, and also facilitates data retrieval.

If the facility's group type or profile appears incorrect, consult Table 6-1. Most of the group types are self-explanatory; for examples of facility types that belong to each group, refer to the associated profiles.

If you determine that the facility has an incorrect group type or profile (for example, a flare has a group type of "equipment leak fugitive"), correct the group type and profile on the EIQ itself. Next, complete the appropriate Facility Information form to update the facility information; in our example, you would need to complete a Facility Information for Combustion Unit—Flare Profile Facility Information form. Be sure to write the word "update" at the top of the form to avoid any confusion.

For more information about the characteristics associated with each profile, please identify the facility appropriate group type, and then consult the instructions for completing the relevant facility form in *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B). For example, if you wanted more information about a cooling tower's characteristics, you would consult the instructions for completing a Facility Information for Cooling Towers form.

**Table 6-1. STARS Facility Group Types, Profiles, and Characteristics**

<b>Group</b>	<b>Profile</b>	<b>Characteristics</b>
Cleaning	Dip degreasing Vapor degreasing Barge cleaning Railcar cleaning Tank truck cleaning Other	Not applicable
Combustion	Flare	Design capacity in MMBtu per hour Assist type (steam, air, or none) Service type (process, emergency, or both) HRVOC Service? (yes or no)
	I.C. engine	Number of cycles (two or four) Burn type (rich or lean) Design capacity in MMBtu per hour or engine rating in horsepower
	Boiler, dryer, furnace, heater, incinerator, kiln, oven, turbine, thermal oxidizer, other	Design capacity in MMBtu per hour Firing type
	Fluid catalytic cracking unit (FCCU)	Not applicable
	Boiler—Electric Generation I.C. Engine—Electric Generation Turbine—Electric Generation	Design capacity in MMBtu per hour Firing Type Power Generation Capacity in MW
Coating or printing	Coating or printing	Not applicable
Cooling tower	Cooling tower	Design flow rate in MMgal per day Draft design type (natural or mechanical) Number of cells Sampling schedule Sample tested for VOCs? Sampling data used to calculate emissions? HRVOC Service? (yes or no)
Equipment leak fugitives (Leaking component fugitives )	Equipment leak fugitives	Emissions determination methodology* Leak detection and repair program* % VOC in Stream* Monitoring equipment data* * refer to the Facility Information for Leaking Component Fugitives form
Loading	Railcar Tanker truck Railcar / tanker truck Marine Other	Not applicable
Other	Other	Not applicable

**Table 6-1. STARS Facility Types, Profiles, and Characteristics, continued**

Group	Profile	Characteristics
Tanks	Horizontal fixed roof Vertical fixed roof Internal floating roof Pressure tank Underground tank External floating roof: double deck, single seal External floating roof: double deck, double seal External floating roof: pontoon, single seal External floating roof: pontoon, double seal Domed external floating roof: double deck Domed external floating roof: pontoon Other	Refer to the Facility Information for Storage Tanks form.
VOC process	Analyzer Blowdown operations Delayed Coker Unit Flexi Coker Unit Glycol still Polyethylene unit Polypropylene unit Mixing vessel Reactor Other	Not applicable
Wastewater	Wastewater system	Flow model (flowthrough or disposal) Aeration (diffused air, mechanical or none) Biodegradation mechanism (biodegradation, activated sludge, or none) Design type (surface, subsurface, or other) Depth Surface area Flow rate in MMgal per day
Wastewater	Basin Clarifier Closed sump Lift station Open sump Reactor Stripper Separator Other wastewater component	Not applicable



## **Control Device Information**

Descriptions of the items in this section, along with information on accepted values, appear in the instructions for completing the Abatement Device Information form. If you need to make corrections to any of the information in this section, please draw a line through the incorrect information and provide the updated information in the corresponding blank, as shown in the example on page 90, sections 5A through 5E.

For each abatement device, verify that:

- 5A 5B ■ the abatement code and number of units are correct,
- 5C ■ the percentage of time offline is reflected in annual emissions determinations,
- 5D ■ inspection and maintenance (I/M) schedule are accurate; and that
- 5E ■ the stated abatement efficiencies are accurate.

For abatement devices that can also be considered facilities, such as combustive abatement devices, ensure that these devices are not abating their own emissions. Abatement devices cannot abate themselves.

