# Form OP-UA10 Gas Sweetening/Sulfur Recovery Unit Attributes Texas Commission on Environmental Quality

#### General:

This form is used to provide a description and data pertaining to all gas sweetening units (with or without sulfur recovery units) with potentially applicable requirements associated with a particular account number and application. Each table number, along with the possibility of a corresponding letter (i.e., Table 1a, Table 1b), corresponds to a certain state or federal rule. If the rule on the table is not potentially applicable to a gas sweetening unit (with or without sulfur recovery units), then it should be left blank and need not be submitted with the application. If the codes entered by the applicant show negative applicability to the rule or sections of the rule represented on the table, then the applicant need not complete the remainder of the table(s) that corresponds to the rule. Further instruction as to which questions should be answered and which questions should not be answered are located in the "Specific" section of the instruction text. The following is included in this form:

Table 1: Title 30 Texas Administrative Code Chapter 112 (30 TAC Chapter 112), Control of Air

**Pollution from Sulfur Compounds** 

Tables 2a - 2b: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart LLL: Standards of

Performance for Onshore Natural Gas Processing: SO2 Emissions

Table 3: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart OOOOa:

Standards of performance for Crude Oil and Natural Gas Facilities for which Construction,

**Modification or Reconstruction Commenced After September 18, 2015** 

**Table 4:** Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart OOOO: Standards

of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution

for which Construction, Modification or Reconstruction Commenced After

August 23, 2011, and on or before September 18, 2015

The Texas Commission on Environmental Quality (TCEQ) Regulated Entity Number (RNXXXXXXXX) and the application area name from Form OP-1 (Site Information Summary) must appear in the header of each page for the purpose of identification for the initial submittal. The date of the initial form submittal must also be included and should be consistent throughout the application (MM/DD/YYYY). **Leave the permit number blank for the initial form submittal.** If this form is included as part of the permit revision process, enter the permit number assigned by the TCEQ, the area name (from Form OP-1), the date of the revision submittal, and the account number.

Unit attribute questions that do not require a response from all applicants are preceded by qualification criteria in the instructions. If the unit does not meet the qualification criteria, a response to the question is *not* required. **Anytime a response is** *not* required based on the qualification criteria, leave the space on the form *blank*.

Notwithstanding any qualification criteria in the form instructions or information provided in other TCEQ guidance, the applicant may leave an attribute question blank (or indicate "N/A" for "Not Applicable") if the attribute is not needed for the applicable requirement determinations of a regulation for a unit.

Please note that for general operating permit (GOP) applications, responses may be required for questions on this form which are not included as a column in the applicable GOP table. These responses may be needed to determine applicability of certain requirements within a single row of the GOP permit table.

In some situations, the applicant has the option of selecting alternate requirements, limitations, and/or practices for a unit. Note that these alternate requirements, limitations, and/or practices must have the required approval from the TCEQ Executive Director and/or the U.S. Environmental Protection Agency Administrator before the federal operating permit application is submitted.

The Texas Commission on Environmental Quality (TCEQ) requires that a Core Data Form be submitted on all incoming registrations unless all of the following are met: the Regulated Entity and Customer Reference numbers have been issued by the TCEQ and no core data information has changed. The Central Registry, a common record area of the TCEQ, maintains information about TCEQ customers and regulated activities, such as company names, addresses, and telephone numbers. This information is commonly referred to as "core data." The Central Registry provides the regulated community with a central access point within the agency to check core data and make changes when necessary. When core data about a facility is moved to the Central Registry, two new identification numbers are assigned: the Customer Reference (CN) number and the Regulated Entity (RN) number. The Core Data Form is required if facility records are not yet part of the Central Registry or if core data for a facility has changed. If this is the initial registration, permit, or license for a facility site, then the Core Data Form must be completed and submitted with application or registration forms. If amending, modifying, or otherwise updating an existing record for a facility site, the Core Data Form is not required, unless any core data information has changed. To review additional information regarding the Central Registry, go to the TCEQ website at <a href="https://www.tceq.texas.gov/permitting/central">www.tceq.texas.gov/permitting/central</a> registry/index.html.

