

## Texas Commission on Environmental Quality

Title V Existing

1957

### Site Information (Regulated Entity)

What is the name of the permit area to be authorized?	POLYETHYLENE PLANT
County	CALHOUN
Latitude (N) (##.#####)	28.688888
Longitude (W) (-###.#####)	96.547222
Primary SIC Code	2821
Secondary SIC Code	
Primary NAICS Code	325110
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN100218973
What is the name of the Regulated Entity (RE)?	FORMOSA POINT COMFORT PLANT
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	201 FORMOSA DR
City	POINT COMFORT
State	TX
ZIP	77978
County	CALHOUN
Latitude (N) (##.#####)	28.6888
Longitude (W) (-###.#####)	-96.5472
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL CHEMICAL MANUFACTURING PLANT

### Customer (Applicant) Information

How is this applicant associated with this site?	Owner Operator
What is the applicant's Customer Number (CN)?	CN600130017
Type of Customer	Corporation
Full legal name of the applicant:	

Legal Name	Formosa Plastics Corporation, Texas
Texas SOS Filing Number	5107506
Federal Tax ID	222355464
State Franchise Tax ID	12223554648
State Sales Tax ID	
Local Tax ID	
DUNS Number	106238165
Number of Employees	501+
Independently Owned and Operated?	Yes

## Responsible Official Contact

Person TCEQ should contact for questions about this application:

Organization Name	FORMOSA PLASTICS CORPORATION TEXAS
Prefix	MR
First	KEN
Middle	
Last	MOUNGER
Suffix	
Credentials	
Title	EXECUTIVE VICE PRESIDENT
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	9 PEACH TREE HILL RD
Routing (such as Mail Code, Dept., or Attn:)	
City	LIVINGSTON
State	NJ
ZIP	07039
Phone (###-###-####)	9737167205
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	9739948005
E-mail	tlasater@ftpc.fpcusa.com

## Duly Authorized Representative Contact

Person TCEQ should contact for questions about this application

Select existing DAR contact or enter a new contact.

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

Title

Enter new address or copy one from list

Mailing Address

Address Type

Mailing Address (include Suite or Bldg. here, if applicable)

Routing (such as Mail Code, Dept., or Attn:)

City

State

Zip

Phone (###-###-####)

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

MIKE RIVET(FORMOSA PLASTIC... )

FORMOSA PLASTICS CORPORATION TEXAS

MR

MIKE

RIVET

ASSISTANT VICE PRESIDENT/GENERAL MANAGER

Domestic

PO BOX 700

POINT COMFORT

TX

77978

3619877000

tlasater@ftpc.fpcusa.com

## Technical Contact

Person TCEQ should contact for questions about this application:

Select existing TC contact or enter a new contact.

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

LEANN USOFF(FORMOSA PLASTIC... )

FORMOSA PLASTICS CORPORATION TEXAS

MS

LEANN

USOFF

Title	AIR PERMITTING ASSISTANT MANAGER
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	201 FORMOSA DR
Routing (such as Mail Code, Dept., or Attn:)	
City	POINT COMFORT
State	TX
ZIP	77978
Phone (###-###-####)	3619209401
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	LeAnnU@ftpc.fpcusa.com

## Title V General Information - Existing

1) Permit Type:	SOP
2) Permit Latitude Coordinate:	28 Deg 41 Min 20 Sec
3) Permit Longitude Coordinate:	96 Deg 32 Min 50 Sec
4) Is this submittal a new application or an update to an existing application?	Update
4.1. Select the permit/project number for which this update should be applied.	1957-35988
5) Who will electronically sign this Title V application?	Duly Authorized Representative
6) Does this application include Acid Rain Program or Cross-State Air Pollution Rule requirements?	No

## Title V Attachments Existing

Attach OP-1 (Site Information Summary)

Attach OP-2 (Application for Permit Revision/Renewal)

Attach OP-ACPS (Application Compliance Plan and Schedule)

Attach OP-REQ1 (Application Area-Wide Applicability Determinations and General Information)

[File Properties]



File Name	<a href="/ePermitsExternal/faces/file?fileId=216003">OP-REQ1 Updated-09.10.2024.pdf</a>
Hash	E0FBEBFCFBF95D3A4453160EAA110B83A73E9E3DD6CE9E553282B093FED38ABB6
MIME-Type	application/pdf

Attach OP-REQ2 (Negative Applicable Requirement Determinations)

Attach OP-REQ3 (Applicable Requirements Summary)

Attach OP-PBRSUP (Permits by Rule Supplemental Table)

Attach OP-SUMR (Individual Unit Summary for Revisions)

Attach OP-MON (Monitoring Requirements)

Attach OP-UA (Unit Attribute) Forms

If applicable, attach OP-AR1 (Acid Rain Permit Application)

Attach OP-CRO2 (Change of Responsible Official Information)

Attach OP-DEL (Delegation of Responsible Official)

Attach Void Request Form

Attach any other necessary information needed to complete the permit.

[File Properties]

File Name	<a href="/ePermitsExternal/faces/file?fileId=216007">OP-CR01+Form(v3)-09.11.2024.signed.pdf</a>
Hash	89561768CDC351B96C8CC94589FE24EAB69A5AEBBDC018501D18C29AFCE8B5D5
MIME-Type	application/pdf

An additional space to attach any other necessary information needed to complete the permit.

## Certification

I certify that I am the Duly Authorized Representative for this application and that, based on information and belief formed after reasonable inquiry, the statements and information on this form are true, accurate, and complete.

- 1. I am Mike Rivet, the owner of the STEERS account ER093335.
- 2. I have the authority to sign this data on behalf of the applicant named above.
- 3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
- 4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
- 5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
- 6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
- 7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
- 8. I am knowingly and intentionally signing Title V Existing 1957.
- 9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER OPERATOR Signature: Mike Rivet OWNER OPERATOR

Account Number:	ER093335
Signature IP Address:	24.116.223.222
Signature Date:	2024-09-11
Signature Hash:	1D96686854B12E0F5FA241401E07955B06BD2257800F82BF7A872089D866131A
Form Hash Code at time of Signature:	B76738FAF060B006018B916F074ECC732EC12B6603300068C85465B9F34AE8E8

Submission

Reference Number:	The application reference number is 681802
Submitted by:	The application was submitted by ER093335/Mike Rivet
Submitted Timestamp:	The application was submitted on 2024-09-11 at 17:12:34 CDT
Submitted From:	The application was submitted from IP address 24.116.223.222
Confirmation Number:	The confirmation number is 562754
Steers Version:	The STEERS version is 6.82
Permit Number:	The permit number is 1957

Additional Information

Application Creator: This account was created by Leann Usoff

**Form OP-CRO1**  
**Certification by Responsible Official**  
**Federal Operating Permit Program**  
**Texas Commission on Environmental Quality**

All initial issuance, revision, renewal, and reopening permit application submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

<b>I. Identifying Information</b>
RN: 100218973
CN: 600130017
Account No.: CB0038Q
Permit No.: O1957
Project No.: 35988
Area Name: Polyethylene Plant
Company Name: Formosa Plastics Corporation Texas
<b>II. Certification Type</b> <i>(Please mark appropriate box)</i>
<input type="checkbox"/> Responsible Official Representative <input checked="" type="checkbox"/> Duly Authorized
<b>III. Submittal Type</b> <i>(Please mark appropriate box) (Only one response can be accepted per form)</i>
<input type="checkbox"/> SOP/TOP Initial Permit Application <input type="checkbox"/> Permit Revision, Renewal, or Reopening
<input type="checkbox"/> GOP Initial Permit Application <input checked="" type="checkbox"/> Update to Permit Application
<input type="checkbox"/> Other: _____

**Form OP-CRO1**  
**Certification by Responsible Official**  
**Federal Operating Permit Program**  
**Texas Commission on Environmental Quality**

All initial issuance, revision, and renewal permit application submittals requiring certification must be accompanied by this form. Updates to acid rain or CSAPR (other than public notice verification materials) must be certified prior to authorization of public notice for the draft permit.

<b>IV. Certification of Truth</b>
<b>This certification does not extend to information which is designated by TCEQ as information for reference only.</b>
I, <u>Mike Rivet</u> certify that I am the _____ <u>Duly Authorized Representative (DAR)</u> <div style="display: flex; justify-content: space-between; margin-top: 5px;"><span>(Certifier Name printed or typed)</span><span>(RO or DAR)</span></div>
and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period or on the specific date(s) below, are true, accurate, and complete: <i>Note: Enter Either a Time Period or Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).</i>
Time Period: From <u>08/24/2024</u> to <u>09/11/2024</u> <div style="display: flex; justify-content: space-between; margin-top: 5px;"><span>(Start Date)</span><span>(End Date)</span></div>
Specific Dates: _____ <div style="display: flex; justify-content: space-between; margin-top: 5px;"><span>(Date 1)</span><span>(Date 2)</span><span>(Date 3)</span><span>(Date 4)</span></div>
_____ <div style="display: flex; justify-content: space-between; margin-top: 5px;"><span>(Date 5)</span><span>(Date 6)</span></div>
Signature: _____ Signature Date: _____
Title: <u>Assistant Vice President / General Manager</u>

**Texas Commission on Environmental Quality**  
**Application Area-Wide Applicability Determinations and General Information**  
**Form OP-REQ1**  
**Federal Operating Permit Program**

Date:	09/06/2024
Permit No.:	O1957
RN No.:	RN 100218973

*For SOP applications, answer ALL questions unless otherwise directed.*

◆ *For GOP applications, answer ONLY these questions unless otherwise directed.*

<b>Form OP-REQ1: Page 2</b>	
<b>I. Title 30 TAC Chapter 111 - Control of Air Pollution from Visible Emissions and Particulate Matter (continued)</b>	
<b>B. Materials Handling, Construction, Roads, Streets, Alleys, and Parking Lots</b>	
1. Items a - d determines applicability of any of these requirements based on geographical location.	
◆	a. The application area is located within the City of El Paso.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	b. The application area is located within the Fort Bliss Military Reservation, except areas specified in 30 TAC § 111.141.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	c. The application area is located in the portion of Harris County inside the loop formed by Beltway 8.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	d. The application area is located in the area of Nueces County outlined in Group II state implementation plan (SIP) for inhalable particulate matter adopted by the TCEQ on May 13, 1988.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If there is any "YES" response to Questions I.B.1.a - d, answers Questions I.B.2.a - d. If all responses to Questions I.B.1.a-d are "NO," go to Section I.C.</i>	
2. Items a - d determine the specific applicability of these requirements.	
◆	a. The application area is subject to 30 TAC § 111.143.
	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	b. The application area is subject to 30 TAC § 111.145.
	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	c. The application area is subject to 30 TAC § 111.147.
	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	d. The application area is subject to 30 TAC § 111.149.
	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>C. Emissions Limits on Nonagricultural Processes</b>	
◆	1. The application area includes a nonagricultural process subject to 30 TAC § 111.151.
	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	2. The application area includes a vent from a nonagricultural process that is subject to additional monitoring requirements.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
	<i>If the response to Question I.C.2 is "NO," go to Question I.C.4.</i>
	3. All vents from nonagricultural process in the application area are subject to additional monitoring requirements.
	<input type="checkbox"/> YES <input type="checkbox"/> NO

## Texas Commission on Environmental Quality

Title V Existing

1957

### Site Information (Regulated Entity)

What is the name of the permit area to be authorized?	POLYETHYLENE PLANT
County	CALHOUN
Latitude (N) (##.#####)	28.688888
Longitude (W) (-###.#####)	96.547222
Primary SIC Code	2821
Secondary SIC Code	
Primary NAICS Code	325110
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN100218973
What is the name of the Regulated Entity (RE)?	FORMOSA POINT COMFORT PLANT
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	201 FORMOSA DR
City	POINT COMFORT
State	TX
ZIP	77978
County	CALHOUN
Latitude (N) (##.#####)	28.6888
Longitude (W) (-###.#####)	-96.5472
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL CHEMICAL MANUFACTURING PLANT

### Customer (Applicant) Information

How is this applicant associated with this site?	Owner Operator
What is the applicant's Customer Number (CN)?	CN600130017
Type of Customer	Corporation
Full legal name of the applicant:	

Legal Name	Formosa Plastics Corporation, Texas
Texas SOS Filing Number	5107506
Federal Tax ID	222355464
State Franchise Tax ID	12223554648
State Sales Tax ID	
Local Tax ID	
DUNS Number	106238165
Number of Employees	501+
Independently Owned and Operated?	Yes

## Responsible Official Contact

Person TCEQ should contact for questions about this application:

Organization Name	FORMOSA PLASTICS CORPORATION TEXAS
Prefix	MR
First	KEN
Middle	
Last	MOUNGER
Suffix	
Credentials	
Title	EXECUTIVE VICE PRESIDENT
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	9 PEACH TREE HILL RD
Routing (such as Mail Code, Dept., or Attn:)	
City	LIVINGSTON
State	NJ
ZIP	07039
Phone (###-###-####)	9737167205
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	9739948005
E-mail	tlasater@ftpc.fpcusa.com

## Duly Authorized Representative Contact

Person TCEQ should contact for questions about this application

Select existing DAR contact or enter a new contact.

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

Title

Enter new address or copy one from list

Mailing Address

Address Type

Mailing Address (include Suite or Bldg. here, if applicable)

Routing (such as Mail Code, Dept., or Attn:)

City

State

Zip

Phone (###-###-####)

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

MIKE RIVET(FORMOSA PLASTIC... )

FORMOSA PLASTICS CORPORATION TEXAS

MR

MIKE

RIVET

ASSISTANT VICE PRESIDENT/GENERAL MANAGER

Domestic

PO BOX 700

POINT COMFORT

TX

77978

3619877000

tlasater@ftpc.fpcusa.com

## Technical Contact

Person TCEQ should contact for questions about this application:

Select existing TC contact or enter a new contact.

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

LEANN USOFF(FORMOSA PLASTIC... )

FORMOSA PLASTICS CORPORATION TEXAS

MS

LEANN

USOFF



Title	AIR PERMITTING ASSISTANT MANAGER
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	201 FORMOSA DR
Routing (such as Mail Code, Dept., or Attn:)	
City	POINT COMFORT
State	TX
ZIP	77978
Phone (###-###-####)	3619209401
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	LeAnnU@ftpc.fpcusa.com

## Title V General Information - Existing

1) Permit Type:	SOP
2) Permit Latitude Coordinate:	28 Deg 41 Min 20 Sec
3) Permit Longitude Coordinate:	96 Deg 32 Min 50 Sec
4) Is this submittal a new application or an update to an existing application?	Update
4.1. Select the permit/project number for which this update should be applied.	1957-35988
5) Who will electronically sign this Title V application?	Duly Authorized Representative
6) Does this application include Acid Rain Program or Cross-State Air Pollution Rule requirements?	No

## Title V Attachments Existing

Attach OP-1 (Site Information Summary)

Attach OP-2 (Application for Permit Revision/Renewal)

Attach OP-ACPS (Application Compliance Plan and Schedule)

Attach OP-REQ1 (Application Area-Wide Applicability Determinations and General Information)

Attach OP-REQ2 (Negative Applicable Requirement Determinations)

Attach OP-REQ3 (Applicable Requirements Summary)

Attach OP-PBRSUP (Permits by Rule Supplemental Table)

Attach OP-SUMR (Individual Unit Summary for Revisions)

Attach OP-MON (Monitoring Requirements)

Attach OP-UA (Unit Attribute) Forms

If applicable, attach OP-AR1 (Acid Rain Permit Application)

Attach OP-CRO2 (Change of Responsible Official Information)

Attach OP-DEL (Delegation of Responsible Official)

Attach Void Request Form

Attach any other necessary information needed to complete the permit.

[File Properties]

File Name

<a href=/ePermitsExternal/faces/file?fileId=213242>OP-CR01+Form-+08.23.2024.signed -08.23.2024.pdf</a>

Hash

DA6E42E455AA61DA4D32B7D8330CA039B0D23857C9D000E8B20055E46C232AB7

MIME-Type

application/pdf

An additional space to attach any other necessary information needed to complete the permit.

## Certification

I certify that I am the Duly Authorized Representative for this application and that, based on information and belief formed after reasonable inquiry, the statements and information on this form are true, accurate, and complete.

1. I am Mike Rivet, the owner of the STEERS account ER093335.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.

- 4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
- 5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
- 6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
- 7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
- 8. I am knowingly and intentionally signing Title V Existing 1957.
- 9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER OPERATOR Signature: Mike Rivet OWNER OPERATOR

Account Number:	ER093335
Signature IP Address:	172.108.196.196
Signature Date:	2024-08-23
Signature Hash:	1D96686854B12E0F5FA241401E07955B06BD2257800F82BF7A872089D866131A
Form Hash Code at time of Signature:	58B24855D075913995B7EE795FE3AC4AFA78FB914B9CE4BA452D7C92CCF29EC3

Submission

Reference Number:	The application reference number is 677396
Submitted by:	The application was submitted by ER093335/Mike Rivet
Submitted Timestamp:	The application was submitted on 2024-08-23 at 10:36:15 CDT
Submitted From:	The application was submitted from IP address 172.108.196.196
Confirmation Number:	The confirmation number is 559242
Steers Version:	The STEERS version is 6.81
Permit Number:	The permit number is 1957

Additional Information

Application Creator: This account was created by Leann Usoff

**Form OP-CRO1**  
**Certification by Responsible Official**  
**Federal Operating Permit Program**  
**Texas Commission on Environmental Quality**

All initial issuance, revision, renewal, and reopening permit application submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

<b>I. Identifying Information</b>
RN: 100218973
CN: 600130017
Account No.: CB0038Q
Permit No.: O1957
Project No.: 35988
Area Name: Polyethylene Plant
Company Name: Formosa Plastics Corporation Texas
<b>II. Certification Type</b> <i>(Please mark appropriate box)</i>
<input type="checkbox"/> Responsible Official Representative <input checked="" type="checkbox"/> Duly Authorized
<b>III. Submittal Type</b> <i>(Please mark appropriate box) (Only one response can be accepted per form)</i>
<input type="checkbox"/> SOP/TOP Initial Permit Application <input type="checkbox"/> Permit Revision, Renewal, or Reopening
<input type="checkbox"/> GOP Initial Permit Application <input checked="" type="checkbox"/> Update to Permit Application
<input type="checkbox"/> Other: _____

**Form OP-CRO1**  
**Certification by Responsible Official**  
**Federal Operating Permit Program**  
**Texas Commission on Environmental Quality**

All initial issuance, revision, and renewal permit application submittals requiring certification must be accompanied by this form. Updates to acid rain or CSAPR (other than public notice verification materials) must be certified prior to authorization of public notice for the draft permit.

<b>IV. Certification of Truth</b>
<b>This certification does not extend to information which is designated by TCEQ as information for reference only.</b>
I, <u>Mike Rivet</u> certify that I am the _____ <u>Duly Authorized Representative (DAR)</u> <div style="display: flex; justify-content: space-between; margin-top: 5px;"><span><i>(Certifier Name printed or typed)</i></span><span><i>(RO or DAR)</i></span></div> and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period or on the specific date(s) below, are true, accurate, and complete: <i>Note: Enter Either a Time Period or Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).</i>
Time Period: From <u>02/15/2024</u> to <u>08/23/2024</u> <div style="display: flex; justify-content: space-between; margin-top: 5px;"><span><i>(Start Date)</i></span><span><i>(End Date)</i></span></div>
Specific Dates: _____ <div style="display: flex; justify-content: space-between; margin-top: 5px;"><span><i>(Date 1)</i></span><span><i>(Date 2)</i></span><span><i>(Date 3)</i></span><span><i>(Date 4)</i></span></div>
_____ <div style="display: flex; justify-content: space-between; margin-top: 5px;"><span><i>(Date 5)</i></span><span><i>(Date 6)</i></span></div>
Signature: <u>Mike Rivet</u> <div style="font-size: small; margin-left: 10px;">Digitally signed by Mike Rivet DN: cn=Mike Rivet, o=FPCTA, ou=GMO, email=mikerivet@tpc.fpcusa.com, c=US Date: 2024.08.23 08:18:51 -05'00'</div> Signature Date: <u>08/23/2024</u>
Title: <u>Assistant Vice President / General Manager</u>

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

[Table 1](#)

Date	Permit No.	Regulated Entity No.
3/4/2024	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
	1	LL-CT	OP-UA13	LLDPE Cooling Tower		20203, 106.262/11/01/2003 [171738]	PSDTX1224
	2	PO-CT	OP-UA13	Cooling Tower		19201, 106.262/11/01/2003[172733, 173338, 163454]	PSDTX1232
	3	PP2-CT	OP-UA13	Cooling Tower		40157, 106.262/11/01/2003[173343]	PSDTX1222
D	4	T-501	OP-UA3	Tank 501		19201	PSDTX1232
D	5	T-502	OP-UA3	Tank 502		19201	PSDTX1232
D	6	T-503	OP-UA3	Tank 503		19201	PSDTX1232
D	7	2T-502	OP-UA3	Tank 2T-502		19201	PSDTX1232
D	8	2T-503	OP-UA3	Tank 2T-503		19201	PSDTX1232
D	9	LL-001	OP-UA15	Final Degasser No. 1		20203	PSDTX1224

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

[Table 1](#)

Date	Permit No.	Regulated Entity No.
8/3/2024	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
D	10	F1-211	OP-UA15	F1-211 Slops Drum		20203	PSDTX1224
D	11	F2-211	OP-UA15	F2-211 Slops Drum		20203	PSDTX1224
	12	H-601	OP-UA5	Catalyst Activator Direct Heater		40157	PSDTX1224
	13	LL-074	OP-PBR SUP	De-duster Baghouse 074		106.393/09/04/2000	
	14	LL-075	OP-PBR SUP	De-duster Baghouse 075		106.393/09/04/2000	
	15	LL-076	OP-PBR SUP	De-duster Baghouse 076		106.393/09/04/2000	
	16	LL-077	OP-PBR SUP	LLDPE Shipping Vacuum System		106.393/09/04/2000	
	17	PE-FUG	OP-PBR SUP	Fugitive Components		106.262/11/01/2003 [163454]	

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

**Table 2**

Date	Permit No.	Regulated Entity No.
8/3/2024	O1957	RN 100218973

Revision No.	ID No.	Applicable Form	Group AI	Group ID No.
18	001, 003, 004, 005, 013	OP-UA15	A	GRP115PE2
19	5T6010, 5T6020, 5T6030, 5T6040, 5T6050, 3T501, 3T502, 3T503	OP-UA3	A	GRPTKPE1
20	D1-050, D1-200, D2-050, D2-200, B1-300, B0-610, F1-060, F1-061, F1-062, F1-140, F1-141, F1-300, F1-301, F2-060, F2-061, F2-062, F2-140, F2-141, F2-300, F2-301, S1-062, S1-210, S1-301, S1-304, S2-062, F1-211, F2-211, B2-300, S2-210, S2-301, S2-304	OP-UA15	A	GRPBATCHLL
21	V104, 2V104, 3V104, V103	OP-UA15	A	GRPBATCHPE1
22	C501, 2C501, 3C501	OP-UA15	A	GRPCONTPE1
23	LL-003, LL-004, LL-005, LL-006, LL-048, LL-049, LL-050, LL-051, LL-052, LL-053, LL-054, LL-055, LL-056, LL-057, LL-059, LL-060	OP-UA15	A	GRP115LL
24	C301, C302	OP-UA15	A	GRPCONTPE2
25	D0-630, F0-530, F0-540, F0-541, F0-620, F0-660, F0-690, S0-621, S0-690A, S0-690B, F0-680	OP-UA15	A	GRPCONTLL
26	V112A, V112B	OP-UA15	A	GRPBATCHPE2

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

This form is for use by facilities subject to air quality permit requirements and may be revised periodically.



**Permit By Rule Supplemental Table (Page 1)**  
**Table A: Registered Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
8/13/2024	O1957	RN100218973

Unit ID No.	Registration No.	PBR No.	Registration Date
LL-CT	171738	106.262	2/22/23
PO-CT	172733	106.262	5/26/23
PO-CT	173338	106.262	7/20/23
PO-CT, PE-FUG	163454	106.262	12/16/20
PP2-CT	173343	106.262	7/21/23

**Permit By Rule Supplemental Table (Page 2)**  
**Table B: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
8/13/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date
TTCLOAD (vents to LL-005)	106.472	09/04/2000
LL-072, LL-073, LL-074, LL-075, LL-076, LL-077, F-731, T-731	106.393	09/04/2000
E312B	106.371	09/04/2000
MSSPBR	106.263	11/01/2001

**Permit By Rule Supplemental Table (Page 3)**  
**Table C: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for Insignificant Sources for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
8/13/2024	O1957	RN100218973

PBR No.	Version No./Date

**Permit By Rule Supplemental Table (Page 4)**  
**Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
8/13/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
TTCLOAD	106.472	09/04/2000	Loading throughput and loaded material SDS
LL-072, LL-O73, F-731, T-731, LL-074, LL-075, LL-076, LL-077	106.393	09/04/2000	Visible emissions inspections on outlet
E312B	106.371	09/04/2000	Same as E312 that it serves as a spare for
LL-CT	106.262	171738	Water VOC and TDS monitoring
PO-CT	106.262	172733	Water VOC and TDS monitoring
PO-CT	106.262	173338	Water VOC and TDS monitoring
PO-CT, PE-FUG	106.262	163454	Cooling Tower Water VOC and TDS monitoring, Fugitive Component visual inspections
PP2-CT	106.262	173343	Water VOC and TDS monitoring
MSSPBR	106.263	11/01/2001	Emissions per activity

**From:** Conor Braman <cbraman@slrconsulting.com>  
**Sent:** Wednesday, August 14, 2024 8:39 AM  
**To:** Jasmine Yuan; LeAnn M. Usoff/FTEHSF  
**Cc:** Tammy Lasater / FPC Environmental  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)  
**Attachments:** OP-1.pdf

Jasmine

Good morning. LeAnn just pointed out that I had the city incorrect on the OP-1 for the library. Please find attached the corrected OP-1 with the right library address.

Also, what are the criteria for being required to be included on the public notice contact list? As we'd prefer if I was not included unless required.

Conor

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

**M** 512-417-7010

**E** cbraman@slrconsulting.com

SLR International Corporation  
Austin, TX, United States 77377



### Confidentiality Notice and Disclaimer

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**From:** Conor Braman <cbraman@slrconsulting.com>  
**Sent:** August 13, 2024 7:52 AM  
**To:** Jasmine Yuan <Jasmine.Yuan@tceq.texas.gov>; LeAnn M. Usoff/FTEHSF <LeAnnU@ftpc.fpcusa.com>  
**Cc:** Tammy Lasater / FPC Environmental <tlasater@ftpc.fpcusa.com>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Jasmine

Please find attached the updated forms as requested. I have included my address below; but historically I have not been a contact on other T5 permits I have assisted with since I do not work directly for Formosa, I'm just a consultant who helped with the application.

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 1)  
Texas Commission on Environmental Quality**

Please print or type all information. Direct any questions regarding this application form to the Air Permits Division at (512) 239-1250 or to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division (MC 163), P.O. Box 13087, Austin, Texas 78711-3087.

<b>I. Company Identifying Information</b>
A. Company Name: Formosa Plastics Corporation, Texas
B. Customer Reference Number (CN): <b>CN 600130017</b>
C. Submittal Date (mm/dd/yyyy):
<b>II. Site Information</b>
A. Site Name: Formosa Point Comfort Plant
B. Regulated Entity Reference Number (RN): <b>RN 100218973</b>
C. Indicate affected state(s) required to review permit application: <i>(Check the appropriate box[es].)</i>
<input type="checkbox"/> AR <input type="checkbox"/> CO <input type="checkbox"/> KS <input type="checkbox"/> LA <input type="checkbox"/> NM <input type="checkbox"/> OK <input checked="" type="checkbox"/> N/A
D. Indicate all pollutants for which the site is a major source based on the site's potential to emit: <i>(Check the appropriate box[es].)</i>
<input checked="" type="checkbox"/> VOC <input checked="" type="checkbox"/> NO <sub>x</sub> <input type="checkbox"/> SO <sub>2</sub> <input checked="" type="checkbox"/> PM <sub>10</sub> <input checked="" type="checkbox"/> CO <input type="checkbox"/> Pb <input checked="" type="checkbox"/> HAPS
Other:
E. Is the site a non-major source subject to the Federal Operating Permit Program? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
F. Is the site within a local program area jurisdiction? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
G. Will emissions averaging be used to comply with any Subpart of 40 CFR Part 63? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
H. Indicate the 40 CFR Part 63 Subpart(s) that will use emissions averaging:
<b>III. Permit Type</b>
A. Type of Permit Requested: <i>(Select only one response)</i>
<input checked="" type="checkbox"/> Site Operating Permit (SOP) <input type="checkbox"/> Temporary Operating Permit (TOP) <input type="checkbox"/> General Operating Permit (GOP)

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 2)  
Texas Commission on Environmental Quality**

<b>IV. Initial Application Information</b> <i>(Complete for Initial Issuance Applications Only.)</i>	
<b>A.</b> Is this submittal an abbreviated or a full application?	<input type="checkbox"/> Abbreviated <input type="checkbox"/> Full
<b>B.</b> If this is a full application, is the submittal a follow-up to an abbreviated application?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>C.</b> If this is an abbreviated application, is this an early submittal for a combined SOP and Acid Rain permit?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>D.</b> Has an electronic copy of this application been submitted (or is being submitted) to EPA? (Refer to the form instructions for additional information.)	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>V. Confidential Information</b>	
<b>A.</b> Is confidential information submitted in conjunction with this application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>VI. Responsible Official (RO) Identifying Information</b>	
RO Name Prefix: ( <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.)	
RO Full Name: Ken Mounger	
RO Title: Executive Vice President	
Employer Name: Formosa Plastics Corporation, Texas	
Mailing Address: 9 Peach Tree Hill Road	
City: Livingston	
State: New Jersey	
ZIP Code: 07039	
Territory:	
Country:	
Foreign Postal Code:	
Internal Mail Code:	
Telephone No.: (973) 716-7205	
Fax No.: (973) 994-8005	
Email: tlasater@ftpc.fpcusa.com	

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 3)  
Texas Commission on Environmental Quality**

<b>VII. Technical Contact Identifying Information</b> <i>(Complete if different from RO.)</i>
Technical Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Dr.)
Technical Contact Full Name: LeAnn Usoff
Technical Contact Title: Air Permitting Assistant Manager
Employer Name: Formosa Plastics Corporation, Texas
Mailing Address: 201 Formosa Dr
City: Point Comfort
State: Texas
ZIP Code: 77978
Territory:
Country:
Foreign Postal Code:
Internal Mail Code:
Telephone No.: (361) 920-9401
Fax No.: ()
Email: LeAnnU@ftpc.fpcusa.com
<b>VIII. Reference Only Requirements</b> <i>(For reference only.)</i>
A. State Senator: Lois W. Kolkhorst
B. State Representative: J.M. Lozano
C. Has the applicant paid emissions fees for the most recent agency fiscal year (Sept. 1 - August 31)? <span style="float: right;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A</span>
D. Is the site subject to bilingual notice requirements pursuant to 30 TAC § 122.322? <span style="float: right;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</span>
E. Indicate the alternate language(s) in which public notice is required: Spanish



**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 4)  
Texas Commission on Environmental Quality**

<b>IX. Off-Site Permit Request</b> <i>(Optional for applicants requesting to hold the FOP and records at an off-site location.)</i>
<b>A.</b> Office/Facility Name:
<b>B.</b> Physical Address:
City:
State:
ZIP Code:
Territory:
Country:
Foreign Postal Code:
<b>C.</b> Physical Location:
<b>D.</b> Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.)
Contact Full Name:
<b>E.</b> Telephone No.:
<b>X. Application Area Information</b>
<b>A.</b> Area Name: Polyethylene Plant
<b>B.</b> Physical Address: 201 Formosa Dr.
City: Point Comfort
State: TX
ZIP Code: 77978
<b>C.</b> Physical Location:
<b>D.</b> Nearest City:
<b>E.</b> State:
<b>F.</b> ZIP Code:

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 5)  
Texas Commission on Environmental Quality**

<b>X. Application Area Information (continued)</b>
<b>G.</b> Latitude (nearest second): 28 41' 20" N
<b>H.</b> Longitude (nearest second): 96 32' 50" W
<b>I.</b> Are there any emission units that were not in compliance with the applicable requirements identified in the application at the time of application submittal? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
<b>J.</b> Indicate the estimated number of emission units in the application area: 60
<b>K.</b> Are there any emission units in the application area subject to the Acid Rain Program? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
<b>XI. Public Notice</b> (Complete this section for SOP Applications and Acid Rain Permit Applications only.)
<b>A.</b> Name of a public place to view application and draft permit: Calhoun County Library
<b>B.</b> Physical Address: 200 W. Mahan St.
City: Port Lavaca
ZIP Code: 77979
<b>C.</b> Contact Person (Someone who will answer questions from the public during the public notice period):
Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Dr.):
Contact Person Full Name: LeAnn Usoff
Contact Mailing Address: 201 Formosa Dr
City: Point Comfort
State: Texas
ZIP Code: 77978
Territory:
Country:
Foreign Postal Code:
Internal Mail Code:
Telephone No.: (361) 920-9401

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 6)  
Texas Commission on Environmental Quality**

<b>XII. Delinquent Fees and Penalties</b>
<b>Notice:</b> This form will not be processed until all delinquent fees and/or penalties owed to the TCEQ or the Office of Attorney General on behalf of the TCEQ are paid in accordance with the "Delinquent Fee and Penalty Protocol."
<b>Complete Sections XIII and XIV for Acid Rain Permit and CSAPR applications only. Please include a copy of the Certificate of Representation submitted to EPA.</b>
<b>XIII. Designated Representative (DR) Identifying Information</b>
DR Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.)
DR Full Name:
DR Title:
Employer Name:
Mailing Address:
City:
State:
ZIP Code:
Territory:
Country:
Foreign Postal Code:
Internal Mail Code:
Telephone No.:
Fax No.:
Email:

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 7)  
Texas Commission on Environmental Quality**

**Complete Sections XIII and XIV for Acid Rain Permit and CSAPR applications only. Please include a copy of the Certificate of Representation submitted to EPA.**

**XIV. Alternate Designated Representative (ADR) Identifying Information**

ADR Name Prefix: (☐ Mr. ☐ Mrs. ☐ Ms. ☐ Dr.)

ADR Full Name:

ADR Title:

Employer Name:

Mailing Address:

City:

State:

ZIP Code:

Territory:

Country:

Foreign Postal Code:

Internal Mail Code:

Telephone No.:

Fax No.:

Email:

**From:** Conor Braman <cbraman@slrconsulting.com>  
**Sent:** Tuesday, August 13, 2024 7:52 AM  
**To:** Jasmine Yuan; LeAnn M. Usoff/FTEHSF  
**Cc:** Tammy Lasater / FPC Environmental  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)  
**Attachments:** OP-PBRSUP July Update.pdf; OP-REQ1 Update.pdf; OP-1.pdf

Jasmine

Please find attached the updated forms as requested. I have included my address below; but historically I have not been a contact on other T5 permits I have assisted with since I do not work directly for Formosa, I'm just a consultant who helped with the application.

14011 Park Drive  
Suite 100  
Tomball, Texas 77377

Conor

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

M 512-417-7010

E cbraman@slrconsulting.com

SLR International Corporation  
Austin, TX, United States 77377



### Confidentiality Notice and Disclaimer

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---

**From:** Jasmine Yuan <Jasmine.Yuan@tceq.texas.gov>  
**Sent:** August 12, 2024 5:10 PM  
**To:** Conor Braman <cbraman@slrconsulting.com>; LeAnn M. Usoff/FTEHSF <LeAnnU@ftpc.fpcusa.com>  
**Cc:** Tammy Lasater / FPC Environmental <tlasater@ftpc.fpcusa.com>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Hi Conor,  
The OP-REQ1 needs a date on top row. Then 106.263 version date is not 11/01/2003, it should be 11/01/2001.

**Texas Commission on Environmental Quality**  
**Application Area-Wide Applicability Determinations and General Information**  
**Form OP-REQ1**  
**Federal Operating Permit Program**

Date:	8/13/2024
Permit No.:	O1957
RN No.:	RN 100218973

*For SOP applications, answer ALL questions unless otherwise directed.*

◆ *For GOP applications, answer ONLY these questions unless otherwise directed.*

<b>Form OP-REQ1: Page 88</b>	
<b>XII. NSR Authorizations (Attach additional sheets if necessary for sections E-J)</b>	
◆ <b>I. Permits by Rule (30 TAC Chapter 106) for the Application Area</b>	
<i>A list of selected Permits by Rule (previously referred to as standard exemptions) that are required to be listed in the FOP application is available in the instructions.</i>	
PBR No.:	Version No./Date:
PBR No.: 106.262	Version No./Date: 11/01/2003
PBR No.: 106.263	Version No./Date: 11/01/2001
PBR No.:	Version No./Date:
PBR No.: 106.371	Version No./Date: 09/04/2000
PBR No.:	Version No./Date:
PBR No.: 106.393	Version No./Date: 09/04/2000
PBR No.: 106.472	Version No./Date: 09/04/2000
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
◆ <b>J. Municipal Solid Waste and Industrial Hazardous Waste Permits With an Air Addendum</b>	
Permit No.:	Issuance Date:
Permit No.:	Issuance Date:
Permit No.:	Issuance Date:
Permit No.:	Issuance Date:

**Permit By Rule Supplemental Table (Page 1)**  
**Table A: Registered Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
7/30/2024	O1957	RN100218973

Unit ID No.	Registration No.	PBR No.	Registration Date
LL-CT	171738	106.262	2/22/23
PO-CT	172733	106.262	5/26/23
PO-CT	173338	106.262	7/20/23
PO-CT, PE-FUG	163454	106.262	12/16/20
PP2-CT	173343	106.262	7/21/23

**Permit By Rule Supplemental Table (Page 2)**  
**Table B: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
7/30/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date
TTCLOAD (vents to LL-005)	106.472	09/04/2000
LL-072, LL-073, LL-074, LL-075, LL-076, LL-077, F-731, T-731	106.393	09/04/2000
E312B	106.371	09/04/2000
MSSPBR	106.263	11/01/2001



**Permit By Rule Supplemental Table (Page 4)**  
**Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
8/13/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
TTCLOAD	106.472	09/04/2000	Loading throughput and loaded material SDS
LL-072, LL-O73, F-731, T-731, LL-074, LL-075, LL-076, LL-077	106.393	09/04/2000	Visible emissions inspections on outlet
E312B	106.371	09/04/2000	Same as E312 that it serves as a spare for
LL-CT	106.262	171738	Water VOC and TDS monitoring
PO-CT	106.262	172733	Water VOC and TDS monitoring
PO-CT	106.262	173338	Water VOC and TDS monitoring
PO-CT, PE-FUG	106.262	163454	Cooling Tower Water VOC and TDS monitoring, Fugitive Component visual inspections
PP2-CT	106.262	173343	Water VOC and TDS monitoring
MSSPBR	106.263	11/01/2001	Emissions per activity

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 1)  
Texas Commission on Environmental Quality**

Please print or type all information. Direct any questions regarding this application form to the Air Permits Division at (512) 239-1250 or to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division (MC 163), P.O. Box 13087, Austin, Texas 78711-3087.

<b>I. Company Identifying Information</b>
A. Company Name: Formosa Plastics Corporation, Texas
B. Customer Reference Number (CN): <b>CN 600130017</b>
C. Submittal Date (mm/dd/yyyy):
<b>II. Site Information</b>
A. Site Name: Formosa Point Comfort Plant
B. Regulated Entity Reference Number (RN): <b>RN 100218973</b>
C. Indicate affected state(s) required to review permit application: <i>(Check the appropriate box[es].)</i>
<input type="checkbox"/> AR <input type="checkbox"/> CO <input type="checkbox"/> KS <input type="checkbox"/> LA <input type="checkbox"/> NM <input type="checkbox"/> OK <input checked="" type="checkbox"/> N/A
D. Indicate all pollutants for which the site is a major source based on the site's potential to emit: <i>(Check the appropriate box[es].)</i>
<input checked="" type="checkbox"/> VOC <input checked="" type="checkbox"/> NO <sub>x</sub> <input type="checkbox"/> SO <sub>2</sub> <input checked="" type="checkbox"/> PM <sub>10</sub> <input checked="" type="checkbox"/> CO <input type="checkbox"/> Pb <input checked="" type="checkbox"/> HAPS
Other:
E. Is the site a non-major source subject to the Federal Operating Permit Program? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
F. Is the site within a local program area jurisdiction? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
G. Will emissions averaging be used to comply with any Subpart of 40 CFR Part 63? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
H. Indicate the 40 CFR Part 63 Subpart(s) that will use emissions averaging:
<b>III. Permit Type</b>
A. Type of Permit Requested: <i>(Select only one response)</i>
<input checked="" type="checkbox"/> Site Operating Permit (SOP) <input type="checkbox"/> Temporary Operating Permit (TOP) <input type="checkbox"/> General Operating Permit (GOP)

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 2)  
Texas Commission on Environmental Quality**

<b>IV. Initial Application Information</b> <i>(Complete for Initial Issuance Applications Only.)</i>	
<b>A.</b> Is this submittal an abbreviated or a full application?	<input type="checkbox"/> Abbreviated <input type="checkbox"/> Full
<b>B.</b> If this is a full application, is the submittal a follow-up to an abbreviated application?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>C.</b> If this is an abbreviated application, is this an early submittal for a combined SOP and Acid Rain permit?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>D.</b> Has an electronic copy of this application been submitted (or is being submitted) to EPA? (Refer to the form instructions for additional information.)	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>V. Confidential Information</b>	
<b>A.</b> Is confidential information submitted in conjunction with this application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>VI. Responsible Official (RO) Identifying Information</b>	
RO Name Prefix: ( <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.)	
RO Full Name: Ken Mounger	
RO Title: Executive Vice President	
Employer Name: Formosa Plastics Corporation, Texas	
Mailing Address: 9 Peach Tree Hill Road	
City: Livingston	
State: New Jersey	
ZIP Code: 07039	
Territory:	
Country:	
Foreign Postal Code:	
Internal Mail Code:	
Telephone No.: (973) 716-7205	
Fax No.: (973) 994-8005	
Email: tlasater@ftpc.fpcusa.com	

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<b>VII. Technical Contact Identifying Information</b> <i>(Complete if different from RO.)</i>
Technical Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Dr.)
Technical Contact Full Name: LeAnn Usoff
Technical Contact Title: Air Permitting Assistant Manager
Employer Name: Formosa Plastics Corporation, Texas
Mailing Address: 201 Formosa Dr
City: Point Comfort
State: Texas
ZIP Code: 77978
Territory:
Country:
Foreign Postal Code:
Internal Mail Code:
Telephone No.: (361) 920-9401
Fax No.: ()
Email: LeAnnU@ftpc.fpcusa.com
<b>VIII. Reference Only Requirements</b> <i>(For reference only.)</i>
A. State Senator: Lois W. Kolkhorst
B. State Representative: J.M. Lozano
C. Has the applicant paid emissions fees for the most recent agency fiscal year (Sept. 1 - August 31)? <span style="float: right;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A</span>
D. Is the site subject to bilingual notice requirements pursuant to 30 TAC § 122.322? <span style="float: right;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</span>
E. Indicate the alternate language(s) in which public notice is required: Spanish

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<b>IX. Off-Site Permit Request</b> <i>(Optional for applicants requesting to hold the FOP and records at an off-site location.)</i>
<b>A.</b> Office/Facility Name:
<b>B.</b> Physical Address:
City:
State:
ZIP Code:
Territory:
Country:
Foreign Postal Code:
<b>C.</b> Physical Location:
<b>D.</b> Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.)
Contact Full Name:
<b>E.</b> Telephone No.:
<b>X. Application Area Information</b>
<b>A.</b> Area Name: Polyethylene Plant
<b>B.</b> Physical Address: 201 Formosa Dr.
City: Point Comfort
State: TX
ZIP Code: 77978
<b>C.</b> Physical Location:
<b>D.</b> Nearest City:
<b>E.</b> State:
<b>F.</b> ZIP Code:

**Federal Operating Permit Program  
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<b>X. Application Area Information (<i>continued</i>)</b>
<b>G.</b> Latitude (nearest second): 28 41'20" N
<b>H.</b> Longitude (nearest second): 96 32' 50" W
<b>I.</b> Are there any emission units that were not in compliance with the applicable requirements identified in the application at the time of application submittal? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
<b>J.</b> Indicate the estimated number of emission units in the application area: 60
<b>K.</b> Are there any emission units in the application area subject to the Acid Rain Program? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
<b>XI. Public Notice</b> ( <i>Complete this section for SOP Applications and Acid Rain Permit Applications only.</i> )
<b>A.</b> Name of a public place to view application and draft permit: Calhoun County Library
<b>B.</b> Physical Address: 200 W. Mahan St.
City: Point Comfort
ZIP Code: 77979
<b>C.</b> Contact Person (Someone who will answer questions from the public during the public notice period):
Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Dr.):
Contact Person Full Name: LeAnn Usoff
Contact Mailing Address: 201 Formosa Dr
City: Point Comfort
State: Texas
ZIP Code: 77978
Territory:
Country:
Foreign Postal Code:
Internal Mail Code:
Telephone No.: (361) 920-9401

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<b>XII. Delinquent Fees and Penalties</b>
<b>Notice:</b> This form will not be processed until all delinquent fees and/or penalties owed to the TCEQ or the Office of Attorney General on behalf of the TCEQ are paid in accordance with the "Delinquent Fee and Penalty Protocol."
<b>Complete Sections XIII and XIV for Acid Rain Permit and CSAPR applications only. Please include a copy of the Certificate of Representation submitted to EPA.</b>
<b>XIII. Designated Representative (DR) Identifying Information</b>
DR Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.)
DR Full Name:
DR Title:
Employer Name:
Mailing Address:
City:
State:
ZIP Code:
Territory:
Country:
Foreign Postal Code:
Internal Mail Code:
Telephone No.:
Fax No.:
Email:

**Federal Operating Permit Program  
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Texas Commission on Environmental Quality**

**Complete Sections XIII and XIV for Acid Rain Permit and CSAPR applications only. Please include a copy of the Certificate of Representation submitted to EPA.**

**XIV. Alternate Designated Representative (ADR) Identifying Information**

ADR Name Prefix: (☐ Mr. ☐ Mrs. ☐ Ms. ☐ Dr.)