RN: RN123456789      Account: HG6789X  
 Company: JOHNSON GAS COMPANY      EIQ Year: 2008

FIN: ENGINE1      EPN: VENT  
 Comment: STANDBY UNIT FOR 2005

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 CONTROL DEVICE INFORMATION  
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\*CIN: CAT      Name: CAT 001

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5A      Abatement Code: 631      Desc: CATALYTIC REDUCTION      5C

5B      No. Of Units: 1      Annual Operating Hrs: 7280      % Time Off Line: 0      IM Schedule: Q      5D

5E      Control Efficiencies:

VOC: 50.00% _____	NOX: 92.00% _____	CO: 90.00% _____	IOC: 0.00% _____
TSP: 0.00% _____	PM10: 0.00% _____	SO2: 0.00% _____	C1-C3: 0.00% _____
C4+: 0.00% _____	H2S: 0.00% _____	NH3: 0.00% _____	

Figure 6-5. Sample Control Device Information EIQ Page

## Parameters for Emission Points

Descriptions of most of the items in this section, along with information on accepted values, may be found in the instructions for completing the relevant Emission Point Information form. If you need to make corrections to any of the information in this section, please draw a line through the incorrect information and update the information in the corresponding blank, as shown in the example on page 92, sections 6A through 6C.

6A

### Emission Point Coordinates

Accurate coordinates for each emission point are essential to urban airshed modeling activities. All UTM and latitude-longitude coordinates should be expressed in the North American Datum of 1983 (NAD83) coordinate system and all latitudes and longitudes should be expressed as degrees, minutes, and seconds (in the format *DDMMSS*).

Verify that each emission point has accurate coordinates; for most nonfugitive emission points, these coordinates should be unique. Also, verify that the site centroid, printed on page 2 of the EIQ, is correct.

6B

### EPN Profiles

In STARS, every emission point has a profile associated with it, currently, *stack*, *flare*, or *fugitive*. Associating each emission point with a profile allows the EAS to collect data on sources of interest and facilitates data retrieval.

If the emission point profile is incorrect, draw a line through the printed profile on the EIQ and write in the correct profile.

6C

### EPN Parameters

Accurate emission point parameters are essential to urban airshed modeling activities. Emission point parameters should represent **actual** stack, fugitive, or flare parameter values, not values for permit modeling purposes. Verify that all emission points have accurate, actual parameter values.

If the EPN profile was corrected, fill out the appropriate Emission Point Information form. Write “updated” at the top of the form. The parameter data may also be corrected by writing the information directly on the EIQ.

FIN: ENGINE1      EPN: VENT  
 Comment: STANDBY UNIT FOR 2005.

-----  
 EMISSION POINT INFORMATION  
 -----

EPN:VENT      Point Name: ENGINE 1 VENT

6A UTM Zone: 15      Latitude: 155258  
 UTM North Meters: ~~1756493~~ 3225729      Longitude: 942521  
 UTM East Meters: ~~347693~~ 208957

6B Profile: ~~FUGITIVE~~ **STACK**

6C

Characteristic	Value	Unit			
DEGREES	<del>36</del>	<del>DEGREES</del>	<b>DIAMETER</b>	<b>2.5</b>	<b>FEET</b>
HEIGHT	<del>1</del>	<del>FEET</del>	<b>HEIGHT</b>	<b>40</b>	<b>FEET</b>
LENGTH	<del>55</del>	<del>FEET</del>	<b>HORDSCHG</b>	<b>N</b>	
OFNORTH	<del>E</del>	<del>FEET</del>	<b>MOISTURE</b>		
WIDTH	<del>89</del>	<del>FEET</del>	<b>TEMP</b>	<b>813</b>	<b>DEG F</b>
			<b>VELOCITY</b>	<b>8.3</b>	<b>FT/SEC</b>

Figure 6-6. Sample Emission Point Information EIQ Page

## **Total Aggregate Annual Heat Input**

For combustion units, enter the total heat value (in MMBtu) of all fuels that the facility combusted during the year, as shown on page 97, section 7A. When the facility has multiple emission points, do not divide the heat input between paths. Instead, sum the individual heat inputs and report the total aggregate heat input for the facility.

To determine the total aggregate annual heat input, first determine the heat input for **each** fuel that the facility combusted during the year by multiplying the fuel's gross heating (calorific) value (in Btu/lb) by the fuel's annual feed rate (in lb/year). Next, sum these individual annual heat inputs for all fuels combusted during the year, and convert from Btu to MMBtu to obtain the total aggregate annual heat input (in MMBtu/year).

## **Emissions Factors**

In the spaces provided, supply the emissions factors that were used to determine the emissions for each individual FIN/EPN path. In the far right column, enter the source of the emissions factor. This is shown on page 97, section 7B.