## **Specific:**

# <u>Table 1</u>: Title 30 Texas Administrative Code Chapter 112 (30 TAC Chapter 112), Control of Air Pollution from Sulfur Compounds

### **Process ID No.:**

Enter the identification number (ID No.) for the gas sweetening and/or sulfur recovery process (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

## **SOP/GOP Index No.:**

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please refer to the TCEQ website at <a href="https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional fop guidance.pdf">www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional fop guidance.pdf</a>.

## **Sulfur Recovery Plant:**

Enter "YES," if the gas sweetening unit is using sulfur recovery. Otherwise, enter "NO."

## **▼** Continue only if "Sulfur Recovery Plant" is "YES."

#### **Stack Height:**

Select one of the following options to describe the effective stack height relative to the standard effective stack height. Enter the code on the form.

**Code Description** 

LESS Effective stack height less than standard effective stack height

MORE Effective stack height greater than or equal to the standard effective stack height

# **Emission Point ID No.:**

Enter the identification number (ID No.) of the emission point to which the gas sweetening or sulfur recovery unit routes emissions (maximum 10 characters). This number should be consistent with the unit identification number listed on Form OP-SUM.

# <u>Table 2a</u>: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart LLL: Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions

Note: Do not complete this table if the preconstruction authorization for the affected facility limits the sulfur feed rate of the gas sweetening unit to less than 2 LTPD H2S and you are choosing to comply with alternate requirements of 60LLL.001. You must indicate that you are choosing to comply with the alternate requirements on Form OP-REQ1.

#### **Process ID No.:**

Enter the identification number (ID No.) for the gas sweetening and/or sulfur recovery process (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

#### **SOP/GOP Index No.:**

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please refer to the TCEQ website at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional fop guidance.pdf.

#### **Onshore:**

Enter "YES" if the sweetening unit is located onshore at a gas processing plant. Otherwise, enter "NO."

Note: For more information regarding the definition of "onshore," refer to the TCEQ rule interpretation regarding the conditions under which gas sweetening units located in marshes or bays are considered to be part of the territorial seas for purposes of determining applicability of 40 CFR Part 60, Subpart LLL.

## **▼** Continue only if "Onshore" is "YES."

#### **Construction Date:**

Select **one** of the following options based on the commencement of the most recent construction, modification, or reconstruction date. Enter the **code** on the form.

Code	Description
84-	On or before January 20, 1984
84-11	After January 20, 1984, and on or before August 23, 2011
11+	After August 23, 2011

## **▼** Continue only if "Construction Date" is "84-11".

#### Acid Gas Vented

Select **one** of the following options to describe if acid gas is completely reinjected into oil or gas-bearing strata or is otherwise **not** released into the atmosphere.

Code	Description
YES	Acid gas is vented (acid gas is not completely reinjected into oil or gas-bearing strata or is
	otherwise released into the atmosphere [burning is considered to be a release into the
	atmosphere])
NO	Acid gas is not vented (acid gas is completely reinjected into oil- or gas-bearing strata, and is
	otherwise not released into the atmosphere)

# **▼** Continue only if "Acid Gas Vented" is "YES."

## **Design Capacity:**

Select **one** of the following options for the design capacity in long tons per day of hydrogen sulfide (H2S) in acid gas, expressed as sulfur. Enter the **code** on the form.

Code	Description
2-	Design capacity is less than 2 long tons/day (LT/D)
2-150	Design capacity is greater than or equal to 2 LT/D but less than 150 LT/D
150+	Design capacity is greater than or equal to 150 LT/D

**▼** Continue only if "Design Capacity" is "2-150" or "150+."

# <u>Table 2b</u>: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart LLL: Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions

#### **Process ID No.:**

Enter the identification number (ID No.) for the gas sweetening and/or sulfur recovery process (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

#### **SOP Index No.:**

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please refer to the TCEQ website at www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional fop guidance.pdf.

**★** Complete "Choosing to Comply With § 60.646(e)" only if "Design Capacity" is "2-150."

## Choosing to Comply With § 60.646(e):

Enter "YES" if choosing to comply with 40 CFR § 60.646(e). Otherwise, enter "NO."

▼ Continue only if "Design Capacity" is "150+" or "Choosing to Comply With § 60.646(e)" is "NO."

#### **Compliance Method:**

Select **one** of the following options for the control method used to comply with the provisions of 40 CFR Part 60, Subpart LLL. Enter the **code** on the form.