ADR Full Name:

ADR Title:

Employer Name:

Mailing Address:

City:

State:

ZIP Code:

Territory:

Country:

Foreign Postal Code:

Internal Mail Code:

Telephone No.:

Fax No.:

Email:



**From:** Conor Braman <cbraman@slrconsulting.com>  
**Sent:** Thursday, August 1, 2024 11:31 AM  
**To:** Jasmine Yuan; LeAnn M. Usoff/FTEHSF  
**Cc:** Tammy Lasater / FPC Environmental  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)  
**Attachments:** OP-PBRSUP July Update.pdf; AMOC.pdf; SOP Draft new Comments.docx  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Jasmine

Good morning. Please find attached to this email the following:

- 1) A marked up permit noting a few minor typos
- 2) A copy of the AMOC that was not scanned so it's a bit easier to read
- 3) A PBRSUP highlighting the units that were added last time

Please let us know if you need anything else, and have a great day.

Conor

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

**M** 512-417-7010

**E** cbraman@slrconsulting.com

SLR International Corporation  
Austin, TX, United States 77377



### Confidentiality Notice and Disclaimer

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**From:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>  
**Sent:** July 25, 2024 3:15 PM  
**To:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					approved by the Administrator or have not been requested., Vent Emission Control = Reduce uncontrolled organic HAP emissions from one or more batch process vents by venting to a flare; for all other batch process vents in the process, reduce collective HAP emissions using control devices per Table 2.1.a., 1257A1 Device Type = Enclosed combustion device with a 0.5 second residence time at 760° C per § 63.1257(a)(1)(i)., HAL Device Type = No halogen scrubber or other halogen reduction device is used., Assessment Waiver = The Administrator has not granted a waiver of compliance assessment or no waiver has been requested.
GRPBATCHPE2	CHEMICAL MANUFACTURING PROCESS	V112A, V112B	63FFFF-1	40 CFR Part 63, Subpart FFFF	No changing attributes.
GRPBATCHPE2	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	V112B	63FFFF-3	40 CFR Part 63, Subpart FFFF	No changing attributes.
GRPCONTLL	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	D0-630, F0-530, F0- 540, F0-541, F0- 620, F0-660, F0-690	63FFFF-3	40 CFR Part 63, Subpart FFFF	Designated Grp1 = The emission stream is designated as Group 1., Negative Pressure = The closed vent system is operated and maintained at or above atmospheric pressure., Designated Hal = The emission stream is not designated as halogenated., Prior Eval = The

**Commented [CB1]:** To TCEQ: I think this is included in error. GRPBATCHPE2 can only route to one control device and has no alternate control device. It was only listed under FFFF-1 on OPUA60

**Commented [CB2]:** To TCEQ: Group name is GRPCONTLL, removed extraneous I

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Jon Niermann, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

December 14, 2016

MR RICK CRABTREE  
ASSISTANT GENERAL MANAGER  
FORMOSA PLASTICS CORPORATION TEXAS  
PO BOX 700  
POINT COMFORT TX 77978-0700

Re: Alternative Method of Compliance (AMOC) No. 66  
Alternative Monitoring For Cooling Towers  
Formosa Point Comfort Plant  
Regulated Entity Number: RN100218973  
Customer Reference Number: CN600130017  
Associated Permit Numbers: 7699, 19166, 19167, 19168, 19198, 19199, 19200,  
19201, 20203, 40157, 76044, 76305, 91780, 107518, 107520, 127838, 128752,  
HAP10, PSDTX1053, PSDTX1058, PSDTX1222, PSDTX1224, PSDTX1226,  
PSDTX1232, PSDTX1234, PSDTX1237, PSDTX1238, PSDTX1240, PSDTX1383,  
PSDTX1384, PSDTX226M7, PSDTX760M9, O1484, O1951, O1953, O1954, O1956,  
O1957, O1958, O3409, and O3421

Dear Mr. Crabtree:

This correspondence is in response to Formosa Plastics Corporation, Texas's (Formosa's) request for Alternative Monitoring for all cooling towers (CT) at the Formosa Point Comfort Plant. The AMOC is used to comply with requirements for sampling and analysis of VOCs in cooling tower feed water and makeup water.

We understand that Formosa is requesting clarification and confirmation of the alternative VOC sampling procedure for all authorized CT at the site installed on similar product processes (see Attachment 1). This alternative method was previously approved for Formosa on December 2, 1992, January 11, 1996, and August 1997.

The alternative VOC sampling (referenced in historical correspondence as FPC TX VOC IN WATER AND WASTEWATER) is equivalent to Test Method 8020A. The method is detailed in Attachment 2 and should provide representative concentrations of non-methane hydrocarbons to comply with the above-referenced permits. This alternative method does not apply to any requirements that may in 40 Code of Federal Regulations Part 60, New Source Performance Standards (NSPS), 40 Code of Federal Regulations Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), or 40 Code of Federal Regulations Part 63, Maximum Achievable Control Technology (MACT) Standards for Hazardous Air Pollutants.

December 14, 2016  
Page 2  
Mr. Rick Crabtree

Re: AMOC #66

The Texas Commission on Environmental Quality (TCEQ) Executive Director has made a final decision to approve your AMOC request. You are reminded that approval of any AMOC shall not abrogate the Executive Director or Administrator's authority under the Act or in any way prohibit later canceling the AMOC.

This AMOC approval may supersede certain requirements or representations in Permit Nos. 7699, 19166, 19167, 19168, 19198, 19199, 19200, 19201, 20203, 40157, 76044, 76305, 91780, 107518, 107520, 127838, 128752, HAP10, PSDTX1053, PSDTX1058, PSDTX1222, PSDTX1224, PSDTX1226, PSDTX1232, PSDTX1234, PSDTX1237, PSDTX1238, PSDTX1240, PSDTX1383, PSDTX1384, PSDTX226M7, and PSDTX760M9. To ensure effective and consistent enforceability, we request that Formosa incorporate this AMOC into the permit(s) through submittal of alteration(s) no later than 90 days after this approval, if not already included.

This approval may also change applicable requirements for the site, which are identified in the site operating permits (SOP) O1484, O1951, O1953, O1954, O1956, O1957, O1958, O3409, and O3421. The TCEQ recommends the submittal of a SOP administrative revision if any changes are necessary. Changes meeting the criteria for an administrative revision can be operated before issuance of the revision if a complete application is submitted to the TCEQ and this information is maintained with the SOP records at the site.

If you need further information or have any questions, please contact Ms. Anne Inman, P.E. at (512) 239-1276 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,



Michael Wilson, P.E., Director  
Air Permits Division  
Office of Air  
Texas Commission on Environmental Quality

cc: Air Permits Section Chief, New Source Review Section (6PD-R), U.S. Environmental Protection Agency, Region 6, Dallas

Project Number: 255806

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Mr. Rick Crabtree

Re: AMOC #66

Attachment 1 - Summary of Cooling Towers and Authorizations				
Permit Nos.	Type of Process	Plant	EPNs	Previous Approval
19166, HAP10, PSDTX760M9, O1951	Inorganic	Utilities Plant	Not identified on MAERT	12/2/1992
19167, O1953	Inorganic	Caustic Chlorine Plant	Not identified on MAERT (shares with EDC-CT)	1/11/1996
76044, PSDTX1053, O3421	Inorganic	Pet Coke / Coal Fired Generation	CT-1 through CT-12	N/A
19168, PSDTX1226, O1958	Organic Olefins	Olefins I Olefins II GHU PPU FRACII	1010 1064 8801U  FRACII-CT	N/A
107518, PSDTX1383 SOP PENDING	Organic Olefins	Olefins III PDH	OL3-CTWR PDH-CWTR	N/A
19201, PSDTX1232 O1957	Organic Polyolefins	HDPE I	PO-CT	1/11/1996
40157, PSDTX1222 O1957	Organic Polyolefins	HDPE II	PP2-CT	N/A
20203, PSDTX1224 O1957	Organic Polyolefins	LLDPE	LL-CT	12/2/1992
107520, PSDTX1384 SOP PENDING	Organic Polyolefins	LDPE	LD-CT	N/A
19200, PSDTX1237, O1956	Organic Polyolefins	Polypropylene I Plant (PP I)	PO-CT PP1-CT	1/11/1996
91780, PSDTX1240 O1956	Organic Polyolefins	PP II	PP20CT	N/A
127838 SOP PENDING	Organic Polyolefins	HDPE 3	PE3-12	N/A
19199, PSDTX1238 O1953	Organic Other	Ethylene Dichloride (EDC)	2C-C1 2C-C2 EDC-CT	
7699, PSDTX226M7 O1954	Organic Other	EDC Cracking, VCM, PVC	999 VW-C02 VW-C11	12/2/1992
19198, PSDTX1234 O1484	Organic Other	Ethylene Glycol (EG)	EG-CT	8/1997
128752 SOP PENDING	Organic Other	EG 2	EG2-CT	N/A
76305, PSDTX1058 O3409	Organic Other	Specialty PVC	CT-01	N/A

December 14, 2016  
Page 6  
Mr. Rick Crabtree

Re: AMOC #66

Mr. Wilson  
June 11, 2015

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Attachment 2

VOC in Water and Wastewater by TACB-VOC Method Procedure

# LABORATORY STANDARD OPERATING PROCEDURES

## VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

### 1.0 PURPOSE \*

In an effort to maintain Quality, Efficiency, Safety, and Environmental Responsibility, this procedure has been developed for L.S. & Q.A. Department Operation.

### 2.0 SCOPE \*

This method is for the analysis of water and wastewater samples containing volatile organic compounds (VOC) and non-methane hydrocarbons (NMHC). It is intended for analyzing treated and un-treated water and wastewater streams permitted in FPC expansion complex.

This method can be used to quantitate volatile organic compounds that have boiling points less than 200°C and are insoluble or slightly soluble in water.

### 3.0 ORGANIZATIONS AFFECTED

This procedure affects operation within the L.S. & Q.A. Department and any other department that may request this analysis.

### 4.0 RESPONSIBILITIES

Personnel	Responsibility
Management/Supervision	Responsible for development and implementation of the procedure, training material, and training of subordinates
QA/QC	Responsible for auditing the performance of the procedure.
Lab Technician	Responsible for knowing and performing analysis per procedure.

### 5.0 DEFINITIONS

**VOC** *Volatile Organic Compounds (VOC)* are organic compounds that have boiling points approximately less than 200°C.

### 6.0 KEY POINTS

Not applicable

## LABORATORY STANDARD OPERATING PROCEDURES

### VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

#### 7.0 POLICIES \*

This procedure has been developed to insure adherence to FPC Quality, Environmental, Health, and Safety Policies, FPC Corporate Total Quality Management Policies, L.S. & Q.A. Department Quality Management Plan and L.S. & Q.A. Department Quality Assurance Project Plan.

#### 8.0 GUIDELINES

<i>Summary</i>	Volatile organic compounds (VOC) are extracted from sample by purge and trap techniques. Stripped sample components are swept to the gas chromatograph inlet where the individual components are detected using a flame ionization detector. The resultant peaks are summed and quantitated against external calibration curve constructed using benzene as a standard.
<i>Interferences</i>	Major contaminate peaks are volatile materials in the laboratory and impurities in the inert purging or carrier gas. A trip blank prepared from organic-free reagent water and carried through the sampling and handling protocol can serve as a check for any possible contamination of sample.
<i>Safety Considerations</i>	The use of proper gloves, safety glasses, and FRC should be exercised when using reagents. Exercise caution when working with glassware. Wipe any spills, clean area immediately and dispose of properly. Avoid skin or eye contact, inhalation or ingestion. Do not operate instrument without all protective equipment in place.
<i>Sample Collection and Storage</i>	<ul style="list-style-type: none"> <li>- Water sample are collected in 40mL vial with a Teflon-lined septum and an open top screw-cap. Two vials per sampling event must be collected at a minimum per sample point. The containers must be filled in such manner that no air bubbles pass through the sample as the container is being filled. Should bubbling occur, the sample must be poured out and the vial refilled. Seal the vial so that no air bubbles are entrapped in it.</li> <li>- Due to differing solubility and diffusion properties of gases in liquid matrices at different temperatures, it is possible for the sample to generate some headspace during storage. This headspace will appear in the form of micro-bubbles, and should not invalidate a sample for volatile analysis.</li> <li>- The presence of a macro-bubble, generally indicates either improper sampling technique or a source of gas evolution within the sample. Studies conducted by the USEPA (EMSL-Ci, unpublished data) indicate that "pea-sized" bubbles (i.e. diameter &lt; ¼ in.) did not adversely affect volatiles data. These bubbles were generally encountered in wastewater samples, which are more susceptible to variations in gas solubility than are groundwater samples.</li> </ul>



# LABORATORY STANDARD OPERATING PROCEDURES

## VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

***Sample Collection, Preservation, Containers, and Holding Times***

Container <sup>❶</sup>	Minimum Sample Size (mL)	Sample Type <sup>❷</sup>	Preservation <sup>❸</sup>	Maximum Storage; Recommended/Regulatory <sup>❹</sup>
G-TLC	40	G,C	Refrigerated at 4°C	7 days

- ❶ G-TLC = glass with Teflon-lined cap.
- ❷ G = grab; C = composite.
- ❸ Refrigerate = Storage at 4°C, in the dark
- ❹ Reference 4

***Apparatus and Equipment***

1. Gas Chromatograph/Detector/Data System
  - a. Gas Chromatograph - Agilent model 6890 or model 5890 (as back up)
  - b. The GC must be equipped with a Agilent flame ionization detector (FID) or equivalent
  - c. The recommended data system is a Agilent Chemstation (or equivalent)
  - d. The GC column used for this determination is a J&W DB-5 column. The dimensions of the column are 30 m x 0.53 mm ID x 1.50 um film thickness.
2. Purge-and-Trap - An OI Analytical 4560 purge-and-trap or equivalent is recommended. The trap will be constructed of stainless tubing and filled with 2,6-diphenylene oxide polymer (Tenax GC or equivalent), methyl silicon packing, silica gel, and coconut charcoal. Alternatively, hydrophobic carbon molecular sieve and graphitized carbon black materials may be substituted if equivalent or increased method sensitivity can be demonstrated.  
An OI 4551A autosampler is configured to the purge-and-trap to allow for automated analysis.
4. Gas-Tight Microsyringes; 10, 25, 100, 250, 1000 uL sizes
5. 40 mL VOA (volatile organic analysis) vials with Teflon faced septa

***Reagents***

1. Organic-free reagent water (18.2 ohm-cm Millipore water)
2. Certified 2.0 mg/ml benzene standard in methanol solvent for initial calibration verification.  
Accustandard stock number M502-01-10X
3. Methanol, Pesticide quality or equivalent
4. Certified 1.0 mg/ml Benzene Standard in methanol solvent for calibration. Accustandard stock number AS-E0004

# LABORATORY STANDARD OPERATING PROCEDURES

## VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

***QC Requirements***

QC	DESCRIPTION	FREQUENCY	CRITERIA	CORRECTIVE ACTION
MB	Method blank; Organic-free reagent water	1/10 sample	< 20 ppb Which is the amount of the lowest std.	Investigate system contamination; correct the problem and reanalyze the samples.
ICV	Initial Calibration verification, Benzene: 100 ppb.	1/10 sample	20% deviation from actual value. (80 ppb-120 ppb)	Check instrument malfunction. Correct the instrument problem and reanalyze. Perform initial calibration after the third failure.

***Calculations***Deviation(%)

$$D = \frac{|X - T|}{T} \times 100$$

Where, D = percent deviation  
 X = the observed value for the measurement  
 T = "actual" value for the measurement

***Precision and Accuracy***

None

***Reporting***

1. Analytical reporting limit is 20 ppb (ug/L).
2. All verified results must be entered in LIMS and/or the appropriate non-routine log sheet upon completion.
3. For the purpose of reporting to applicable agencies, preliminary results from LIMS may be used to prevent greater than 48hr delay in reporting time.

## LABORATORY STANDARD OPERATING PROCEDURES

### VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

#### 9.0 PROCEDURES\*

##### 9.1 *Standard Preparation*

##### 9.1.2 Calibration Standards

Fill 40 mL VOA vials with reagent water, taking care not to trap any air in the vial. Add the Calibration Standard (AS-E0004) to the vial using a clean microsyringe basing on following list to prepare the calibration standards:

	Stock solution
Blank	0.0 uL
20 ppb	0.8 uL
50 ppb	2.0 uL
100 ppb	4.0 uL
250 ppb	10.0 uL
500 ppb	20.0 uL
1000 ppb	40.0 uL

9.1.3 Initial Calibration Verification Standard: Upon opening the certified benzene standard (e.g. M502-01-10X ), transfer to a 1 mL reaction vial and cap with a syringe valve. This standard may be good up to 6 months, but should be replaced if ICV fails. Fill a 40 mL VOA vial with Reagent water, taking care not to trap any air in the vial. Add 2.0 uL to the vial using a clean microsyringe for a 100 ppb std.

9.1.4 All standard preparation activities must be logged in the standards logbook.

##### 9.2 *Instrument Setup*

9.2.1 GC/FID is configured as follows:

###### Inlet

Mode: split                      Gas: Helium  
Heater:                          250 °C  
Preaature:                      6.9 psi  
Total Flow:                      102 mL/min  
Split ratio:                      9:1  
Split Flow:                      90 mL/min

###### Column

Mode:                              Const Pressure  
Pressure:                          6.9 psi  
Flow:                               10.0 mL/min  
Average Velocity:                66 cm/sec.

## LABORATORY STANDARD OPERATING PROCEDURES

### VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

**Oven:**

Setpoint: 50 °C

Oven Maximum: 300 °C

Equilibration: 0.5 min

Oven Ramp	°C/min	Next °C	Hold min	Run time
Initial		50	2.00	2.00
Ramp 1	20.00	250	9.00	16.00
Post Run		50	0	16.00

**Detector:**

Heater: 280 °C

H2 flow 40.0 mL/min

Air Flow 450 ml/min

Makeup Flow (He): 25.0 mL/min

Flame: On

## 9.2.2 Purge-and-Trap (OI 4560):

Purge flow	35 mL/min
Purge	11 min at 25 °C
Desorb	2 min at 180 °C
Bake	10 min at 185 °C
Transfer line	100 °C
Valve	100 °C
Sample size	5 mL
Drypurge	1 min

9.3 **Re- Calibration**

9.3.1 Recalibration is recommended once a year or when new ICV fails 20% recovery. Prior to re-calibration, GC and samplers must be baked out. Raise the GC oven temp to 250°C and bake for at least 30 min. It is also necessary to cycle the purge-and-trap through one bake cycle to ensure that there are no contaminants present in the trap. After 30 min lower GC temp to 50°C.

9.3.2 Prepare the calibration standards as outlined in 9.1.2 just prior to analysis. Load the standard vials in the correct slots of the autosampler and prepare following re-calibration sequence in the **Method and Run control window** of the Chemstation Software. Start the sequence by following steps from 9.4.4 to 9.4.9.

## LABORATORY STANDARD OPERATING PROCEDURES

### VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

Re-calibration sequence:

Line	Vial	Sample Name	Method Name	Inj/Vial	Sample Type	Cal Level	Update RF	Update RT
1	1	MB (Blank)	TACB-VOC	1	Sample			
2	1	20 ppb	TACB-VOC	1	Calibration	1	Replace	No Update
3	1	50 ppb	TACB-VOC	1	Calibration	2	Replace	No Update
4	1	100 ppb	TACB-VOC	1	Calibration	3	Replace	Replace
5	1	250 ppb	TACB-VOC	1	Calibration	4	Replace	No Update
6	1	500 ppb	TACB-VOC	1	Calibration	5	Replace	No Update
6	1	1000 ppb	TACB-VOC	1	Calibration	6	Replace	No Update

- 9.3.3 In the **data analysis window** of the Chemstation Software, load the chromatogram for the blank (reagent water). Check to see that there are no contamination peaks. For some low level analysis, a small peak will show at the beginning of the run. This is due to a pressure change on column when the sampler injects. If a calibration exists, the run should read less than two times the lower analytical limit for the analysis.
- 9.3.4 Open the calibration file and check to see that there are only two significant peaks. The first peak will be the solvent or methanol peak. The peaks should be sharp with minimum tailing. If there are more than two peaks, the calibration stock or reagent water is contaminated. Correct this condition and begin the calibration again.
- 9.3.5 Once the calibration files are integrated, the results must be assembled in a linear calibration curve. Display the calibration curve and check that the fit is at least  $R^2 > 0.990$ . Calculate a new area reject from the Calibration curve plot "AREA= number value x amount + 0" (the number value is the slope of the calibration curve. The amount is 20). Enter this new area into the integration events table in the value line for area reject.
- 9.3.6 Calibration should be set to calculate uncalibrated peaks using compound benzene. The parameters should sum all the individual peak areas of chromatogram.

#### 9.4 **Sample Analysis**

- 9.4.1 Composite sample: A volumetric composite is performed by combining the chilled (4°C) samples collected during a weeklong sampling event in a chilled jar that is surrounded by ice. This must be performed quickly to prevent loss of volatile component. The sample is mixed and transferred to 40mL VOA.

## LABORATORY STANDARD OPERATING PROCEDURES

### VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

Note: The volumetric composite may not reflect the true emissions over a week long period due to fluctuations in flow rate of the stream to be tested.

- 9.4.2 For grab samples, directly use the vial that the sample was received in.
- 9.4.3 Load the samples in the autosampler racks noting their positions.
- 9.4.4 Bring up the window **P & T 6890C (online): Method & Run control** by Click **Start / Program/HP Chemstation /instrument online** if it is not opened on the computer monitor.
- 9.4.5 Click **Sequence/Load Sequence** to load an existing sequence.
- 9.4.6 Click **Sequence/Sequence Parameter** to change the **Subdirectory** to today's date.
- 9.4.7 Click **Sequence/Sequence Table** to edit the sequence at the data station.  
Enter the sample information in a sequence file located in the data station. Be sure that the vial positions correspond with vial locations and the correct method is chosen for the analysis

Following sequence table is an example:

Line	Vial	Sample Name	Method Name	Inj/Vial	Sample Type
1	1	MB(Blank)	TACB-VOC	1	Sample
2	1	ICV	TACB-VOC	1	Sample
3	1	OL1 CWR 2/5	TACB-VOC	1	Sample
4	1	OL1 CWR 2/5	TACB-VOC	1	Sample
5	1	OL2 CWR 2/08	TACB-VOC	1	Sample
6	1	OL2 CWR 2/08	TACB-VOC	1	Sample
7	1	GHU CWR 2/5	TACB-VOC	1	Sample
8	1	GHU CWR 2/5	TACB-VOC	1	Sample
9	1	T971 2/1-2/7	TACB-VOC	1	Sample
10	1	3T971 2/1-2/7	TACB-VOC	1	Sample
11	1	CWTP 2/1-2/7	TACB-VOC	1	Sample
12	1	LLDPE CWR 2/5	TACB-VOC	1	Sample
13	1	MB	TACB-VOC	1	Sample
14	1	ICV	TACB-VOC	1	Sample
15	1	Sample A	TACB-VOC	1	Sample
16	1	Sample B	TACB-VOC	1	Sample

Note: Method blank and calibration verification need be run every 10 samples.

- 9.4.8 Press **Run Sequence** button. Now system is ready and waiting for Purge-and-trap device to start.
- 9.4.9 Purge-and-trap device preparation:
  - (1) Push **SPL** Button on the front panel, the window will show: **L551** start:            end:
  - (2) Set the start and end positions that need match with actual sample position and run sequence, use arrow **ON** button and **OFF** button to switch between start and end, then use keypad to key in position number.

## LABORATORY STANDARD OPERATING PROCEDURES

### VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

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(3) Press **Enter** key, then press **Clear** button, then press **Start** button to run the sequence.

- 9.4.10 Once data have been generated, check that the chromatograms have been integrated correctly. Samples that are 10 % out of the analytical range for the determination must be diluted and re-analyzed using the appropriate methodology (See table 1).

#### 10.0 TRAINING REQUIREMENTS \*

Personnel who perform this analysis will be required to complete the following training requirements:

Period	Requirement
Initial	SOP Training, Test, and Job Qualification
Annual Refresher and Procedure Revision	SOP Training and Test
Audit Finding	SOP Training, Test, and Job Qualification

#### 11.0 FLOWCHART

Not applicable

#### 12.0 REFERENCES

1. "Guidelines for preparation of Policies, Guidelines, and Procedures," FPC TQM Manual.
2. Test Method for Evaluating Solid Waste (SW-846), "Determinative Chromatographic Separations," Revision 3, March 2003, Method 8000C.
3. Test Method for Evaluating Solid Waste (SW-846), "purge and Trap for Aqueous Samples," Revision 3, May 2003, Method 5030C.
4. Test Method for Evaluating Solid Waste (SW-846), "Organic Analytes," Revision 4, February 2007, Chapter Four, Sec. 4.1. (for sample storage)

#### 13.0 RECORD RETENTION PERIOD

Records produced using this procedure will be retained for a period of no less than 5 years.

#### 14.0 ATTACHMENTS

Table 1

Figure 1: Chromatogram of Calibration Standard and sample run

Attachment 1: TNRCC Approval Letter.

## LABORATORY STANDARD OPERATING PROCEDURES

### VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

TABLE 1. Examples of sample dilution

Add the required amount of high concentration sample to a 50 mL volumetric flask, and then bring level to exact 50 mL with organic-free reagent water.

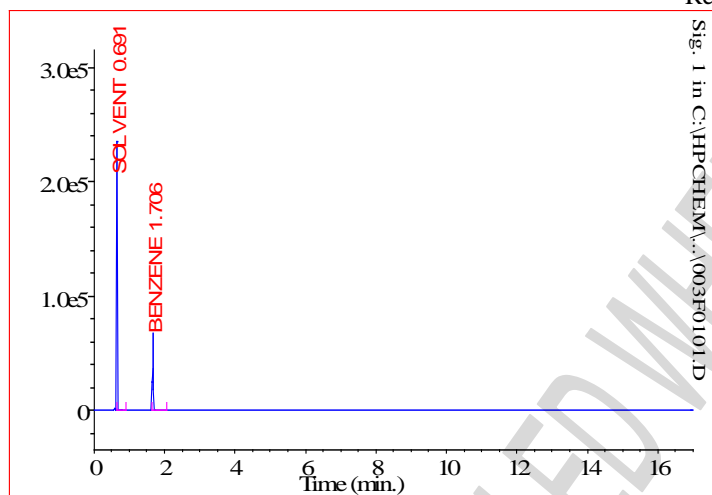
Dilution factor	High concentration sample	Total volume
30000	1.67 $\mu$ L	50 mL
20000	2.5 $\mu$ L	50 mL
10000	5 $\mu$ L	50 mL
5000	10 $\mu$ L	50 mL
4000	12.5 $\mu$ L	50 mL
3000	16.7 $\mu$ L	50 mL
2000	25 $\mu$ L	50 mL
1000	50 $\mu$ L	50 mL
500	100 $\mu$ L	50 mL
400	125 $\mu$ L	50 mL
300	167 $\mu$ L	50 mL
200	250 $\mu$ L	50 mL
100	500 $\mu$ L	50 mL
90	556 $\mu$ L	50 mL
80	625 $\mu$ L	50 mL
70	714 $\mu$ L	50 mL
60	833 $\mu$ L	50 mL
50	1 mL	50 mL
40	1.25 mL	50 mL
30	1.67 mL	50 mL
20	2.5 mL	50 mL
10	5 mL	50 mL
5	10 mL	50 mL
2	25 mL	50 mL

Figure 1: Sample Chromatogram  
Calibration Standard Run

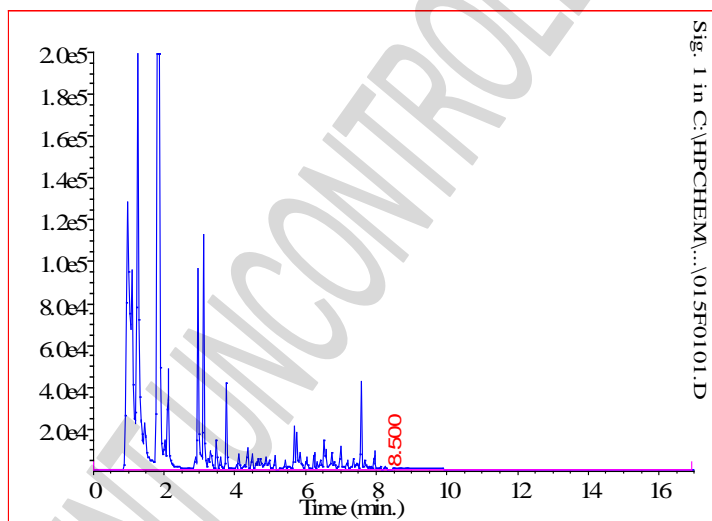


**LABORATORY STANDARD OPERATING PROCEDURES**  
**VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD**

Revision Number 5



Sample Run

**Attachment 1: TNRCC Approval Letter**

The next page is a copy of the approval letter from the TNRCC.

**LABORATORY STANDARD OPERATING PROCEDURES**  
**VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD**

Revision Number 5

John Hall, *Chairman*  
Pam Reed, *Commissioner*  
R. B. "Ralph" Marquez, *Commissioner*  
Dan Pearson, *Executive Director*



**TEXAS NATURAL RESOURCE CONSERVATION COMMISSION**

*Protecting Texas by Reducing and Preventing Pollution*

January 11, 1996

Mr. Matt Brittan  
Technical Department  
Formosa Plastics Corporation  
Post Office Box 700  
201 Formosa Drive  
Point Comfort, Texas 77978

RE: Revisions to the Testing Techniques for Sampling Wastewater and Polyolefin Powder  
Required by the Texas Natural Resource Conservation Commission (TNRCC)  
Permit Nos.: 19167, 19168, 19198, 19199, 19200, 19201, 20203  
PSD-TX Permit No. 760M3

Dear Mr. Brittan:

This is in response to your letter dated November 7, 1995, which was related to the proposed procedures for analyzing the volatile organic compound (VOC) content in wastewater and polyolefin powder.

On June 6, 1995, Formosa Plastics, Corporation (Formosa) proposed revisions to a TNRCC approved procedure for analyzing the VOC content in wastewater and polyolefin powder. In a letter dated August 29, 1995, the TNRCC stated multiple concerns related to the proposed analytical revisions. These concerns centered around the operational parameters of the gas chromatograph which was proposed for the required analysis. In the letter dated November 7, 1995, Formosa supplied additional information and comments addressing these issues. After reviewing the information, the TNRCC has determined that Formosa Plastics adequately addressed the concerns and hereby accepts the proposed VOC sampling and analysis plan as written.

If you have questions, please contact me at (512) 239-1740.

Sincerely,

  
Terry L. Blodgett  
Case Team, Engineering Services Section  
Enforcement Division

cc: Mr. Charlie Spiekerman, Regional Air Program Manager, Corpus Christi

P.O. Box 13087 • Austin, Texas 78711-3087 • 512/239-1000

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# LABORATORY STANDARD OPERATING PROCEDURES

## VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5



December 2, 1992

Mr. John T. Hyak  
Environmental Department  
Formosa Plastics Corporation, Texas  
P.O. Box 700  
201 Formosa Drive  
Point Comfort, Texas 77978

RE: Sampling Procedures for Determination of Volatile Organic Compounds (VOC) in Polyolefin Powder/Pellets, Process Wastewater, and Cooling Tower Water Supplemental Measurement Procedure for Continuous Emission Monitoring Systems (CEMS) Failures Under Texas Air Control Board (TACB) Permits 19166, 19199, and 20203.

Dear Mr. Hyak:

Your letter dated November 2, 1992, in which you requested a review of the sampling methods and supplemental measurements listed above, has been given to me for review and reply.

The method proposed for determining VOC content in polyolefin powder and pellets parallels the "Beverage Can Method" that is currently accepted for use in Texas. There are several minor substitutions in analytical equipment but, after reviewing these substitutions with Mr. Jim Lindgren of the TACB Organic Analysis Laboratory, it was determined that the substitutions should not have a significant bias on the reported data.

The method proposed for determining VOC content in cooling tower water parallels the U. S. Environmental Protection Agency Method 8020A. After comparing the two methods, there were no major deviations identified that would significantly bias the reported data.

In a letter dated October 1, 1992, addressed to Matt Brittain of your staff, I requested several procedure modifications to the supplemental measurement procedure for CEMS failures. After reviewing the revised procedures submitted by Mr. Brittain, I find the revised procedures to be acceptable as written.

 Texans working for clean air

**LABORATORY STANDARD OPERATING PROCEDURES**  
**VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD**

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Revision Number 5

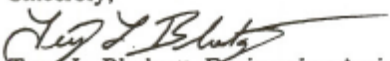
Mr. John T. Hyak

-2-

December 2, 1992

As long as these methods are performed correctly, they should produce reliable and accurate data. Permission is hereby granted to use these methods as proposed. The TACB reserves the right to direct Formosa Plastics Corporation, Texas to revise and/or change any or all of these methods if the TACB deems necessary. There are new, more reliable methods and advances in technology constantly being developed, and these methods may, someday, become obsolete in comparison.

Sincerely,



Terry L. Blodgett, Engineering Assistant  
Source Review Section  
Source and Mobile Monitoring Division

cc: Mr. Matt Brittain, Technical Department, Formosa Plastic Corporation, Texas  
Mr. Jim Lindgren, Chief, Organic Analysis Laboratory

**Permit By Rule Supplemental Table (Page 1)**  
**Table A: Registered Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
7/30/2024	O1957	RN100218973

Unit ID No.	Registration No.	PBR No.	Registration Date
LL-CT	171738	106.262	2/22/23
PO-CT	172733	106.262	5/26/23
PO-CT	173338	106.262	7/20/23
PO-CT, PE-FUG	163454	106.262	12/16/20
PP2-CT	173343	106.262	7/21/23

**Permit By Rule Supplemental Table (Page 2)**  
**Table B: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
7/30/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date
TTCLOAD (vents to LL-005)	106.472	09/04/2000
LL-072, LL-O73, LL-074, LL-075, LL-076, LL-077, F-731, T-731	106.393	09/04/2000
E312B	106.371	09/04/2000

**Permit By Rule Supplemental Table (Page 4)**  
**Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
7/30/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
TTCLOAD	106.472	09/04/2000	Loading throughput and loaded material SDS
LL-072, LL-O73, F-731, T-731, LL-074, LL-075, LL-076, LL-077	106.393	09/04/2000	Visible emissions inspections on outlet
E312B	106.371	09/04/2000	Same as E312 that it serves as a spare for
LL-CT	106.262	171738	Water VOC and TDS monitoring
PO-CT	106.262	172733	Water VOC and TDS monitoring
PO-CT	106.262	173338	Water VOC and TDS monitoring
PO-CT, PE-FUG	106.262	163454	Cooling Tower Water VOC and TDS monitoring, Fugitive Component visual inspections
PP2-CT	106.262	173343	Water VOC and TDS monitoring

Hi Conor,

I have conducted a technical review of your renewal application. An electronic copy of the Working Draft Permit (WDP) is attached for your review. This WDP contains the TCEQ determination of applicable requirements based on the information submitted in your application, and any updates provided.

Please review the WDP and submit to me any comments you have on the working draft permit by *Due 08/05/2024*. As my previous email mentioned, do you need to update OP-PBRSUP? If so, please submit it as soon as possible. I will need to update the OP-PBRSUP term dates.

*Since this is a follow-up review to the previously submitted and reviewed WDP, only comments concerning changes since the last WDP may be considered by TCEQ. Any comments outside the scope of the most recent changes should be submitted as a separate project.*

Please review the second portion of the "SOP Technical Review Fact Sheet" located at [http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title\\_V/sop\\_wdp\\_factsheet.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/sop_wdp_factsheet.pdf). This guidance contains important information regarding WDP review and comment procedures.

Note that a Certification by Responsible Official (Form OP-CRO1) for any uncertified application information, including application updates supporting the WDP comments, is required. After final review of the WDP, additional changes supported by application updates may require certification. I will advise you of these changes at a later date. Prior to transmittal of the Public Notice/Announcement Authorization Package, a duly signed OP-CRO1 form may be required which includes the specific dates or time-period of all submitted application documentation that was not previously certified. I will advise you of this requirement prior to sending the Public Notice/Announcement Authorization.

Application updates may now be submitted through Title V STEERS. Any application updates that are submitted by the RO/DAR through STEERS are certified and do not require the submittal of an original signature OP-CRO1. Application updates that are provided through email or physical mail require certification using an original signature OP-CRO1.

Please notify me when these updates have been submitted.

**As required on Form OP-1, question IV.D, please remember the FOP application and all application updates must be submitted to EPA Region 6 at [R6AirPermitsTX@epa.gov](mailto:R6AirPermitsTX@epa.gov) and to the TCEQ regional office having jurisdiction. This submittal information can be found on our website at [Where to Submit FOP Applications and Permit-Related Documents](#).**

Contact me if you have any questions regarding the guidelines, the project schedule, or any other details regarding your application or permit.

Thank you for your cooperation.

Sincerely,  
Jasmine



---

**From:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>

**Sent:** Wednesday, July 24, 2024 3:34 PM

**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>

**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>

**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Jasmine

Good afternoon and thank you for your patience while we worked through the groupings. While going through it all we discovered some vents that were miscategorized and needed to move from continuous to batch. We also found a few vents that were not vents or have been demolished and no longer exist. We have summarized the changes below and have attached the updated OPSUMR and OPUA forms. Please let us know if you have any more questions, and have a great day.