In particular, supplying NO<sub>x</sub> emissions factor data within the EIQ will allow the EAS to capture these data that will be used to improve the TCEQ's airshed modeling and rulemaking activities. To promote consistency among similar emissions sources, the EAS requests that the NO<sub>x</sub> emissions factors be based upon the following process-rate data. Examples of the preferred process-rate-based NO<sub>x</sub> factors include:

- lb/MMBtu (boilers, furnaces, heater, and turbines)
- g/hp-hr or lb/MMBtu (all engines)
- lb of NO<sub>x</sub>/ton of clinker (cement kilns)
- lb of NO<sub>x</sub>/ton of calcium oxide (lime kilns)
- lb of NO<sub>x</sub>/ton of product (lightweight aggregate)
- lb/Mgal (liquid-fired boilers)
- ppmv @ 0% O<sub>2</sub> (FCCUs)

If an NO<sub>x</sub> factor is reported as a lb/hour (or similar) rate, use the factor and the process rate at the time of testing to obtain a process-based emissions rate. For example, for combustion sources, divide the lb/hour emission rate by the MMBtu/hour fuel-usage rate to obtain a factor with units of lb/MMBtu. Similarly, for cement kilns, divide the lb/hour emission rate by the tons of clinker/hour to obtain a factor with units of lb/ton of clinker.

If you cannot obtain a process-rate-based NO<sub>x</sub> factor from a CEMS or PEMS, calculate one by converting the reported tons/year of NO<sub>x</sub> to lb/year, and then divide the result by the MMBtu/year heat input to obtain

an NO<sub>x</sub> factor in units of lb/MMBtu.

Ensure that an NO<sub>x</sub> emissions factor has been entered for every NO<sub>x</sub> source on the “Emissions Factor” portion of the EIQ.

In cases where multiple NO<sub>x</sub> emissions factors exist (e.g., when the facility burns multiple types of fuel), either report a single weighted average NO<sub>x</sub> factor, or report separate factors for each type of fuel.

## Updating Reported Emissions

Detailed discussion of the items in this section may be found in *2008 Emissions Inventory Forms and Instructions* (RG-360B) in the section on completing the Path Emissions form. The following discussion focuses primarily on updating emissions data for each path.

Updated emissions must be reported on the appropriate EIQ forms.

**The EAS does not allow the submission of spreadsheets in lieu of completed EIQ forms.** If you need to update any of the emissions information in this section, please provide the updated information in the corresponding blank, as shown in the example on page 97, sections 7C through 7H.

7C

### Determination Methodology

The determination methodology represents the method used to determine the reported emissions. Acceptable methods are described in Chapter 4.

Verify an emissions rate’s determination methodology every year, updating the methodology as needed with the correct code under the “Method” heading (on the Path Emissions portion of the EIQ). To obtain the code for a particular EIQ determination methodology, consult the appropriate heading in Chapter 4.

7D

### Annual Emissions

For annual emissions, report total emissions rates for the year for all contaminants emitted, measured in tons. Actual annual emissions should not include emissions from emissions events or scheduled maintenance, startup or shutdown activities. Annual emissions include authorized emissions from maintenance, startup, and shutdown activities. Ensure that all criteria emissions totals (as updated on page 3 of the EIQ) are included as path emissions within the body of the EIQ.

Update annual emissions under the “Path Emissions” portion of the EIQ. The printed numbers in this section reflect the emissions rates submitted on the most recent inventory. Enter the new rates in the space provided; only **one** rate may be entered per blank. If updated emissions are not written in the blanks provided, the printed rate will be entered for the current EI year.

7E

**Ozone Season Emissions**

For ozone season emissions, report actual contaminant emissions rates during the ozone season, measured in pounds per day. Recall that the ozone season is defined as the 92 days from June 1 to August 31, inclusive; see Chapter 4, “Determining and Reporting Emissions,” for more details. Ozone season emissions are mandatory for all regulated entities in El Paso County and for all regulated entities in any county east of the Central Meridian. These counties are listed in Table 4-5. The EAS database can no longer automatically calculate ozone season rates.

The printed numbers in this section reflect the emissions rates submitted for the most recent inventory. Enter the new rates in the space provided; only **one** rate may be entered per blank. If no update is made in the blank provided, the rate will not be entered as zero; instead, the TCEQ will apply the printed rate for the current EI year.

7F

**Scheduled Maintenance, Startup, and Shutdown (SMSS) Activities**

Report emissions from scheduled maintenance, startup, and shutdown activities that are not authorized by a new source review permit or permit by rule in the “SMSS” column, using the blanks provided. Emissions from maintenance, startup, and shutdown activities that are authorized under a permit or permit by rule should not be included in the “SMSS” column. Instead, these emissions should be reported in the “Annual” column. For more information on SMSS emissions, see Chapter 4.