Code	Description
OXDTN	Oxidation control system
RD-INC	Reduction control system followed by a continually operated incineration device
RD-NO	Reduction control system not followed by a continually operated incineration device
NONE	None – not oxidation control system or reduction control system

#### **Control Device ID No.:**

Enter the identification number (ID No.) for the control device to which the gas sweetening or sulfur recovery unit routes emissions (maximum 10 characters). This number should be consistent with the identification number listed on Form OP-SUM. If no control device is used, then leave this column blank.

## **▼** Continue only if "Compliance Method" is "NONE."

#### **Effluent Gas Oxygen Content:**

Select **one** of the following options for percent oxygen content of the effluent gas. Enter the **code** on the form.

Code	Description
1-	Oxygen is less than 1%
1+	Oxygen is greater than 1%

# <u>Table 3</u>: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart OOOOa: Standards of Performance for Crude Oil and Natural Gas Facilities for which

Construction, Modification or Reconstruction Commenced After September 18, 2015

#### **Process ID No.:**

Enter the identification number (ID No.) for the gas sweetening and/or sulfur recovery process (maximum 10 characters) as listed on Form OP-SUM (Individual Unit Summary).

#### **SOP/GOP Index No.:**

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to SOP and GOP index numbers please refer to the TCEQ website at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional fop guidance.pdf.

## **Construction/Modification Date:**

Select **one** of the following options based on the commencement of the most recent construction, modification, or reconstruction date. Enter the **code** on the form.

Code	Description
15-	On or before September 18, 2015
15+	After September 18, 2015

# **▼** Continue only if "Construction/Modification Date" is "15+."

#### **Onshore:**

Enter "YES" if the sweetening unit is located onshore at a gas processing plant. Otherwise, enter "NO."

## **▼** Continue only if "Onshore" is "YES."

#### **Facility Type:**

Select **one** of the following options for the type of sweetening unit located at an onshore natural gas processing plant. Enter the **code** on the form.

Code	Description
SUEX	Sweetening unit where the acid gas produced is completely reinjected into oil-or-gas bearing
	geologic strata or not released to the atmosphere
SWEET	Sweetening unit that processes natural gas

# **▼** Continue only if "Facility Type" is "SWEET."

## **Design Capacity:**

Select **one** of the following options for the design capacity of the sweetening unit. Enter the **code** on the form.

Code	Description
2-	Design capacity is less than 2 long tons per day of hydrogen sulfide in the acid gas expressed as
	sulfur
2-150	Design capacity is greater than 2 long tons per day and less than 150 long tons per day of
	hydrogen sulfide in the acid gas expressed as sulfur
150+	Design capacity is equal to or greater than 150 long tons per day of hydrogen sulfide in the acid
	gas expressed as sulfur

# **▼** Continue only if "Design Capacity" is "150+."

#### **Compliance Method:**

Select **one** of the following options for the control method used to comply with the provisions of 40 CFR Part 60, Subpart OOOOa. Enter the **code** on the form.

Code	Description
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OXY Oxidation control system

REDINC Reduction control system followed by a continually operated incineration device REDNOINC Reduction control system not followed by a continually operated incineration device

#### **Control Device ID No.:**

Enter the identification number (ID No.) for the control device to which the gas sweetening or sulfur recovery unit routes emissions (maximum 10 characters). This number should be consistent with the identification number listed on Form OP-SUM. If no control device is used, then leave this column blank.

#### Table 4:

Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015

#### Unit ID No.:

Enter the identification number (ID No.) for the unit (maximum 10 characters) as listed on Form OP SUM (Individual Unit Summary).

#### **SOP/GOP Index No.:**

Site operating permit (SOP) applicants should indicate the SOP index number for the unit or group of units (maximum 15 characters consisting of numeric, alphanumeric characters, and/or dashes prefixed by a code for the applicable regulation [i.e., 60KB-XXXX]). General operating permit (GOP) applicants should indicate the appropriate GOP index number in this column from the applicable GOP table (SSS-FF-XXX). Applicants should complete all applicable GOP attribute information before determining the GOP index number. For additional information relating to GOP index numbers please go to the TCEQ website at

www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title V/additional fop guidance.pdf.

#### **Construction/Modification Date:**

Select **one** of the following options that describe the date of commencement of the most recent construction, reconstruction, or modification. Enter the **code** on the form.