- 1) F1-300 and F2-300 are cooling water storage vessels and should not be considered vents, so we are removing them from the vents list
- 2) F1-062 and F2-062 have been demolished and no longer exist, we are removing them from the permit
- 3) S0-621, S0-690A, S0-690B are all inline filters. They have no head space and no vent on them. They only contain liquid. As such we are removing them from the list of process vents.
- 4) V103 was incorrectly categorized as a continuous vent; it should be a batch vent similar to V104, 2V104, and 3V104
  - a. OP-UA60 was updated to include this vent, and it was removed from OP-UA15
- 5) V112A and B were incorrectly categorized as continuous vents, they should be batch vents.
  - a. OP-UA60 was updated to include these vents, and they were removed from OP-UA15
- 6) The following vents were incorrectly categorized as continuous vents, they should be batch vents
  - a. F1-060, F1-061, F1-140, F1-141, F1-301, F2-060, F2-061, F2-140, F2-141, F2-301, S1-062, S1-210, S1-301, S1-304, S2-062, S2-210, S2-301, S2-304, F0-680
  - b. OP-UA60 was updated to include these vents, and they were removed from OP-UA15
- 7) OP-SUMR was updated to include all of these changes

Conor

**Conor Braman**

*(he/him/his)*

Senior Engineer - Air Quality

**M** 512-417-7010

**E** [cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 8)**  
**Federal Operating Permit Program**

**Table 5a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic  
Chemical Manufacturing - MCPU Processes**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

Process ID No.	SOP Index No.	Ammonium Sulfate	Other Operations	63.100 CMPU	G2/<1000 Lb/Yr	2525E1
TTC VENT	63FFFF-8	NO	YES	NO	YES	NO

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 9)**  
**Federal Operating Permit Program**

**Table 5b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic  
Chemical Manufacturing - MCPU Processes**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

<b>Process ID No.</b>	<b>SOP Index No.</b>	<b>Startup 2003</b>	<b>Shared Batch Vent</b>	<b>PUG</b>	<b>Startup 2002</b>	<b>PP Alt</b>	<b>Cont Proc</b>
TTC VENT	63FFFF-8	YES	NO	NO	YES	NO	

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 10)**  
**Federal Operating Permit Program**

**Table 5c: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic  
Chemical Manufacturing - MCPU Processes**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

Process ID No.	SOP Index No.	>1000 Lb/Yr	Reduction	New Source	HAP Metals	Fabric Filter	Small CD	Design Eval	Batch Proc Vents
TTC VENT	63FFFF-8	NO		NO				NO	YES

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 11)**  
**Federal Operating Permit Program**

**Table 6a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.:</b>	<b>Regulated Entity No.:</b>
<b>Area Name:</b>		<b>Customer Reference No.:</b>

Process ID No.	SOP Index No.	Designated Grp1	Determined Grp1	Vent Emission Control
D1-050	63FFFF-1	YES		CFL
D1-050	63FFFF-2	YES		CFL-ACD
D1-200	63FFFF-1	YES		CFL
D1-200	63FFFF-2	YES		CFL-ACD
D2-050	63FFFF-1	YES		CFL
D2-050	63FFFF-2	YES		CFL-ACD
D2-200	63FFFF-1	YES		CFL
D2-200	63FFFF-2	YES		CFL-ACD
B1-300	63FFFF-1	YES		CFL
B1-300	63FFFF-2	YES		CFL-ACD
B2-300	63FFFF-1	YES		CFL
B2-300	63FFFF-2	YES		CFL-ACD

B0-610	63FFFF-1	YES		CFL
B0-610	63FFFF-2	YES		CFL-ACD
F1-060	63FFFF-1	YES		CFL
F1-060	63FFFF-2	YES		CFL-ACD
F1-061	63FFFF-1	YES		CFL
F1-061	63FFFF-2	YES		CFL-ACD
F1-140	63FFFF-1	YES		CFL
F1-140	63FFFF-2	YES		CFL-ACD
F1-141	63FFFF-1	YES		CFL
F1-141	63FFFF-2	YES		CFL-ACD
F1-301	63FFFF-1	YES		CFL
F1-301	63FFFF-2	YES		CFL-ACD
F2-060	63FFFF-1	YES		CFL
F2-060	63FFFF-2	YES		CFL-ACD
F2-061	63FFFF-1	YES		CFL
F2-061	63FFFF-2	YES		CFL-ACD
F2-140	63FFFF-1	YES		CFL
F2-140	63FFFF-2	YES		CFL-ACD
F2-141	63FFFF-1	YES		CFL
F2-141	63FFFF-2	YES		CFL-ACD
F2-301	63FFFF-1	YES		CFL

F2-301	63FFFF-2	YES		CFL-ACD
S1-062	63FFFF-1	YES		CFL
S1-062	63FFFF-2	YES		CFL-ACD
S1-210	63FFFF-1	YES		CFL
S1-210	63FFFF-2	YES		CFL-ACD
S1-301	63FFFF-1	YES		CFL
S1-301	63FFFF-2	YES		CFL-ACD
S1-304	63FFFF-1	YES		CFL
S1-304	63FFFF-2	YES		CFL-ACD
S2-062	63FFFF-1	YES		CFL
S2-062	63FFFF-2	YES		CFL-ACD
S2-210	63FFFF-1	YES		CFL
S2-210	63FFFF-2	YES		CFL-ACD
S2-301	63FFFF-1	YES		CFL
S2-301	63FFFF-2	YES		CFL-ACD
S2-304	63FFFF-1	YES		CFL
S2-304	63FFFF-2	YES		CFL-ACD
F0-680	63FFFF-1	YES		CFL
F0-680	63FFFF-2	YES		CFL-ACD
V103	63FFFF-1	YES		CFL
V103	63FFFF-2	YES		CFL-ACD

V104	63FFFF-1	YES		CFL
V104	63FFFF-2	YES		CFL-ACD
2V104	63FFFF-1	YES		CFL
2V104	63FFFF-2	YES		CFL-ACD
3V104	63FFFF-1	YES		CFL
3V104	63FFFF-2	YES		CFL-ACD
V112A	63FFFF-1	YES		CFL
V112B	63FFFF-1	YES		CFL



**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 12)**  
**Federal Operating Permit Program**

**Table 6b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

<b>Process ID No.</b>	<b>SOP Index No.</b>	<b>Designated HAL</b>	<b>Determined HAL</b>	<b>Scrubber</b>	<b>Prior Eval</b>	<b>Assessment Waiver</b>	<b>Assessment Waiver ID</b>	<b>Negative Pressure</b>	<b>Bypass Line</b>
D1-050	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
D1-200	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
D2-050	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
D2-200	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
B1-300	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
B2-300	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
B0-610	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F1-060	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F1-061	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F1-140	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F1-141	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL

F1-301	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F2-060	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F2-061	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F2-140	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F2-141	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F2-301	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
S1-062	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
S1-210	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
S1-301	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
S1-304	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
S2-062	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
S2-210	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
S2-301	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
S2-304	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
F0-680	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
V103	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
V104	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
2V104	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL

3V104	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
V112A	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
V112B	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 13)**  
**Federal Operating Permit Program**

**Table 6c: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

Process ID No.	SOP Index No.	Small Device	1257A1	1257A1 Device Type	1257A1 Device ID	Alt 63SS Mon Parameters	Alt 63SS Mon ID	CEMS	SS Device Type	SS Device ID
D1-050	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
D1-200	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
D2-050	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
D2-200	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
B1-300	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
B2-300	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
B0-610	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F1-060	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F1-061	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F1-140	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F1-141	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F1-301	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01

F2-060	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F2-061	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F2-140	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F2-141	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F2-301	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
S1-062	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
S1-210	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
S1-301	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
S1-304	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
S2-062	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
S2-210	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
S2-301	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
S2-304	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
F0-680	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
V103	63FFFF-2	YES	YES	O5RT	H923A/B	NO		YES	INCIN	H923A/B
V104	63FFFF-2	YES	YES	O5RT	H923A/B	NO		YES	INCIN	H923A/B
2V104	63FFFF-2	YES	YES	O5RT	H923A/B	NO		YES	INCIN	H923A/B
3V104	63FFFF-2	YES	YES	O5RT	H923A/B	NO		YES	INCIN	H923A/B

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 14)**  
**Federal Operating Permit Program**

**Table 6d: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

<b>Process ID No.</b>	<b>SOP Index No.</b>	<b>Meets 63.988(b)(2)</b>	<b>Water</b>	<b>Designated HAL</b>	<b>Determined HAL</b>
D1-050	63FFFF-2	NO		NO	NO
D1-200	63FFFF-2	NO		NO	NO
D2-050	63FFFF-2	NO		NO	NO
D2-200	63FFFF-2	NO		NO	NO
B1-300	63FFFF-2	NO		NO	NO
B2-300	63FFFF-2	NO		NO	NO
B0-610	63FFFF-2	NO		NO	NO
F1-060	63FFFF-2	NO		NO	NO
F1-061	63FFFF-2	NO		NO	NO
F1-140	63FFFF-2	NO		NO	NO
F1-141	63FFFF-2	NO		NO	NO

F1-301	63FFFF-2	NO		NO	NO
F2-060	63FFFF-2	NO		NO	NO
F2-061	63FFFF-2	NO		NO	NO
F2-140	63FFFF-2	NO		NO	NO
F2-141	63FFFF-2	NO		NO	NO
F2-301	63FFFF-2	NO		NO	NO
S1-062	63FFFF-2	NO		NO	NO
S1-210	63FFFF-2	NO		NO	NO
S1-301	63FFFF-2	NO		NO	NO
S1-304	63FFFF-2	NO		NO	NO
S2-062	63FFFF-2	NO		NO	NO
S2-210	63FFFF-2	NO		NO	NO
S2-301	63FFFF-2	NO		NO	NO
S2-304	63FFFF-2	NO		NO	NO
F0-680	63FFFF-2	NO		NO	NO
V103	63FFFF-2	NO		NO	NO
V104	63FFFF-2	NO		NO	NO
2V104	63FFFF-2	NO		NO	NO
3V104	63FFFF-2	NO		NO	NO

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 15)**  
**Federal Operating Permit Program**

**Table 6e: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic  
Chemical Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

Process ID No.	SOP Index No.	HAL Device Type	HAL Device ID	Halogen Reduction Option	Prior Eval	Assessment Waiver	Assessment Waiver ID	Formaldehyde	Negative Pressure	Bypass Line
D1-050	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
D1-200	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
D2-050	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
D2-200	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
B1-300	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
B2-300	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
B0-610	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F1-060	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F1-061	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F1-140	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F1-141	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL



F1-301	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F2-060	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F2-061	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F2-140	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F2-141	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F2-301	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
S1-062	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
S1-210	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
S1-301	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
S1-304	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
S2-062	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
S2-210	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
S2-301	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
S2-304	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
F0-680	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
V103	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
V104	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
2V104	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL

3V104	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
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**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 1)**  
**Federal Operating Permit Program**  
**Table 1a: Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111)**  
**Subchapter A: Visible Emissions**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP/GOP Index No.	Alternate Opacity Limitation	AOL ID No.	Vent Source	Opacity Monitoring System	Construction Date	Effluent Flow Rate
H923A	R1111-1	NO		OTHER	NONE	72+	100+
H923B	R1111-1	NO		OTHER	NONE	72+	100+

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 3)**  
**Federal Operating Permit Program**  
**Table 2a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**  
**Subchapter B: Vent Gas Control**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP/GOP Index No.	Chapter 115 Division	Combustion Exhaust	Vent Type	Total Uncontrolled VOC Weight	Combined 24-Hour VOC Weight	VOC Concentration	VOC Concentration or Emission Rate at Maximum Operating Conditions
001	R5121-1	NO	NO	SPECVOC		100-	30K-	
003	R5121-1	NO	NO	SPECVOC		100-	30K-	
004	R5121-1	NO	NO	SPECVOC		100-	30K-	
005	R5121-1	NO	NO	SPECVOC		100-	30K-	
013	R5121-1	NO	NO	SPECVOC		100-	30K-	
3V305	R5121-1	NO	NO	SPECVOC		100-	30K-	
H-601	R5121-1	NO	NO	SPECVOC		100-	30K-	
LL-003	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-004	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-005	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-006	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-048	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-049	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-050	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-051	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-052	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-053	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-054	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-055	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-056	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-057	R5121-1	NO	NO	EXLDPE		100-	30K-	

LL-059	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-060	R5121-1	NO	NO	EXLDPE		100-	30K-	
V102	R5121-1	NO	NO	SPECVOC		100-	30K-	
1018	R5121-2	NO	NO	SPECVOC		100+	30K-	
1067	R5121-2	NO	NO	SPECVOC		100+	30K-	
2-HDPE	R5121-2	NO	NO	SPECVOC		100+	30K-	
3-HDPE	R5121-2	NO	NO	SPECVOC		100+	30K-	
LI-01	R5121-2	NO	NO	EXLDPE		100+	30K-	
D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
2D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
3D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
H923A	R5121-3	NO	NO	SPECVOC		100+	30K-	
H923B	R5121-3	NO	NO	SPECVOC		100+	30K-	

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 4)**  
**Federal Operating Permit Program**  
**Table 2b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**  
**Subchapter B: Vent Gas Control**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Alternate Control Requirement	ACR ID No.	Control Device Type	Control Device ID No.
1018	R5121-2	NONE		FLARE	1018
1067	R5121-2	NONE		FLARE	1067
D301	R5121-3	NONE		DIRFLM	D301
2D301	R5121-3	NONE		DIRFLM	2D301
3D301	R5121-3	NONE		DIRFLM	3D301
H923A	R5121-3	NONE		DIRFLM	H923A
H923B	R5121-3	NONE		DIRFLM	H923B

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes  
Form OP-UA15 (Page 31)**

**Federal Operating Permit Program**

**Table 12b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)  
Subchapter H, Division 1: Highly-Reactive Volatile Organic Compounds-Vent Gas Control  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.

Emission Point ID No.	SOP Index No.	AM	AM ID No.	Minor Modification	Minor Modification ID No.	Process Knowledge	Waived Testing	Testing Requirements



**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 32)**

**Federal Operating Permit Program**

**Table 13a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Emission Standard	Comb Device	95% Scrubber	PERF Test	Negative Pressure	Bypass Line
C501	63FFFF-3	BLWFLR					
C501	63FFFF-4	CD98					
2C501	63FFFF-3	BLWFLR					
2C501	63FFFF-4	CD98					
3C501	63FFFF-3	BLWFLR					
3C501	63FFFF-4	CD98					
D0-630	63FFFF-3	BLWFLR					
D0-630	63FFFF-4	CD98					
F0-530	63FFFF-3	BLWFLR					
F0-530	63FFFF-4	CD98					
F0-540	63FFFF-3	BLWFLR					
F0-540	63FFFF-4	CD98					
F0-541	63FFFF-3	BLWFLR					
F0-541	63FFFF-4	CD98					
F0-620	63FFFF-3	BLWFLR					
F0-620	63FFFF-4	CD98					
F0-660	63FFFF-3	BLWFLR					
F0-660	63FFFF-3	BLWFLR					
F0-690	63FFFF-4	CD98					

F0-690	63FFFF-3	BLWFLR					
C301	63FFFF-3	BLWFLR					
C302	63FFFF-3	BLWFLR					

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes  
Form OP-UA15 (Page 35)**

**Federal Operating Permit Program**

**Table 13d: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)  
Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:  
Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Designated GRP1	Designated HAL	Determined HAL	Prior Eval	Assessment Waiver	Assessment Waiver ID	Negative Pressure	Bypass Line
C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
2C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
3C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
D0-630	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-530	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-540	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-541	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-620	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-660	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-690	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
C301	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
C302	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 36)**

**Federal Operating Permit Program**

**Table 13e: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Designated GRP1	Small Device	1257A1	1257A1 Device Type	1257A1 Device ID	Alt 63SS Mon Parameters	Alt 63SS Mon ID	CEMS	SS Device Type	SS Device ID
C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
2C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
3C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
D0-630	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-530	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-540	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-541	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-620	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-660	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-690	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes  
Form OP-UA15 (Page 37)**

**Federal Operating Permit Program**

**Table 13f: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)  
Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:  
Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Meets 63.988(b)(2)	Water	Designated HAL	Determined HAL
C501	63FFFF-4	NO		NO	NO
2C501	63FFFF-4	NO		NO	NO
3C501	63FFFF-4	NO		NO	NO
D0-630	63FFFF-4	NO		NO	NO
F0-530	63FFFF-4	NO		NO	NO
F0-540	63FFFF-4	NO		NO	NO
F0-541	63FFFF-4	NO		NO	NO
F0-620	63FFFF-4	NO		NO	NO
F0-660	63FFFF-4	NO		NO	NO
F0-690	63FFFF-4	NO		NO	NO



**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes  
Form OP-UA15 (Page 38)**

**Federal Operating Permit Program**

**Table 13g: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)  
Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:  
Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	HAL Device Type	HAL Device ID	Prior Eval	Assessment Waiver	Assessment Waiver ID	Formaldehyde	Negative Pressure	Bypass Line
C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
2C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
3C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
D0-630	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-530	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-540	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-541	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-620	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-660	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-690	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

[Table 1](#)

Date	Permit No.	Regulated Entity No.
3/4/2024	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
	1	LL-CT	OP-UA13	LLDPE Cooling Tower		20203, 106.262/11/01/2003 [171738]	PSDTX1224
	2	PO-CT	OP-UA13	Cooling Tower		19201, 106.262/11/01/2003[172733, 173338, 163454]	PSDTX1232
	3	PP2-CT	OP-UA13	Cooling Tower		40157, 106.262/11/01/2003[173343]	PSDTX1222
D	4	T-501	OP-UA3	Tank 501		19201	PSDTX1232
D	5	T-502	OP-UA3	Tank 502		19201	PSDTX1232
D	6	T-503	OP-UA3	Tank 503		19201	PSDTX1232
D	7	2T-502	OP-UA3	Tank 2T-502		19201	PSDTX1232
D	8	2T-503	OP-UA3	Tank 2T-503		19201	PSDTX1232
D	9	LL-001	OP-UA15	Final Degasser No. 1		20203	PSDTX1224

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

**[Table 1](#)**

Date	Permit No.	Regulated Entity No.
7/9/2024	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
D	10	F1-211	OP-UA15	F1-211 Slops Drum		20203	PSDTX1224
D	11	F2-211	OP-UA15	F2-211 Slops Drum		20203	PSDTX1224
	12	H-601	OP-UA5	Catalyst Activator Direct Heater		40157	PSDTX1224
	13	LL-074	OP-PBRSUP	De-duster Baghouse 074		106.393/09/04/2000	
	14	LL-075	OP-PBRSUP	De-duster Baghouse 075		106.393/09/04/2000	
	15	LL-076	OP-PBRSUP	De-duster Baghouse 076		106.393/09/04/2000	
	16	LL-077	OP-PBRSUP	LLDPE Shipping Vacuum System		106.393/09/04/2000	
D	17	F1-062	OP-UA15	Solvent Surge Drum		20203	PSDTX1224
D	18	F2-062	OP-UA15	Solvent Surge Drum		20203	PSDTX1224
D	19	S0-621	OP-UA15	Solvent Filter		20203	PSDTX1224
D	20	S0-690A	OP-UA15	Seal Flush Solvent Filter		20203	PSDTX1224
D	21	S0-690B	OP-UA15	Seal Flush Solvent Filter		20203	PSDTX1224
D	22	F1-300	OP-UA15	Expansion Drum		20203	PSDTX1224
D	23	F2-300	OP-UA15	Expansion Drum		20203	PSDTX1224

**Texas Commission on Environmental Quality**  
**Federal Operating Permit Program**  
**Individual Unit Summary for Revisions**  
**Form OP-SUMR**  
[Table 2](#)

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

Page \_\_\_\_ of \_\_\_\_

Date	Permit No.	Regulated Entity No.
7/9/2024	O1957	RN 100218973

Revision No.	ID No.	Applicable Form	Group AI	Group ID No.
24	001, 003, 004, 005, 013	OP-UA15	A	GRP115PE2
25	5T6010, 5T6020, 5T6030, 5T6040, 5T6050, 3T501, 3T502, 3T503	OP-UA3	A	GRPTKPE1
26	F1-060, F1-061, F1-140, F1-141, F1-301, F2-060, F2-061, F2-140, F2-141, F2-301, S1-062, S1-210, S1-301, S1-304, S2-062, S2-210, S2-301, S2-304, F0-680, D1-050, D1-200, D2-050, D2-200, B1-300, B2-300, B0-610	OP-UA60	A	GRPBATCHLL
27	V103, V104, 2V104, 3V104	OP-UA60	A	GRPBATCHPE1
28	C501, 2C501, 3C501	OP-UA15	A	GRPCONTPE1
29	LL-003, LL-004, LL-005, LL-006, LL-048, LL-049, LL-050, LL-051, LL-052, LL-053, LL-054, LL-055, LL-056, LL-057, LL-059, LL-060	OP-UA15	A	GRP115LL
30	C301, C302	OP-UA15	A	GRPCONTPE2
31	D0-630, F0-530, F0-540, F0-541, F0-620, F0-660, F0-690	OP-UA15	A	GRPCONTLL
32	V112A, V112B	OP-UA60	A	GRPBATCHPE2

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

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Austin, TX, United States 77377



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---

**From:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>

**Sent:** July 11, 2024 12:48 PM

**To:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>

**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>

**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

On the form OP-SUMR you submitted, for group GRPBATCHPE1, V103 is on UA15, others are on UA60. They have different index and UA forms. So I group V104, 2V104, 3V104 on UA60, leave V103 stand alone, as before.

Group GRPBATCHLL has units on UA60 and UA15. D2-200 are on UA60, So I group them and use the group name you provided. But the F1-060 and others are on UA15. Please tell me a different group name.

Unit F1-211 and F2-211 were deleted in your previous request. Do you need to add them back to the group?

So OP-SUM you need to update to use the right UA forms.

Second, please highlighted the changes on OP-PBRSUP (or other forms you updated in the future), so I do not need to check row by row. Is the change in OP-PBRSUP for PE-FUG, adding PBR 163454?

Please respond to this email as soon as possible and I will send you the new permit draft. You can provide the forms later during your permit draft review.

Thanks  
Jasmine

---

**From:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>

**Sent:** Tuesday, July 9, 2024 4:51 PM

**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Jasmine

Good afternoon. Please find attached the updated PBRSUP and SUMR forms to add reference to the new PBR sources as well as group several process IDs together to shorten the permit. Please let us know if you need anything else, and have a great day!

Conor

## Conor Braman

(he/him/his)

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---

**From:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>  
**Sent:** July 09, 2024 9:54 AM  
**To:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Yes. Let's include those new PBR. But pls submit the OP-SUMR to include those PBRs for those units (IDs).

OP-PBRSUP should match OP-SUMR PCA columns.

Jasmine

---

**From:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>  
**Sent:** Monday, July 8, 2024 4:22 PM  
**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

**Permit By Rule Supplemental Table (Page 1)**  
**Table A: Registered Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
7/9/2024	O1957	RN100218973

Unit ID No.	Registration No.	PBR No.	Registration Date
LL-CT	171738	106.262	2/22/23
PO-CT	172733	106.262	5/26/23
PO-CT	173338	106.262	7/20/23
PO-CT, PE-FUG	163454	106.262	12/16/20
PP2-CT	173343	106.262	7/21/23



**Permit By Rule Supplemental Table (Page 2)**  
**Table B: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
7/9/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date
TTCLOAD (vents to LL-005)	106.472	09/04/2000
LL-072, LL-O73, LL-074, LL-075, LL-076, LL-077, F-731, T-731	106.393	09/04/2000
E312B	106.371	09/04/2000

**Permit By Rule Supplemental Table (Page 4)**  
**Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
7/9/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
TTCLOAD	106.472	09/04/2000	Loading throughput and loaded material SDS
LL-072, LL-O73, F-731, T-731, LL-074, LL-075, LL-076, LL-077	106.393	09/04/2000	Visible emissions inspections on outlet
E312B	106.371	09/04/2000	Same as E312 that it serves as a spare for
LL-CT	106.262	171738	Water VOC and TDS monitoring
PO-CT	106.262	172733	Water VOC and TDS monitoring
PO-CT	106.262	173338	Water VOC and TDS monitoring
PO-CT, PE-FUG	106.262	163454	Cooling Tower Water VOC and TDS monitoring, Fugitive Component visual inspections
PP2-CT	106.262	173343	Water VOC and TDS monitoring

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

**Table 1**

Date	Permit No.	Regulated Entity No.
3/4/2024	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
	1	LL-CT	OP-UA13	LLDPE Cooling Tower		20203, 106.262/11/01/2003 [171738]	PSDTX1224
	2	PO-CT	OP-UA13	Cooling Tower		19201, 106.262/11/01/2003[172733, 173338, 163454]	PSDTX1232
	3	PP2-CT	OP-UA13	Cooling Tower		40157, 106.262/11/01/2003[173343]	PSDTX1222
D	4	T-501	OP-UA3	Tank 501		19201	PSDTX1232
D	5	T-502	OP-UA3	Tank 502		19201	PSDTX1232
D	6	T-503	OP-UA3	Tank 503		19201	PSDTX1232
D	7	2T-502	OP-UA3	Tank 2T-502		19201	PSDTX1232
D	8	2T-503	OP-UA3	Tank 2T-503		19201	PSDTX1232
D	9	LL-001	OP-UA15	Final Degasser No. 1		20203	PSDTX1224

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

[Table 1](#)

Date	Permit No.	Regulated Entity No.
7/9/2024	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
D	10	F1-211	OP-UA15	F1-211 Slops Drum		20203	PSDTX1224
D	11	F2-211	OP-UA15	F2-211 Slops Drum		20203	PSDTX1224
	12	H-601	OP-UA5	Catalyst Activator Direct Heater		40157	PSDTX1224
	13	LL-074	OP-PBRSUP	De-duster Baghouse 074		106.393/09/04/2000	
	14	LL-075	OP-PBRSUP	De-duster Baghouse 075		106.393/09/04/2000	
	15	LL-076	OP-PBRSUP	De-duster Baghouse 076		106.393/09/04/2000	
	16	LL-077	OP-PBRSUP	LLDPE Shipping Vacuum System		106.393/09/04/2000	

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

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Page \_\_\_\_ of \_\_\_\_

**Table 2**

Date	Permit No.	Regulated Entity No.
7/9/2024	O1957	RN 100218973

Revision No.	ID No.	Applicable Form	Group AI	Group ID No.
17	001, 003, 004, 005, 013	OP-UA15	A	GRP115PE2
18	5T6010, 5T6020, 5T6030, 5T6040, 5T6050, 3T501, 3T502, 3T503	OP-UA3	A	GRPTKPE1
19	D1-050, D1-200, D2-050, D2-200, B1-300, B0-610, F1-060, F1-061, F1-062, F1-140, F1-141, F1-300, F1-301, F2-060, F2-061, F2-062, F2-140, F2-141, F2-300, F2-301, S1-062, S1-210, S1-301, S1-304, S2-062, F1-211, F2-211, B2-300, S2-210, S2-301, S2-304	OP-UA15	A	GRPBATCHLL
20	V104, 2V104, 3V104, V103	OP-UA15	A	GRPBATCHPE1
21	C501, 2C501, 3C501	OP-UA15	A	GRPCONTPE1
22	LL-003, LL-004, LL-005, LL-006, LL-048, LL-049, LL-050, LL-051, LL-052, LL-053, LL-054, LL-055, LL-056, LL-057, LL-059, LL-060	OP-UA15	A	GRP115LL
23	C301, C302	OP-UA15	A	GRPCONTPE2
24	D0-630, F0-530, F0-540, F0-541, F0-620, F0-660, F0-690, S0-621, S0-690A, S0-690B, F0-680	OP-UA15	A	GRPCONTLL
25	V112A, V112B	OP-UA15	A	GRPBATCHPE2

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

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Conor

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

**M** 512-417-7010

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**Sent:** July 09, 2024 9:54 AM

**To:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>

**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>

**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Yes. Let's include those new PBR. But pls submit the OP-SUMR to include those PBRs for those units (IDs).  
OP-PBRSUP should match OP-SUMR PCA columns.

Jasmine

---

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**Sent:** Monday, July 8, 2024 4:22 PM

**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>

**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>

**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Jasmine

Good afternoon. We still plan on submitting the new grouping request tomorrow, but we are also wondering if we can update the PBRSUP to include a few new non-registered PBR sources as well that will be claimed this month. Thanks for your help!

Conor

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

**M** 512-417-7010

Conor

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

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---

**From:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>

**Sent:** June 26, 2024 10:57 AM

**To:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>

**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>

**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Hello Conor,

I just heard from my technical specialist Carolyn. Here is her comment. Let me know your thoughts. As I suggest before, you can create a short version permit on your end for internal staff to use.

We want to move forward with this project quickly now.

Ok, I looked through all the requirement drivers for this permit. I was hoping that maybe they had answered extra questions and that if we removed that extra data, that would accomplish the request to shorten the requirement drivers. However, that was not the case. For the units that have multiple operating scenarios for MACT FFFF, they have a different control device type for each, so each scenario just has them answer totally different questions, which leads to a longer requirement driver since there are just more differences in attributes.

We cannot remove the accurate items that the requirement driver is populating just to make them shorter. They need to reflect the differing attributes. There are technically a few of the same questions that appear on the UA page for each control device type, which the requirement driver sees as different since they are separate entries, but even if we were to eliminate those questions, I'm not sure if it would significantly shorten the length. More importantly, that modification or any other would be tedious/time-consuming to do and would need to be re-done in every subsequent project.

Therefore, we cannot shorten the requirement drivers as the applicant requested. However, I did see one other way we could shorten the permit. For the MACT FFFF units on OP-UA15 and OP-UA60, many of the units appear to have the exact same attributes and I did not see any permit shields that differed. So, if the applicant wanted, they could put those units in groups, and therefore they'd have far fewer rows in both the Unit Summary and Applicable Requirements Summary tables. That would shorten the permit by quite a bit.

Jasmine

---

**From:** Jasmine Yuan  
**Sent:** Tuesday, June 25, 2024 9:32 AM  
**To:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

I was asking my technical specialist Ms. Carolyn Maus. However, she has not get back to me yet. I will ask her again today.

Jasmine

---

**From:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>  
**Sent:** Tuesday, June 25, 2024 9:18 AM  
**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Jasmine

Good morning. I am following up after the discussion we had the other week about shortening all the references in the permit. Are you able to do that? We'd like to give it a look before approving the final permit on our end. Thanks for your help!

Conor

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

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**Sent:** June 11, 2024 3:23 PM  
**To:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

10:30 am is good for tomorrow and Thursday .

---

**From:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>  
**Sent:** Tuesday, June 11, 2024 3:17 PM  
**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>; LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Jasmine

Good afternoon. We've reviewed the updated draft permit, and would like to discuss a few items we requested that may be difficult to accomplish. Namely, finding a way to condense the requirement driver in the unit summary to shorten the permit a bit (300 pages is quite long), and arrange the unit summary and applicable requirements sections by unit (LLDPE, and HDPEI and II) and then under those three categories in alphabetical order (this way it will be easier for each unit to understand their compliance requirements since each unit has a separate compliance team).

Are you available for a short teams call in one of these time frames:

Wed-9:30-3:00

Thur-10:30-11 or 3:00-4:30

Fri – all day

Conor

**Conor Braman**

*(he/him/his)*

Senior Engineer - Air Quality

**M** 512-417-7010

**E** [cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)

SLR International Corporation  
Austin, TX, United States 77377



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on LinkedIn

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---

**From:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>

**Sent:** June 08, 2024 12:46 PM

**To:** LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>

**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>; Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>

**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Hello

Here is the final working draft permit. Please review within 2 weeks or sooner.

Units 5T6010 to 5T6050's Kb requirements should be removed from unit summary table and ARS table as you are not complying with NSPS Kb citations listed in the tables.

In the permit shield, it is clearly stated that the units are subject to MACT FFFF, instead of NSPS Kb. So, removal of NSPS Kb makes sense and matches your compliance practice.

Thank you!

Jasmine

---

**From:** LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>

**Sent:** Wednesday, June 5, 2024 3:33 PM

**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>

**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>; Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>

**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Hello Jasmine,

The following Title V permits currently have this language in regards to cooling tower visible emission monitoring:

O4293

O4286

O1958

O4165

Thank you,

*LeAnn Usoff*

Air Permitting Assistant Manager

Environmental Dept.

Formosa Plastics Corporation, Texas  
Phone: 361-987-7463 Mobile: 361-920-9401



---

**From:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>  
**Sent:** Wednesday, June 5, 2024 2:57 PM  
**To:** LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>; Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

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*- IT/Management Center*

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Hi,

Sorry for taking so long to get back to you on this. Our PM experts asked which other permits you are talking about?

Technically, the change is fine, but they just want to confirm that it is approved language in other permits.

Please advise. Thank you!

Please respond to this email at your earliest convenience.

**From:** LeAnn M. Usoff/FTEHSF <LeAnnU@ftpc.fpcusa.com>  
**Sent:** Thursday, March 28, 2024 1:21 PM  
**To:** Jasmine Yuan  
**Cc:** Tammy Lasater / FPC Environmental; Conor Braman  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)  
**Attachments:** CB Edit SOP - O1957 Formosa Plastics Corporation Texas (Renewal 35988).docx  
  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hello Jasmine,

Please find our comments and responses in the attached draft tracked changes.

Thank you,

*LeAnn Usoff*

Air Permitting Assistant Manager  
Environmental Dept.  
Formosa Plastics Corporation, Texas  
Phone: 361-987-7463 Mobile: 361-920-9401



---

**From:** Jasmine Yuan <Jasmine.Yuan@tceq.texas.gov>  
**Sent:** Wednesday, March 13, 2024 11:17 AM  
**To:** LeAnn M. Usoff/FTEHSF <LeAnnU@ftpc.fpcusa.com>  
**Cc:** Tammy Lasater / FPC Environmental <tlasater@ftpc.fpcusa.com>; Conor Braman <cbraman@slrconsulting.com>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

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- IT/Management Center

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Hello  
I draft the permit for you to review.  
However, there are several comments need your attention. Please address the my comments and provide the feedback for the SOP draft.  
Please respond to this email by 03/29/2024.  
Thank you!  
Jasmine

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**Commented [JY1]:** I will update the page numbers later.

- E. Emission units subject to 40 CFR Part 63, Subpart FFFF as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.890 which incorporates the 40 CFR Part 63 Subpart by reference.

**Commented [CB2]:** To TCEQ: Should this also reference 113.1130 Subpart DDDDD because of Heater 601?

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
- B. Title 30 TAC § 101.3 (relating to Circumvention)
- C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
- D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
- E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
- F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
- G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
- H. Title 30 TAC § 101.221 (relating to Operational Requirements)
- I. Title 30 TAC § 101.222 (relating to Demonstrations)
- J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

- A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
  - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
  - (ii) Title 30 TAC § 111.111(a)(1)(E)
  - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
  - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive

#### Applicable Requirements Summary

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Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (§ 122.144), Reporting Terms and Conditions (§ 122.145), and Compliance Certification Terms and Conditions (§ 122.146) continue to apply.

**Commented [CB3]:** To TCEQ: In the unit summary there are lengthy sentences in the requirement driver that make the permit quite long. Is it possible to shorten this at all to make the permit more compact?

**Commented [CB4]:** To TCEQ: Can we organize the unit summary and applicable requirements by the 3 different units, rather than alphabetically for them all together

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					no waiver has been requested.
3V305	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
5T6010	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
5T6010	STORAGE TANKS/VESSELS	N/A	60KB-1	40 CFR Part 60, Subpart Kb	No changing attributes.
5T6010	STORAGE TANKS/VESSELS	N/A	63FFFF-7	40 CFR Part 63, Subpart FFFF	No changing attributes.
5T6020	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
5T6020	STORAGE TANKS/VESSELS	N/A	60KB-1	40 CFR Part 60, Subpart Kb	No changing attributes.
5T6020	STORAGE TANKS/VESSELS	N/A	63FFFF-7	40 CFR Part 63, Subpart FFFF	No changing attributes.
5T6030	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
5T6030	STORAGE TANKS/VESSELS	N/A	60KB-1	40 CFR Part 60, Subpart Kb	No changing attributes.
5T6030	STORAGE TANKS/VESSELS	N/A	63FFFF-7	40 CFR Part 63, Subpart FFFF	No changing attributes.
5T6040	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
5T6040	STORAGE TANKS/VESSELS	N/A	60KB-1	40 CFR Part 60, Subpart Kb	No changing attributes.
5T6040	STORAGE TANKS/VESSELS	N/A	63FFFF-7	40 CFR Part 63, Subpart FFFF	No changing attributes.

**Commented [JY5]:** The units 5T6010-6050 have requirements of NSPS Kb, also permit shield for NSPS Kb. You only can have one. Please let me know which one you want to keep.

**Commented [CB6R5]:** To TCEQ: Formosa would like to keep the permit shield noting that they are complying with Kb by complying with 63FFFF



### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
				VOC	
LI-01A/B	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-2	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
LI-01A/B	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63FFFF-4	40 CFR Part 63, Subpart FFFF	No changing attributes.
LL-003	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
LL-004	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
LL-005	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
LL-006	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
LL-048	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
LL-049	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
LL-050	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
LL-051	EMISSION	N/A	R5121-1	30 TAC Chapter 115, Vent	No changing attributes.

**Commented [CB7]:** To TCEQ: Updating ID to match that on the NSR Permit

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: <u>LL-CT</u>	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-2
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per year	
Averaging Period: N/A	
Deviation Limit: <u>Opacity shall not exceed 15% averaged over a six-minute period for any source having a total flow rate greater than or equal to 100,000 acfm.</u> <u>15% opacity, or visible emissions if Method 9 is not conducted after visible emissions are observed.</u>	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

**Commented [JY9]:** Please review the PMs for three cooling towers.

**Commented [CB10R9]:** To TCEQ: Only change is to the deviation limit noted below.

**Commented [JY11]:** We suggest this deviation limit. Please confirm.

**Commented [CB12R11]:** To TCEQ: Formosa would like to use the same language used in other permits at this facility for cooling tower VE monitoring

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: PO-CT	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-2
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per year	
Averaging Period: N/A	
Deviation Limit: <u>Opacity shall not exceed 15% averaged over a six-minute period for any source having a total flow rate greater than or equal to 100,000 acfm. 15%-opacity, or visible emissions if Method 9 is not conducted after visible emissions are observed.</u>	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: PP2-CT	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-2
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per year	
Averaging Period: N/A	
Deviation Limit: <u>Opacity shall not exceed 15% averaged over a six-minute period for any source having a total flow rate greater than or equal to 100,000 acfm.</u> <u>15%-opacity, or visible emissions if Method 9 is not conducted after visible emissions are observed.</u>	
<p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

**Commented [CB13]:** To TCEQ: Updating to match wording used in other units at this facility for cooling tower VE checks

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
F0-541	F0-541 INCINERATOR KO DRUM	20203, PSDTX1224
F0-620	F0-620 FRACTIONATOR FEED DRUM	20203, PSDTX1224
F0-660	F0-660 LIQUID FUEL STORAGE TANK	20203, PSDTX1224
F0-680	F0-680 CATALYST WASH SOLVENT DRUM	20203, PSDTX1224
F0-690	F0-690 RECOVERY SOLVENT DRUM	20203, PSDTX1224
F1-060	F1-060 CATALYST DILUTION DRUM	20203, PSDTX1224
F1-061	F1-061 CATALYST DRUM	20203, PSDTX1224
F1-062	F1-062 SOLVENT SURGE DRUM	20203, PSDTX1224
F1-140	F1-140 CATALYST DRUM	20203, PSDTX1224
F1-141	F1-141 CATALYST PIPETTE TANK	20203, PSDTX1224
F1-300	F1-300 EXPANSION DRUM	20203, PSDTX1224
F1-301	F1-301 C1-300 SEPARATOR	20203, PSDTX1224
F2-060	F2-060 CATALYST DILUTION DRUM	20203, PSDTX1224
F2-061	F2-061 CATALYST DRUM	20203, PSDTX1224
F2-062	F2-062 SOLVENT SURGE TANK	20203, PSDTX1224
F2-140	F2-140 CATALYST DRUM	20203, PSDTX1224
F2-141	F2-141 CATALYST PIPETTE TANK	20203, PSDTX1224
F2-300	F2-300 EXPANSION DRUM	20203, PSDTX1224
F2-301	F2-301 C2-300 SEPARATOR	20203, PSDTX1224
H-601	CATALYST ACTIVATOR DIRECT HEATER	<del>20203, 40157, PSDTX1222, PSDTX1224</del>
H923A	THERMAL INCINERATOR	19201, PSDTX1232

**Commented [CB14]:** To TCEQ: Heater is only authorized on NSR 40157 and associated PSD permit. Removing reference to incorrect permits.

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization**
H923B	THERMAL INCINERATOR	19201, PSDTX1232
HDPE I	HDPE I PLANT	19201, PSDTX1232
HDPE II	HDPE II PLANT	40157, PSDTX1222
LE/HEI	LIGHT ENDS HEAVY ENDS LOADING (LLDPE)	20203, PSDTX1224
LE/HEII	LIGHT ENDS HEAVY ENDS LOADING (HDPEII)	40157, PSDTX1222
LI-01 <a href="#">A/B</a>	THERMAL INCINERATOR	20203, PSDTX1224
LL-003	EXTRUDER FEED BIN NO. 1	20203, PSDTX1224
LL-004	EXTRUDER FEED BIN NO. 2	20203, PSDTX1224
LL-005	CATALYST FILLING VENT NO. 1	20203, PSDTX1224
LL-006	CATALYST FILLING VENT NO. 2	20203, PSDTX1224
LL-048	F1-325 WASTE HOPPER	20203, PSDTX1224
LL-049	F2-325 WASTE HOPPER	20203, PSDTX1224
LL-050	S1-412 WASTE POWDER	20203, PSDTX1224
LL-051	S2-412 WASTE POWDER	20203, PSDTX1224
<a href="#">LL-052</a>	<a href="#">S1-440 SIEVE-CLEAN-OUTS1-805 Sieve Clean-Out</a>	20203, PSDTX1224
LL-053	<a href="#">S2-440 SIEVE-CLEAN-OUTS2-806 Sieve Clean-Out</a>	20203, PSDTX1224
LL-054	<a href="#">F1-445 REFUSE HOPPERF1-806 Refuse Hopper</a>	20203, PSDTX1224
LL-055	<a href="#">F2-445 REFUSE HOPPERF2-806 Refuse Hopper</a>	20203, PSDTX1224
LL-056	F1-553 REFUSE HOPPER	20203, PSDTX1224
LL-057	F2-553 REFUSE HOPPER	20203, PSDTX1224
LL-059	F2--800 BAG FILTER	20203, PSDTX1224

**Commented [CB15]:** To TCEQ: Updating the unit name based on changes to the unit name in the NSR permit. Applies to LL-052 through LL-055

December 14, 2016  
Page 8  
Mr. Rick Crabtree  
Re: AMOC #66

Page 2 of 14

**LABORATORY STANDARD OPERATING PROCEDURES**  
**VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD**

---

Revision Number 5

**7.0 POLICIES \***

This procedure has been developed to insure adherence to FPC Quality, Environmental, Health and Safety Policies, FPC Corporate Total Quality Management Policies, L.S. & Q.A. Department Quality Management Plan and L.S. & Q.A. Department Quality Assurance Project Plan.

**8.0 GUIDELINES**

<b>Summary</b>	Volatile organic compounds (VOC) are extracted from sample by purge and trap techniques. Stripped sample components are swept to the gas chromatograph inlet where the individual compounds are detected using a flame ionization detector. The resulting peaks are summed and quantitated against external calibration curve constructed using benzene as a standard.
<b>Interferences</b>	Major contaminant peaks are related to materials in the laboratory and impurities in the inert purging or carrier gas. A trip blank prepared from organic-free reagent water and carried through the sampling and handling protocol can serve as a check for any possible contamination of sample.
<b>Safety Considerations</b>	The use of proper personal safety practices, and PPE should be exercised when using reagents. Exercise caution when working with glassware. Wipe any spills, clean area thoroughly and dispose of properly. Avoid skin or eye contact, inhalation or ingestion. Do not operate instrument without all protective equipment in place.
<b>Sample Collection and Storage</b>	<ul style="list-style-type: none"><li>- Water sample are collected in 40ml. vial with a Teflon-lined septum and an open top screw cap. Two vials per sampling event must be collected at a minimum per sample point. The containers must be filled in such manner that no air bubbles pass through the sample as the container is being filled. Should leaking occur, the sample must be poured out and the vial refilled. Seal the vial so that no air bubbles are entrapped in it.</li><li>- Due to differing solubility and diffusion properties of gases in liquid matrices at different temperatures, it is possible for the sample to generate some headspace during storage. This headspace will appear in the form of micro-bubbles, and should not invalidate a sample for volatile analysis.</li><li>- The presence of a micro-bubble, generally indicates either improper sampling technique or a source of gas evolution within the sample. Studies conducted by the USEPA (HMSL-CI, unpublished data) indicate that "pin-sized" bubbles (i.e. diameter &lt; 14 in.) did not adversely affect volatile data. These bubbles were generally encountered in wastewater samples, which are more susceptible to variations in gas solubility than are groundwater samples.</li></ul>

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Dependent: L.S. & Q.A.      Effective Date: May 25, 2015      Document Code: FTTC4505  
File Name: FTTC4505\_rev5.docx

**Commented [JY16]:** In the current permit, page 8 and page 9 have the same content (7 policies, 8 guidelines). Please double check.

1. We can remove the redundant attachment since the AMOC permit page 1-3 is included already.
2. Please send me the AMOC and I can redo the attachment screenshots to correct it.

**Commented [CB17R16]:** To TCEQ: Please remove the redundant attachment

Major NSR Summary Table

Permit Number 20203 and PSDTX1224					Issuance Date: August 11, 2022		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LL-003	Extruder Feed Bin No. 1	VOC	2.37	9.72	4, 5	4, 5	4, 5
LL-004	Extruder Feed Bin No. 2	VOC	2.37	9.72	4, 5	4, 5	4, 5
LL-005	Catalyst Filling Vent No. 1	VOC	9.65	0.43	5, 17, 18	5, 17, 18	5, 17, 18
LL-006	Catalyst Filling Vent No. 2	VOC	8.80	0.10	5	5	5
LL-007	Buffer Silo No. 1	VOC	2.28	6.48	5, 8	5, 8	5, 8
		PM	0.10	0.46			
		PM <sub>10</sub>	0.10	0.46			
		PM <sub>2.5</sub>	0.10	0.46			
LL-008	Powder Bin No. 1	VOC	1.20	5.28	5, 8, 17, 18	5, 8, 17, 18	5, 8, 17, 18
		PM	0.10	0.46			
		PM <sub>10</sub>	0.10	0.46			
		PM <sub>2.5</sub>	0.10	0.46			

**Commented [JY18]:** In your table, you make VOC separated from other pollutant, SC 5 only applies to VOC, and SC 8 applies to other pollutants. No need, now the table is based on EPN, not pollutant. So I merged. Please confirm.