7G

**Emissions Events (EE)**

Report emissions from emissions events in the EE column, using the blanks provided. For more information on emissions events, see Chapter 4, “Determining and Reporting Emissions.”

7H

**EE/SMSS Column: Reporting Guidelines**

As outlined in the previous section, emissions from emissions events and/or SMSS activities must be reported in either the EE or SMSS column, as appropriate. **If a regulated entity reports emissions in the “EE/SMSS totals” column, emissions must also be reported in the “EE” or “SMSS” columns, or both, as appropriate.**

7I

**Adding Emissions Rates**

To add an emissions rate to the EIQ, you will first need a contaminant code. Contaminant codes are unique five-digit codes associated with individual contaminants. An updated list of contaminant codes is available

in *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B).

To report emissions of a contaminant not printed on the form, simply add the following below the last printed entry:

- the contaminant code;
- the determination methodology; and
- the associated annual, ozone, EE, and SMSS emissions rates (as applicable).

If you wish to add numerous contaminants that will not fit on the EIQ page itself, you may submit a Path Emissions form with the appropriate information. On the form, write “Additional contaminants being added to an existing path.”

If a contaminant does not appear to have a contaminant code, try electronically searching for the contaminant’s Chemical Abstracts Service (CAS) number in *2008 Emissions Inventory Forms and Instructions* (publication number RG-360B). If a search by CAS number fails, contact the EAS for assistance; be sure to have the chemical’s name and CAS number when you call.

### **Emissions Rates: Numeric Format**

STARS cannot accept emissions rates beyond four decimal places. Emissions rates that extend beyond four decimal places should be rounded as appropriate. Under no circumstances may scientific notation be used when reporting emissions rates, as data in this numeric format cannot be entered into STARS.

Only one emissions rate can be entered per blank. STARS does not support the routine reporting of emissions rates for periods of less than one year, such as quarterly emissions rates.

FIN: ENGINE1      EPN: VENT  
 Comment: STANDBY UNIT FOR 2005

EMISSIONS FACTORS

7A Total Annual Aggregate Heat Input: 1,164,800 MMBTU (Combustion Units Only)

Criteria Pollutant	Emissions Factor	Emissions Factor Units	Reference/Source
VOC	<u>0.0296</u>	<u>lb/MMBtu</u>	<u>AP-42</u>
NOX	<u>2.21</u>	<u>lb/MMBtu</u>	<u>AP-42</u>
CO	<u>3.72</u>	<u>lb/MMBtu</u>	<u>AP-42</u>
SO2	<u>0.000588</u>	<u>lb/MMBtu</u>	<u>AP-42</u>
TSP	<u>0.01941</u>	<u>lb/MMBtu</u>	<u>AP-42</u>

EMISSIONS INFORMATION

Code	Cas #	Contaminant	Method	7C Annual (TPY)	7D Ozone (PPD)	7E SMSS (TPY)	7F EE (TPY)	7G EE/SMSS	7H
10000	0	PART-U	A	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				<b>11.3044</b>	<b>71.2668</b>				
20000	0	PM10 PART-U	A	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				<b>11.3044</b>	<b>71.2668</b>				
50001	0	VOC-UNCLASSIFIED	A	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				<b>3.6749</b>	<b>23.168</b>				
70400	0	NITROGEN OXIDES	A	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				<b>1287.1040</b>	<b>8114.3513</b>				
70510	0	SULFUR DIOXIDE	A	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				<b>0.3425</b>	<b>2.1589</b>				
90300	0	CARBON MONOXIDE	A	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
				<b>2166.5280</b>	<b>13658.5461</b>				
<b>39999</b>		<b>PM<sub>2.5</sub></b>	<b>A</b>	<b>11.3044</b>	<b>71.2668</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
<b>51680</b>		<b>Formaldehyde</b>	<b>A</b>	<b>11.9392</b>	<b>75.2689</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
<b>51620</b>		<b>Acetaldehyde</b>	<b>A</b>	<b>1.6249</b>	<b>10.2439</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Figure 6-7. Sample Path Emissions EIQ Page

## ***Changing FIN and EPN Designations***

The EAS does not normally allow changes to FIN or EPN designations due to the historical nature of emissions data. Exceptions to this policy will be made to correct errors or to align EI nomenclature with permit nomenclature. If you feel revisions to FIN or EPN designations are necessary, please submit a Revision Request form; be sure to provide a reason for the requested revisions. Note that the EAS reserves the right to approve or disapprove all such revision requests.