Code	Description
11-	Before 8/23/2011
11-15	After 8/23/2011 and on/before 9/18/2015
15+	After 9/18/2015

### **▼** Continue only if "Construction/Modification Date" is "11-15."

#### Onshore:

Enter "YES" if the sweetening unit is located onshore at a gas processing plant. Otherwise, enter "NO."

**▼** Continue only if "Onshore" is "YES."

#### **Acid Gas Vented:**

Select **one** of the following options to describe if acid gas is completely reinjected into oil or gas-bearing strata or is otherwise not released into the atmosphere.

Code	Description
NOATMOS	Acid gas is not vented (acid gas is completely reinjected into oil or gas-bearing strata or is
	otherwise not released into the atmosphere)
ATMOS	Acid gas is vented (acid gas is not reinjected into oil- or gas-bearing strata, and is otherwise
	released into the atmosphere)

# **▼** Continue only if "Acid Gas Vented" is "ATMOS."

Description

## **Design Capacity:**

Select **one** of the following options for the design capacity in long tons per day of hydrogen sulfide (H2S) in acid gas, expressed as sulfur. Enter the **code** on the form.

Code	Description
2-	Design capacity is less than 2 long tons/day (LT/D)
2-150	Design capacity is greater than or equal to 2 LT/D but less than 150 LT/D
150+	Design capacity is greater than or equal to 150 LT/D

## **★** Complete "Choosing to Comply With § 60.5407(e)" only if "Design Capacity" is "2-150."

# Choosing to Comply With § 60.5407(e):

Enter "YES" if choosing to comply with 40 CFR § 60.5407(e). Otherwise, enter "NO."

# ▼ Continue only if "Choosing to Comply With § 60.5407(e)" is "NO;" or "Design Capacity" is "150+."

# **Compliance Method:**

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Select one of the following options for the control method used to comply with the provisions of 40 CFR Part 60, Subpart OOOO. Enter the code on the form.

Coue	Description
OXY	Oxidation control system
INC	Reduction control system followed by a continually operated incineration device
RD-NO	Reduction control system without a continually operated incineration device

# Gas Sweetening/Sulfur Recovery Unit Attributes Form OP-UA10 (Page 1)

# **Federal Operating Permit Program**

Table 1: Title 30 Texas Administrative Code Chapter 112 (30 TAC Chapter 112)
Control of Air Pollution from Sulfur Compounds
Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.		

Process ID No.	SOP/GOP Index No.	Sulfur Recovery Plant	Stack Height	Emission Point ID No.

# Gas Sweetening/Sulfur Recovery Unit Attributes Form OP-UA10 (Page 2)

# **Federal Operating Permit Program**

Table 2a: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)

# Subpart LLL: Standards of Performance for Onshore Natural Gas Processing: SO<sub>2</sub> Emissions Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.		

Process ID No.	SOP/GOP Index No.	Onshore	Construction Date	Acid Gas Vented	Design Capacity

# Gas Sweetening/Sulfur Recovery Unit Attributes Form OP-UA10 (Page 3)

# **Federal Operating Permit Program**

# Table 2b: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)

# Subpart LLL: Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.

Process ID No.	SOP/GOP Index No.	Choosing to Comply With § 60.646(e)	Compliance Method	Control Device ID No.	Effluent Gas Oxygen Content

# Gas Sweetening/Sulfur Recovery Unit Attributes Form OP-UA10 (Page 4)

# **Federal Operating Permit Program**

Table 3: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)

Subpart OOOOa: Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

Texas Commission on Environmental Quality

Date	Permit No.	Regulated Entity No.

Process ID No.	SOP/GOP Index No.	Construction/ Modification Date	Onshore	Facility Type	Design Capacity	Compliance Method	Control Device ID No.

# Gas Sweetening/Sulfur Recovery Unit Attributes Form OP-UA10 (Page 5)

# **Federal Operating Permit Program**

Table 4: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011 and on or before September 18, 2015 **Texas Commission on Environmental Quality** 

Date	Permit No.	Regulated Entity No.

Unit ID No.	GOP Index No.	Construction/Modification Date	Onshore	Acid Gas Vented	Design Capacity	Choosing to Comply With §60.5407(e)	Compliance Method