Major NSR Summary Table

Permit Number 20203 and PSDTX1224					Issuance Date: August 11, 2022		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
		PM <sub>2.5</sub>	0.18	0.79			
LL-016	Hopper Car Silo No. 2 and Hopper Car Loading No. 2	PM	0.18	0.79	8	8	8
		PM <sub>10</sub>	0.18	0.79			
		PM <sub>2.5</sub>	0.18	0.79			
LL-017	Truck Silo No. 1	PM	0.26	1.16	4, 8	4, 8	4, 8
		PM <sub>10</sub>	0.26	1.16			
		PM <sub>2.5</sub>	0.26	1.16			
LL-019	Auto-Packer Silo No. 1	PM	0.26	1.16	8	8	8
		PM <sub>10</sub>	0.26	1.16			
		PM <sub>2.5</sub>	0.26	1.16			
LL-023	Additive Mix Tanks Bag Filter	PM	0.01	0.02	8	8	8
		PM <sub>10</sub>	0.01	0.02			
		PM <sub>2.5</sub>	0.01	0.02			
LL-025	Master Batch No. 1	PM	0.06	0.24	8	8	8

**Commented [JY20]:** You used the wrong MRT, this EPN is not showing in your major nsr summary table.

**Commented [CB21R20]:** To TCEQ: Formosa agrees

Major NSR Summary Table

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LL-026	Master Batch No. 2	PM <sub>10</sub>	0.06	0.24	8	8	8
		PM <sub>2.5</sub>	0.06	0.24			
		PM	0.06	0.24			
Process	Process Fugitives (5)	VOC	9.97	43.68	5, 6, 14, 15, 16	5, 6, 14, 15	5, 6, 14
		PM <sub>10</sub>	0.06	0.24			
		PM <sub>2.5</sub>	0.06	0.24			
LI-01A/B	Incinerator	VOC	2.21	9.68	5, 6, 11, 12, 17, 18, 19, 21, 22, 27	5, 6, 11, 12, 17, 18, 19, 21, 22, 27	5, 6, 12, 17, 18, 19
		PM	1.38	6.02			
		PM <sub>10</sub>	1.38	6.02			
		PM <sub>2.5</sub>	1.38	6.02			
		NO <sub>x</sub>	7.57	33.17			
		CO	13.59	59.52			
		SO <sub>2</sub>	0.03	0.12			
LI-01A/B	Incinerator MSS	VOC (7)	1,303.70	14.93	21, 27	20, 21, 27	

**Commented [JY22]:** Again, the applicable conditions are based on EPN. You submitted table based on pollutant. So please merge the conditions and fill the rest of the table.

**Commented [CB23R22]:** To TCEQ: The MNSR Table was updated as requested

Major NSR Summary Table

Permit Number 20203 and PSDTX1224					Issuance Date: August 11, 2022		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
1018	Olefins I Elevated Flare (6)	NO <sub>x</sub> (7)	79.30	1.04	<a href="#">5, 6, 9, 10, 12, 21, 22, 27</a>	<a href="#">5, 6, 9, 10, 12, 21, 22, 27</a>	<a href="#">5, 6, 12</a>
		CO (7)	573.00	7.53			
		VOC	65.07	6.39			
		VOC MSS (7)	1303.70	14.93			
		NO <sub>x</sub>	5.31	0.58			
		NO <sub>x</sub> MSS (7)	79.30	1.04			
		CO	38.24	3.99			
		CO MSS (7)	573.00	7.53			
		VOC	65.07	6.39			
		VOC MSS (7)	1303.70	14.93			
		NO <sub>x</sub>	5.31	0.58			
		NO <sub>x</sub> MSS (7)	79.30	1.04			
1067	Olefins II Elevated Flare (6)	CO	38.24	3.99	<a href="#">5, 6, 9, 10, 12, 21, 22, 27</a>	<a href="#">5, 6, 9, 10, 12, 21, 22, 27</a>	<a href="#">5, 6, 12</a>
		CO MSS (7)	573.00	7.53			

Major NSR Summary Table

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LL-CT	LLDPE Cooling Tower	VOC	1.77	7.72	<a href="#">6.13</a>	<a href="#">6.13</a>	
		PM	0.42	1.85			
		PM <sub>10</sub>	0.33	1.44			
		PM <sub>2.5</sub>	0.01	0.01			
LL-009	Weight Feeder Surge Hopper F1-850	PM	0.01	0.05	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.05			
		PM <sub>2.5</sub>	0.01	0.05			
LL-010	Weight Feeder Surge Hopper F2-850	PM	0.01	0.05	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.05			
		PM <sub>2.5</sub>	0.01	0.05			
LL-030	Train 1 Re-Run Filter S1-855	PM	0.27	1.07	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.27	1.07			
		PM <sub>2.5</sub>	0.27	1.07			
LL-031	Train 2 Re-Run Filter	PM	0.27	1.07	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>

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			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
	S2-855	PM <sub>10</sub>	0.27	1.07			
		PM <sub>2.5</sub>	0.27	1.07			
LL-032	Train 1 Masterbatch Hopper F1-830A/B	PM	0.01	0.03	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.03			
		PM <sub>2.5</sub>	0.01	0.03			
LL-033	Train 2 Masterbatch Hopper F2-830A/B	PM	0.01	0.03	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.03			
		PM <sub>2.5</sub>	0.01	0.03			
LL-034	Train 1 Q1-830 Feeder Filter S1-830	PM	0.01	0.01	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.01			
		PM <sub>2.5</sub>	0.01	0.01			
LL-035	Train 2 Q2-830 Feeder Filter S2-830	PM	0.01	0.01	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.01			
		PM <sub>2.5</sub>	0.01	0.01			

**Major NSR Summary Table**

Permit Number 20203 and PSDTX1224					Issuance Date: August 11, 2022		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LL-036	Train 1 F1-810 Vent Filter S1-811	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-037	Train 2 F2-810 Vent Filter S2-811	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-038	Train 1 F1-812 Vent Filter S1-812	PM	0.02	0.07	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.07			
		PM <sub>2.5</sub>	0.02	0.07			
LL-039	Train 2 F2-812 Vent Filter S2-812	PM	0.02	0.07	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.07			
		PM <sub>2.5</sub>	0.02	0.07			
LL-040	Train 1 F1-800 Vent Filter S1-800.1	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			

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			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
		PM <sub>2.5</sub>	0.02	0.06			
LL-041	Train 2 F2-800 Vent Filter S2-800.1	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-042	Train 1 F1-810 Feeder Filter Q1-810	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-043	Train 2 F2-810 Feeder Filter Q2-810	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-044	Train 1 F1-856 Feeder Filter Q1-856	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-045	Train 2 F2-856	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>

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			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
	Feeder Filter Q2-856	PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-046	Train 1 X1-856 Feeder Filter C1-856	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-047	Train 2 X2-856 Feeder Filter C2-856	PM	0.02	0.06	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-048	F1-325 Waste Hopper	VOC	0.01	0.01	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM	0.01	0.04			
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-049	F2-325 Waste Hopper	VOC	0.01	0.01	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM	0.01	0.04			



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			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LL-050	S1-412 Waste Powder	PM <sub>10</sub>	0.01	0.04	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM <sub>2.5</sub>	0.01	0.04			
		VOC	0.01	0.01			
		PM	0.01	0.04			
LL-051	S2-412 Waste Powder	PM <sub>10</sub>	0.01	0.04	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM <sub>2.5</sub>	0.01	0.04			
		VOC	0.01	0.01			
		PM	0.01	0.04			
LL-052	<del>S1-440 Sieve Clean-Out</del> <a href="#">S1-805 Sieve Clean-Out</a>	PM <sub>10</sub>	0.01	0.04	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM <sub>2.5</sub>	0.01	0.04			
		VOC	0.01	0.01			
		PM	0.01	0.04			

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			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LL-053	<a href="#">S2-440 Sieve Clean-Out</a> <a href="#">S2-806 Sieve Clean-Out</a>	VOC	0.01	0.01	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM	0.01	0.04			
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-054	<a href="#">F1-445 Refuse Hopper</a> <a href="#">F1-806 Refuse Hopper</a>	VOC	0.01	0.01	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM	0.01	0.04			
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-055	<a href="#">F2-445 Refuse Hopper</a> <a href="#">F2-806 Refuse Hopper</a>	VOC	0.01	0.01	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM	0.01	0.04			
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-056	F1-553 Refuse Hopper	VOC	0.01	0.01	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM	0.01	0.04			

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			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LL-057	F2-553 Refuse Hopper	PM <sub>10</sub>	0.01	0.04	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM <sub>2.5</sub>	0.01	0.04			
		VOC	0.01	0.01			
		PM	0.01	0.04			
LL-059	F2-800 Bag Filter	PM <sub>10</sub>	0.01	0.04	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM <sub>2.5</sub>	0.01	0.04			
		VOC	0.01	0.01			
		PM	0.02	0.07			
LL-060	F2-810 Bag Filter	PM <sub>10</sub>	0.02	0.07	<a href="#">5.8</a>	<a href="#">5.8</a>	<a href="#">5.8</a>
		PM <sub>2.5</sub>	0.02	0.07			
		VOC	0.01	0.01			
		PM	0.02	0.07			

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			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LL-061	C1-841 Pellet Dryer	PM	0.01	0.02	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.02			
		PM <sub>2.5</sub>	0.01	0.02			
LL-062	C2-841 Pellet Dryer	PM	0.01	0.02	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.02			
		PM <sub>2.5</sub>	0.01	0.02			
LL-063	S1-847 Bag Filter	PM	0.01	0.03	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.03			
		PM <sub>2.5</sub>	0.01	0.03			
LL-064	S2-847 Bag Filter	PM	0.01	0.03	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.01	0.03			
		PM <sub>2.5</sub>	0.01	0.03			
LL-065	C1-400 Compressor Lube Oil Container	VOC	0.45	1.52			
LL-066	C2-400 Compressor	VOC	0.45	1.52			

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			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
	Lube Oil Container						
LL-067	FO-912 Hexene Storage Tank	VOC	0.53	0.81	<a href="#">5.24</a>	<a href="#">5.24</a>	<a href="#">5</a>
LL-068	FO-913 Hexene Storage Tank	VOC	0.53	0.81	<a href="#">5.24</a>	<a href="#">5.24</a>	<a href="#">5</a>
LL-069	Hopper Car Unloading Bag Filter	PM	0.03	0.09	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.03	0.09			
		PM <sub>2.5</sub>	0.03	0.09			
LL-070	Elutriator Cyclone S1-897	PM	0.14	0.60	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.09	0.41			
		PM <sub>2.5</sub>	0.02	0.09			
LL-071	Elutriator Cyclone S2-897	PM	0.14	0.60	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
		PM <sub>10</sub>	0.09	0.41			
		PM <sub>2.5</sub>	0.02	0.09			
Maintenance, Startup, and Shutdown (MSS)							

**Major NSR Summary Table**

Permit Number 20203 and PSDTX1224					Issuance Date: August 11, 2022		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY (4)	Special Condition/Application Information	Special Condition/Application Information	Special Condition/Application Information
LLDPE-MNT	MSS to Atmosphere	VOC MSS	226.2	3.59	<a href="#">20, 21, 22, 23, 24</a>	<a href="#">20, 21, 22, 23, 24</a>	
		PM MSS	1.70	0.04			
		PM <sub>10</sub> MSS	1.70	0.04			
		PM <sub>2.5</sub> MSS	1.70	0.04			
LLDPE-TMP	MSS from Temporary Sources	NO <sub>x</sub> MSS (7)	79.30	1.04	<a href="#">20, 21</a>	<a href="#">19, 20, 21</a>	
		CO MSS (7)	573.00	7.53			
		VOC MSS (7)	1303.70	14.93			

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO<sub>x</sub> - total oxides of nitrogen

SO<sub>2</sub> - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented

PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented

PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter

CO - carbon monoxide

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) The emissions contributed only from this permitted facility which is the Linear Low Density Polyethylene (LLDPE) unit. The vents from the LLDPE unit to the Olefins I Elevated Flare (EPN 1018) and the Olefins II Elevated Flare (EPN 1067) are limited to the following scenarios:

A. All vents from the LLDPE unit can vent to EPN 1018 with no vents from the LLDPE unit venting at the same time to EPN 1067.

B. All vents from the LLDPE unit can vent to EPN 1067 with no vents from the LLDPE unit venting at the same time to EPN 1018.

This exception does not exempt the holder of this permit from the requirements of 30 TAC §§ 101.201 and 101.211.

**From:** LeAnn M. Usoff/FTEHSF <LeAnnU@ftpc.fpcusa.com>  
**Sent:** Thursday, March 7, 2024 11:16 AM  
**To:** Jasmine Yuan  
**Cc:** Tammy Lasater / FPC Environmental; Conor Braman  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)  
**Attachments:** OP-PBR SUP.pdf; OP-REQ1 Page.pdf; OP-SUMR.pdf; LL-CT Combined.pdf; HDPE I-POCT Combined.pdf; HDPE2-PP2CT Combined.pdf  
  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hello Jasmine,

In response to your list of deficiencies in the email below we have provided:

1. Visible emission monitoring forms. Please note that the TDS at each cooling tower is monitored to stay within NSR permit limits. Therefore we do not expect to have visible emissions at the cooling towers.
2. Updated OP-PBR SUP, OP-Req1 -Page 87, and OP-SUMR forms with the corrections made as requested.

Thank you,

*LeAnn Usoff*

Air Permitting Assistant Manager  
Environmental Dept.  
Formosa Plastics Corporation, Texas  
Phone: 361-987-7463 Mobile: 361-920-9401



---

**From:** Jasmine Yuan <Jasmine.Yuan@tceq.texas.gov>  
**Sent:** Thursday, February 29, 2024 3:53 PM  
**To:** Conor Braman <cbraman@slrconsulting.com>; LeAnn M. Usoff/FTEHSF <LeAnnU@ftpc.fpcusa.com>  
**Cc:** Tammy Lasater / FPC Environmental <tlasater@ftpc.fpcusa.com>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

**CAUTION: This email originated from an External Source. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

- IT/Management Center

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I have reviewed your responses. Here are few additional deficiencies: Please submit updated forms as needed and I will send you permit draft soon.

1. OP-MON, PM-P-001 is weekly monitoring, not annual monitoring. The concept is right, but you need to justify the annually frequency. Please provide two years or 8 quarters worth of records or supporting documentation that shows the units have had no visible emissions over the time period, or if they have had visible emissions that EPA Test Method 9 determined the opacity was below the opacity limit. If the unit is new and has less than two years' worth of records or documentation, please provide what is available. Once we receive the records or documentation, we will evaluate what the appropriate periodic monitoring will be.
2. OP-PBRSUP should have a date on top of the table as the date February xx, 2024 will be included in the SOP draft to indicate the version of OP-PBRSUP.
3. OP-REQ1 Page 87 has NSR19201/PSDTX1232 issuance date on 08/12/2019, which should be 09/06/2019.
4. OP-SUMR PCA information column should be filled as 106.262/11/01/2003[172733, 1725xx], NSR19201, etc. The way you filled causes confusion. See instruction

chrome-

extension://efaidnbmnnnibpcajpcglclefindmkaj/[https://www.tceq.texas.gov/assets/public/permitting/air/Forms/Title\\_V/Administrative/10344.pdf](https://www.tceq.texas.gov/assets/public/permitting/air/Forms/Title_V/Administrative/10344.pdf)

#### Form OP-SUMR Instructions

*Note: If units authorized by PBRs are being added or deleted or PBR registration numbers are being added or deleted, these changes must also be identified on Form OP-PBRSUP.*

<b>Format</b>	<b>PBR/Standard Exemption Claimed or Registered Date</b>
106.XXX/MM/DD/YYYY[rrrr]	Authorized on or after March 14, 1997 (except 106.181 is on or after December 27, 1996)
XXX/MM/DD/YYYY[rrrr]	Authorized prior to March 14, 1997
Format	XXX = 30 TAC Chapter 116 standard exemption number or 30 TAC Chapter 106 PBR number.
MM/DD/YYYY = Standard exemption or PBR effective date, approval date, or modification completion date.	
Information on Chapter 116 version dates is available at <a href="http://www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html">www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html</a> .	
Information on Chapter 106 version dates is available at <a href="http://www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html">www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html</a> .	
[rrrr] = Registration number for the authorization. If multiple registration numbers apply, list them separated by commas. Examples: Standard exemptions and PBRs would be reflected in Form OP-SUMR as follows:	

Authorization	Std. Ex./PBR No.	Date Authorized	Format
Authorized on or after March 14, 1997	106.473	July 25, 1997	106.473/03/14/1997[1010, 2020]
Authorized prior to March 14, 1997	53	October 20, 1990	53/09/12/1989[1010, 2020]

Please note that prior to March 14, 1997, a standard exemption list was incorporated by reference into 30 TAC Chapter 116 and each standard exemption had an assigned number (e.g., 112). Standard exemptions moved into 30 TAC

Thank you!  
Jasmine

**From:** Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>

**Sent:** Thursday, February 15, 2024 11:59 AM

**To:** LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>; Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>



**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

[Table 1](#)

Date	Permit No.	Regulated Entity No.
3/4/2024	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
D	10	F1-211	OP-UA15	F1-211 Slops Drum		20203	PSDTX1224
D	11	F2-211	OP-UA15	F2-211 Slops Drum		20203	PSDTX1224
	12	H-601	OP-UA5	Catalyst Activator Direct Heater		40157	PSDTX1224

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

Page \_\_\_\_ of \_\_\_\_

**Table 2**

<b>Date</b>	<b>Permit No.</b>	<b>Regulated Entity No.</b>
	O1957	RN 100218973

<b>Revision No.</b>	<b>ID No.</b>	<b>Applicable Form</b>	<b>Group AI</b>	<b>Group ID No.</b>

**Texas Commission on Environmental Quality**  
**Application Area-Wide Applicability Determinations and General Information**  
**Form OP-REQ1**  
**Federal Operating Permit Program**

Date:	
Permit No.:	O1957
RN No.:	RN 100218973

*For SOP applications, answer ALL questions unless otherwise directed.*

◆ *For GOP applications, answer ONLY these questions unless otherwise directed.*

<b>Form OP-REQ1: Page 87</b>			
<b>XII. NSR Authorizations (Attach additional sheets if necessary for sections E-J)</b>			
<b>E. PSD Permits and PSD Major Pollutants</b>			
PSD Permit No.: PSDTX1222	Issuance Date: 02/07/2020	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.: PSDTX1224	Issuance Date: 08/11/2022	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.: PSDTX1232	Issuance Date: 09/06/2019	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.:	Issuance Date:	Pollutant(s):	
<i>If PSD Permits are held for the application area, please complete the Major NSR Summary Table located under the Technical Forms heading at: <a href="http://www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html">www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html</a>.</i>			
<b>F. Nonattainment (NA) Permits and NA Major Pollutants</b>			
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
<i>If NA Permits are held for the application area, please complete the Major NSR Summary Table located under the Technical Forms heading at: <a href="http://www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html">www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html</a>.</i>			
<b>G. NSR Authorizations with FCAA § 112(g) Requirements</b>			
NSR Permit No.: 19201	Issuance Date: 09/06/2019	NSR Permit No.:	Issuance Date:
NSR Permit No.: 20203	Issuance Date: 08/11/2022	NSR Permit No.:	Issuance Date:
NSR Permit No.: 40157	Issuance Date: 02/07/2020	NSR Permit No.:	Issuance Date:
NSR Permit No.:	Issuance Date:	NSR Permit No.:	Issuance Date:
◆ <b>H. Title 30 TAC Chapter 116 Permits, Special Permits, Standard Permits, Other Authorizations (Other Than Permits By Rule, PSD Permits, NA Permits) for the Application Area</b>			
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:

**Permit By Rule Supplemental Table (Page 1)**  
**Table A: Registered Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
2/14/2024	O1957	RN100218973

Unit ID No.	Registration No.	PBR No.	Registration Date
LL-CT	171738	106.262	2/22/23
PO-CT	172733	106.262	5/26/23
PO-CT	173338	106.262	7/20/23
PO-CT, PE-FUG	163454	106.262	12/16/20
PP2-CT	173343	106.262	7/21/23

**Permit By Rule Supplemental Table (Page 2)**  
**Table B: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
2/14/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date
TTCLOAD (vents to LL-005)	106.472	09/04/2000
LL-072, LL-O73, F-731, T-731	106.393	09/04/2000
E312B	106.371	09/04/2000

**Permit By Rule Supplemental Table (Page 3)**  
**Table C: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for Insignificant Sources for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
2/14/2024	O1957	RN100218973

PBR No.	Version No./Date

**Permit By Rule Supplemental Table (Page 4)**  
**Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
2/14/2024	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
TTCLOAD	106.472	09/04/2000	Loading throughput and loaded material SDS
LL-072, LL-O73, F-731, T-731	106.393	09/04/2000	Visible emissions inspections on outlet
E312B	106.371	09/04/2000	Same as E312 that it serves as a spare for
LL-CT	106.262	171738	Water VOC and TDS monitoring
PO-CT	106.262	172733	Water VOC and TDS monitoring
PO-CT	106.262	173338	Water VOC and TDS monitoring
PO-CT, PE-FUG	106.262	163454	Cooling Tower Water VOC and TDS monitoring, Fugitive Component visual inspections
PP2-CT	106.262	173343	Water VOC and TDS monitoring

## EPA

## VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One) Method 9 203A 203B Other: \_\_\_\_\_

Company Name **Formosa Plastics**

Facility Name **LLDPE**

Street Address **301 Formosa Drive**

City **TX.** State **TX.** Zip **77871**

Process **LLDPE** Unit # **Operating Mode 100 % of max**

Control Equipment **LL-CT** **Operating Mode 35,000 Lbs/hr**

Describe Emission Point **LLDPE Cooling Tower**

Height of Emiss. Pt. **60** End **60** Height of Emiss. Pt. Rel. to Observer **-2** End **-2**

Distance to Emiss. Pt. **63** Start **261 W** End **261 W**

Vertical Angle to Obs. Pt. **-2** End **-2** Direction to Emiss. Pt. (Degrees) **261 W** End **261 W**

Distance and Direction to Observation Point from Emission Point: **63 West** End **63 West**

Describe Emissions **Start None** End **None**

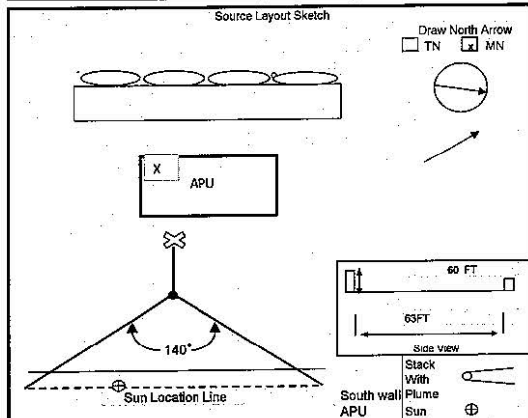
Emission Color **Start None** End **None** Water Droplet Plume **Attached [X] Detached [ ] None [ ]**

Describe Plume Background **Start sky** End **sky**

Background Color **Start blue** End **blue** Sky Conditions **Start Partly cloud** End **Partly cloudy**

Wind Speed **Start 5.9** End **5.9** Wind Direction **Start NW** End **NW**

Ambient Temp. **Start 84** End **84** Wet Bulb Temp. **Start** End **RH Percent**



Longitude **W -96** Latitude **N 28** Declination **NEG2 DEG 261 WEST**

Additional Information

Vent was rerouted to ground floor.

Form Number \_\_\_\_\_ Page \_\_\_\_\_ Of \_\_\_\_\_  
Continued on VEO Form Number \_\_\_\_\_

Observation Date		Time Zone		Start Time	End Time	
9/28/2023		CDT		10:22:00	10:21:00 AM	
Min	Sec	0	15	30	45	Comments
1	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		
6	0	0	0	0		Average of 6 mintues 0
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
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25						
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27						
28						
29						
30						

Observer's Name (Print) \_\_\_\_\_

Observer's Signature \_\_\_\_\_ Date **9/28/2023**

Organization \_\_\_\_\_

FORMOSA PLASTICS CORPORATION

Certified By \_\_\_\_\_ Date \_\_\_\_\_

EASTERN TECHNICAL ASSOCIATES



# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
Method 9 203A 203B Other: \_\_\_\_\_

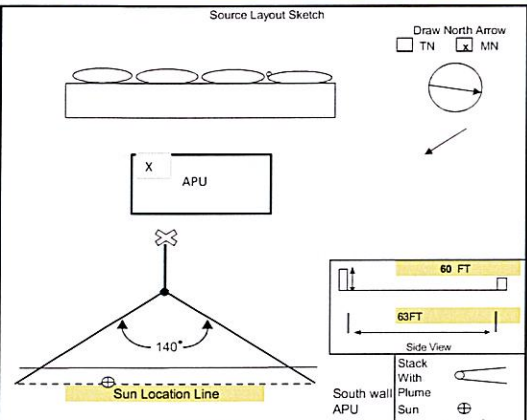
Company Name **Formosa Plastics**  
Facility Name **LLDPE**  
Street Address **301 Formosa Drive**  
City **Point Comfort** State **TX.** Zip **77971**

Process **LLDPE** Unit # **Operating Mode**  
**Control Equipment** **LL-CT** **100 % of max**  
**35,000 Lbs/hr**

Describe Emission Point  
**LLDPE Cooling Tower**  
Height of Emiss. Pt. Start **60** End **60** Height of Emiss. Pt. Rel. to Observer Start **-2** End **-2**  
Distance to Emiss. Pt. Start **63** End **63** Direction to Emiss. Pt. (Degrees) Start **261 W** End **261 W**  
Vertical Angle to Obs. Pt. Start **-2** End **-2** Direction to Emiss. Pt. (Degrees) Start **261 W** End **261 W**  
Distance and Direction to Observation Point from Emission Point Start **63 West** End **63 West**

Describe Emissions  
Start **None** End **None**  
Emission Color Start **None** End **None** Water Droplet Plume Attached ☒ Detached ☐ None ☐

Describe Plume Background  
Start **sky** End **sky**  
Background Color Start **blue** End **blue** Sky Conditions Start **Partly cloud** End **Partly cloudy**  
Wind Speed Start **10** End **10** Wind Direction Start **NE** End **NE**  
Ambient Temp. Start **64** End **64** Wet Bulb Temp. **39.8** RH Percent **61%**



Longitude **W -96** Latitude **N 28** Declination **NEG2 DEG 261WEST**

Additional Information  
Vent was rerouted to ground floor.

Form Number \_\_\_\_\_ Page \_\_\_\_\_ Of \_\_\_\_\_  
Continued on VEO Form Number \_\_\_\_\_

Observation Date		Time Zone		Start Time		End Time	
12/19/2023		CDT		10:15:00 AM		10:21:00 AM	
Min	Sec	0	15	30	45	Comments	
1		0	0	0	0		
2		0	0	0	0		
3		0	0	0	0		
4		0	0	0	0		
5		0	0	0	0		
6		0	0	0	0	Average of 6 mintues      0	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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29							
30							

Observer's Name (Print) **MARK WALKER**  
Observer's Signature *Mark Walker* Date **12/19/2023**  
Organization **FORMOSA PLASTICS CORPORATION**  
Certified By **EASTERN TECHNICAL ASSOCIATES** Date **7/19/2023**

Observer's Name (Print)		
Observer's Signature		Date
<i>Mark Walker</i>		6/23/2023
Organization		
FORMOSA PLASTICS CORPORATION		
Certified By		Date
EASTERN TECHNICAL ASSOCIATES		

**EPA  
VISIBLE EMISSION OBSERVATION FORM 1**

Method Used (Circle One) Method 9 203A 203B Other: \_\_\_\_\_

Company Name Formosa Plastics  
 Facility Name LLDPE  
 Street Address 301 Formosa Drive  
 City Point Comfort State TX. Zip 77971

Process LLDPE Unit # \_\_\_\_\_ Operating Mode 100 % of max  
 Control Equipment LL-CT Operating Mode 35,000 Lbs/hr

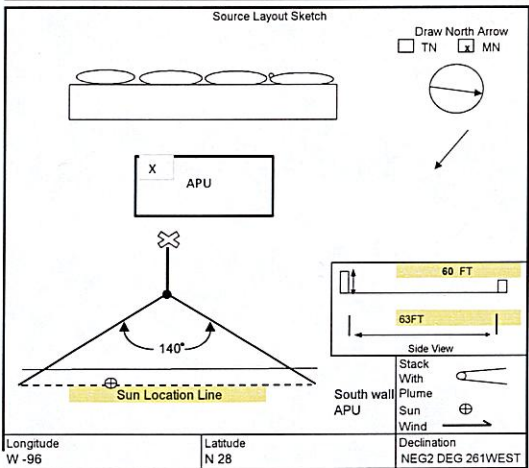
Describe Emission Point LLDPE Cooling Tower

Height of Emiss. Pt. Start 60 End 60 Height of Emiss. Pt. Rel. to Observer Start -2 End -2  
 Distance to Emiss. Pt. Start 63 End 63 Direction to Emiss. Pt. (Degrees) Start 261 W End 261 W

Vertical Angle to Obs. Pt. Start -2 End -2 Direction to Emiss. Pt. (Degrees) Start 261 W End 261 W  
 Distance and Direction to Observation Point from Emission Point Start 63 West End 63 West

Describe Emissions Start None End None  
 Emission Color Start None End None Water Droplet Plume Attached ☒ Detached ☐ None ☐

Describe Plume Background Start sky End sky  
 Background Color Start grey End grey Sky Conditions Start overcast End overcast  
 Wind Speed Start 9 End 9 Wind Direction Start NE End NE  
 Ambient Temp. Start 55 End 55 Wet Bulb Temp. 35.4 RH Percent 75%



Additional Information  
Vent was rerouted to ground floor.

Form Number \_\_\_\_\_ Page \_\_\_\_\_ Of \_\_\_\_\_  
 Continued on VEO Form Number \_\_\_\_\_

Observation Date		Time Zone		Start Time	End Time	
3/1/2024		CDT		9:45:00 AM	10:01:00 AM	
Min	Sec	0	15	30	45	Comments
1		0	0	0	0	
2		0	0	0	0	
3		0	0	0	0	
4		0	0	0	0	
5		0	0	0	0	
6		0	0	0	0	Average of 6 mintues 0
7						
8						
9						
10						
11						
12						
13						
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28						
29						
30						

Observer's Name (Print) LEE ARISMENDEZ  
 Observer's Signature [Signature] Date 3/1/2024  
 Organization FORMOSA PLASTICS CORPORATION  
 Certified By EASTERN TECHNICAL ASSOCIATES Date 1/17/2024

EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One) Method 9	203A	203B	Other: _____
--------------------------------------	------	------	--------------

Company Name Formosa Plastics Corporation, Texas			
Facility Name Point Comfort Complex			
Street Address 101 Formosa Drive			
City Point Comfort	State TX	Zip 77978	

Process High Density Poly Ethylene II	Unit #	Operating Mode 100%
Control Equipment EPN-PP2-CT B810C, B810D, B810E	Operating Mode AUTO	

Describe Emission Point PLUME/DRIFT FROM B 810 C/D/E			
Height of Emiss. Pt. Start _____ End _____		Height of Emiss. Pt. Rel. to Observer Start _____ End _____	
Distance to Emiss. Pt. Start _____ End _____		Direction to Emiss. Pt. (Degrees) Start _____ End _____	

Vertical Angle to Obs. Pt. Start _____ End _____		Direction to Emiss. Pt. (Degrees) Start _____ End _____	
Distance and Direction to Observation Point from Emission Point Start _____ End _____			

Describe Emissions			
Start _____ End _____		Water Droplet Plume	
Emission Color Start _____ End _____		Attached <input type="checkbox"/> Detached <input type="checkbox"/> None <input type="checkbox"/>	

Describe Plume Background			
Start <u>CLEAR SKY</u> End <u>CLEAR SKY</u>		Sky Conditions	
Background Color Start <u>CLEAR</u> End <u>CLEAR</u>		Start <u>PT CLOUDY</u> End <u>PT CLOUDY</u>	
Wind Speed Start <u>15.4</u> End <u>12.3</u>		Wind Direction Start <u>274°</u> End <u>196°</u>	
Ambient Temp. Start <u>92.6 F</u> End <u>92.6 F</u>		Wet Bulb Temp. Start <u>78 F</u> End <u>65</u>	

Source Layout Sketch			
		<input type="checkbox"/> TN <input type="checkbox"/> MN <input type="checkbox"/> Draw North Arrow	
Longitude _____ Latitude _____ Declination _____		Feet _____ Feet _____ Side View Stack With Plume Sun Wind	

Additional Information	

Form Number	2	P	E	0	0	1	Page	1	Of	1
Continued on VEO Form Number _____										

Observation Date <u>06.25.23</u>		Time Zone CDT		Start Time <u>1714</u>	End Time <u>1720</u>
Min	Sec	0	15	30	45
1	0	0	0	0	Comments
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Observer's Name (Print) <u>Peter R. Pett</u>		Date <u>06.25.23</u>
Observer's Signature <u>P. Pett</u>		Organization Formosa Plastics Corp, Texas
Certified By Eastern Technical Associates	Date 1/21/2004	

**EPA**  
**VISIBLE EMISSION OBSERVATION FORM 1**

Method Used (Circle One) Method 9 203A 203B Other: Method 9

Company Name Formosa Plastics Corporation, Texas  
 Facility Name Point Comfort Complex  
 Street Address 101 Formosa Drive  
 City Point Comfort State TX Zip 77978

Process High Density Poly Ethylene II Unit #            Operating Mode 100%  
 Control Equipment PP 2 CT B810C, B810D, B810E Operating Mode AUTO

Describe Emission Point PLUME/DRIFT FROM B 810 C/D/E  
 Height of Emiss. Pt.            Height of Emiss. Pt. Rel. to Observer             
 Start            End            Start            End             
 Distance to Emiss. Pt.            Direction to Emiss. Pt. (Degrees)             
 Start            End            Start            End           

Vertical Angle to Obs. Pt.            Direction to Emiss. Pt. (Degrees)             
 Start            End            Start            End             
 Distance and Direction to Observation Point from Emission Point             
 Start            End           

Describe Emissions            End             
 Emission Color            Water Droplet Plume             
 Start            End            Attached ☐ Detached ☐ None ☐

Describe Plume Background            End             
 Start grey beams, sky End grey beams, sky  
 Background Color            Sky Conditions             
 Start grey, blue End grey, blue Start clear End clear  
 Wind Speed 13 mph End 13 mph Wind Direction E End E  
 Ambient Temp. 91 End 91 Wet Bulb Temp. 72 RH Percent 72

Source Layout Sketch

**B 810 C/D/E**

Draw North Arrow  
☐ TN ☐ MN

140°

Sun Location Line

Longitude            Latitude            Declination           

Additional Information             
            
          

Form Number 2 P E 0 0 1 Page 1 Of 1  
 Continued on VEO Form Number           

Observation Date <u>9-21-03</u>		Time Zone <u>CDT</u>				Start Time <u>1336</u>	End Time <u>1336</u>
Min	Sec	0	15	30	45	Comments	
1	0	0	0	0	0		
2	0	0	0	0	0		
3	0	0	0	0	0		
4	0	0	0	0	0		
5	0	0	0	0	0		
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Observer's Name (Print) Josh Longoria  
 Observer's Signature            Date 9-29-03  
 Organization Formosa Plastics Corp, Texas  
 Certified By Eastern Technical Associates Date 1/21/2004

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 Method 9      203A      203B      Other: Method 9

Company Name      Formosa Plastics Corporation, Texas  
 Facility Name      Point Comfort Complex  
 Street Address      101 Formosa Drive  
 City      Point Comfort      State      TX      Zip      77978

Process      High Density Poly Ethylene II      Unit #           Operating Mode      100%  
 Control Equipment      EPN      PP 2 CT      B810C, B810D, B810E      Operating Mode      AUTO

Describe Emission Point      PLUME/DRIFT FROM B 810 C/D/E

Height of Emiss. Pt.      Start      End      Height of Emiss. Pt. Rel. to Observer      Start      End  
 Distance to Emiss. Pt.      Start      End      Direction to Emiss. Pt. (Degrees)      Start      End  
 Vertical Angle to Obs. Pt.      Start      End      Direction to Emiss. Pt. (Degrees)      Start      End  
 Distance and Direction to Observation Point from Emission Point      Start      End

Describe Emissions

Start      End  
 Emission Color      Start      End      Water Droplet Plume      Attached ☐ Detached ☐ None ☐

Describe Plume Background

Start      End      Sky      Start      End      Sky Conditions      Start      End      Clear      Start      End      Clear  
 Background Color      Start      End      Sky      Start      End      Sky Conditions      Start      End      Clear  
 Wind Speed      Start      End      8      Start      End      Wind Direction      Start      End      N      Start      End      N  
 Ambient Temp.      Start      End      71      Wet Bulb Temp.      RH Percent      43

Source Layout Sketch

Draw North Arrow  
☐ TN      ☐ MN

B 810 C/D/E

X

140°

Sun Location Line

Longitude      Latitude      Declination

Stack With Plume      Sun      Wind

Additional Information

Form Number      2      P      E      0      0      1      Page      1      Of      1  
 Continued on VEO Form Number

Observation Date		Time Zone		Start Time	End Time
11/15/23		CDT		1330	1340
Sec	0	15	30	45	Comments
Min					
1	0	0	0	0	
2	0	0	0	0	
3	0	0	0	0	
4	0	0	0	0	
5	0	0	0	0	
6	0	0	0	0	
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Observer's Name (Print)      Doug Girdy

Observer's Signature      D. Girdy      Date      11/15/23

Organization      Formosa Plastics Corp, Texas

Certified By      Eastern Technical Associates      Date      7/19/2023

# EPA VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
 Method 9      203A      203B      Other: Method 9

Company Name      Formosa Plastics Corporation, Texas  
 Facility Name      Point Comfort Complex  
 Street Address      101 Formosa Drive  
 City      Point Comfort      State      TX      Zip      77978

Process      High Density Poly Ethylene II      Unit #           Operating Mode      100%  
 Control Equipment      EPN      PP 2 CT      B810C, B810D, B810E      Operating Mode      AUTO

Describe Emission Point      PLUME/DRIFT FROM B 810 C/D/E

Height of Emiss. Pt.           Height of Emiss. Pt. Rel. to Observer  
 Start      End      Start      End  
 Distance to Emiss. Pt.           Direction to Emiss. Pt. (Degrees)  
 Start      End      Start      End

Vertical Angle to Obs. Pt.           Direction to Emiss. Pt. (Degrees)  
 Start      End      Start      End  
 Distance and Direction to Observation Point from Emission Point  
 Start      End

Describe Emissions  
 Start      End  
 Emission Color           Water Droplet Plume  
 Start      End      Attached ☐ Detached ☐ None ☐

Describe Plume Background  
 Start      SKY      End      SKY  
 Background Color           Sky Conditions  
 Start      Blue      End      Blue      Start      Clear      End      Clear  
 Wind Speed           Wind Direction  
 Start      2mph      End      2mph      Start      NW      End      NW  
 Ambient Temp.           Wet Bulb Temp.      RH Percent  
 Start      56      End      56           38

Source Layout Sketch

B 810 C/D/E

X

Sun Location Line

Draw North Arrow  
☐ TN    ☒ MN

Stack With Plume  
  
 Sun   
 Wind

Longitude      Latitude      Declination

Additional Information

Form Number      2      P      E      0      0      1      Page      1      Of      1  
 Continued on VEO Form Number

Observation Date		Time Zone				Start Time	End Time
2-18-24		CDT				16:00	16:06
Min	Sec	0	15	30	45	Comments	
1	0	0	0	0	0		
2	0	0	0	0	0		
3	0	0	0	0	0		
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Observer's Name (Print)      Abel Dominguez  
 Observer's Signature           Date      2-18-24  
 Organization      Formosa Plastics Corp, Texas  
 Certified By      Eastern Technical Associates      Date      1/17/2024

EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
Method 9 303A 203B Other:

Company Name  
Formosa Plastics Corp.  
Facility Name  
High Density Polyethylene 1  
Street Address  
301 Formosa Drive  
Company Name  
Point Comfort State  
Tx. Zip  
77978

Process  
COOLING TOWER Unit #  
9/T Operating Mode  
RUNNING  
Control Equipment  
SAME Operating Mode  
SAME

Describe Emission Point  
STACKS FOR B930 A/B/C

Height of Emis. Pt.  
Start ~51' End ~51' Height of Emis. Pt. Rel. to Observer  
Start ~12' End ~12'  
Distance to Emis. Pt.  
Start ~135' End ~135' Direction to Emis. Pt. (Degrees)  
Start 206°SSW End 206°SSW

Vertical Angle to Obs. Pt.  
Start ~2' End ~2' Direction to Emis. Pt. (Degrees)  
Start 206°SSW End 206°SSW  
Distance and Direction to Observation Point from Emission Point  
Start 3 ABOVE End 3 ABOVE

Describe Emissions  
Start CLEAR End SAME  
Emission Color  
Start CLEAR End SAME Water Droplet Plume  
Attached ☐ Detached ☐ None ☒

Describe Plume Background  
Start SKY End SKY  
Background Color  
Start BLUE End SAME Sky Conditions  
Start CLOUDY End SAME  
Wind Speed  
Start 6 MPH End SAME Wind Direction  
Start NORTH End SAME  
Ambient Temp.  
Start 82° End SAME Wet Bulb Temp.  
89° RH Percent  
79%

Source Layout Sketch

Draw North Arrow  
☐ TN ☒ MN

Observation Point

Sun Location Line

Side View

Stack  
With  
Plume  
Sun  
Wind

Longitude  
96° 32' 50" Latitude  
28° 41' 20" Declination  
4°48min east

Additional Information

Form Number  
Continued on VEO Form Number

Observation Date		Time Zone		Start Time	End Time	
09/16/22		CDT		1236	1243	
Min	Sec	0	15	30	45	Comments
1	0	0	0	0	0	
2	0	0	0	0	0	
3	0	0	0	0	0	
4	0	0	0	0	0	
5	0	0	0	0	0	
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Observer's Name (Print)  
LANE CARRIGAN  
Observer's Signature  
Date  
09/16/22  
Organization  
FRC, TX  
Certified By  
Eastern Technical Associates  
Date



EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
Method 9 203A 203B Other: \_\_\_\_\_

Company Name  
Formosa Plastics Corp.  
Facility Name  
High Density Polyethylene 1  
Street Address  
301 Formosa Drive  
Company Name  
Point Comfort State Tx. Zip 77978

Process  
COOLING TOWER FAN C/T Unit # 18090 Operating Mode  
Control Equipment  
SAME Operating Mode  
SAME

Describe Emission Point  
STACKS FOR B930 A/B/C

Height of Emiss. Pt.  
Start ~51 End ~51 Height of Emiss. Pt. Rel. to Observer  
Start ~12 End ~12  
Distance to Emiss. Pt.  
Start ~135 End ~135 Direction to Emiss. Pt. (Degrees)  
Start 206°SSW End 206°SSW

Vertical Angle to Obs. Pt.  
Start ~2 End ~2 Direction to Emiss. Pt. (Degrees)  
Start 206°SSW End 206°SSW  
Distance and Direction to Observation Point from Emission Point  
Start 3 ABOVE End 3 ABOVE

Describe Emissions  
Start CLEAR End SAME  
Emission Color  
Start CLEAR End SAME Water Droplet Plume  
Attached ☐ Detached ☐ None ☒

Describe Plume Background  
Start SKY End SAME  
Background Color  
Start BLUE End SAME Sky Conditions  
Start CLOUDY End SAME  
Wind Speed  
Start 10 MPH End SAME Wind Direction  
Start NW End SAME  
Ambient Temp.  
Start 78° End SAME Wet Bulb Temp. 84° RH Percent 80%

Source Layout Sketch

Draw North Arrow  
☐ TN ☒ MN

Observation Point

Sun Location Line

Side View

Stack  
With  
Plume  
Sun  
Wind

Longitude 96° 32' 50" Latitude 28° 41' 20" Declination 4°49min east

Additional Information

Form Number \_\_\_\_\_ Page 1 Of 1  
Continued on VEO Form Number \_\_\_\_\_

Observation Date 12-10-22		Time Zone CDT		Start Time 1115	End Time 1121	
Min	Sec	0	15	30	45	Comments
1		0	0	0	0	
2		0	0	0	0	
3		0	0	0	0	
4		0	0	0	0	
5		0	0	0	0	
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Observer's Name (Print)  
LANE CARRIGAN  
Observer's Signature  
Date 12-10-22  
Organization  
EPC, TX  
Certified By  
Eastern Technical Associates  
Date

EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
Method 9 203A 203B Other: \_\_\_\_\_

Company Name  
Formosa Plastics Corp.  
Facility Name  
High Density Polyethylene 1  
Street Address  
301 Formosa Drive  
Company Name  
Point Comfort State Tx. Zip 77978

Process  
Cooling tower fan Unit # CRT Operating Mode 100%  
Control Equipment  
Same Operating Mode Same

Describe Emission Point  
Stacks for B 930 A/B/C

Height of Emiss. Pt.  
Start ~ 51 End ~ 51 Height of Emiss. Pt. Rel. to Observer  
Start ~ 12 End ~ 12  
Distance to Emiss. Pt.  
Start ~ 135 End ~ 135 Direction to Emiss. Pt. (Degrees)  
Start 200 SW End 200 SW

Vertical Angle to Obs. Pt.  
Start ~ 2 End ~ 2 Direction to Emiss. Pt. (Degrees)  
Start 200 SW End 200 SW  
Distance and Direction to Observation Point from Emission Point  
Start 3' above End 3' above

Describe Emissions  
Start Clear End Same  
Emission Color  
Start Clear End Same Water Droplet Plume  
Attached ☐ Detached ☐ None ☒

Describe Plume Background  
Start Clear End Same  
Background Color  
Start Clear End Same Sky Conditions  
Start overcast End Same  
Wind Speed  
Start 16 End Same Wind Direction  
Start NE End Same  
Ambient Temp.  
Start 58 F End Same Wet Bulb Temp. 42 RH Percent 90%

Source Layout Sketch

Draw North Arrow  
☐ TN ☒ MN

Observation Point

140°

Sun Location Line

Side View

Stack  
With  
Plume  
Sun  
Wind

Longitude 96° 32' 50" Latitude 28° 41' 20" Declination 4°49min east

Form Number \_\_\_\_\_ Page 1 Of 1  
Continued on VEO Form Number \_\_\_\_\_

Observation Date		Time Zone				Start Time	End Time
3/13/23		CDT				11:10	11:16
Min	Sec	0	15	30	45	Comments	
1		0	0	0	0		
2		0	0	0	0		
3		0	0	0	0		
4		0	0	0	0		
5		0	0	0	0		
6		0	0	0	0		
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Observer's Name (Print)  
Matt Anderson  
Observer's Signature  
Matt Anderson  
Organization  
FPC, TX  
Certified By  
Eastern Technical Associates  
Date  
3/13/23

EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
Method 9 203A 203B Other:

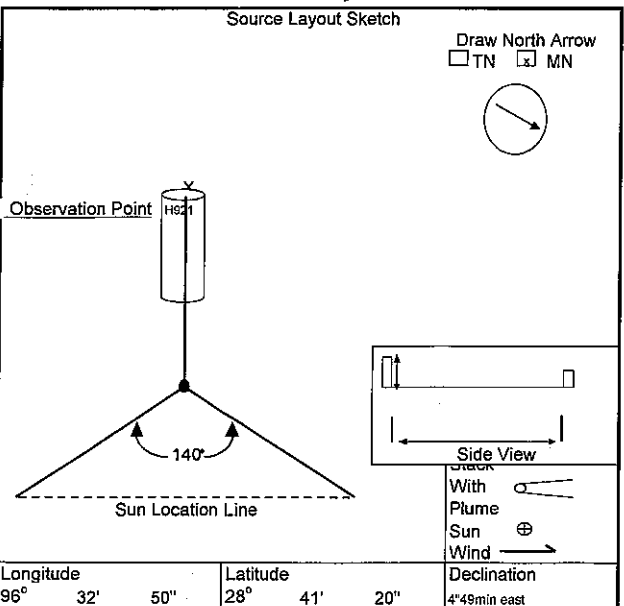
Company Name  
Formosa Plastics Corp.  
Facility Name  
High Density Polyethylene 1  
Street Address  
301 Formosa Drive  
Company Name  
Point Comfort State TX Zip 77978

Process  
Cooling tower fan Unit # CFT Operating Mode 100%  
Control Equipment Same Operating Mode Same

Describe Emission Point  
Stack for B930 A1B/C  
Height of Emiss. Pt. Start ~51' End ~51' Height of Emiss. Pt. Rel. to Observer Start ~12' End ~12'  
Distance to Emiss. Pt. Start ~135' End ~135' Direction to Emiss. Pt. (Degrees) Start 200° SW End 200° SW  
Vertical Angle to Obs. Pt. Start ~2' End ~2' Direction to Emiss. Pt. (Degrees) Start 200° SW End 200° SW  
Distance and Direction to Observation Point from Emission Point Start 3' above End 3' above

Describe Emissions  
Start Clear End Same  
Emission Color Start Clear End Same Water Droplet Plume Attached ☐ Detached ☐ None ☒

Describe Plume Background  
Start Clear End Same  
Background Color Start Clear End Same Sky Conditions Start Clear End Same  
Wind Speed Start 16 End Same Wind Direction Start SE End Same  
Ambient Temp. Start 68°F End Same Wet Bulb Temp. 78° RH Percent 72%



Additional Information

Form Number Page 1 Of 1  
Continued on VEO Form Number

Observation Date		Time Zone		Start Time	End Time	
6/28/23		CDT		17:43	17:49	
Min	Sec	0	15	30	45	Comments
1	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		
6	0	0	0	0		
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Observer's Name (Print)  
Matt Anderson  
Observer's Signature  
Matt Anderson  
Date  
6/29/23  
Organization  
FPC, TX  
Certified By  
Eastern Technical Associates  
Date

EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
Method 9 203A 203B Other: \_\_\_\_\_

Company Name  
Formosa Plastics Corp.  
Facility Name  
High Density Polyethylene 1  
Street Address  
301 Formosa Drive  
Company Name  
Point Comfort State  
Tx. Zip  
77978

Process  
Cooling tower fan Unit #  
CK Operating Mode  
100%  
Control Equipment  
Same Operating Mode  
Same

Describe Emission Point  
stacks for B430 A/B/C  
Height of Emiss. Pt.  
Start ~ 51' End ~ 51' Height of Emiss. Pt. Rel. to Observer  
Start ~ 12' End ~ 12'  
Distance to Emiss. Pt.  
Start ~ 135' End ~ 135' Direction to Emiss. Pt. (Degrees)  
Start 204 SW End 204 SW

Vertical Angle to Obs. Pt.  
Start ~ 21' End ~ 21' Direction to Emiss. Pt. (Degrees)  
Start 204 SW End 204 SW  
Distance and Direction to Observation Point from Emission Point  
Start 3' above End 3' above

Describe Emissions  
Start Clear End Same  
Emission Color  
Start Clear End Same Water Droplet Plume  
Attached ☐ Detached ☐ None ☒

Describe Plume Background  
Start Clear sky End Same  
Background Color  
Start Clear End Same Sky Conditions  
Start Sunny End Same  
Wind Speed  
Start 12 End Same Wind Direction  
Start NE End Same  
Ambient Temp.  
Start 92 End Same Wet Bulb Temp.  
72.9 RH Percent  
68%

Source Layout Sketch

Draw North Arrow  
☐ TN ☒ MN

Observation Point

X

140°

Sun Location Line

Side View

Stack  
With  
Plume  
Sun  
Wind

Longitude  
28° 41' 27" Latitude  
96° 32' 43" Declination  
0 min west

Form Number \_\_\_\_\_ Page 1 Of 1  
Continued on VEO Form Number \_\_\_\_\_

Observation Date		Time Zone		Start Time	End Time	
9/17/23		CDT		11:30	11:36	
Min	Sec	0	15	30	45	Comments
1		0	0	0	0	
2		0	0	0	0	
3		0	0	0	0	
4		0	0	0	0	
5		0	0	0	0	
6		0	0	0	0	
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Observer's Name (Print)  
Matt Andersen  
Observer's Signature  
Matt Andersen Date  
9/17/23  
Organization  
FPC, TX  
Certified By  
Eastern Technical Associates Date

EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
Method 9 203A 203B Other: \_\_\_\_\_

Company Name  
Formosa Plastics Corp.  
Facility Name  
High Density Polyethylene 1  
Street Address  
301 Formosa Drive  
Company Name  
Point Comfort State Tx. Zip 77978

Process  
cooling tower fan Unit # CFT Operating Mode 100%  
Control Equipment Same Operating Mode Same

Describe Emission Point  
stacks for B-450 A/B/C

Height of Emiss. Pt. Start ~91 End ~51 Height of Emiss. Pt. Rel. to Observer Start ~11' End ~11'  
Distance to Emiss. Pt. Start ~133 End ~133 Direction to Emiss. Pt. (Degrees) Start 245sw End 245sw

Vertical Angle to Obs. Pt. Start End Direction to Emiss. Pt. (Degrees) Start 205sw End 205sw  
Distance and Direction to Observation Point from Emission Point Start 3' along End 3' along

Describe Emissions  
Start Clear End Same  
Emission Color Start Clear End Same Water Droplet Plume Attached ☐ Detached ☐ None ☒

Describe Plume Background  
Start Clear End Same  
Background Color Start Clear End Same Sky Conditions Start overcast End Same  
Wind Speed Start 10 End same Wind Direction Start N End Same  
Ambient Temp. Start 94° End Same Wet Bulb Temp. 57° RH Percent 64%

Source Layout Sketch

Draw North Arrow  
☐ TN ☒ MN

Observation Point

X

140

Sun Location Line

Side View

Stack With Plume  
Sun ⊕  
Wind →

Longitude 28° 41' 27" Latitude 96° 32' 43" Declination 0 min west

Additional Information

Form Number \_\_\_\_\_ Page 1 Of 1  
Continued on VEO Form Number \_\_\_\_\_

Observation Date			Time Zone		Start Time	End Time
11/12/23			CDT		08:47	08:48
Min	Sec	0	15	30	45	Comments
1		0	0	0	0	
2		0	0	0	0	
3		0	0	0	0	
4		0	0	0	0	
5		0	0	0	0	
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Observer's Name (Print)  
Matt Andersen  
Observer's Signature  
Matt Andersen Date 11/12/23  
Organization  
FPC, TX  
Certified By  
Eastern Technical Associates Date

EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Method Used (Circle One)  
Method 9 203A 203B Other:

Company Name  
Formosa Plastics Corp.  
Facility Name  
High Density Polyethylene 1  
Street Address  
301 Formosa Drive  
Company Name  
Point Comfort State  
Tx. Zip  
77978

Process  
Cooling tower fan Unit #  
CIT Operating Mode  
100%  
Control Equipment  
Same Operating Mode  
Same

Describe Emission Point  
Stacks for B930 A/B/C

Height of Emiss. Pt.  
Start 51 End 51 Height of Emiss. Pt. Rel. to Observer  
Start 12' End 12'  
Distance to Emiss. Pt.  
Start 135' End 135' Direction to Emiss. Pt. (Degrees)  
Start 206 SW End 206 SW

Vertical Angle to Obs. Pt.  
Start 2' End 2' Direction to Emiss. Pt. (Degrees)  
Start 206 SW End 206 SW  
Distance and Direction to Observation Point from Emission Point  
Start 3" above End 3" above

Describe Emissions  
Start Clear End Same  
Emission Color  
Start Clear End Same Water Droplet Plume  
Attached ☐ Detached ☐ None ☒

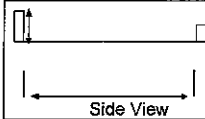
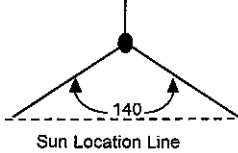
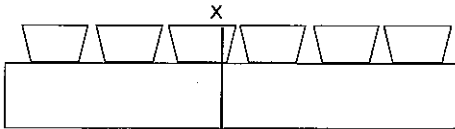
Describe Plume Background  
Start Blue Sky End Same  
Background Color  
Start Blue Sky End Same Sky Conditions  
Start Sunny End Same  
Wind Speed  
Start 17.4 End Same Wind Direction  
Start W End Same  
Ambient Temp.  
Start 67 End Same Wet Bulb Temp.  
RH Percent  
40.1 37

Source Layout Sketch

Draw North Arrow  
☐ TN ☒ MN



Observation Point



With Plume  
Sun  
Wind

Longitude  
28° 41' 27" Latitude  
96° 32' 43" Declination  
0 min west

Additional Information

Form Number Page 1 Of 1  
Continued on VEO Form Number

Observation Date  
2/4/24 Time Zone  
CDT Start Time  
12:30 End Time  
12:36

Min	Sec	0	15	30	45	Comments
1	0	0	0	0		
2	0	0	0	0		
3	0	0	0	0		
4	0	0	0	0		
5	0	0	0	0		
6	0	0	0	0		
7						
8						
9						
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30						

Observer's Name (Print)  
Matt Anderson  
Observer's Signature  
Matt Anderson Date  
2/4/24  
Organization  
FPC, TX  
Certified By  
Eastern Technical Associates Date

**From:** Conor Braman <cbraman@slrconsulting.com>  
**Sent:** Thursday, February 15, 2024 11:59 AM  
**To:** LeAnn M. Usoff/FTEHSF; Jasmine Yuan  
**Cc:** Tammy Lasater / FPC Environmental  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)  
**Attachments:** 20203 Major NSR Summary Table.docx; OP-PBR SUP.pdf; OP-REQ1 Page.pdf; OP-SUMR.pdf; OP-UA3 21a.pdf; OP-UA3 21d.pdf; OP-UA15.pdf  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Jasmine

Good afternoon. We have reviewed your requests, and have the responses listed below/attached. Please let us know if you need anything else, and have a great day.

Conor

- 1) The current permit had several tanks that were represented by duplicate Unit IDs (One piece of equipment with two IDs) in the Title V permit, listed below. We essentially would like the duplicate IDs removed, and the requirements from both IDs moved to the remaining ID for each tank. After removing duplicates and combining requirements, the tanks should be subject to 30 TAC 115, 63FFFF. They maintain the permit shield against K and Ka due to construction date and Kb because they are choosing to comply with 63FFFF and OO because they are not subject to a regulation that references it.
  - a. Tank T501 is the same as 5T6010 and will be referred to as 5T6010
  - b. Tank T502 is the same as 5T6020 and will be referred to as 5T6020
  - c. Tank T503 is the same as 5T6040 and will be referred to as 5T6040
  - d. Tank 2T502 is the same as 5T6030 and will be referred to as 5T6030
  - e. Tank 2T503 is the same as 5T6050 and will be referred to as 5T6050
- 2) An OP-UA15 has been added for the 3 cooling towers and is attached to this email
- 3) Most of the UA forms are just for renewal, with the exception of H-601 in OP-UA5. We are adding MACT DDDDD applicability for that heater. The OP-REQ2 is to consolidate the permit shields of the duplicate tank IDs onto the Tank ID that will be remaining on the permit.
- 4) H-601 is still authorized on NSR Permit No. 40157, and 40157 is still a valid permit. An Updated OP-SUMR is attached referencing the correct NSR authorization
- 5) The cooling tower authorization mechanism has been added to the OP-SUMR as requested. An updated OP-SUMR is attached.
- 6) Table D in OP-PBR SUP has been updated and attached to this email
- 7) An updated OP-REQ1 Page 87 is attached to this table
- 8) The MNSR table is attached to this email as requested
- 9) An updated OP-UA3 Table 21 is attached to this email

**Storage Tank/Vessel Attributes**

**Form OP-UA3 (Page 51)**

**Federal Operating Permit Program**

**Table 21a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, Storage Vessels**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP Index No.	Emission Standard	Comb Device	95% Scrubber	PERF Test	Negative Pressure	Bypass Line
5T6010	63FFFF-7	63WW					
5T6020	63FFFF-7	63WW					
5T6040	63FFFF-7	63WW					
5T6030	63FFFF-7	63WW					
5T6050	63FFFF-7	63WW					
3T501	63FFFF-7	63WW					
3T502	63FFFF-7	63WW					
3T503	63FFFF-7	63WW					



**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 1)**  
**Federal Operating Permit Program**  
**Table 1a: Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111)**  
**Subchapter A: Visible Emissions**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	100218973

Emission Point ID No.	SOP/GOP Index No.	Alternate Opacity Limitation	AOL ID No.	Vent Source	Opacity Monitoring System	Construction Date	Effluent Flow Rate
LL-CT	R1111-2	NO		OTHER	NONE	72+	100+
LO-CT	R1111-2	NO		OTHER	NONE	72+	100+
PP2-CT	R1111-2	NO		OTHER	NONE	72+	100+

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

[Table 1](#)

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
	1	LL-CT	OP-UA13	LLDPE Cooling Tower		20203, PBR106.262 171738	PSDTX1224
	2	PO-CT	OP-UA13	Cooling Tower		19201, PBR106.262 172733, PBR106.262 173338, PBR106.262 163454	PSDTX1232
	3	PP2-CT	OP-UA13	Cooling Tower		40157, PBR106.262 173343	PSDTX1222
D	4	T-501	OP-UA3	Tank 501		19201	PSDTX1232
D	5	T-502	OP-UA3	Tank 502		19201	PSDTX1232
D	6	T-503	OP-UA3	Tank 503		19201	PSDTX1232
D	7	2T-502	OP-UA3	Tank 2T-502		19201	PSDTX1232
D	8	2T-503	OP-UA3	Tank 2T-503		19201	PSDTX1232
D	9	LL-001	OP-UA15	Final Degasser No. 1		20203	PSDTX1224

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

Page \_\_\_\_ of \_\_\_\_

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

[Table 1](#)

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
D	10	F1-211	OP-UA15	F1-211 Slops Drum		20203	PSDTX1224
D	11	F2-211	OP-UA15	F2-211 Slops Drum		20203	PSDTX1224
	12	H-601	OP-UA5	Catalyst Activator Direct Heater		40157	PSDTX1224

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

Page \_\_\_\_ of \_\_\_\_

**Texas Commission on Environmental Quality**  
**Application Area-Wide Applicability Determinations and General Information**  
**Form OP-REQ1**  
**Federal Operating Permit Program**

Date:	
Permit No.:	O1957
RN No.:	RN 100218973

*For SOP applications, answer ALL questions unless otherwise directed.*

◆ *For GOP applications, answer ONLY these questions unless otherwise directed.*

<b>Form OP-REQ1: Page 87</b>			
<b>XII. NSR Authorizations (Attach additional sheets if necessary for sections E-J)</b>			
<b>E. PSD Permits and PSD Major Pollutants</b>			
PSD Permit No.: PSDTX1222	Issuance Date: 02/07/2020	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.: PSDTX1224	Issuance Date: 08/11/2022	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.: PSDTX1232	Issuance Date: 08/12/2019	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.:	Issuance Date:	Pollutant(s):	
<i>If PSD Permits are held for the application area, please complete the Major NSR Summary Table located under the Technical Forms heading at: <a href="http://www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html">www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html</a>.</i>			
<b>F. Nonattainment (NA) Permits and NA Major Pollutants</b>			
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
<i>If NA Permits are held for the application area, please complete the Major NSR Summary Table located under the Technical Forms heading at: <a href="http://www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html">www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html</a>.</i>			
<b>G. NSR Authorizations with FCAA § 112(g) Requirements</b>			
NSR Permit No.: 19201	Issuance Date: 08/12/2019	NSR Permit No.:	Issuance Date:
NSR Permit No.: 20203	Issuance Date: 08/11/2022	NSR Permit No.:	Issuance Date:
NSR Permit No.: 40157	Issuance Date: 02/07/2020	NSR Permit No.:	Issuance Date:
NSR Permit No.:	Issuance Date:	NSR Permit No.:	Issuance Date:
◆ <b>H. Title 30 TAC Chapter 116 Permits, Special Permits, Standard Permits, Other Authorizations (Other Than Permits By Rule, PSD Permits, NA Permits) for the Application Area</b>			
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:

**Permit By Rule Supplemental Table (Page 1)**  
**Table A: Registered Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
	O1957	RN100218973

Unit ID No.	Registration No.	PBR No.	Registration Date
LL-CT	171738	106.262	2/22/23
PO-CT	172733	106.262	5/26/23
PO-CT	173338	106.262	7/20/23
PO-CT, PE-FUG	163454	106.262	12/16/20
PP2-CT	173343	106.262	7/21/23

**Permit By Rule Supplemental Table (Page 2)**  
**Table B: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date
TTCLOAD (vents to LL-005)	106.472	09/04/2000
LL-072, LL-O73, F-731, T-731	106.393	09/04/2000
E312B	106.371	09/04/2000

**Permit By Rule Supplemental Table (Page 3)**  
**Table C: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for Insignificant Sources for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
	O1957	RN100218973

PBR No.	Version No./Date

**Permit By Rule Supplemental Table (Page 4)**  
**Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
TTCLOAD	106.472	09/04/2000	Loading throughput and loaded material SDS
LL-072, LL-O73, F-731, T-731	106.393	09/04/2000	Visible emissions inspections on outlet
E312B	106.371	09/04/2000	Same as E312 that it serves as a spare for
LL-CT	106.262	171738	Water VOC and TDS monitoring
PO-CT	106.262	172733	Water VOC and TDS monitoring
PO-CT	106.262	173338	Water VOC and TDS monitoring
PO-CT, PE-FUG	106.262	163454	Cooling Tower Water VOC and TDS monitoring, Fugitive Component visual inspections
PP2-CT	106.262	173343	Water VOC and TDS monitoring



**Major NSR Summary Table**

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond./Appl. Info.	Spec. Cond./Appl. Info.	Spec. Cond./Appl. Info.
LL-003	Extruder Feen Bin No. 1	VOC	2.37	9.72	4, 5	4, 5	4, 5
LL-004	Extruder Feed Bin No. 2	VOC	2.37	9.72			
LL-005	Catalyst Filling Vent No. 1	VOC	9.65	0.43	5, 17, 18	5, 17, 18	5, 17, 18
LL-006	Catalyst Filling Vent No. 2	VOC	8.80	0.10	5	5	5
LL-007	Buffer Silo No. 1	VOC	2.28	6.48	5	5	5
		PM	0.10	0.46	8	8	8
		PM <sub>10</sub>	0.10	0.46			
		PM <sub>2.5</sub>	0.10	0.46			
LL-008	Powder Bin No. 1	VOC	1.20	5.28	5, 17, 18	5, 17, 18	5, 17, 18
		PM	0.10	0.46	8	8	8
		PM <sub>10</sub>	0.10	0.46			
		PM <sub>2.5</sub>	0.10	0.46			
LL-011	Blending Silo No. 1	PM	0.18	0.78	8	8	8
		PM <sub>10</sub>	0.18	0.78			
		PM <sub>2.5</sub>	0.18	0.78			
LL-012	Blending Silo No. 2	PM	0.18	0.78	8	8	8
		PM <sub>10</sub>	0.18	0.78			
		PM <sub>2.5</sub>	0.18	0.78			
LL-013	Product Silo No. 1	PM	0.13	0.58	8	8	8

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
		PM <sub>10</sub>	0.13	0.58			
		PM <sub>2.5</sub>	0.13	0.58			
LL-014	Product Silo No. 2	PM	0.13	0.58	8	8	8
		PM <sub>10</sub>	0.13	0.58			
		PM <sub>2.5</sub>	0.13	0.58			
LL-015	Hopper Car Silo No. 1 and Hopper Car Loading No. 1	PM	0.18	0.79	8	8	8
		PM <sub>2.5</sub>	0.18	0.79			
LL-017	Truck Silo No. 1	PM	0.26	1.16	8	8	8
		PM <sub>10</sub>	0.26	1.16	4, 8	4, 8	4, 8
		PM <sub>2.5</sub>	0.26	1.16	8	8	8
LL-019	Auto-Packer Silo No. 1	PM	0.26	1.16	8	8	8
		PM <sub>10</sub>	0.26	1.16			
		PM <sub>2.5</sub>	0.26	1.16			
LL-023	Additive Mix Tanks Bag Filter	PM	0.01	0.02	8	8	8
		PM <sub>10</sub>	0.01	0.02			
		PM <sub>2.5</sub>	0.01	0.02			
LL-025	Master Batch No. 1	PM	0.06	0.24	8	8	8
		PM <sub>10</sub>	0.06	0.24			
		PM <sub>2.5</sub>	0.06	0.24			
LL-026	Master Batch No. 2	PM	0.06	0.24	8	8	8
		PM <sub>10</sub>	0.06	0.24			
		PM <sub>2.5</sub>	0.06	0.24			
Process	Process Fugitives (5)	VOC	9.97	43.68	5, 6, 14, 15, 16	5, 6, 14, 15	5, 6, 14

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
LL-01A/B	Incinerator	VOC	2.21	9.68	5, 6, 11, 12, 17, 18, 19	5, 6, 12, 17, 18, 19	5, 6, 12, 17, 18, 19
		PM	1.38	6.02	11, 21, 22, 27	11, 21, 22, 27	
		PM <sub>10</sub>	1.38	6.02			
		PM <sub>2.5</sub>	1.38	6.06			
		NO <sub>x</sub>	7.57	33.17	17, 18, 19	17, 18, 19	17, 18, 19
		CO	13.59	59.52	17, 18, 19	17, 18, 19	17, 18, 19
		SO <sub>2</sub>	0.03	0.12			
LI-01A/B	Incinerator MSS	VOC (7)	1,303.70	14.93			
		NO <sub>x</sub> (7)	79.30	1.04	21, 27	20, 21, 27	
		CO (7)	573.00	7.53	21, 27	20, 21, 27	
1018	Olefins I Elevated Flare (6)	VOC	65.07	6.39	5, 6, 9, 10, 12	5, 6, 9, 10, 12	5, 6, 12
		VOC MSS (7)	1303.70	14.93	9, 10, 21, 22, 27	9, 10, 21, 22, 27	
		NO <sub>x</sub>	5.31	0.58	9, 10	9, 10	
		NO <sub>x</sub> MSS (7)	79.30	1.04	9, 10, 21, 27	9, 10, 21, 27	
		CO	38.24	3.99			
		CO MSS (7)	573.00	7.53	9, 10, 21, 22, 27	9, 10, 21, 22, 27	
1067	Olefins II Elevated Flare (6)	VOC	65.07	6.39	5, 6, 9, 10, 12	5, 6, 9, 10, 12	5, 6, 12
		VOC MSS (7)	1303.70	14.93	9, 10, 21, 22, 27	9, 10, 21, 22, 27	
		NO <sub>x</sub>	5.31	0.58	9, 10	9, 10	

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
		NO <sub>x</sub> MSS (7)	79.30	1.04	9, 10, 21, 27	9, 10, 21, 27	
		CO	38.24	3.99	9, 10	9, 10	
		CO MSS (7)	573.00	7.53	9, 10, 21, 27	9, 10, 21, 27	
LL-CT	LLDPE Cooling Tower	VOC	1.77	7.72	6, 13	6, 13	
		PM	0.42	1.85			
		PM <sub>10</sub>	0.33	1.44			
		PM <sub>2.5</sub>	0.01	0.01			
LL-009	Weight Feeder Surge Hopper F1-850	PM	0.01	0.05	8	8	8
		PM <sub>10</sub>	0.01	0.05			
		PM <sub>2.5</sub>	0.01	0.05			
LL-010	Weight Feeder Surge Hopper F2-850	PM	0.01	0.05	8	8	8
		PM <sub>10</sub>	0.01	0.05			
		PM <sub>2.5</sub>	0.01	0.05			
LL-030	Train 1 Re-Run Filter S1-855	PM	0.27	1.07	8	8	8
		PM <sub>10</sub>	0.27	1.07			
		PM <sub>2.5</sub>	0.27	1.07			
LL-031	Train 2 Re-Run Filter S1-855	PM	0.27	1.07	8	8	8
		PM <sub>10</sub>	0.27	1.07			
		PM <sub>2.5</sub>	0.27	1.07			
LL-032	Train 1 Masterbatch Hopper F2-830A/B	PM	0.01	0.03	8	8	8
		PM <sub>10</sub>	0.01	0.03			
		PM <sub>2.5</sub>	0.01	0.03			

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
LL-033	Train 2 Masterbatch Hopper F2-830A/B	PM	0.01	0.03	8	8	8
		PM <sub>10</sub>	0.01	0.03			
		PM <sub>2.5</sub>	0.01	0.03			
LL-034	Train 1 Q2-830 Feeder Filter S2-830	PM	0.01	0.01	8	8	8
		PM <sub>10</sub>	0.01	0.01			
		PM <sub>2.5</sub>	0.01	0.01			
LL-035	Train 2 Q2-830 Feeder Filter S2-830	PM	0.01	0.01	8	8	8
		PM <sub>10</sub>	0.01	0.01			
		PM <sub>2.5</sub>	0.01	0.01			
LL-036	Train 1 F1-810 Vent Filter S1-811	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-037	Train 2 F1-810 Vent Filter S1-811	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-038	Train 1 F1-812 Vent Filter S1-812	PM	0.02	0.07	8	8	8
		PM <sub>10</sub>	0.02	0.07			
		PM <sub>2.5</sub>	0.02	0.07			
LL-039	Train 2 F1-812 Vent Filter S1-812	PM	0.02	0.07	8	8	8
		PM <sub>10</sub>	0.02	0.07			
		PM <sub>2.5</sub>	0.02	0.07			
LL-040	Train 1 F1-800 Vent Filter S1-800.1	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
		PM <sub>2.5</sub>	0.02	0.06			
LL-041	Train 2 F2-800 Vent Filter S1-800.1	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-042	Train 1 F1-810 Vent Filter Q1-810	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-043	Train 2 F2-810 Vent Filter Q2-810	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-044	Train 1 F1-856 Vent Filter Q1-856	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-045	Train 2 F2-856 Vent Filter Q2-856	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-046	Train 1 X1-856 Vent Filter C1-856	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-047	Train 2 X2-856 Vent Filter C2-856	PM	0.02	0.06	8	8	8
		PM <sub>10</sub>	0.02	0.06			
		PM <sub>2.5</sub>	0.02	0.06			
LL-048	F1-325 Waste Hopper	VOC	0.01	0.01	5	5	5

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-049	F2-325 Waste Hopper	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-050	S1-412 Waste Powder	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-051	S2-412 Waste Powder	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-052	S1-440 Sieve Clean-Out	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-053	S2-440 Sieve Clean-Out	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
LL-054	F1-445 Refuse Hopper	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-055	F2-445 Refuse Hopper	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-056	F1-553 Refuse Hopper	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-057	F2-553 Refuse Hopper	VOC	0.01	0.01	5	5	5
		PM	0.01	0.04	8	8	8
		PM <sub>10</sub>	0.01	0.04			
		PM <sub>2.5</sub>	0.01	0.04			
LL-059	F2-800 Bag Filter	VOC	0.01	0.01	5	5	5
		PM	0.02	0.07	8	8	8
		PM <sub>10</sub>	0.02	0.07			
		PM <sub>2.5</sub>	0.02	0.07			
LL-060	F2-810 Bag Filter	VOC	0.01	0.01	5	5	5
		PM	0.02	0.07	8	8	8
		PM <sub>10</sub>	0.02	0.07			



Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
		PM <sub>2.5</sub>	0.02	0.07			
LL-061	C1-841 Pellet Dryer	PM	0.01	0.02	8	8	8
		PM <sub>10</sub>	0.01	0.02			
		PM <sub>2.5</sub>	0.01	0.02			
LL-062	C2-841 Pellet Dryer	PM	0.01	0.02	8	8	8
		PM <sub>10</sub>	0.01	0.02			
		PM <sub>2.5</sub>	0.01	0.02			
LL-063	S1-847 Bag Filter	PM	0.01	0.03	8	8	8
		PM <sub>10</sub>	0.01	0.03			
		PM <sub>2.5</sub>	0.01	0.03			
LL-064	S2-847 Bag Filter	PM	0.01	0.03	8	8	8
		PM <sub>10</sub>	0.01	0.03			
		PM <sub>2.5</sub>	0.01	0.03			
LL-065	C1-400 Compressor Lube Oil	VOC	0.45	1.52			
LL-066	C2-400 Compressor Lube Oil	VOC	0.45	1.52			
LL-067	FO-912 Hexene Storage Tank	VOC	0.53	0.81	5, 24	5, 24	5
LL-068	FO-913 Hexene Storage Tank	VOC	0.53	0.81	5, 24	5, 24	5
LL-069	Hopper Car Unloading Bag Filter	PM	0.03	0.09	8	8	8
		PM <sub>10</sub>	0.03	0.09			
		PM <sub>2.5</sub>	0.03	0.09			

Permit Number: 20203 and PSDTX1224					Issuance Date: 08/11/2022		
LL-070	Elutriator Cyclone S1-897	PM	0.14	0.60	8	8	8
		PM <sub>10</sub>	0.09	0.41			
		PM <sub>2.5</sub>	0.02	0.09			
LL-071	Elutriator Cyclone S2-897	PM	0.14	0.60	8	8	8
		PM <sub>10</sub>	0.09	0.41			
		PM <sub>2.5</sub>	0.02	0.09			
Maintenance, Startup, and Shutdown (MSS)							
LLDPE-MNT	MSS to Atmosphere	VOC MSS	226.2	3.59	20, 21, 22, 23, 24	20, 21, 22, 23, 24	
		PM MSS	1.70	0.04		20	
		PM <sub>10</sub> MSS	1.70	0.04			
		PM <sub>2.5</sub> MSS	1.70	0.04			
LLDPE-MNT	MSS to Atmosphere	NO <sub>x</sub> MSS (7)	79.30	1.04		20, 21	
		CO MSS (7)	573.00	7.53			
		VOC MSS (7)	1303.70	14.03	20, 21	19, 20, 21	

Austin TX United States 77377



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**From:** LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>  
**Sent:** February 01, 2024 4:00 PM  
**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>  
**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>; Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>  
**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

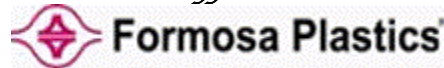
Hello Jasmine,

Conor Braman is our 3rd party environmental consultant for this permitting project. Please address all correspondence pertaining to this permit application, including any updates to myself and Conor at [cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com).

Please note that Conor's email address has changed.

Thank you,

*LeAnn Usoff*



Air Permitting Assistant Manager  
Point Comfort, Texas  
361-920-9401

---

**From:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>  
**Sent:** Wednesday, January 31, 2024 10:36 AM  
**To:** LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>; Conor Braman <[Conor.Braman@erm.com](mailto:Conor.Braman@erm.com)>;  
Deever Bradley <[Deever.Bradley@erm.com](mailto:Deever.Bradley@erm.com)>  
**Subject:** Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

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- IT/Management Center

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Hello Leann,

## Conor Braman

(he/him/his)

Senior Engineer - Air Quality

M 512-417-7010

E [cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)

SLR International Corporation  
Austin TX United States 77377



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---

**From:** LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>

**Sent:** February 01, 2024 4:00 PM

**To:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>

**Cc:** Tammy Lasater / FPC Environmental <[tlasater@ftpc.fpcusa.com](mailto:tlasater@ftpc.fpcusa.com)>; Conor Braman <[cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com)>

**Subject:** RE: Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

Hello Jasmine,

Conor Braman is our 3rd party environmental consultant for this permitting project. Please address all correspondence pertaining to this permit application, including any updates to myself and Conor at [cbraman@slrconsulting.com](mailto:cbraman@slrconsulting.com).

Please note that Conor's email address has changed.

Thank you,

*LeAnn Usoff*



**Formosa Plastics**

Air Permitting Assistant Manager  
Point Comfort, Texas  
361-920-9401

---

**From:** Jasmine Yuan <[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)>

**Sent:** Wednesday, January 31, 2024 10:36 AM

**To:** LeAnn M. Usoff/FTEHSF <[LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com)>; Conor Braman <[Conor.Braman@erm.com](mailto:Conor.Braman@erm.com)>;

Deever Bradley <[Deever.Bradley@erm.com](mailto:Deever.Bradley@erm.com)>

**Subject:** Technical Review - O1957 Formosa Plastics Corporation, Texas (Renewal, 35988)

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- IT/Management Center

Hello Leann,

I have been assigned to the Federal Operating Permit (FOP) renewal application of Permit No. O1957 for Formosa Plastics Corporation, Polyethylene Plant. This application has been assigned Project No. 35988. Please address all correspondence pertaining to this permit application, including any updates, to me at the address below, and use both the Permit and Project reference numbers above to facilitate tracking.

Upon the review, I found the following deficiencies:

- OP-2, item 4-8 is correcting tank name to 5T6010-50. But OP-SUMR indicates to delete those tanks. In addition, the proposed new tank names 5T6010-50 are already existing. Just reminder that two tanks cannot have the same name. what information you want to transfer to the existing 5T6010? UA3 still have the T-501-t503. I am not sure what to do for these units. I see you want to transfer permit shield of NSPS Kb on OP-REQ2, but the 5T6010 has NSPS Kb requirement, which conflicting with permit shields. There is also MACT OO permit shield and MACT 4F applicability.
- Cooling towers needs to be on UA15 to have the 111.111 index number, which matching your OP-MON index number. So please submit UA15 for three cooling tower. The OP-MON needs a deviation limit, and justification, explaining why PM-P-001 is appropriate monitoring.
- Please confirm the rest UA form submittal is just for renewal project completion. There are no changes to the UA , OP-REQ2 forms except for the items listed on OP-2. There are a lot, I am not sure if I need to check each item for unchanged item.
- H-601 PCA used to have NSR 40157. But it does not show up in the OP-SUMR. Is the NSR 40157 still valid or not?
- Please revise OP-SUMR to have all information on OP-PBR SUP. The PCA information should be consistent with OP-PBR SUP. For example, OP-PBR SUP Table A has LL-CT under PBR171738. So the LL-CT's PCA information on OP-SUMR should have PBR106.262[171738] as well in addition to the NSR. The units on OP-PBR SUP Table A and B should be consistent with units on OP-SUMR.
- OP-PBR SUP Table D should have all units on Table A and Table B. Now the units on Table A is missing in Table D. Please revise.
- Pls update the OP-REQ1 Page 86. The NSR/psd/standard permit should be the latest authorization. For example, 134477 was voided in 2015. But it is still in your form.
- Pls submit major nsr summary table for 20203. If you do not know how to make the table, please let me know and I will email you one.
- 3T501-3T503 MACT FFFF-7 codes on UA 3 Table 21 contain errors. Please follow the instruction and RRT to revise the codes.

In addition, I wanted to let you know that EPA has, on occasion, objected to Title V permits based on the following:

- a. NSR permit and PBR monitoring sufficiency –please refer to our periodic monitoring guidance for reference of monitoring that EPA has, so far, considered sufficient.
- b. Reference to confidential business information (CBI) in NSR permits and PBR submittals.
- c. High level terms in the SOP Applicable Requirement Summary Table. The high level terms are sometimes used in SOPs when unit attribute forms have not yet been updated due to regulatory amendments.
- d. Accuracy of PBR information provided on the supplemental table and in the permit – please refer to Forms OP-PBRSUP and OP-REQ1 Instructions.

If you have any questions or concerns on any of these items or think you need to do any additional updates, let me know and we can discuss further.

Application updates may now be submitted through Title V STEERS. Any application updates that are submitted by the RO/DAR through STEERS are certified and do not require the submittal of an original signature OP-CRO1. Application updates that are provided through email or physical mail require certification using an original signature OP-CRO1.

Please notify me when these updates have been submitted.

**As required on Form OP-1, question IV.D, please remember the FOP application and all application updates must be submitted to EPA Region 6 at [R6AirPermitsTX@epa.gov](mailto:R6AirPermitsTX@epa.gov) and to the TCEQ regional office having jurisdiction. This submittal information can be found on our website at [Where to Submit FOP Applications and Permit-Related Documents](#).**

Please review the “SOP Technical Review Fact Sheet” located at [http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title\\_V/sop\\_wdp\\_facsheet.pdf](http://www.tceq.texas.gov/assets/public/permitting/air/Guidance/Title_V/sop_wdp_facsheet.pdf). This guidance contains important information regarding the review process and application update procedures. Contact me if you have any questions regarding the guidelines, the project schedule, or any other details regarding your application or permit.

Please respond to this email by 02/16/2024. Thank you for your cooperation.

Sincerely,

Jasmine Yuan  
TCEQ Air Permits Division  
P.O. Box 13087, MC 163

Austin, TX 78753  
Phone: (512)239-6090  
Fax: (512)239-1400  
[Jasmine.Yuan@tceq.texas.gov](mailto:Jasmine.Yuan@tceq.texas.gov)

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## Steven Piper

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**From:** eNotice TCEQ  
**Sent:** Wednesday, November 15, 2023 12:10 PM  
**To:** Lois.Kolkhorst@senate.texas.gov; JM.lozano@house.texas.gov  
**Subject:** TCEQ Notice - Permit Number O1957  
**Attachments:** TCEQ Notice - O1957\_35988.pdf

This email is being sent to electronically transmit an official document issued by the Office of Air of the Texas Commission on Environmental Quality.

This email is being sent to you because either (a) you filed a document with the Office of the Chief Clerk that made you part of the official mailing list for the above referenced matter, or (b) notice to you is legally required. As authorized by Texas Water Code 5.128, this electronic transmittal is replacing the previous practice of hard copy distribution. Amendments to Texas Government Code 552.137 prompted a change to the agency's privacy policy regarding confidentiality of certain email addresses. The revised privacy policy can be viewed at [http://www.tceq.state.tx.us/help/policies/electronic\\_info\\_policy.html](http://www.tceq.state.tx.us/help/policies/electronic_info_policy.html).

Questions regarding this email may be submitted either by replying directly to this email or by calling Mr. Jesse Chacon, P.E. with the Air Permits Division at (512) 239-5759.

The attached document is provided in an Adobe Acrobat .pdf format. If you cannot display the attachment, you may need to visit the Adobe web site (<http://get.adobe.com/reader>) to download the free Adobe Acrobat Reader software.



Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Kelly Keel, *Interim Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

November 15, 2023

THE HONORABLE LOIS KOLKHORST  
TEXAS SENATE  
PO BOX 12068  
AUSTIN TX 78711-2068

Re: Accepted Federal Operating Permit Renewal Application  
Project Number: 35988  
Permit Number: O1957  
Formosa Plastics Corporation, Texas  
Polyethylene Plant  
Point Comfort, Calhoun County  
Regulated Entity Number: RN100218973  
Customer Reference Number: CN600130017

Dear Senator Kolthorst:

This letter notifies you that the Texas Commission on Environmental Quality has received a federal operating permit (FOP) renewal application for a site located in your district. As part of this permitting process, the applicant is required to publish a formal newspaper public notice. The notice will inform the public of their right to make comments or request a public hearing. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-96.547222,28.688888&level=13>.

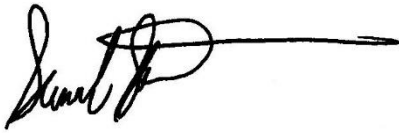
The FOP program regulates both new and existing major sources of emissions. The goal of the program is to improve air quality in Texas through increased compliance by codifying existing applicable regulatory requirements into the FOP. The FOP provides the applicant authorization to operate the equipment at the site. The FOP identifies and codifies air emission requirements (known as applicable requirements) that apply to the emission units at the site. The FOP does not authorize construction of emission units or emissions from those units. The New Source Review (NSR) permit is the mechanism for these authorizations.

The Honorable Lois Kolkhorst  
Page 2  
November 15, 2023

Re: Accepted Federal Operating Permit Renewal Application

This letter is being sent to you for information only and no action is required. If you need further information, please contact me at (512) 239-1250.

Sincerely,

A handwritten signature in black ink, appearing to read 'Samuel Short', followed by a long horizontal line extending to the right.

Samuel Short, Deputy Director  
Air Permits Division  
Office of Air  
Texas Commission on Environmental Quality

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Kelly Keel, *Interim Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

November 15, 2023

THE HONORABLE JOSE M LOZANO  
TEXAS HOUSE OF REPRESENTATIVES  
PO BOX 2910  
AUSTIN TX 78768-2910

Re: Accepted Federal Operating Permit Renewal Application  
Project Number: 35988  
Permit Number: O1957  
Formosa Plastics Corporation, Texas  
Polyethylene Plant  
Point Comfort, Calhoun County  
Regulated Entity Number: RN100218973  
Customer Reference Number: CN600130017

Dear Representative Lozano:

This letter notifies you that the Texas Commission on Environmental Quality has received a federal operating permit (FOP) renewal application for a site located in your district. As part of this permitting process, the applicant is required to publish a formal newspaper public notice. The notice will inform the public of their right to make comments or request a public hearing. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-96.547222,28.688888&level=13>.

The FOP program regulates both new and existing major sources of emissions. The goal of the program is to improve air quality in Texas through increased compliance by codifying existing applicable regulatory requirements into the FOP. The FOP provides the applicant authorization to operate the equipment at the site.

This letter is being sent to you for information only and no action is required. If you need further information, please contact me at (512) 239-1250.

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel Short", followed by a long horizontal line.

Samuel Short, Deputy Director  
Air Permits Division  
Office of Air  
Texas Commission on Environmental Quality

## Texas Commission on Environmental Quality

Title V Existing

1957

### Site Information (Regulated Entity)

What is the name of the permit area to be authorized?	POLYETHYLENE PLANT
County	CALHOUN
Latitude (N) (##.#####)	28.688888
Longitude (W) (-###.#####)	96.547222
Primary SIC Code	2821
Secondary SIC Code	
Primary NAICS Code	325110
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN100218973
What is the name of the Regulated Entity (RE)?	FORMOSA POINT COMFORT PLANT
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	201 FORMOSA DR
City	POINT COMFORT
State	TX
ZIP	77978
County	CALHOUN
Latitude (N) (##.#####)	28.6888
Longitude (W) (-###.#####)	-96.5472
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL CHEMICAL MANUFACTURING PLANT

### Customer (Applicant) Information

How is this applicant associated with this site?	Owner Operator
What is the applicant's Customer Number (CN)?	CN600130017
Type of Customer	Corporation
Full legal name of the applicant:	

Legal Name	Formosa Plastics Corporation, Texas
Texas SOS Filing Number	5107506
Federal Tax ID	222355464
State Franchise Tax ID	12223554648
State Sales Tax ID	
Local Tax ID	
DUNS Number	106238165
Number of Employees	501+
Independently Owned and Operated?	Yes

## Responsible Official Contact

Person TCEQ should contact for questions about this application:

Organization Name	FORMOSA PLASTICS CORPORATION TEXAS
Prefix	MR
First	KEN
Middle	
Last	MOUNGER
Suffix	
Credentials	
Title	EXECUTIVE VICE PRESIDENT
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	9 PEACH TREE HILL RD
Routing (such as Mail Code, Dept., or Attn:)	
City	LIVINGSTON
State	NJ
ZIP	07039
Phone (###-###-####)	9737167205
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	9739948005
E-mail	kmounger@fpcusa.com

## Duly Authorized Representative Contact

Person TCEQ should contact for questions about this application

Select existing DAR contact or enter a new contact.

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

Title

Enter new address or copy one from list

Mailing Address

Address Type

Mailing Address (include Suite or Bldg. here, if applicable)

Routing (such as Mail Code, Dept., or Attn:)

City

State

Zip

Phone (###-###-####)

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

MIKE RIVET(FORMOSA PLASTIC... )

FORMOSA PLASTICS CORPORATION TEXAS

MR

MIKE

RIVET

EXECUTIVE DIRECTOR SITE MANAGER

Domestic

PO BOX 700

POINT COMFORT

TX

77978

3619877000

mikerivet@ftpc.fpcusa.com

## Technical Contact

Person TCEQ should contact for questions about this application:

Select existing TC contact or enter a new contact.

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

New Contact

Formosa Plastics

MRS

LeAnn

Usoff

Title	Air Permitting Assistant Manager
Enter new address or copy one from list:	RE Physical Address
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	201 FORMOSA DR
Routing (such as Mail Code, Dept., or Attn:)	
City	POINT COMFORT
State	TX
ZIP	77978
Phone (###-###-####)	3619209401
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	LeAnnU@ftpc.fpcusa.com

## Title V General Information - Existing

1) Permit Type:	SOP
2) Permit Latitude Coordinate:	28 Deg 41 Min 20 Sec
3) Permit Longitude Coordinate:	96 Deg 32 Min 50 Sec
4) Is this submittal a new application or an update to an existing application?	New Application
4.1. What type of permitting action are you applying for?	Renewal
4.1.1. Are there any permits that should be voided upon issuance of this permit application through permit conversion?	No
4.1.2. Are there any permits that should be voided upon issuance of this permit application through permit consolidation?	No
5) Who will electronically sign this Title V application?	Duly Authorized Representative
6) Does this application include Acid Rain Program or Cross-State Air Pollution Rule requirements?	No

## Title V Attachments Existing

Attach OP-1 (Site Information Summary)

Attach OP-2 (Application for Permit Revision/Renewal)

Attach OP-ACPS (Application Compliance Plan and Schedule)

Attach OP-REQ1 (Application Area-Wide Applicability Determinations and General Information)

[File Properties]

File Name

<a href=/ePermitsExternal/faces/file?fileId=172128>OP\_REQ1\_PE+Title+V+O1957+Permit+Renewal+Application-11.14.2023+(Rev2).signed.pdf</a>

Hash

40E78185BC115FDF416689EA056432EA32263318301D62EECD00B66FE4D3FE53

MIME-Type

application/pdf

Attach OP-REQ2 (Negative Applicable Requirement Determinations)

Attach OP-REQ3 (Applicable Requirements Summary)

Attach OP-PBRSUP (Permits by Rule Supplemental Table)

Attach OP-SUMR (Individual Unit Summary for Revisions)

Attach OP-MON (Monitoring Requirements)

Attach OP-UA (Unit Attribute) Forms

If applicable, attach OP-AR1 (Acid Rain Permit Application)

Attach OP-CRO2 (Change of Responsible Official Information)

Attach OP-DEL (Delegation of Responsible Official)

Attach any other necessary information needed to complete the permit.

An additional space to attach any other necessary information needed to complete the permit.

## Expedite Title V

1) Per Texas Health and Safety Code, Section 382.05155, does the applicant want to expedite the processing of this application?

No



## Certification

I certify that I am the Duly Authorized Representative for this application and that, based on information and belief formed after reasonable inquiry, the statements and information on this form are true, accurate, and complete.

1. I am Mike Rivet, the owner of the STEERS account ER093335.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing Title V Existing 1957.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER OPERATOR Signature: Mike Rivet OWNER OPERATOR

Account Number:	ER093335
Signature IP Address:	24.116.223.222
Signature Date:	2023-11-14
Signature Hash:	9F4614222A5B6368E68AE9C9B5DD5994435A2EC6A7D72565FCA14D101EB6C11C
Form Hash Code at time of Signature:	300B833B895F4AE8010570224B3441DE958E43E412BF17793A0E0DBE365BC6A9

## Submission

Reference Number:	The application reference number is 603420
Submitted by:	The application was submitted by ER093335/Mike Rivet
Submitted Timestamp:	The application was submitted on 2023-11-14 at 13:07:49 CST
Submitted From:	The application was submitted from IP address 24.116.223.222
Confirmation Number:	The confirmation number is 500094
Steers Version:	The STEERS version is 6.70
Permit Number:	The permit number is 1957

## Additional Information

Application Creator: This account was created by Leann Usoff

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Formosa Plastics®

Formosa Plastics Corporation, Texas  
201 Formosa Drive • P.O. Box 700  
Point Comfort, TX 77978  
Telephone: (361) 987-7000

November 14, 2023

Electronic Delivery via STEERS  
Texas Commission on Environmental Quality  
Air Permits Initial Review Team (APIRT) (MC-161)  
P. O. Box 13087  
Austin, Texas 78711-3087

RE: Formosa Plastics Corporation, Texas  
TCEQ Air Quality Account Number: CB-0038-Q  
Customer Reference Number: CN600130017  
Regulated Entity Number: RN100218973  
**LLDPE, HDPE I and HDPE II Plants Title V Permit Number O1957**  
**Permit Renewal Application**

To Whom It May Concern:

Pursuant to 30 TAC §122.241, Formosa Plastics Corporation, Texas (FPC TX) hereby submits a permit renewal and minor revision application for the LLDPE, HDPE I and HDPE II Plants Title V Operating Permit Number O1957 at our Calhoun County, Point Comfort complex. This minor permit revision is to update:

- Add MACT Subpart DDDDD requirements for heater H-601
- Remove units LL-001, F1-211, and F2-211 from the permit
- Correct duplicate names for Tanks 5T6010 through 5T6050
- Add annual visible emissions monitoring to cooling towers

Please find attached the renewal and minor revision application and an OP-CRO1 form certifying these changes.

Should you have any questions, please contact Mrs. LeAnn Usoff at [LeAnnU@ftpc.fpcusa.com](mailto:LeAnnU@ftpc.fpcusa.com).

Sincerely,

Mike Rivet  
Executive Director/Site Manager  
Formosa Plastics Corporation, Texas

Enclosures

November 2023

CC: Electronic Delivery via STEERS  
Air Program Manager, Region 14  
Texas Commission on Environmental Quality  
NRC Building, Ste. 1200  
6300 Ocean Drive, Unit 5839  
Corpus Christi, Texas 78412-5839  
(Copy of the Application)

EPA Region VI Office  
Electronic Delivery: [R6AirPermitsTX@epa.gov](mailto:R6AirPermitsTX@epa.gov)



# Formosa Plastics Corporation Texas Polyethylene Plant

## Title V Operating Permit O1957 Renewal Application

**Prepared for:**

**Formosa Plastics Corporation Texas**

Prepared by:

SLR International Corporation

SLR Project No.: 120.21134.00001

October 2023

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Appendix A	<i>General and Administrative Forms</i>
Appendix B	Area Wide Applicable Requirements Form
Appendix C	Monitoring Forms
Appendix D	Unit Attributes Forms



## 1.0 Introduction

Formosa Plastics Corporation Texas owns and operates the Polyethylene Plant in Point Comfort, Calhoun County under the authorization of Title V Site Operating Permit (SOP) Number O1957. The Linear Low-Density Polyethylene (LLDPE), High Density Polyethylene (HDPE I), and High-Density Polyethylene II (HDPE II) Plants react ethylene with a variety of catalysts, co-catalysts, and co-monomers to create a polyethylene powder that is melted and extruded to create pellets for export.

Formosa submitted its previous SOP renewal application on July 21, 2017 and received its effective SOP from the Texas Commission on Environmental Quality (TCEQ) on May 15, 2019. Formosa is submitting this Title V SOP renewal and significant revision application to request permit renewal prior to expiration. The significant revision is to add case by case monitoring to the three cooling towers.

The permit currently includes references to five tanks by two different tank names each. With this permitting action Formosa wants to correct this typo and correctly refer to the tanks by only one name each. The tanks are listed below:

- Tank T-501 is the same as 5T6010 and will be referred to as 5T6010
- Tank T-502 is the same as 5T6020 and will be referred to as 5T6020
- Tank T-503 is the same as 5T6040 and will be referred to as 5T6040
- Tank 2T-502 is the same as 5T6030 and will be referred to as 5T6030
- Tank 2T-503 is the same as 5T6050 and will be referred to as 5T6050

These references are being updated in the permit shield through OP-REQ2 and for tank parameters in OP-UA3.

This application is being submitted according to the timeline required for SOP renewals specified in 30 TAC §122.133(4) and contains the following updated information required by the SOP application procedures specified in 30 TAC §122.132:

- Site location map and plot plan with emission units designated;
- Description of the processes and associated process flow diagrams;
- General and administrative forms OP-CRO1, OP-1, OP-2, OP-SUMR, and
- OP-ACPS (Appendix A);
- Area-wide applicable requirements forms OP-REQ1 and OP-REQ2 (Appendix B);
- Monitoring Forms (Appendix C);
- Unit attribute forms OP-UA3, OP-UA4, OP-UA6, OP-UA12, OP-UA14, OP-UA15, OP-UA28, and OP-UA60 (Appendix D); and
- Alternate Method of Compliance Correspondence (Appendix E).

Sections 2.0, 3.0, and 4.0 of this application include site descriptive information such as the site location map, plot plan, and process information. Section 5.0 and the related appendices include the necessary TCEQ application forms.



## **2.0 Site Map**

The Formosa Point Comfort Polyethylene Plant is located at 201 Formosa Drive in Point Comfort, Calhoun County. The area map depicting the complex location with respect to other geographical sites within 3,000-foot and one-mile radii is included in Figure 2-1.







## 3.0 Plot Plan

This section includes Figures 3-1 to 3-3 which show the facility's boundary and site property lines in addition to the location of buildings, equipment, and process areas. The site plot plan includes a true north arrow, plant benchmarks, and a scale.



Figure 3-1 Plot Plan

FIGURE 3-1

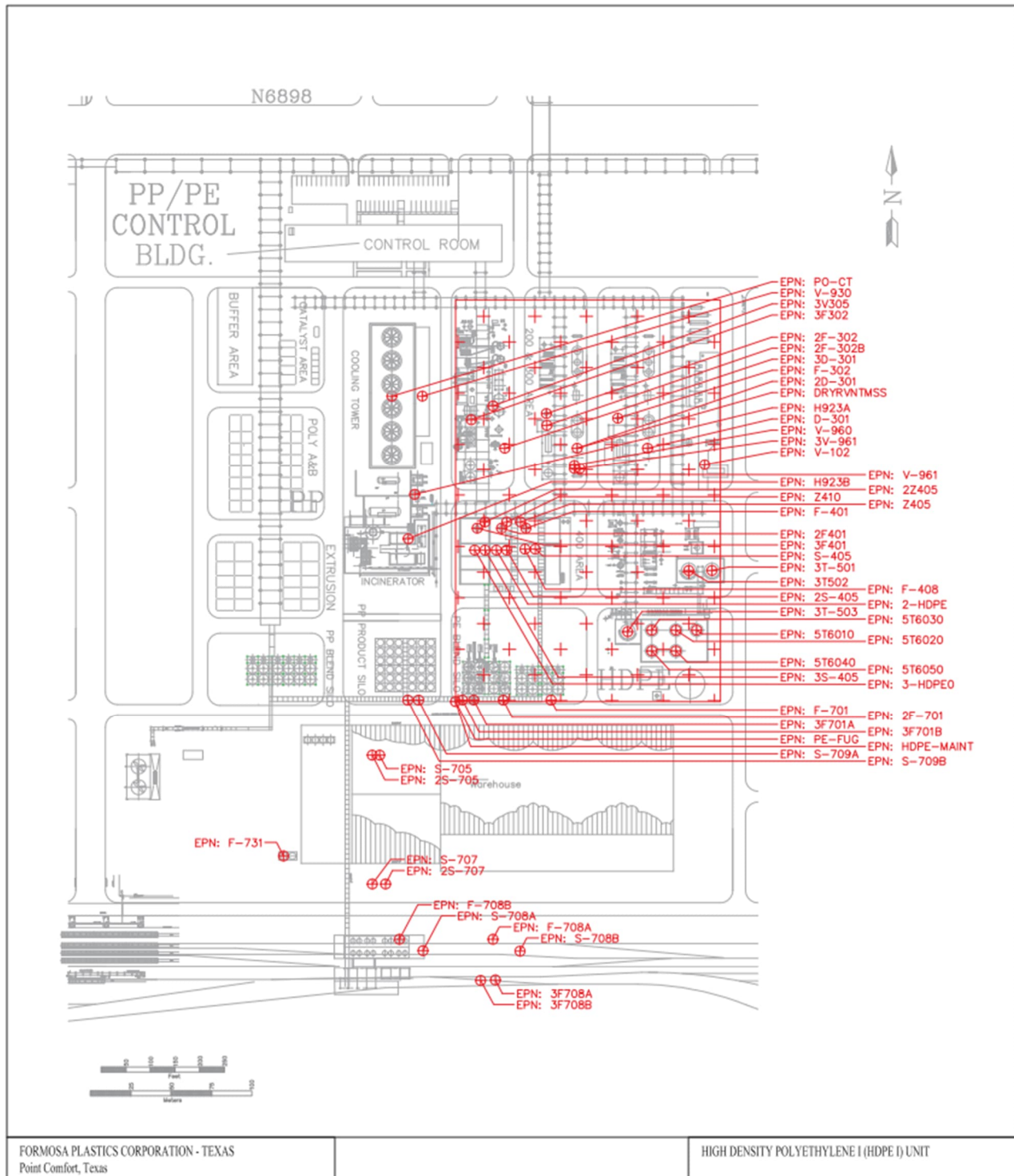


Figure 3-2 Plot Plan

FIGURE 3-2

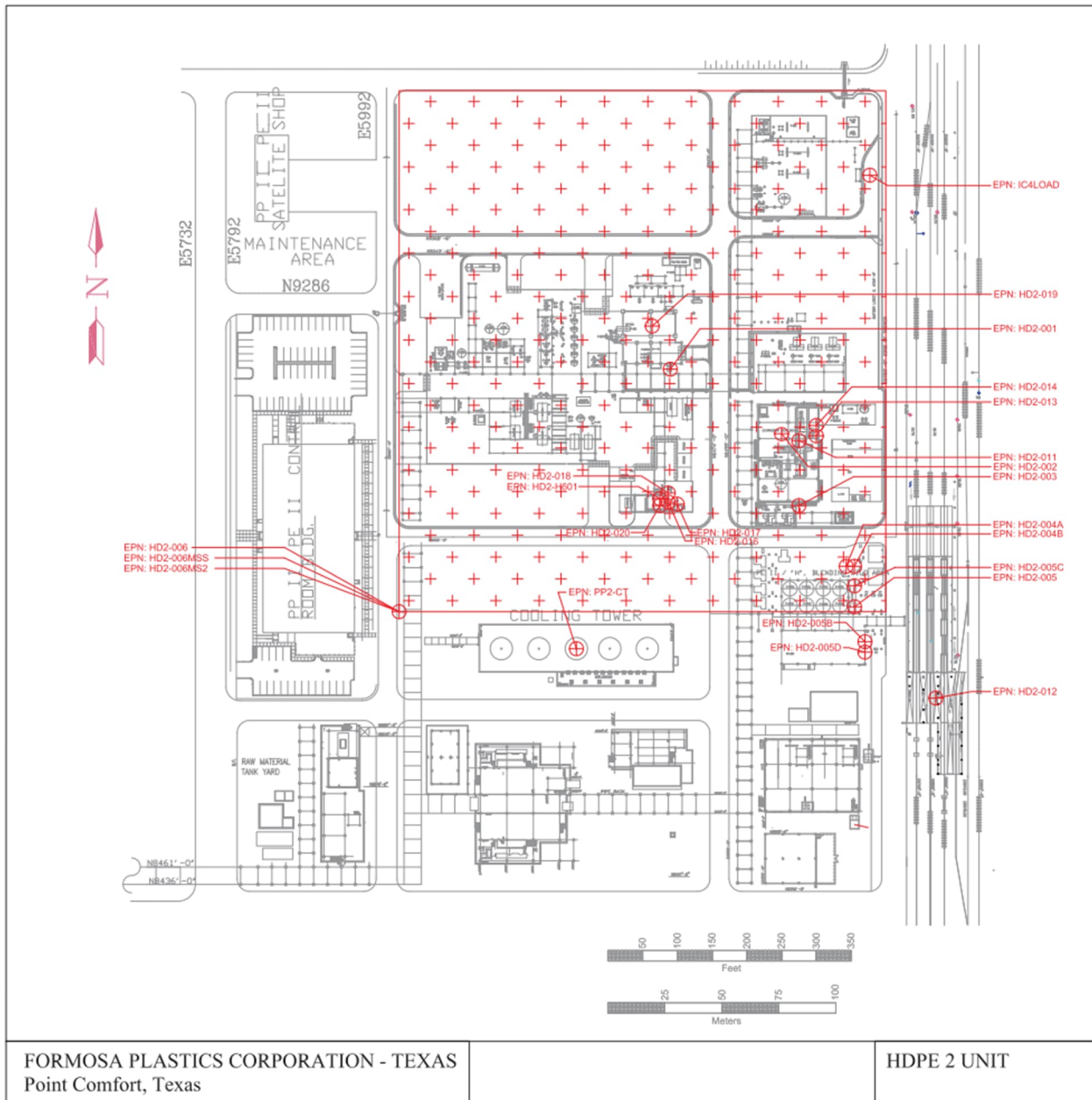
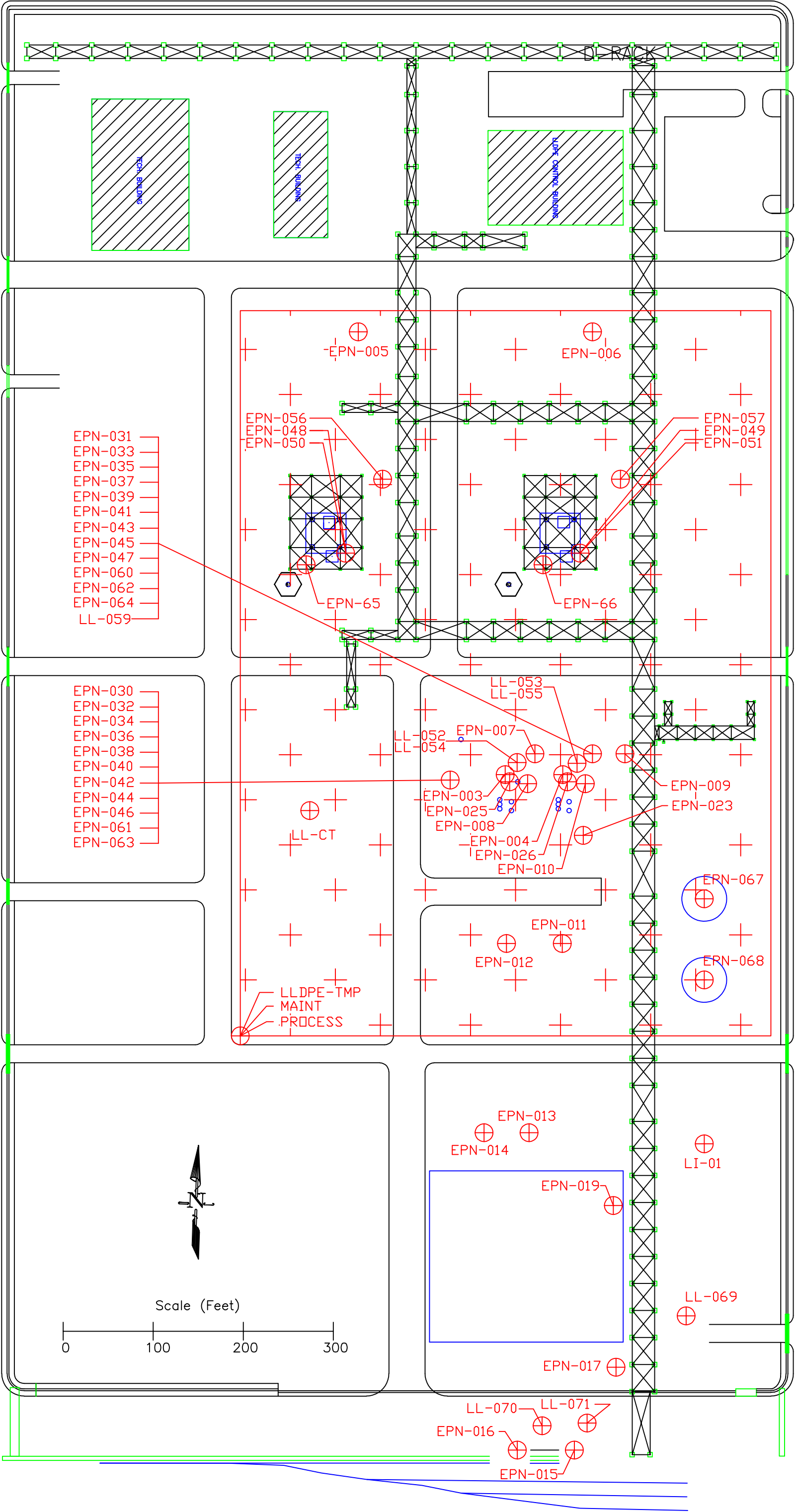


Figure 3-3 LLDPE Plot Plan



## 4.0 Process Description and Flow Diagrams

The LLDPE Plant is designed to produce Linear Low-Density Polyethylene using two parallel reactor lines. The process employs a gas-phase, fluidized bed reactor in which ethylene and co-monomers are polymerized using a proprietary catalyst. The process can be broken down into the following sections: reagent receiving and storage, catalyst preparation and storage, pre-polymerization, polymerization, additives and pelletization, and solvent recovery.

The HDPE I Plant is composed of the following sections: catalyst preparation, polymerization, hexane removal and powder drying, extrusion, and hexane recovery and refining.

In the HDPE II Plant, polymerization occurs in an isobutane slurry using high activity proprietary catalyst in a loop reactor and also includes rail car loading.

The following narrative describes the flow of materials through the LLDPE, HDPE I, and HDPE II Plant as shown on the process flow diagrams (Figures 4-1a, 4-1b, 4-2, 4-3a, and 4-3b) included at the end of this section.

### 4.1 LLDPE Unit

The LLDPE Plant is designed to produce LLDPE using two parallel reactor lines. The process employs a gas phase, fluidized bed reactor in which ethylene and co-monomers are polymerized using a proprietary catalyst.

#### Reagent Receiving and Storage

There are 11 main reagents used in producing the LLDPE catalyst and one reagent used in butyl chloride destruction. These reagents arrive by keg, drum, portable container, and tank truck. The liquid reagents are transferred to their respective storage vessels using nitrogen or a pump. The solid reagents are stored in concrete buildings. Three of the chemicals used are potential fire hazards. Two of these chemicals are liquids from the aluminum alkyl family which are pyrophoric. These pyrophoric liquids are diluted with a hexane solvent when they are unloaded to storage. Once they are diluted, they are no longer pyrophoric. The third chemical, magnesium powder, is also a fire and explosion hazard. The magnesium is stored in an explosion proof building and handled using special procedures.

#### Catalyst Preparation and Hydrocycloning

A catalyst particle of a particular size and reactivity must be produced, with repeatability. This process is planned so that critical stages can be monitored and adjusted to assure this repeatability.

The catalyst is prepared batch-wise in a jacketed stirred tank reactor. The reaction requires heating for initiation, then cooling for temperature control of the exothermic reaction. The result of this process is slurry of small reactive catalyst particles, which must then be centrifugally separated for catalyst fines removal.

Once the catalyst slurry has been produced and its reactivity adjusted, the concentration of the catalyst particles in the solvent is adjusted to a recipe concentration. The catalyst slurry is fed to a hydrocyclone separator. The large particles are recovered for processing into prepolymer; the smaller particles are recovered and used in the SRU for Butyl Chloride treatment. All hexane solvent used in this process are recovered and purified in the SRU.





## Pre-Polymerization

In this section, the catalyst particles' receptiveness to hydrocarbons is improved. The catalyst particle size is increased by reaction with ethylene. This "pre-polymerization" step is performed in order to control the activity of the particle before it is injected into the fluidized bed reactor.

The catalyst is first reacted with a co-catalyst, tri-octyl aluminum, in a hexane solvent solution. This co-catalyst replaces a chlorine atom on the catalyst molecule with an octyl group to make it more receptive to ethylene and hydrogen. As this new receptive catalyst is produced, ethylene is introduced into the reactor to produce a small polyethylene particle. Hydrogen is also introduced at a very small rate in order to control the molecular weight and melt index of the prepolymer particle. This reaction is carried out in a hexane solvent primarily to control the particle temperature as this is an exothermic reaction. Because of the reactivity of the particle, a gas phase reaction would result in hot spots and particle agglomeration.

Once the pre-polymer seed production is completed, the slurry is transferred to a drier. The solvent is then vaporized and recovered. The dried pre-polymer is transferred by nitrogen downstream for subsequent metering into the gas phase, polymerization reactor.

## Polymerization

Ethylene, hydrogen, and a co-monomer are reacted with injected pre-polymer powder in a fluidized bed reactor to produce LLDPE. This product is continuously withdrawn via a lateral withdrawal system for degassing and downstream process. Fluidization of the polymer particles is achieved by the reactor circulation gas loop. The concentrations of the components in the gas loop are measured by an in-line gas chromatograph and adjusted by continuous make-up of ethylene, hydrogen, and co-monomer. The nitrogen will build up in the reactor because it is an inert gas and will be continuously vented in order to control the concentrations of the other reactants. This vent stream will pass through a membrane system in order to extract the usable reactants. The usable reactants will be returned to the reactor while the nitrogen rich vent stream will be sent to an incinerator.

Polymer which is withdrawn from the reactor will be degassed and deactivated before transfer to the Additives and Pelletization section. The recovered gas from the degassing section is compressed and returned back to the reactor for further consumption.

## Additives and Pelletization

The virgin polymer powder from the polymerization reactor is received and blended with additives for extrusion and pelletization. The product pellets are then pneumatically transferred to the product storage area. A portion of the virgin powder is blended with various additives batch wise in a blender. This mixture of virgin powder and additives is then metered into the extruder along with the continuous flow of polymer powder from the reactor. These additives protect the polymer during extrusion and improve various characteristics of the finished product.

In the extruder, the polymer powder is compounded and mixed under high pressure and temperature. The powder is melted under these conditions and is forced out of the extruder through a die plate. The die plate has many small holes. As the melted polymer is forced out the die plate, it forms a spaghetti-like shape. The polymer comes into contact with water and is solidified. The spaghetti like polymer is then chopped into small pellets by rotating cutting blades at the surface of the die plate.



The pellets are continuously carried away from the extruder and die plate by circulating water. The pellets and water are separated from the water and are then transferred to blending, storage and loading silos.

### **Solvent Recovery**

The solvent used in the catalyst and prepolymer production area is collected, treated, and purified in the Solvent Recovery area. This section also supplies the process with clean, hexane solvent.

Solvent throughout the process that contains catalyst fines or butyl chloride (wash solvent) is received in the solvent drier. Prior to evaporation, the butyl chloride is destroyed in a reaction with the catalyst fines and tri-ethyl aluminum. The solvent is then vaporized, condensed, distilled and recovered for re-use.

The residue from the drier, which is primarily catalyst fines and solvent that has not evaporated, is transferred to a hydrolyzing vessel for catalyst activity destruction and neutralization. This destruction is exothermic and is accomplished by the addition of water. The remaining solvent is evaporated from the hydrolyzer. The water and solids are then transferred to the wastewater plant.

Solvent recovered from the drier and process recovered solvent is then collected and purified in a distillation column. The clean solvent is collected for re-use, the water is removed from the system and the heavier hydrocarbons are collected and sold as cutter stock.

## **4.2 HDPE I Unit**

The HDPE I Plant is composed of the following sections: Catalyst Preparation, Polymerization, Hexane Removal and Powder Drying, Extrusion, and Hexane Recovery and Refining.

### **Catalyst Preparation**

The catalyst raw materials (Magnesium Chloride [MCA], Titanium Tetrachloride [TTC], Aluminum Ethoxide [AET], Ethyl Benzoate [MDF]) are milled together to produce a high activity Ziegler-Natta Catalyst. Both the catalyst and the co-catalyst, Triethylaluminum (ATE), are suspended in hexane which acts as the catalyst carrier.

### **Polymerization**

Ethylene (Stream A), hydrogen (Stream B), 1-butene (Stream C), and hexane (Stream F) are fed into the reactor along with the catalyst (Stream D) and co-catalyst (Stream E). The polymerization process is a slurry process with hexane (Stream F) as the carrier solvent. The reactors normally run from 75 – 220 psig and the temperature is maintained in the range of 167-176 F. When the reaction is complete, the polyethylene slurry is depressurized in a low pressure flash tank.

In the flash tank, the unreacted ethylene, the co-monomer, and the solvent are flashed out of the polyethylene slurry. The vent gas (Stream G) from the flash is fed to the recycle gas compressor. A portion of the compressed gas is recycled back to the reactor to increase yield, while the remaining amount is purged to the incinerators.

### **Hexane Removal and Powder Drying**

After the polymerization step, the polyethylene slurry is sent first to the stripping section (Stream H) to recover hexane and then to the drying section. Caustic solution is added to the strippers to





maintain pH of the hot water to 11-12. This is to neutralize hydrochloric acid generated by hydrolysis of catalyst to minimize deposition of insoluble solids. The stripper operates in the temperature range of 170 – 215°F. After removing solids in a cyclone and decanting the water, the recovered hexane is sent to the dehydration section (Stream I). The slurry is then pumped through a centrifugal separator (Stream J) where a large portion of the water is removed from the slurry. The remaining water is removed in a fluidized bed dryer (Stream K).

The fluidized bed dryer is divided into two zones of operation, back-mix and plug-flow. The dryer utilizes steam heated internal panels and air flow to drive off water from the powder. Upon exiting the dryer, the powder is bone dry and is pneumatically conveyed to be extruded and pelletized (Stream L). The moisture laden waste air from the back-mix zone (Stream M) is exhausted through a bagfilter to remove fine particles before being routed to the HDPE I Incinerators, which have VOC destruction efficiencies greater than 99.9%. In Train C only, the waste air from the plug-flow zone region (Stream N) is recycled to the back-mix zone after passing through a bagfilter and blower. The recycling of the plug-flow zone waste air in Train C reduces the quantity of total waste air effluent.

### **Extrusion**

The dry polyethylene powder (Stream L) is transferred to the pelletizing section. The powder, mixed with additives and stabilizers (Stream O), is then injected into the extruder. The resulting stabilized polyethylene melt is then fed to an underwater pelletizer and cut into small pellets. The pellets are carried out of the cutting box by water to a centrifugal dryer. The dry pellets are sent to the Blending silo area (Stream U). The water from the pellets (Stream P) is recycled to the pelletizer.

### **Hexane Recovery and Refining**

Wet hexane from the stripping section (Stream Q) is dehydrated in the Hexane Dehydration Column. The bottoms of this column are sent to the dry hexane storage tank and recycled back to the process (Stream F). The overheads of the column are sent through a condenser where liquids are condensed and sent to a decanter vessel. Here, the water and hexane are separated and the hexane is recycled back to the dehydration column. The water (Stream S) is sent to the Waste Hexane Stripper. Any non-condensables (Stream T) are vented to the HDPE I Incinerators or Olefins Elevated Flares.

Waste solvents collected in the waste hexane drum (Stream Y) and waste catalyst solutions (Stream V) are routed to the waste hexane stripper. The recovered hexane (Stream W) is sent to the hexane dehydration section and the water is pumped to process wastewater treatment (Stream X).

### **Process Wastewater**

Water from the stripping section passes through a filtration skid to remove suspended solids from the process wastewater. This water is then routed to the process water treatment plant. This same water source can be used as cooling tower makeup.

## **4.3 HDPE II Unit**

In the HDPEII Plant, polymerization occurs in an Isobutane slurry using high activity proprietary catalyst in a loop reactor. The HDPEII Plant has the capability of producing several different grades of products for various applications by customers. The HDPEII Plant is composed of the



following sections: Catalyst Preparation and Activation, Feed Preparation, Polymerization, Gas recovery, and Extrusion / Blending & Storage / Railcar Loading.

### **Catalyst Preparation and Activation**

The HDPEII Plant utilizes a chrome catalyst. HDPE made from this catalyst type is used in blow molding, blown film, wire & cable, sheet and thermoforming, and pipe applications. As received, the chrome catalyst is stable and requires no special storage conditions other than shelter from the weather. In order to use it, the catalyst must be activated by fluidization with hot air in a catalyst activator. A natural gas fired burner is used to heat the air used to fluidize the catalyst. Activation conditions are critical because, to a great extent, they determine the properties of the polymer produced. Upon completion, the catalyst will remain activated for an indefinite period of time as long as measures are taken to prevent exposure to catalyst poisons.

### **Feed Preparation**

The raw ethylene (Stream A) is passed through adsorption beds and molecular sieves to remove sulfur, acetylene, hydrogen, carbon monoxide, carbon dioxide, water, and oxygenated organic compounds. The ethylene will be received from the Olefins I or Olefins II Units and will be at 450 psig @ 80°F. The pressure will be boosted to 750 psig via compressor.

Fresh isobutane is introduced into the plant via the Deethanizer Column overhead accumulator (Stream P). Isobutane from the Deethanizer column (Stream N) is directed through a cooler and a surge drum, prior to entering the Recycle Isobutane Treater. Once the stream is treated, it is routed to the reactor (Stream T). Likewise, an olefins-free isobutane stream flows from the bottom of the Deethanizer Column (Stream M), through a cooler and then to the Olefins-free Surge Drum. This stream is then treated and used to feed the catalyst into the reactors (Stream U).

Hexene, either purchased or received from the existing LLDPE Plant, is fed to the Dehexanizer Column, via the Hexene Storage Tank (Stream X). Hexene from the side-draw of this column enters the hexene treaters. Treated hexene is then routed to the reactor (Stream C).

### **Polymerization**

The main components of the polymerization section are the Loop Reactor, the Flash Line Heaters, the High-Pressure Flash Chamber, and the Low-Pressure Flash Chamber. The reaction is continuous and occurs in a slurry phase with isobutane as the carrier solvent. The reaction is exothermic; therefore, the reactor is equipped with a closed cooling water system, in order to maintain temperature control. The reaction of ethylene and co-monomer forms particles of polymer which are suspended in the hydrocarbons carrier while circulating in the reactor. Close controls of process conditions, such as monomer and catalyst feed rates, are used to produce the various resin types desired. Catalyst and co-catalyst (Stream D), 1-hexene (Stream C), ethylene (Stream A, isobutane (Streams T and U), antistat (Stream E), and a small amount of hydrogen (Stream B) are fed to the reactors to produce a polyethylene slurry.

The resulting polyethylene slurry is removed from the reactors (Stream G) and transferred through the Flashline Heaters to vaporize the isobutane. The slurry is directed to the High-Pressure Flash Chamber where gases and light hydrocarbons are vaporized and exit through the top of the chamber (Stream H). The flashed gases from the High-Pressure Flash Chamber are circulated through a cyclone separator, a bag filter, and a guard filter to remove any entrained powder. The solids-free gases (Stream J) are then routed to the Gas Recovery Section.



Polyethylene fluff exits the bottom of the High-Pressure Flash Chamber by gravity and is directed to the Low-Pressure Flash Chamber (Stream I). Similar to the High-Pressure Flash Chamber, the Low-Pressure Flash Chamber is used to remove gases and light hydrocarbons from the polyethylene fluff. The flashed gases are transferred through a cyclone, a bag filter, and a guard filter prior to entering the Gas Recovery Section (Stream V). The fluff exits the bottom of the Low-Pressure Flash Chamber and enters the Purge Column (Stream Z).

### **Gas Recovery Section**

This Section consists of the Purge Column, the Dehexanizer Column, and the Deethanizer Column. The polyethylene fluff from the bottom of the Low-Pressure Flash Chamber (Stream Z) is transferred to the Purge Column where it is purged with the nitrogen to remove additional residual hydrocarbons.

The solids-free gases from the Low-Pressure Flash Chamber (Stream V) are directed through the Flash Gas Compressor which is a two-stage compressor used to equalize the pressure of the solids-free gases from the two flash tanks before they enter the Dehexanizer Column. The overheads of this column provide feed to the Deethanizer column (Stream L) where isobutane is recovered and sent back to the reactor.

The Deethanizer Column is a packed column and is used to separate isobutane from ethylene and other light hydrocarbons which are vaporized and sent to the Olefins Elevated Flare or returned to the Olefins Plant for recovery (Stream O). Olefins-free isobutane is drawn from the bottom of this column and routed to a surge drum (Stream M). The side draw of the column (Stream N) consists of recycle isobutane which is used as diluent for the reactor. The column also serves to degas incoming fresh isobutane (Stream P) from the fresh isobutane storage tank.

### **Extrusion/Blending & Storage / Railcar Loading Section**

This section consists of fluff silos, fluff additive feeders, an extruder, and equipment used to dry and convey pellets. The fluff is stored temporarily in the Fluff Silos. It is then transferred (Stream Q) to an extruder feed tank and then to the extruder master feed. In the additive feeding section, fluff is mixed with the additives (Stream S) in the blender/conveyor according to the recipe for the grade of HDPE being produced. The fluff, mixed with the additives, is then fed to the extruder where the fluff is melted and mixed to ensure a homogenous mixture. The melted polymer is then forced through a gear pump, screen changer, and die plate to make plastic string. The plastic string coming out of the die plate enters the cutter box, where it is cut into smaller pieces by cutter knives, resulting in uniform plastic pellets. The pellets are instantly solidified and carried out of the cutter box by circulating water to a centrifugal dryer.

The circulating water from the pellets is filtered before being pumped through the cutter box again. The dried pellets from the centrifugal dryer are routed through a vibrating classifier to remove any off-size pellets before being pneumatically conveyed to the pellet handling section. The pellets are then transferred into the blending silos (Stream R) before being loaded for product shipping.

### **Recent EGF System Changes**

The OLI and OLII flare system are designed to control air emissions from waste vent gas streams generated at FPC TX's chemical complex in Point Comfort, Texas. The flare systems are designed to control both routine and MSS waste gases. To protect process equipment from catastrophic failure from over-pressuring, the flare system is also designed to contain and



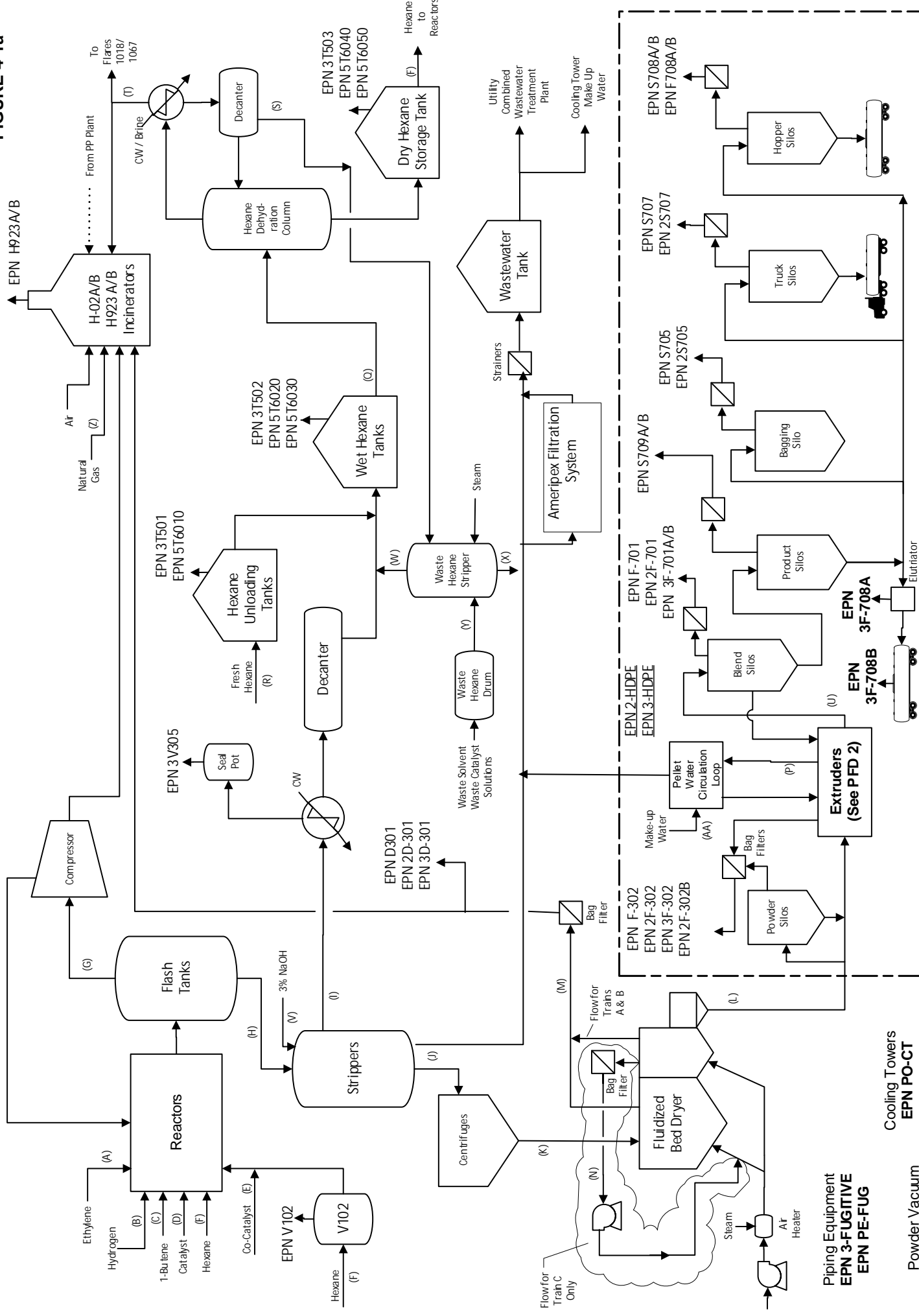
control emissions from pressure relief discharges and other large relief gas flows that may occur during a force majeure-type event.

Waste gas streams controlled by the new OLI and OLII flare systems will first be routed through an existing knock-out drum to remove any entrained liquids. The waste gas is then selectively routed to either one or both of two EGFs which service each of the elevated flares. As the flare header pressure rises some waste gas will be diverted to the elevated flare through a deep water seal bypass system, to utilize the smokeless capacity of the elevated flare. A pressure control valve in a bypass line around the new deep-water seal drums (located on the elevated flare vent lines) will ensure proper pressure control of the flare header and prevent flow through the water seal drum during non-force majeure operation of the EGF(s).

During normal operations, the overall hydraulic balance in the flare header system and the new deep-water seal drums will divert the flow to the EGFs. During Startups, Shutdowns, or any other unexpected flaring events (such as catastrophic or force majeure-type events) which have the potential to generate large quantities waste gas in excess of the combined smokeless capacities from the combined EGFs and elevated flares, the water seals in the new deep liquid seal drums would be overcome (i.e., when flare header pressure exceeds water seal static pressure) and the full rated hydraulic capacities provided by the elevated flares will be available to safeguard all equipment protected by the OLI, OLII, and OL3 elevated flare systems.



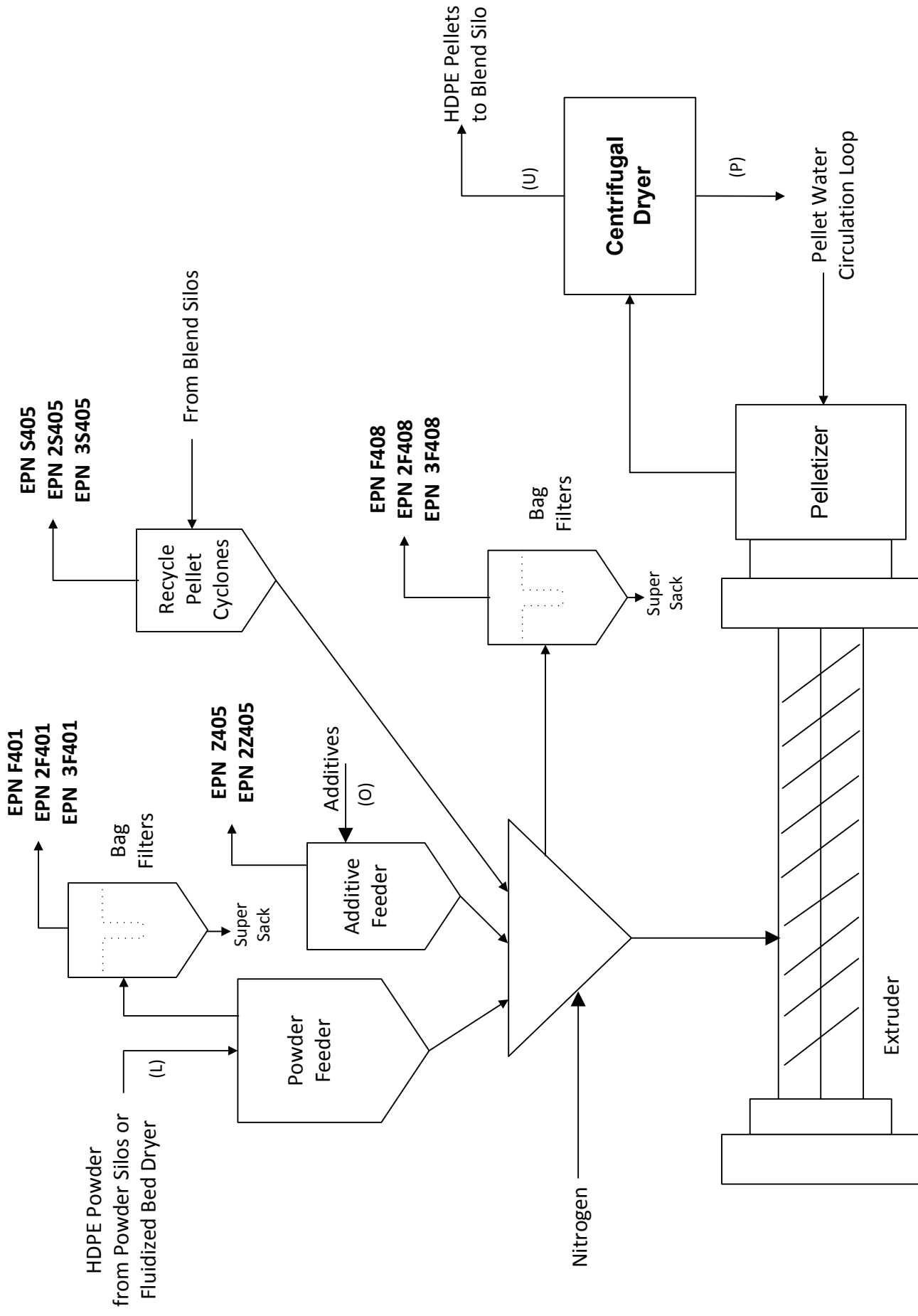
**FIGURE 4-1a**



Note: Drawing shown for one train, typical of all three Trains A, B, and C. EPNs for all three trains shown.

**FORMOSA PLASTICS CORPORATION**  
**High Density Polyethylene I Plant Trains A**  
**Process Flow Diagram 1**

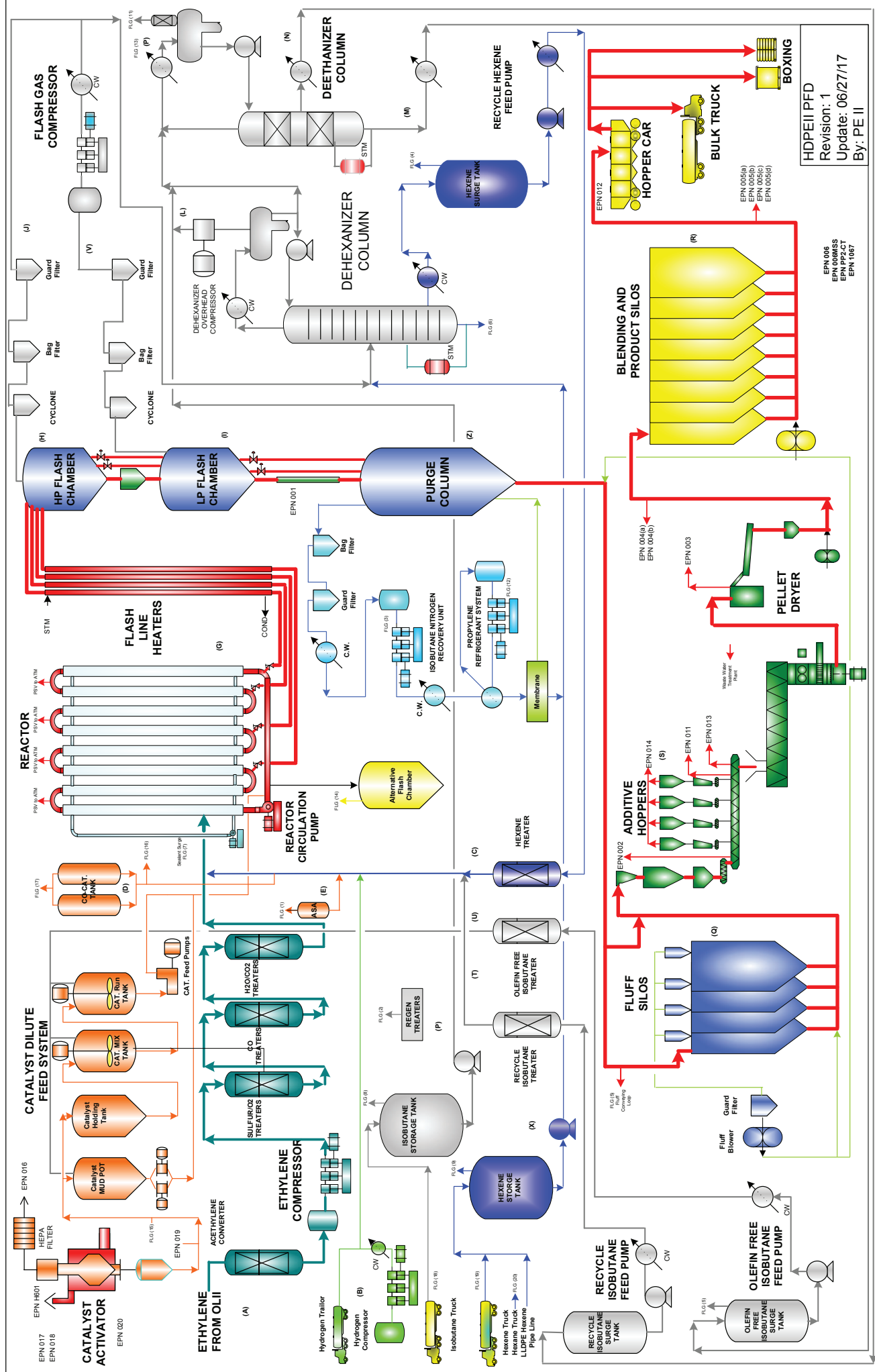
**FIGURE 4-1b**



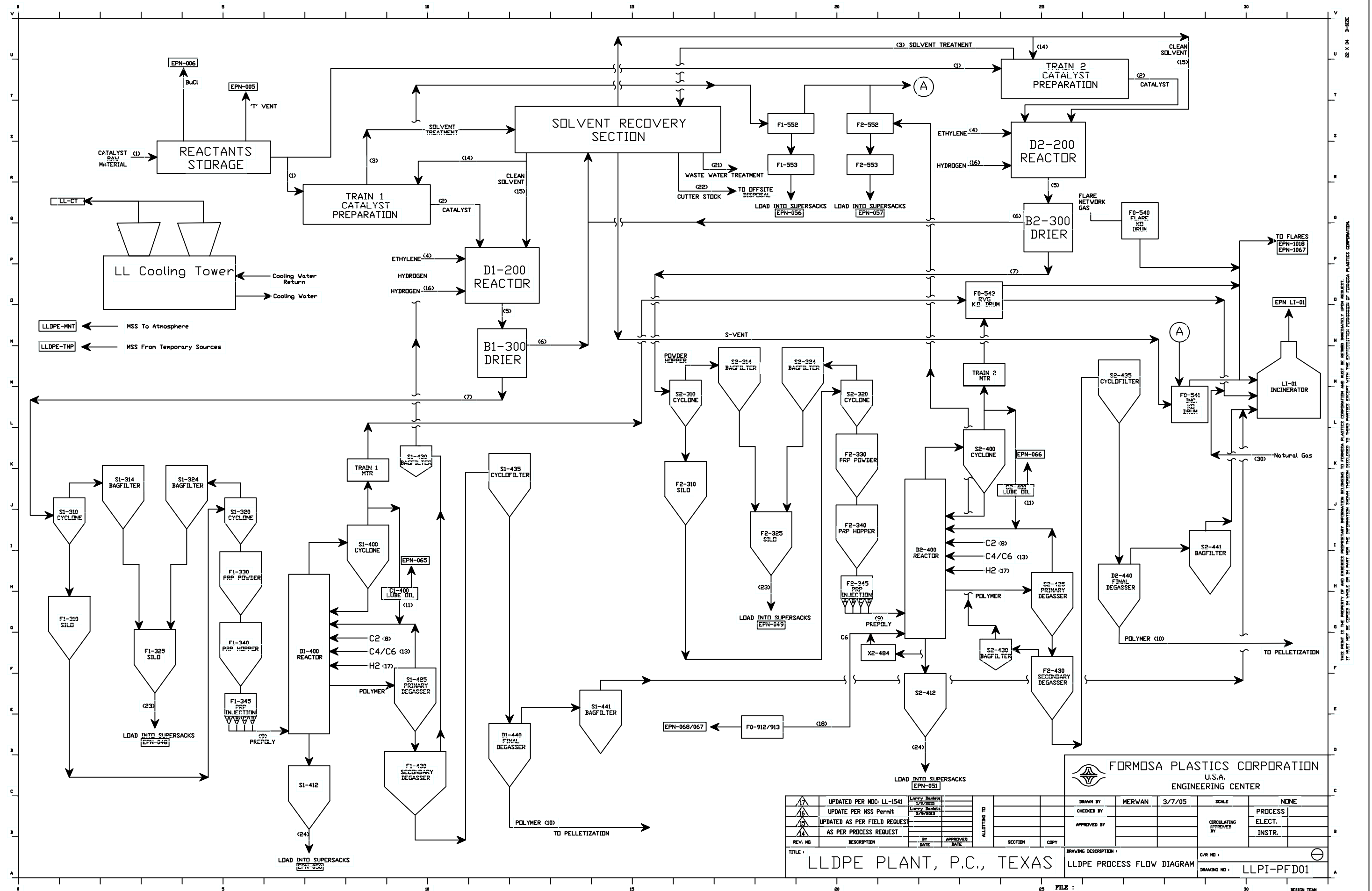
**Note: Drawing shown for one train, typical of all three Trains A, B, and C. EPNs for all three trains shown.**

**FORMOSA PLASTICS CORPORATION**  
**High Density Polyethylene I Plant Trains A,B,C**  
**Process Flow Diagram 2**

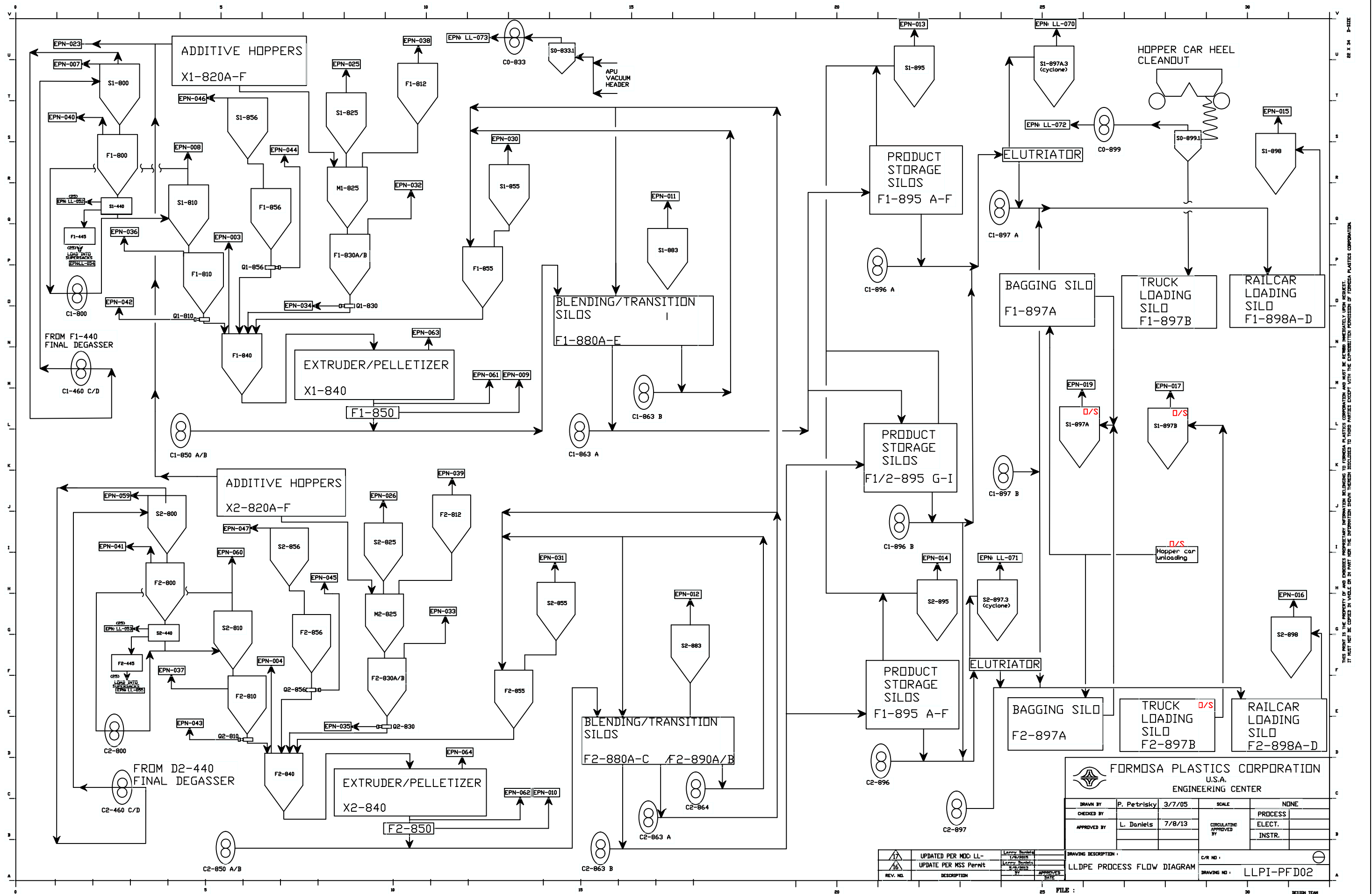
FIGURE 4-2











THIS POINT IS THE PROPERTY OF AND ENTAILS PROPRIETARY INFORMATION BELONGING TO FOMOSA PLASTICS CORPORATION AND MUST BE RETURNED IMMEDIATELY UPON REQUEST. IT MUST NOT BE COPIED IN WHOLE OR IN PART NOR THE INFORMATION SHOWN THEREIN DISCLOSED TO THIRD PARTIES EXCEPT WITH THE EXPRESSED PERMISSION OF FOMOSA PLASTICS CORPORATION.

## 5.0 General and Administrative Forms

Appendix A of this application includes the general and administrative forms and supporting information required by the SOP application renewal process, 30 TAC §122.132. These forms and other data include the following:

- OP-CRO1 (Certification by Responsible Official);
- OP-1 (Site Information Summary);
- OP-2 (Application for Permit Revision/Renewal);
- OP-SUMR (Individual Unit Summary for Revisions);
- OP-PBRSUP (Permits By Rule Supplemental Table); and
- OP-ACPS (Application Compliance Plan and Schedule).

### 5.1 Applicability Determination Forms

The emission units at the Polyethylene Plant are subject to site-wide applicable requirements as well as unit specific non-applicability determinations. A completed OP-REQ1 detailing these requirements is included in Appendix B. An OP-REQ2 is included to document the replacement of reference to the five tanks listed above in Section 1.

### 5.2 Monitoring Updates

With this renewal Formosa is requesting annual visible emissions monitoring for the cooling towers in the Polyethylene Plant. An OP-MON form for this request is included in Appendix C.

### 5.3 Incorporation By Reference Table

There were no updates to any of the associated PSD permits since the last renewal, as such no updates are needed to the IBR tables.

### 5.4 Unit Attribute Forms

Appendix D includes the following unit attribute forms, noting the replacement of reference to the five tanks listed above in Section 1, in OP-UA3:

- OP-UA3 (Storage Tank/Vessel Attributes);
- OP-UA4 (Loading/Unloading Operations Attributes);
- OP-UA6 (Boiler/Steam Generator/Steam Generating Unit Attributes);
- OP-UA12 (Fugitive Emission Unit Attributes);
- OP-UA14 (Water Separator Attributes);
- OP-UA15 (Emission Point/Stationary Vent/Distillation Operation/ Process Vents Unit Attributes);
- OP-UA28 (Polymer Manufacturing Attributes); and
- OP-UA60 (Chemical Manufacturing Process Unit Attributes).



## **5.5      Alternative Method of Compliance**

Appendix E includes the Alternative Method of Compliance Correspondence to establish Alternative Monitoring for all cooling towers at the Formosa Point Comfort Plant.



## 5.0 Closure

### Title V Operating Permit O1957 Renewal Application

Prepared for:  
**Formosa Plastics Corporation Texas**  
**Formosa Point Comfort Plant**  
**201 Formosa Drive**  
**Point Comfort, Texas 77978**  
**CN600130017/RN100218973**

This document has been prepared by SLR International Corporation (SLR). The material and data in this report were prepared under the supervision and direction of the undersigned.



Deever Bradley, P.E.  
Senior Principal



Conor Braman  
Senior Engineer





## **Appendix A    General and Administrative Forms**

**Form OP-CRO1**  
**Certification by Responsible Official**  
**Federal Operating Permit Program**

All initial permit application, revision, renewal, and reopening submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

<b>I. Identifying Information</b>					
RN: 100218973		CN: 600130017		Account No.: CB0038Q	
Permit No.: O1957			Project No.: TBD		
Area Name: Polyethylene Plant			Company Name: Formosa Plastics Corporation Texas		
<b>II. Certification Type</b> <i>(Please mark the appropriate box)</i>					
<input type="checkbox"/> Responsible Official			<input checked="" type="checkbox"/> Duly Authorized Representative		
<b>III. Submittal Type</b> <i>(Please mark the appropriate box) (Only one response can be accepted per form)</i>					
<input type="checkbox"/> SOP/TOP Initial Permit Application		<input type="checkbox"/> Update to Permit Application			
<input type="checkbox"/> GOP Initial Permit Application		<input checked="" type="checkbox"/> Permit Revision, Renewal, or Reopening			
<input type="checkbox"/> Other: _____					
<b>IV. Certification of Truth</b>					
<b>This certification does not extend to information which is designated by the TCEQ as information for reference only.</b>					
I, <u>Mike Rivet</u> certify that I am the <u>DAR</u> <div style="text-align: center;"><i>(Certifier Name printed or typed)</i> <span style="margin-left: 100px;"><i>(RO or DAR)</i></span></div>					
and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period or on the specific date(s) below, are true, accurate, and complete:					
<i>Note: Enter Either a Time Period OR Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).</i>					
Time Period: From _____ to _____ <div style="text-align: center;"><i>Start Date</i> <span style="margin-left: 150px;"><i>End Date</i></span></div>					
Specific Dates: <u>11/14/2023</u> <div style="text-align: center;"><i>Date 1</i> <span style="margin-left: 50px;"><i>Date 2</i></span> <span style="margin-left: 50px;"><i>Date 3</i></span> <span style="margin-left: 50px;"><i>Date 4</i></span> <span style="margin-left: 50px;"><i>Date 5</i></span> <span style="margin-left: 50px;"><i>Date 6</i></span></div>					
Signature: <u>Signed In STEERS</u> Signature Date: <u>11/14/2023</u>					
Title: <u>Executive Director / Site Manager</u>					

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 1)  
Texas Commission on Environmental Quality**

Please print or type all information. Direct any questions regarding this application form to the Air Permits Division at (512) 239-1250 or to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division (MC 163), P.O. Box 13087, Austin, Texas 78711-3087.

<b>I. Company Identifying Information</b>
A. Company Name: Formosa Plastics Corporation, Texas
B. Customer Reference Number (CN): <b>CN 600130017</b>
C. Submittal Date (mm/dd/yyyy):
<b>II. Site Information</b>
A. Site Name: Formosa Point Comfort Plant
B. Regulated Entity Reference Number (RN): <b>RN 100218973</b>
C. Indicate affected state(s) required to review permit application: <i>(Check the appropriate box[es].)</i>
<input type="checkbox"/> AR <input type="checkbox"/> CO <input type="checkbox"/> KS <input type="checkbox"/> LA <input type="checkbox"/> NM <input type="checkbox"/> OK <input checked="" type="checkbox"/> N/A
D. Indicate all pollutants for which the site is a major source based on the site's potential to emit: <i>(Check the appropriate box[es].)</i>
<input checked="" type="checkbox"/> VOC <input checked="" type="checkbox"/> NO <sub>x</sub> <input type="checkbox"/> SO <sub>2</sub> <input checked="" type="checkbox"/> PM <sub>10</sub> <input checked="" type="checkbox"/> CO <input type="checkbox"/> Pb <input checked="" type="checkbox"/> HAPS
Other:
E. Is the site a non-major source subject to the Federal Operating Permit Program? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
F. Is the site within a local program area jurisdiction? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
G. Will emissions averaging be used to comply with any Subpart of 40 CFR Part 63? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
H. Indicate the 40 CFR Part 63 Subpart(s) that will use emissions averaging:
<b>III. Permit Type</b>
A. Type of Permit Requested: <i>(Select only one response)</i>
<input checked="" type="checkbox"/> Site Operating Permit (SOP) <input type="checkbox"/> Temporary Operating Permit (TOP) <input type="checkbox"/> General Operating Permit (GOP)

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 2)  
Texas Commission on Environmental Quality**

<b>IV. Initial Application Information</b> <i>(Complete for Initial Issuance Applications Only.)</i>	
<b>A.</b> Is this submittal an abbreviated or a full application?	<input type="checkbox"/> Abbreviated <input type="checkbox"/> Full
<b>B.</b> If this is a full application, is the submittal a follow-up to an abbreviated application?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>C.</b> If this is an abbreviated application, is this an early submittal for a combined SOP and Acid Rain permit?	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>D.</b> Has an electronic copy of this application been submitted (or is being submitted) to EPA? (Refer to the form instructions for additional information.)	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>V. Confidential Information</b>	
<b>A.</b> Is confidential information submitted in conjunction with this application?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>VI. Responsible Official (RO) Identifying Information</b>	
RO Name Prefix: ( <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.)	
RO Full Name: Ken Mounger	
RO Title: Executive Vice President	
Employer Name: Formosa Plastics Corporation, Texas	
Mailing Address: 9 Peach Tree Hill Road	
City: Livingston	
State: New Jersey	
ZIP Code: 07039	
Territory:	
Country:	
Foreign Postal Code:	
Internal Mail Code:	
Telephone No.: (973) 716-7205	
Fax No.: (973) 994-8005	
Email: tlasater@ftpc.fpcusa.com	



**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 3)  
Texas Commission on Environmental Quality**

<b>VII. Technical Contact Identifying Information</b> <i>(Complete if different from RO.)</i>
Technical Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Dr.)
Technical Contact Full Name: LeAnn Usoff
Technical Contact Title: Air Permitting Assistant Manager
Employer Name: Formosa Plastics Corporation, Texas
Mailing Address: 201 Formosa Dr
City: Point Comfort
State: Texas
ZIP Code: 77978
Territory:
Country:
Foreign Postal Code:
Internal Mail Code:
Telephone No.: (361) 920-9401
Fax No.: ()
Email: LeAnnU@ftpc.fpcusa.com
<b>VIII. Reference Only Requirements</b> <i>(For reference only.)</i>
<b>A.</b> State Senator: Lois W. Kolkhorst
<b>B.</b> State Representative: J.M. Lozano
<b>C.</b> Has the applicant paid emissions fees for the most recent agency fiscal year (Sept. 1 - August 31)? <span style="float: right;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A</span>
<b>D.</b> Is the site subject to bilingual notice requirements pursuant to 30 TAC § 122.322? <span style="float: right;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</span>
<b>E.</b> Indicate the alternate language(s) in which public notice is required: Spanish

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 4)  
Texas Commission on Environmental Quality**

<b>IX. Off-Site Permit Request</b> <i>(Optional for applicants requesting to hold the FOP and records at an off-site location.)</i>
<b>A.</b> Office/Facility Name:
<b>B.</b> Physical Address:
City:
State:
ZIP Code:
Territory:
Country:
Foreign Postal Code:
<b>C.</b> Physical Location:
<b>D.</b> Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.)
Contact Full Name:
<b>E.</b> Telephone No.:
<b>X. Application Area Information</b>
<b>A.</b> Area Name: Polyethylene Plant
<b>B.</b> Physical Address: 201 Formosa Dr.
City: Point Comfort
State: TX
ZIP Code: 77978
<b>C.</b> Physical Location:
<b>D.</b> Nearest City:
<b>E.</b> State:
<b>F.</b> ZIP Code:

**Federal Operating Permit Program  
Site Information Summary  
Form OP-1 (Page 5)  
Texas Commission on Environmental Quality**

<b>X. Application Area Information (<i>continued</i>)</b>
<b>G.</b> Latitude (nearest second): 28 41'20" N
<b>H.</b> Longitude (nearest second): 96 32' 50" W
<b>I.</b> Are there any emission units that were not in compliance with the applicable requirements identified in the application at the time of application submittal? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
<b>J.</b> Indicate the estimated number of emission units in the application area: 60
<b>K.</b> Are there any emission units in the application area subject to the Acid Rain Program? <span style="float: right;"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</span>
<b>XI. Public Notice</b> (Complete this section for SOP Applications and Acid Rain Permit Applications only.)
<b>A.</b> Name of a public place to view application and draft permit: Calhoun County Library
<b>B.</b> Physical Address: 200 W. Mahan St.
City: Port Lavaca
ZIP Code: 77979
<b>C.</b> Contact Person (Someone who will answer questions from the public during the public notice period):
Contact Name Prefix: ( <input type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input checked="" type="checkbox"/> Ms. <input type="checkbox"/> Dr.):
Contact Person Full Name: LeAnn Usoff
Contact Mailing Address: 201 Formosa Dr
City: Point Comfort
State: Texas
ZIP Code: 77978
Territory:
Country:
Foreign Postal Code:
Internal Mail Code:
Telephone No.: (361) 920-9401

**Federal Operating Permit Program  
Application for Permit Revision/Renewal  
Form OP-2-Table 1  
Texas Commission on Environmental Quality**

Date:	
Permit No.: O1957	
Regulated Entity No.: 100218973	
Company Name: Formosa Plastics Corporation, Texas	
For Submissions to EPA	
Has an electronic copy of this application been submitted (or is being submitted) to EPA? <span style="float: right;"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</span>	
<b>I. Application Type</b>	
Indicate the type of application:	
<input checked="" type="checkbox"/> Renewal	
<input type="checkbox"/> Streamlined Revision (Must include provisional terms and conditions as explained in the instructions.)	
<input checked="" type="checkbox"/> Significant Revision	
<input type="checkbox"/> Revision Requesting Prior Approval	
<input type="checkbox"/> Administrative Revision	
<input type="checkbox"/> Response to Reopening	
<b>II. Qualification Statement</b>	
For SOP Revisions Only	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
For GOP Revisions Only	<input type="checkbox"/> YES <input type="checkbox"/> NO

**Federal Operating Permit Program  
Application for Permit Revision/Renewal  
Form OP-2-Table 1 (continued)  
Texas Commission on Environmental Quality**

**III. Major Source Pollutants (Complete this section if the permit revision is due to a change at the site or change in regulations.)**

Indicate all pollutants for which the site is a major source based on the site's potential to emit:  
(Check the appropriate box[es].)

☒ VOC      ☒ NO<sub>x</sub>      ☐ SO<sub>2</sub>      ☒ PM<sub>10</sub>      ☒ CO      ☐ Pb      ☒ HAP

Other:

**IV. Reference Only Requirements (For reference only)**

Has the applicant paid emissions fees for the most recent agency fiscal year (September 1 - August 31)? ☒ YES ☐ NO ☐ N/A

**V. Delinquent Fees and Penalties**

Notice: This form will not be processed until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ are paid in accordance with the Delinquent Fee and penalty protocol.

**Federal Operating Permit Program  
Application for Permit Revision/Renewal  
Form OP-2-Table 2  
Texas Commission on Environmental Quality**

Date:
Permit No.: O1957
Regulated Entity No.: 100218973
Company Name: Formosa Plastics Corporation, Texas

Using the table below, provide a description of the revision.

Revision No.	Revision Code	New Unit	Unit/Group	Process	NSR Authorization	Description of Change and Provisional Terms and Conditions
			ID No.	Applicable Form		
1	SIG-A	NO	LL-CT	OP-UA13	N/A	Adding annual visible emissions inspection
2	SIG-A	NO	PO-CT	OP-UA13	N/A	Adding annual visible emissions inspection
3	SIG-A	NO	PP2-CT	OP-UA13	N/A	Adding annual visible emissions inspection
4	ADMIN-A	NO	T-501	OP-UA3, OP-REQ2	N/A	Correcting tank name to 5T6010
5	ADMIN-A	NO	T-502	OP-UA3, OP-REQ2	N/A	Correcting tank name to 5T6020
6	ADMIN-A	NO	T-503	OP-UA3, OP-REQ2	N/A	Correcting tank name to 5T6040
7	ADMIN-A	NO	2T-502	OP-UA3, OP-REQ2	N/A	Correcting tank name to 5T6030
8	ADMIN-A	NO	2T-503	OP-UA3, OP-REQ2	N/A	Correcting tank name to 5T6050
9	MS-C	NO	LL-001	OP-UA15	N/A	Removing EPN from permit, vents to control
10	MS-C	NO	F1-211	OP-UA15	N/A	Removing source from permit, demolished

**Federal Operating Permit Program  
Application for Permit Revision/Renewal  
Form OP-2-Table 2  
Texas Commission on Environmental Quality**

Date:
Permit No.: O1957
Regulated Entity No.: 100218973
Company Name: Formosa Plastics Corporation, Texas

Using the table below, provide a description of the revision.

Revision No.	Revision Code	New Unit	Unit/Group	Process	NSR Authorization	Description of Change and Provisional Terms and Conditions
			ID No.	Applicable Form		
11	MS-C	NO	F2-211	OP-UA15	N/A	Removing source from permit, demolished
12	SIG-A	NO	H-601	OP-UA5	N/A	Adding MACT DDDDD Applicability

**Federal Operating Permit Program  
Application for Permit Revision/Renewal  
Form OP-2-Table 3  
Texas Commission on Environmental Quality**

Date:	
Permit No.: O1957	
Regulated Entity No.: 100218973	
Company Name: Formosa Plastics Corporation, Texas	
<b>I. Significant Revision</b> <i>(Complete this section if you are submitting a significant revision application or a renewal application that includes a significant revision.)</i>	
A. Is the site subject to bilingual requirements pursuant to 30 TAC § 122.322?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
B. Indicate the alternate language(s) in which public notice is required: Spanish	
C. Will, there be a change in air pollutant emissions as a result of the significant revision?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO



**Federal Operating Permit Program  
Application for Permit Revision/Renewal  
Form OP-2-Table 3  
Texas Commission on Environmental Quality**

Using the table below, indicate the air pollutant(s) that will be changing and include a brief description of the change in pollutant emissions for each pollutant:

Pollutant	Description of the Change in Pollutant Emissions
NONE	N/A

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

**Table 1**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Unit/Process AI	Unit/Process Revision No.	Unit/Process ID No.	Unit/Process Applicable Form	Unit/Process Name/ Description	Unit/Process CAM	Preconstruction Authorizations 30 TAC Chapter 116/ 30 TAC Chapter 106	Preconstruction Authorizations Title I
	1	LL-CT	OP-UA13	LLDPE Cooling Tower		20203	PSDTX1224
	2	PO-CT	OP-UA13	Cooling Tower		19201	PSDTX1232
	3	PP2-CT	OP-UA13	Cooling Tower		40157	PSDTX1222
D	4	T-501	OP-UA3	Tank 501		19201	PSDTX1232
D	5	T-502	OP-UA3	Tank 502		19201	PSDTX1232
D	6	T-503	OP-UA3	Tank 503		19201	PSDTX1232
D	7	2T-502	OP-UA3	Tank 2T-502		19201	PSDTX1232
D	8	2T-503	OP-UA3	Tank 2T-503		19201	PSDTX1232
D	9	LL-001	OP-UA15	Final Degasser No. 1		20203	PSDTX1224
D	10	F1-211	OP-UA15	F1-211 Slops Drum		20203	PSDTX1224
D	11	F2-211	OP-UA15	F2-211 Slops Drum		20203	PSDTX1224
	12	H-601	OP-UA5	Catalyst Activator Direct Heater		20203	PSDTX1224

TCEQ-10344 (APDG 5767v7, Revised 05/20) OP-SUMR

This form is for use by facilities subject to air quality permit requirements and may be revised periodically.

Page \_\_\_\_ of \_\_\_\_

**Texas Commission on Environmental Quality  
Federal Operating Permit Program  
Individual Unit Summary for Revisions  
Form OP-SUMR**

**Table 2**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Revision No.	ID No.	Applicable Form	Group AI	Group ID No.
NONE				

**Permit By Rule Supplemental Table (Page 1)**  
**Table A: Registered Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
	O1957	RN100218973

Unit ID No.	Registration No.	PBR No.	Registration Date
LL-CT	171738	106.262	2/22/23
PO-CT	172733	106.262	5/26/23
PO-CT	173338	106.262	7/20/23
PO-CT, PE-FUG	163454	106.262	12/16/20
PP2-CT	173343	106.262	7/21/23

**Permit By Rule Supplemental Table (Page 2)**  
**Table B: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date
TTCLOAD (vents to LL-005)	106.472	09/04/2000
LL-072, LL-O73, F-731, T-731	106.393	09/04/2000
E312B	106.371	09/04/2000

**Permit By Rule Supplemental Table (Page 3)**  
**Table C: Claimed (not registered) Permits by Rule (30 TAC Chapter 106) for Insignificant Sources for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
	O1957	RN100218973

PBR No.	Version No./Date
NONE	N/A

**Permit By Rule Supplemental Table (Page 4)**  
**Table D: Monitoring Requirements for registered and claimed PBRs for the Application Area**  
**Texas Commission on Environmental Quality**

Date	Permit Number	Regulated Entity Number
	O1957	RN100218973

Unit ID No.	PBR No.	Version No./Date Or Registration No.	Monitoring Requirement
TTCLOAD	106.472	09/04/2000	Loading throughput and loaded material SDS
LL-072, LL-O73, F-731, T-731	106.393	09/04/2000	Visible emissions inspections on outlet
E312B	106.371	09/04/2000	Same as E312 that it serves as a spare for

**Texas Commission on Environmental Quality**  
**Form OP-ACPS**  
**Application Compliance Plan and Schedule**

<b>Date:</b>	<b>Regulated Entity No.:</b> RN100218973	<b>Permit No.:</b> O1957
<b>Company Name:</b> Formosa Plastics Corporation, Texas		<b>Area Name:</b> Polyethylene Plant

- Part 1 of this form must be submitted with all initial FOP applications and renewal applications.
- The Responsible Official must use Form OP-CRO1 (Certification by Responsible Official) to certify information contained in this form in accordance with 30 TAC § 122.132(d)(8).

**Part 1**

<b>A. Compliance Plan — Future Activity Committal Statement</b>	
<p>The <i>Responsible Official</i> commits, utilizing reasonable effort, to the following:          As the responsible official it is my intent that all emission units shall continue to be in compliance with all applicable requirements they are currently in compliance with, and all emission units shall be in compliance by the compliance dates with any applicable requirements that become effective during the permit term.</p>	
<b>B. Compliance Certification - Statement for Units in Compliance*</b> (Indicate response by entering an "X" in the appropriate column)	
<b>1.</b> With the exception of those emission units listed in the Compliance Schedule section of this form (Part 2, below), and based, at minimum, on the compliance method specified in the associated applicable requirements, are all emission units addressed in this application in compliance with all their respective applicable requirements as identified in this application?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>2.</b> Are there any non-compliance situations addressed in the Compliance Schedule Section of this form (Part 2)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>3.</b> If the response to Item B.2, above, is "Yes," indicate the total number of Part 2 attachments included in this submittal. <i>(For reference only)</i>	
<p>* For Site Operating Permits (SOPs), the complete application should be consulted for applicable requirements and their corresponding emission units when assessing compliance status. For General Operating Permits (GOPs), the application documentation, particularly Form OP-REQ1 should be consulted as well as the requirements contained in the appropriate General Permits portion of 30 TAC Chapter 122.</p> <p>Compliance should be assessed based, at a minimum, on the required monitoring, testing, record keeping, and/or reporting requirements, as appropriate, associated with the applicable requirement in question.</p>	





## **Appendix B    Area-Wide Applicable Requirements Form**

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<b>Form OP-REQ1: Page 1</b>		
<b>I. Title 30 TAC Chapter 111 - Control of Air Pollution from Visible Emissions and Particulate Matter</b>		
<b>A. Visible Emissions</b>		
◆	1. The application area includes stationary vents constructed on or before January 31, 1972.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	2. The application area includes stationary vents constructed after January 31, 1972. <i>If the responses to Questions I.A.1 and I.A.2 are both "NO," go to Question I.A.6.</i> <i>If the response to Question I.A.1 is "NO" and the response to Question I.A.2 is "YES," go to Question I.A.4.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
◆	3. The application area is opting to comply with the requirements for stationary vents constructed after January 31, 1972 for vents in the application area constructed on or before January 31, 1972.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	4. All stationary vents are addressed on a unit specific basis.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	5. Test Method 9 (40 CFR Part 60, Appendix A, Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources) is used to determine opacity of emissions in the application area.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
◆	6. The application area includes structures subject to 30 TAC § 111.111(a)(7)(A).	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
◆	7. The application area includes sources, other than those specified in 30 TAC § 111.111(a)(1), (4), or (7), subject to 30 TAC § 111.111(a)(8)(A).	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	8. Emissions from units in the application area include contributions from uncombined water.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
◆	9. The application area is located in the City of El Paso, including Fort Bliss Military Reservation, and includes solid fuel heating devices subject to 30 TAC § 111.111(c).	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A

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<b>Form OP-REQ1: Page 2</b>	
<b>I. Title 30 TAC Chapter 111 - Control of Air Pollution from Visible Emissions and Particulate Matter (continued)</b>	
<b>B. Materials Handling, Construction, Roads, Streets, Alleys, and Parking Lots</b>	
1. Items a - d determines applicability of any of these requirements based on geographical location.	
◆	a. The application area is located within the City of El Paso.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	b. The application area is located within the Fort Bliss Military Reservation, except areas specified in 30 TAC § 111.141.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	c. The application area is located in the portion of Harris County inside the loop formed by Beltway 8.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	d. The application area is located in the area of Nueces County outlined in Group II state implementation plan (SIP) for inhalable particulate matter adopted by the TCEQ on May 13, 1988.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<i>If there is any "YES" response to Questions I.B.1.a - d, answers Questions I.B.2.a - d. If all responses to Questions I.B.1.a-d are "NO," go to Section I.C.</i>	
2. Items a - d determine the specific applicability of these requirements.	
◆	a. The application area is subject to 30 TAC § 111.143.
	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	b. The application area is subject to 30 TAC § 111.145.
	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	c. The application area is subject to 30 TAC § 111.147.
	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	d. The application area is subject to 30 TAC § 111.149.
	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>C. Emissions Limits on Nonagricultural Processes</b>	
◆	1. The application area includes a nonagricultural process subject to 30 TAC § 111.151.
	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	2. The application area includes a vent from a nonagricultural process that is subject to additional monitoring requirements.
	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	<i>If the response to Question I.C.2 is "NO," go to Question I.C.4.</i>
	3. All vents from nonagricultural process in the application area are subject to additional monitoring requirements.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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<b>Form OP-REQ1: Page 3</b>	
<b>I. Title 30 TAC Chapter 111 - Control of Air Pollution from Visible Emissions and Particulate Matter (continued)</b>	
<b>C. Emissions Limits on Nonagricultural Processes (continued)</b>	
4. The application area includes oil or gas fuel-fired steam generators subject to 30 TAC §§ 111.153(a) and 111.153(c).	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
5. The application area includes oil or gas fuel-fired steam generators that are subject to additional monitoring requirements. <i>If the response to Question I.C.5 is "NO," go to Question I.C.7.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
6. All oil or gas fuel-fired steam generators in the application area are subject to additional monitoring requirements.	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area includes solid fossil fuel-fired steam generators subject to 30 TAC §§ 111.153(a) and 111.153(b).	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
8. The application area includes solid fossil fuel-fired steam generators that are subject to additional monitoring requirements. <i>If the response to Question I.C.8 is "NO," go to Section I.D.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
9. All solid fossil fuel-fired steam generators in the application area are subject to additional monitoring requirements.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>D. Emissions Limits on Agricultural Processes</b>	
1. The application area includes agricultural processes subject to 30 TAC § 111.171.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>E. Outdoor Burning</b>	
◆ 1. Outdoor burning is conducted in the application area. <i>If the response to Question I.E.1 is "NO," go to Section II.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆ 2. Fire training is conducted in the application area and subject to the exception provided in 30 TAC § 111.205.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 3. Fires for recreation, ceremony, cooking, and warmth are used in the application area and subject to the exception provided in 30 TAC § 111.207.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 4. Disposal fires are used in the application area and subject to the exception provided in 30 TAC § 111.209.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 4</b>		
<b>I. Title 30 TAC Chapter 111 - Control of Air Pollution from Visible Emissions and Particulate Matter (continued)</b>		
<b>E. Outdoor Burning (continued)</b>		
◆	5. Prescribed burning is used in the application area and subject to the exception provided in 30 TAC § 111.211.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	6. Hydrocarbon burning is used in the application area and subject to the exception provided in 30 TAC § 111.213.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	7. The application area has received the TCEQ Executive Director approval of otherwise prohibited outdoor burning according to 30 TAC § 111.215.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>II. Title 30 TAC Chapter 112 - Control of Air Pollution from Sulfur Compounds</b>		
<b>A. Temporary Fuel Shortage Plan Requirements</b>		
	1. The application area includes units that are potentially subject to the temporary fuel shortage plan requirements of 30 TAC §§ 112.15 - 112.18.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds</b>		
<b>A. Applicability</b>		
◆	1. The application area is located in the Houston/Galveston/Brazoria area, Beaumont/Port Arthur area, Dallas/Fort Worth area, El Paso area, or a covered attainment county as defined by 30 TAC § 115.10. <i>See instructions for inclusive counties. If the response to Question III.A.1 is "NO," go to Section IV.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>B. Storage of Volatile Organic Compounds</b>		
◆	1. The application area includes storage tanks, reservoirs, or other containers capable of maintaining working pressure sufficient at all times to prevent any VOC vapor or gas loss to the atmosphere.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 5</b>	
<b>III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds (continued)</b>	
<b>C. Industrial Wastewater</b>	
1. The application area includes affected VOC wastewater streams of an affected source category, as defined in 30 TAC § 115.140. <i>If the response to Question III.C.1 is "NO" or "N/A," go to Section III.D.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
2. The application area is located at a petroleum refinery in the Beaumont/Port Arthur or Houston/Galveston/Brazoria area. <i>If the response to Question III.C.2 is "YES" and the refinery is in the Beaumont/Port Arthur area, go to Section III.D.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area is complying with the provisions of 40 CFR Part 63, Subpart G, as an alternative to complying with this division (relating to Industrial Wastewater). <i>If the response to Question III.C.3 is "YES," go to Section III.D.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area is located at a plant with an annual VOC loading in wastewater, as determined in accordance with 30 TAC § 115.148, less than or equal to 10 Mg (11.03 tons). <i>If the response to Question III.C.4 is "YES," go to Section III.D.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. The application area includes wastewater drains, junction boxes, lift stations, or weirs that are subject to the control requirements of 30 TAC § 115.142(1).	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The application area includes wastewater drains, junction boxes, lift stations, or weirs that handle streams chosen for exemption under 30 TAC § 115.147(2).	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area includes wastewater drains, junction boxes, lift stations, or weirs that have an executive director approved exemption under 30 TAC § 115.147(4).	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>D. Loading and Unloading of VOCs</b>	
◆ 1. The application area includes VOC loading operations.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
◆ 2. The application area includes VOC transport vessel unloading operations. <i>For GOP applications, if the responses to Questions III.D.1 - D.2 are "NO," go to Section III.E.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 6</b>		
<b>III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds (continued)</b>		
<b>D. Loading and Unloading of VOCs (continued)</b>		
◆	3. Transfer operations at motor vehicle fuel dispensing facilities are the only VOC transfer operations conducted in the application area.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>E. Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities</b>		
◆	1. The application area includes one or more motor vehicle fuel dispensing facilities and gasoline is transferred from a tank-truck tank into a stationary storage container. <i>If the response to Question III.E.1 is "NO," go to Section III.F.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	2. Transfers to stationary storage containers used exclusively for the fueling of agricultural implements are the only transfer operations conducted at facilities in the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	3. All transfers at facilities in the application area are made into stationary storage containers with internal floating roofs, external floating roofs, or their equivalent. <i>If the response to Question III.E.2 and/or E.3 is "YES," go to Section III.F.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	4. The application area is located in a covered attainment county as defined in 30 TAC § 115.10. <i>If the response to Question III.E.4 is "NO," go to Question III.E.9.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	5. Stationary gasoline storage containers with a nominal capacity less than or equal to 1,000 gallons are located at the facility.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	6. Stationary gasoline storage containers with a nominal capacity greater than 1,000 gallons are located at the facility.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	7. At facilities located in covered attainment counties other than Bastrop, Bexar, Caldwell, Comal, Guadalupe, Hays, Travis, Williamson, or Wilson County, transfers are made to stationary storage tanks greater than 1000 gallons located at a facility which has dispensed less than 100,000 gallons of gasoline in a calendar month after October 31, 2014. <i>If the response to Question III.E.7 is "YES," go to Section III.F.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 7</b>		
<b>III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds (continued)</b>		
<b>E. Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities (continued)</b>		
◆	8. At facilities located in Bastrop, Bexar, Caldwell, Comal, Guadalupe, Hays, Travis, Williamson, or Wilson County, transfers are made to stationary storage tanks greater than 1000 gallons located at a facility which has dispensed no more than 25,000 gallons of gasoline in a calendar month after December 31, 2004. <i>If the response to Question III.E.8 is "YES," go to Section III.F.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	9. Transfers are made to stationary storage tanks located at a motor vehicle fuel dispensing facility which has dispensed no more than 10,000 gallons of gasoline in any calendar month after January 1, 1991 and for which construction began prior to November 15, 1992.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	10. Transfers are made to stationary storage tanks located at a motor vehicle fuel dispensing facility which has dispensed more than 10,000 gallons of gasoline in any calendar month after January 1, 1991 and for which construction began prior to November 15, 1992.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	11. Transfers are made to stationary storage tanks located at a motor vehicle fuel dispensing facility which commenced construction on or after November 15, 1992.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	12. At facilities located in Ellis, Johnson, Kaufman, Parker, or Rockwall County, transfers are made to stationary storage tanks located at a facility which has dispensed at least 10,000 gallons of gasoline but less than 125,000 gallons of gasoline in a calendar month after April 30, 2005.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>F. Control of VOC Leaks from Transport Vessels (Complete this section for GOP applications for GOPs 511, 512, 513 and 514 only)</b>		
◆	1. Tank-truck tanks are filled with, or emptied of, gasoline at a facility that is subject to 30 TAC § 115.214(a)(1)(C) or 115.224(2) within the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A



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<b>Form OP-REQ1: Page 8</b>	
<b>III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds (continued)</b>	
<b>F. Control of VOC Leaks from Transport Vessels (Complete this section for GOP applications for GOPs 511, 512, 513 and 514 only) (continued)</b>	
◆ 2. Tank-truck tanks are filled with non-gasoline VOCs having a TVP greater than or equal to 0.5 psia under actual storage conditions at a facility subject to 30 TAC § 115.214(a)(1)(C) within the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
◆ 3. Tank-truck tanks are filled with, or emptied of, gasoline at a facility that is subject to 30 TAC § 115.214(b)(1)(C) or 115.224(2) within the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
<b>G. Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities</b>	
◆ 1. The application area includes one or more motor vehicle fuel dispensing facilities and gasoline is transferred from a stationary storage container into motor vehicle fuel tanks. <i>If the response to Question III.G.1 is "NO" or "N/A," go to Section III.H.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
◆ 2. The application area includes facilities that began construction on or after November 15, 1992 and prior to May 16, 2012.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 3. The application area includes facilities that began construction prior to November 15, 1992. <i>If the responses to Questions III.G.2 and Question III.G.3 are both "NO," go to Section III.H.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 4. The application area includes only facilities that have a monthly throughput of less than 10,000 gallons of gasoline.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 5. The decommissioning of all Stage II vapor recovery control equipment located in the application area has been completed and the decommissioning notice submitted.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A

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<b>Form OP-REQ1: Page 9</b>	
<b>III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds (continued)</b>	
<b>H. Control Of Reid Vapor Pressure (RVP) of Gasoline</b>	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> 1. The application area includes stationary tanks, reservoirs, or other containers holding gasoline that may ultimately be used in a motor vehicle in El Paso County.  <i>If the response to Question III.H.1 is "NO" or "N/A," go to Section III.I.</i> </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO  <input checked="" type="checkbox"/> N/A </div> </div>
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> 2. The application area includes stationary tanks, reservoirs, or other containers holding gasoline that will be used exclusively for the fueling of agricultural implements. </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> 3. The application area includes a motor vehicle fuel dispensing facility. </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> 4. The application area includes stationary tanks, reservoirs, or other containers holding gasoline and having a nominal capacity of 500 gallons or less. </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
<b>I. Process Unit Turnaround and Vacuum-Producing Systems in Petroleum Refineries</b>	
	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> 1. The application area is located at a petroleum refinery. </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO </div> </div>
<b>J. Surface Coating Processes (Complete this section for GOP applications only.)</b>	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> 1. Surface coating operations (other than those performed on equipment located on-site and in-place) that meet the exemption specified in 30 TAC § 115.427(3)(A) or 115.427(7) are performed in the application area. </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO  <input type="checkbox"/> N/A </div> </div>

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**III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds (continued)**

**K. Cutback Asphalt**

<p>1. Conventional cutback asphalt containing VOC solvents for the paving of roadways, driveways, or parking lots, is used or specified for use in the application area by a state, municipal, or county agency.  <i>If the response to Question III.K.1 is "N/A," go to Section III.L.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
<p>2. The use, application, sale, or offering for sale of conventional cutback asphalt containing VOC solvents for the paving of roadways, driveways, or parking lots occurs in the application area.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
<p>3. Asphalt emulsion is used or produced within the application area.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>4. The application area is using an alternate control requirement as specified in 30 TAC § 115.513.  <i>If the response to Question III.K.4 is "NO," go to Section III.L.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>5. The application area uses, applies, sells, or offers for sale asphalt concrete, made with cutback asphalt, that meets the exemption specified in 30 TAC § 115.517(1).</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>6. The application area uses, applies, sells, or offers for sale cutback asphalt that is used solely as a penetrating prime coat.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>7. The applicant using cutback asphalt is a state, municipal, or county agency.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO

**L. Degassing of Storage Tanks, Transport Vessels and Marine Vessels**

<p>◆ 1. The application area includes degassing operations for stationary, marine, and/or transport vessels.  <i>If the response to Question III.L.1 is "NO" or "N/A," go to Section III.M.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
<p>◆ 2. Degassing of only ocean-going, self-propelled VOC marine vessels is performed in the application area.  <i>If the response to Question III.L.2 is "YES," go to Section III.M.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A

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<b>Form OP-REQ1: Page 11</b>		
<b>III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds (continued)</b>		
<b>L. Degassing of Storage Tanks, Transport Vessels and Marine Vessels (continued)</b>		
◆	3. Degassing of stationary VOC storage vessels with a nominal storage capacity of 1,000,000 gallons or more and a vapor space partial pressure greater than or equal to 0.5 psia of VOC is performed in the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
◆	4. Degassing of stationary VOC storage vessels with a nominal storage capacity of 250,000 gallons or more, or a nominal storage capacity of 75,000 gallons and storing materials with a true vapor pressure greater than 2.6 psia, and a vapor space partial pressure greater than or equal to 0.5 psia of VOC is performed in the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
◆	5. Degassing of VOC transport vessels with a nominal storage capacity of 8,000 gallons or more and a vapor space partial pressure greater than or equal to 0.5 psia of VOC is performed in the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	6. Degassing of VOC marine vessels with a nominal storage capacity of 10,000 barrels (420,000 gallons) or more and a vapor space partial pressure greater than or equal to 0.5 psia of VOC is performed in the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
◆	7. Degassing of VOC marine vessels with a nominal storage capacity of 10,000 barrels (420,000 gallons) and a vapor space partial pressure $\geq$ 0.5 psia that have sustained damage as specified in 30 TAC § 115.547(5) is performed in the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
<b>M. Petroleum Dry Cleaning Systems</b>		
	1. The application area contains one or more petroleum dry cleaning facilities that use petroleum based solvents.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A

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<b>Form OP-REQ1: Page 12</b>	
<b>III. Title 30 TAC Chapter 115 - Control of Air Pollution from Volatile Organic Compounds (continued)</b>	
<b>N. Vent Gas Control (Highly-reactive volatile organic compounds (HRVOC))</b>	
1. The application area includes one or more vent gas streams containing HRVOC.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
2. The application area includes one or more flares that emit or have the potential to emit HRVOC. <i>If the responses to Questions III.N.1 and III.N.2 are both "NO" or "N/A," go to Section III.O. If the response to Question III.N.1 is "YES," continue with Question III.N.3.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
3. All vent streams in the application area that are routed to a flare contain less than 5.0% HRVOC by weight at all times.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. All vent streams in the application area that are not routed to a flare contain less than 100 ppmv HRVOC at all times. <i>If the responses to Questions III.N.3 and III.N.4 are both "NO," go to Section III.O.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. The application area contains pressure relief valves that are not controlled by a flare.	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The application area has at least one vent stream which has no potential to emit HRVOC.	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area has vent streams from a source described in 30 TAC § 115.727(c)(3)(A) - (H).	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>O. Cooling Tower Heat Exchange Systems (HRVOC)</b>	
1. The application area includes one or more cooling tower heat exchange systems that emit or have the potential to emit HRVOC.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A

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<b>Form OP-REQ1: Page 13</b>	
<b>IV. Title 30 TAC Chapter 117 - Control of Air Pollution from Nitrogen Compounds</b>	
<b>A. Applicability</b>	
◆ 1. The application area is located in the Houston/Galveston/Brazoria, Beaumont/Port Arthur, or Dallas/Fort Worth Eight-Hour area. <i>For SOP applications, if the response to Question IV.A.1 is "YES," complete Sections IV.B - IV.F and IV.H.</i> <i>For GOP applications for GOPs 511, 512, 513, or 514, if the response to Question IV.A.1 is "YES," go to Section IV.F.</i> <i>For GOP applications for GOP 517, if the response to Question IV.A.1 is "YES," complete Sections IV.C and IV.F.</i> <i>For GOP applications, if the response to Question IV.A.1 is "NO," go to Section VI.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area is located in Bexar, Comal, Ellis, Hays, or McLennan County and includes a cement kiln. <i>If the response to Question IV.A.2 is "YES," go to Question IV.H.1.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. The application area includes a utility electric generator in an east or central Texas county. <i>See instructions for a list of counties included.</i> <i>If the response to Question IV.A.3 is "YES," go to Question IV.G.1.</i> <i>If the responses to Questions IV.A.1 - 3 are all "NO," go to Question IV.H.1.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>B. Utility Electric Generation in Ozone Nonattainment Areas</b>	
1. The application area includes units specified in 30 TAC §§ 117.1000, 117.1200, or 117.1300. <i>If the response to Question IV.B.1 is "NO," go to Question IV.C.1.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
2. The application area is complying with a System Cap in 30 TAC §§ 117.1020 or 117.1220.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 14</b>	
<b>IV. Title 30 TAC Chapter 117 - Control of Air Pollution from Nitrogen Compounds (continued)</b>	
<b>C. Commercial, Institutional, and Industrial Sources in Ozone Nonattainment Areas</b>	
◆	<div>1. The application area is located at a site subject to 30 TAC Chapter 117, Subchapter B and includes units specified in 30 TAC §§ 117.100, 117.300, or 117.400.</div> <div><i>For SOP applications, if the response to Question IV.C.1 is "NO," go to Question IV.D.1. For GOP applications for GOP 517, if the response to Question IV.C.1 is "NO," go to Section IV.F.</i></div> <div style="text-align: right;"><input type="checkbox"/> YES   <input type="checkbox"/> NO</div>
◆	<div>2. The application area is located at a site that was a major source of NO<sub>x</sub> before November 15, 1992.</div> <div style="text-align: right;"><input type="checkbox"/> YES   <input type="checkbox"/> NO <input type="checkbox"/> N/A</div>
◆	<div>3. The application area includes an electric generating facility required to comply with the System Cap in 30 TAC § 117.320.</div> <div style="text-align: right;"><input type="checkbox"/> YES   <input type="checkbox"/> NO</div>
<b>D. Adipic Acid Manufacturing</b>	
	<div>1. The application area is located at, or part of, an adipic acid production unit.</div> <div style="text-align: right;"><input type="checkbox"/> YES   <input type="checkbox"/> NO <input type="checkbox"/> N/A</div>
<b>E. Nitric Acid Manufacturing - Ozone Nonattainment Areas</b>	
	<div>1. The application area is located at, or part of, a nitric acid production unit.</div> <div style="text-align: right;"><input type="checkbox"/> YES   <input type="checkbox"/> NO <input type="checkbox"/> N/A</div>
<b>F. Combustion Control at Minor Sources in Ozone Nonattainment Areas - Boilers, Process Heaters, Stationary Engines and Gas Turbines</b>	
◆	<div>1. The application area is located at a site that is a minor source of NO<sub>x</sub> in the Houston/Galveston/Brazoria or Dallas/Fort Worth Eight-Hour areas (except for Wise County).</div> <div><i>For SOP applications, if the response to Question IV.F.1 is "NO," go to Question IV.G.1. For GOP applications, if the response to Question IV.F.1 is "NO," go to Section VI.</i></div> <div style="text-align: right;"><input type="checkbox"/> YES   <input type="checkbox"/> NO</div>
◆	<div>2. The application area is located in the Houston/Galveston/Brazoria area and has units that qualify for an exemption under 30 TAC § 117.2003(a).</div> <div style="text-align: right;"><input type="checkbox"/> YES   <input type="checkbox"/> NO</div>
◆	<div>3. The application area is located in the Houston/Galveston/Brazoria area and has units that qualify for an exemption under 30 TAC § 117.2003(b).</div> <div style="text-align: right;"><input type="checkbox"/> YES   <input type="checkbox"/> NO</div>

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<b>Form OP-REQ1: Page 15</b>		
<b>IV. Title 30 TAC Chapter 117 - Control of Air Pollution from Nitrogen Compounds (continued)</b>		
<b>F. Combustion Control at Minor Sources in Ozone Nonattainment Areas - Boilers, Process Heaters, Stationary Engines and Gas Turbines (continued)</b>		
◆	4. The application area is located in the Dallas/Fort Worth Eight-Hour area (except for Wise County) and has units that qualify for an exemption under 30 TAC § 117.2103.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	5. The application area has units subject to the emission specifications under 30 TAC §§ 117.2010 or 30 TAC § 117.2110.	<input type="checkbox"/> YES <input type="checkbox"/> NO
	6. The application area has a unit that has been approved for alternative case specific specifications (ACSS) in 30 TAC § 117.2025 or 30 TAC § 117.2125. <i>If the response to Question IV.F.6 is "NO," go to Section IV.G.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
	7. An ACSS for carbon monoxide (CO) has been approved?	<input type="checkbox"/> YES <input type="checkbox"/> NO
	8. An ACSS for ammonia (NH <sub>3</sub> ) has been approved?	<input type="checkbox"/> YES <input type="checkbox"/> NO
	9. Provide the Permit Number(s) and authorization/issuance date(s) of the NSR project(s) that incorporates an ACSS below.	
<b>G. Utility Electric Generation in East and Central Texas</b>		
	1. The application area includes utility electric power boilers and/or stationary gas turbines (including duct burners used in turbine exhaust ducts) that were placed into service before December 31, 1995. <i>If the response to Question IV.G.1 is "NO," go to Question IV.H.1.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
	2. The application area is complying with the System Cap in 30 TAC § 117.3020.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>H. Multi-Region Combustion Control - Water Heaters, Small Boilers, and Process Heaters</b>		
	1. The application area includes a manufacturer, distributor, retailer or installer of natural gas fired water heaters, boilers or process heaters with a maximum rated capacity of 2.0 MMBtu/hr or less. <i>If the response to question IV.H.1 is "NO," go to Section V.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
	2. All water heaters, boilers or process heaters manufactured, distributed, retailed or installed qualify for an exemption under 30 TAC § 117.3203.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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<b>V. Title 40 Code of Federal Regulations Part 59 (40 CFR Part 59) - National Volatile Organic Compound Emission Standards for Consumer and Commercial Products</b>	
<b>A. Subpart B - National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings</b>	
1. The application area manufactures automobile refinishing coatings or coating components and sells or distributes these coatings or coating components in the United States.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area imports automobile refinishing coatings or coating components, manufactured on or after January 11, 1999, and sells or distributes these coatings or coating components in the United States. <i>If the responses to Questions V.A.1 and V.A.2 are both "NO," go to Section V.B.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. All automobile refinishing coatings or coating components manufactured or imported by the application area meet one or more of the exemptions specified in 40 CFR § 59.100(c)(1) - (6).	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>B. Subpart C - National Volatile Organic Compound Emission Standards for Consumer Products</b>	
1. The application area manufactures consumer products for sale or distribution in the United States.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area imports consumer products manufactured on or after December 10, 1998 and sells or distributes these consumer products in the United States.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. The application area is a distributor of consumer products whose name appears on the label of one or more of the products. <i>If the responses to Questions V.B.1 - V.B.3 are all "NO," go to Section V.C.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
4. All consumer products manufactured, imported, or distributed by the application area meet one or more of the exemptions specified in 40 CFR § 59.201(c)(1) - (7).	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 17</b>	
<b>V. Title 40 Code of Federal Regulations Part 59 (40 CFR Part 59) - National Volatile Organic Compound Emission Standards for Consumer and Commercial Products (continued)</b>	
<b>C. Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings</b>	
1. The application area manufactures or imports architectural coatings for sale or distribution in the United States.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area manufactures or imports architectural coatings that are registered under the Federal Insecticide, Fungicide, and Rodenticide Act. <i>If the responses to Questions V.C.1-2 are both "NO," go to Section V.D.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. All architectural coatings manufactured or imported by the application area meet one or more of the exemptions specified in 40 CFR §59.400(c)(1)-(5).	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>D. Subpart E - National Volatile Organic Compound Emission Standards for Aerosol Coatings</b>	
1. The application area manufactures or imports aerosol coating products for sale or distribution in the United States.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area is a distributor of aerosol coatings for resale or distribution in the United States.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>E. Subpart F - Control of Evaporative Emissions From New and In-Use Portable Fuel Containers</b>	
1. The application area manufactures or imports portable fuel containers for sale or distribution in the United States. <i>If the response to Question V.E.1 is "NO," go to Section VI.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. All portable fuel containers manufactured or imported by the application area meet one or more of the exemptions specified in 40 CFR § 59.605(a) - (c).	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards</b>	
<b>A. Applicability</b>	
◆ 1. The application area includes a unit(s) that is subject to one or more 40 CFR Part 60 subparts. <i>If the response to Question VI.A.1 is "NO," go to Section VII.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 18</b>		
<b>VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards (continued)</b>		
<b>B. Subpart Y - Standards of Performance for Coal Preparation and Processing Plants</b>		
1.	The application area is located at a coal preparation and processing plant. <i>If the response to Question VI.B.1 is "NO," go to Section VI.C.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2.	The coal preparation and processing plant has a design capacity greater than 200 tons per day (tpd). <i>If the response to Question VI.B.2 is "NO," go to Section VI.C.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.	The plant has an option to enforceably limit its operating level to less than 200 tpd and is choosing this option. <i>If the response to Question VI.B.3 is "YES," go to Section VI.C.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
4.	The plant contains an open storage pile, as defined in § 60.251, as an affected facility. <i>If the response to Question VI.B.4 is "NO," go to Section VI.C.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
5.	The open storage pile was constructed, reconstructed or modified after May 27, 2009.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>C. Subpart GG - Standards of Performance for Stationary Gas Turbines (GOP applicants only)</b>		
◆ 1.	The application area includes one or more stationary gas turbines that have a heat input at peak load greater than or equal to 10 MMBtu/hr (10.7GJ/hr), based on the lower heating value of the fuel fired. <i>If the response to Question VI.C.1 is "NO" or "N/A," go to Section VI.D.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
◆ 2.	One or more of the affected facilities were constructed, modified, or reconstructed after October 3, 1977 and prior to February 19, 2005. <i>If the response to Question VI.C.2 is "NO," go to Section VI.D.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 3.	One or more stationary gas turbines in the application area are using a previously approved alternative fuel monitoring schedule as specified in 40 CFR § 60.334(h)(4).	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 4.	The exemption specified in 40 CFR § 60.332(e) is being utilized for one or more stationary gas turbines in the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 19</b>	
<b>VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards (continued)</b>	
<b>C. Subpart GG - Standards of Performance for Stationary Gas Turbines (GOP applicants only) (continued)</b>	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> <p>5. One or more stationary gas turbines subject to 40 CFR Part 60, Subpart GG in the application area is injected with water or steam for the control of nitrogen oxides.</p> </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
<b>D. Subpart XX - Standards of Performance for Bulk Gasoline Terminals</b>	
	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> <p>1. The application area includes bulk gasoline terminal loading racks.  <i>If the response to Question VI.D.1 is "NO," go to Section VI.E.</i></p> </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO  <input type="checkbox"/> N/A </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> <p>2. One or more of the loading racks were constructed or modified after December 17, 1980, and are not subject to 40 CFR Part 63, Subpart CC.</p> </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
<b>E. Subpart LLL - Standards of Performance for Onshore Natural Gas Processing: Sulfur Dioxide (SO<sub>2</sub>) Emissions</b>	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> <p>1. The application area includes affected facilities identified in 40 CFR § 60.640(a) that process natural gas (onshore).  <i>For SOP applications, if the response to Question VI.E.1 is "NO," go to Section VI.F. For GOP applications, if the response to Question VI.E.1 is "NO" or "N/A," go to Section VI.H.</i></p> </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO </div> </div>
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> <p>2. The affected facilities commenced construction or modification after January 20, 1984 and on or before August 23, 2011.  <i>For SOP applications, if the response to Question VI.E.2 is "NO," go to Section VI.F. For GOP applications, if the response to Question VI.E.2 is "NO," go to Section VI.H.</i></p> </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 80%;"> <p>3. The application area includes a gas sweetening unit with a design capacity greater than or equal to 2 long tons per day (LTPD) of hydrogen sulfide but operates at less than 2 LTPD.  <i>For SOP applications, if the response to Question VI.E.3 is "NO," go to Section VI.F. For GOP applications, if the response to Question VI.E.3 is "NO," go to Section VI.H.</i></p> </div> <div style="width: 15%;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>

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<b>VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards (continued)</b>	
<b>E. Subpart LLL - Standards of Performance for Onshore Natural Gas Processing: Sulfur Dioxide (SO<sub>2</sub>) Emissions (continued)</b>	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>4. Federally enforceable operating limits have been established in the preconstruction authorization limiting the gas sweetening unit to less than 2 LTPD.</p> <p><i>For SOP applications, if the response to Question VI.E.4. is "NO," go to Section VI.F. For GOP applications, if the response to Question VI.E.4. is "NO," go to Section VI.H.</i></p> </div> <div style="width: 20%; text-align: right;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
◆	<p>5. Please provide the Unit ID(s) for the gas sweetening unit(s) that have established federally enforceable operating limits in the space provided below.</p>
<b>F. Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants</b>	
	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>1. The application area includes affected facilities identified in 40 CFR § 60.670(a)(1) that are located at a fixed or portable nonmetallic mineral processing plant.</p> <p><i>If the response to Question VI.F.1 is "NO," go to Section VI.G.</i></p> </div> <div style="width: 20%; text-align: right;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>2. Affected facilities identified in 40 CFR § 60.670(a)(1) and located in the application area are subject to 40 CFR Part 60, Subpart OOO.</p> </div> <div style="width: 20%; text-align: right;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
<b>G. Subpart QQQ - Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems</b>	
	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>1. The application area is located at a petroleum refinery and includes one or more of the affected facilities identified in 40 CFR § 60.690(a)(2) - (4) for which construction, modification, or reconstruction was commenced after May 4, 1987.</p> <p><i>If the response to Question VI.G.1 is "NO," go to Section VI.H.</i></p> </div> <div style="width: 20%; text-align: right;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>2. The application area includes storm water sewer systems.</p> </div> <div style="width: 20%; text-align: right;"> <input type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>

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<b>VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards (continued)</b>		
<b>G. Subpart QQQ - Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems (continued)</b>		
3.	The application area includes ancillary equipment which is physically separate from the wastewater system and does not come in contact with or store oily wastewater.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4.	The application area includes non-contact cooling water systems.	<input type="checkbox"/> YES <input type="checkbox"/> NO
5.	The application area includes individual drain systems. <i>If the response to Question VI.G.5 is "NO," go to Section VI.H.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
6.	The application area includes one or more individual drain systems that meet the exemption specified in 40 CFR § 60.692-2(d).	<input type="checkbox"/> YES <input type="checkbox"/> NO
7.	The application area includes completely closed drain systems.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>H. Subpart AAAA - Standards of Performance for Small Municipal Waste Incineration Units for Which Construction Commenced After August 30, 1999 or for Which Modification or Reconstruction Commenced on or After June 6, 2004</b>		
◆ 1.	The application area includes at least one small municipal waste incineration unit, other than an air curtain incinerator. <i>If the response to Question VI.H.1. is "N/A," go to Section VI.I. If the response to Question VI.H.1 is "NO," go to Question VI.H.4.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
◆ 2.	The application area includes at least one small municipal waste incineration unit, other than an air curtain incinerator, constructed after August 30, 1999 or modified or reconstructed on or after June 6, 2006.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 3.	The application area includes at least one small municipal waste incineration unit, other than an air curtain incinerator, constructed before August 30, 1999 and not modified or reconstructed on or after June 6, 2006.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 4.	The application area includes at least one air curtain incinerator. <i>If the response to Question VI.H.4 is "NO," go to Section VI.I.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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**VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards (continued)**

**H. Subpart AAAA - Standards of Performance for Small Municipal Waste Incineration Units for Which Construction Commenced After August 30, 1999 or for Which Modification or Reconstruction Commenced on or After June 6, 2004 (continued)**

◆	5. The application area includes at least one air curtain incinerator constructed after August 30, 1999 or modified or reconstructed on or after June 6, 2006. <i>If the response to Question VI.H.5 is "NO," go to Question VI.H.7.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	6. All air curtain incinerators constructed after August 30, 1999 or modified or reconstructed on or after June 6, 2006 combust only yard waste.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	7. The application area includes at least one air curtain incinerator constructed before August 30, 1999 and not modified or reconstructed on or after June 6, 2006.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	8. All air curtain incinerators constructed before August 30, 1999 and not modified or reconstructed on or after June 6, 2006 combust only yard waste.	<input type="checkbox"/> YES <input type="checkbox"/> NO

**I. Subpart CCCC - Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Commenced After November 30, 1999 or for Which Modification or Reconstruction Commenced on or After June 1, 2001**

◆	1. The application area includes at least one commercial or industrial solid waste incineration unit, other than an air curtain incinerator. <i>If the response to Question VI.I.1 is "N/A," go to Section VI.J. If the response to Question VI.I.1 is "NO," go to Question VI.I.4.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
◆	2. The application area includes at least one commercial or industrial solid waste incineration unit, other than an air curtain incinerator, constructed after November 30, 1999 or modified or reconstructed on or after June 1, 2001.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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**VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards (continued)**

**I. Subpart CCCC - Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Commenced After November 30, 1999 or for Which Modification or Reconstruction Commenced on or After June 1, 2001 (continued)**

◆	3. The application area includes at least one commercial or industrial solid waste incineration unit, other than an air curtain incinerator, constructed before November 30, 1999 and not modified or reconstructed on or after June 1, 2001.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	4. The application area includes at least one air curtain incinerator. <i>If the response to Question VI.I.4 is "NO," go to Section VI.J.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	5. The application area includes at least one air curtain incinerator, constructed after November 30, 1999 or modified or reconstructed on or after June 1, 2001. <i>If the response to Question VI.I.5 is "NO," go to VI.I.7.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	6. All air curtain incinerators constructed after November 30, 1999 or modified or reconstructed on or after June 1, 2001 combust only wood waste, clean lumber, or yard waste or a mixture of these materials.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	7. The application area includes at least one air curtain incinerator, constructed before November 30, 1999 and not modified or reconstructed on or after June 1, 2001.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	8. All air curtain incinerators constructed before November 30, 1999 and not modified or reconstructed on or after June 1, 2001 combust only wood waste, clean lumber, or yard waste or a mixture of these materials.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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**VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards (continued)**

**J. Subpart EEEE - Standards of Performance for Other Solid Waste Incineration Units for Which Construction Commenced After December 9, 2004 or for Which Modification or Reconstruction Commenced on or After June 16, 2006**

◆	1.	The application area includes at least one very small municipal waste incineration unit or institutional incineration unit, other than an air curtain incinerator.  <i>If the response to Question VI.J.1 is "N/A," go to Section VI.K. If the response to Question VI.J.1 is "NO," go to Question VI.J.4.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
◆	2.	The application area includes at least one very small municipal waste incineration unit, other than an air curtain incinerator, constructed after December 9, 2004 or modified or reconstructed on or after June 16, 2006.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	3.	The application area includes at least one very small municipal waste incineration unit, other than an air curtain incinerator, constructed before December 9, 2004 and not modified or reconstructed on or after June 16, 2006.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	4.	The application area includes at least one air curtain incinerator. <i>If the response to Question VI.J.4 is "NO," go to Section VI.K.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	5.	The application area includes at least one air curtain incinerator constructed after December 9, 2004 or modified or reconstructed on or after June 16, 2006. <i>If the response to Question VI.J.5 is "NO," go to Question VI.J.7.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	6.	All air curtain incinerators constructed after December 9, 2004 or modified or reconstructed on or after June 16, 2006 combust only wood waste, clean lumber, or yard waste or a mixture of these materials.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	7.	The application area includes at least one air curtain incinerator constructed before December 9, 2004 and not modified or reconstructed on or after June 16, 2006.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 25</b>		
<b>VI. Title 40 Code of Federal Regulations Part 60 - New Source Performance Standards (NSPS) (continued)</b>		
<b>J. Subpart EEEE - Standards of Performance for Other Solid Waste Incineration Units for Which Construction Commenced After December 9, 2004 or for Which Modification or Reconstruction Commenced on or After June 16, 2006 (continued)</b>		
◆	8. All air curtain incinerators constructed before December 9, 2004 and not modified or reconstructed on or after June 16, 2006 combust only wood waste, clean lumber, or yard waste or a mixture of these materials.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	9. The air curtain incinerator is located at an institutional facility and is a distinct operating unit of the institutional facility that generated the waste.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	10. The air curtain incinerator burns less than 35 tons per day of wood waste, clean lumber, or yard waste or a mixture of these materials.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>K. Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution</b>		
◆	1. The application area includes one or more of the onshore affected facilities listed in 40 CFR § 60.5365(a)-(g) that are subject to 40 CFR Part 60, Subpart OOOO.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants</b>		
<b>A. Applicability</b>		
◆	1. The application area includes a unit(s) that is subject to one or more 40 CFR Part 61 subparts. <i>If the response to Question VII.A.1 is "NO" or "N/A," go to Section VIII.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
<b>B. Subpart F - National Emission Standard for Vinyl Chloride</b>		
	1. The application area is located at a plant which produces ethylene dichloride by reaction of oxygen and hydrogen chloride with ethylene, vinyl chloride by any process, and/or one or more polymers containing any fraction of polymerized vinyl chloride.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>C. Subpart J - National Emission Standard for Benzene Emissions for Equipment Leaks (Fugitive Emission Sources) of Benzene (Complete this section for GOP applications only)</b>		
◆	1. The application area includes equipment in benzene service.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A

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<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)</b>	
<b>D. Subpart L - National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants</b>	
1. The application area is located at a coke by-product recovery plant and includes one or more of the affected sources identified in 40 CFR § 61.130(a) - (b). <i>If the response to Question VII.D.1 is "NO," go to Section VII.E.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes equipment in benzene service as determined by 40 CFR § 61.137(b).	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area has elected to comply with the provisions of 40 CFR § 61.243-1 and 40 CFR § 61.243-2.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>E. Subpart M - National Emission Standard for Asbestos</b>	
<b>Applicability</b>	
1. The application area includes sources, operations, or activities specified in 40 CFR §§ 61.143, 61.144, 61.146, 61.147, 61.148, or 61.155. <i>If the response to Question VII.E.1 is "NO," go to Section VII.F.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>Roadway Construction</b>	
2. The application area includes roadways constructed or maintained with asbestos tailings or asbestos-containing waste material.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>Manufacturing Commercial Asbestos</b>	
3. The application area includes a manufacturing operation using commercial asbestos. <i>If the response to Question VII.E.3 is "NO," go to Question VII.E.4.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
a. Visible emissions are discharged to outside air from the manufacturing operation	<input type="checkbox"/> YES <input type="checkbox"/> NO
b. An alternative emission control and waste treatment method is being used that has received prior U.S. Environmental Protection Agency (EPA) approval.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 27</b>	
<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)</b>	
<b>E. Subpart M - National Emission Standard for Asbestos (continued)</b>	
<b><i>Manufacturing Commercial Asbestos (continued)</i></b>	
c. Asbestos-containing waste material is processed into non-friable forms.	<input type="checkbox"/> YES <input type="checkbox"/> NO
d. Asbestos-containing waste material is adequately wetted.	<input type="checkbox"/> YES <input type="checkbox"/> NO
e. Alternative filtering equipment is being used that has received EPA approval.	<input type="checkbox"/> YES <input type="checkbox"/> NO
f. A high efficiency particulate air (HEPA) filter is being used that is certified to be at least 99.97% efficient for 0.3 micron particles	<input type="checkbox"/> YES <input type="checkbox"/> NO
g. The EPA has authorized the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b><i>Asbestos Spray Application</i></b>	
4. The application area includes operations in which asbestos-containing materials are spray applied. <i>If the response to Question VII.E.4 is "NO," go to Question VII.E.5.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
a. Asbestos fibers are encapsulated with a bituminous or resinous binder during spraying and are not friable after drying. <i>If the response to Question VII.E.4.a is "YES," go to Question VII.E.5.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
b. Spray-on applications on buildings, structures, pipes, and conduits do not use material containing more than 1% asbestos.	<input type="checkbox"/> YES <input type="checkbox"/> NO
c. An alternative emission control and waste treatment method is being used that has received prior EPA approval.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 28</b>	
<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)</b>	
<b>E. Subpart M - National Emission Standard for Asbestos (continued)</b>	
<b><i>Asbestos Spray Application (continued)</i></b>	
d. Asbestos-containing waste material is processed into non-friable forms.	<input type="checkbox"/> YES <input type="checkbox"/> NO
e. Asbestos-containing waste material is adequately wetted.	<input type="checkbox"/> YES <input type="checkbox"/> NO
f. Alternative filtering equipment is being used that has received EPA approval.	<input type="checkbox"/> YES <input type="checkbox"/> NO
g. A HEPA filter is being used that is certified to be at least 99.97% efficient for 0.3 micron particles.	<input type="checkbox"/> YES <input type="checkbox"/> NO
h. The EPA has authorized the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b><i>Fabricating Commercial Asbestos</i></b>	
5. The application area includes a fabricating operation using commercial asbestos. <i>If the response to Question VII.E.5 is "NO," go to Question VII.E.6.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
a. Visible emissions are discharged to outside air from the manufacturing operation.	<input type="checkbox"/> YES <input type="checkbox"/> NO
b. An alternative emission control and waste treatment method is being used that has received prior EPA approval.	<input type="checkbox"/> YES <input type="checkbox"/> NO
c. Asbestos-containing waste material is processed into non-friable forms.	<input type="checkbox"/> YES <input type="checkbox"/> NO
d. Asbestos-containing waste material is adequately wetted.	<input type="checkbox"/> YES <input type="checkbox"/> NO
e. Alternative filtering equipment is being used that has received EPA approval.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 29</b>	
<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)</b>	
<b>E. Subpart M - National Emission Standard for Asbestos (continued)</b>	
<b><i>Fabricating Commercial Asbestos (continued)</i></b>	
f. A HEPA filter is being used that is certified to be at least 99.97% efficient for 0.3 micron particles.	<input type="checkbox"/> YES <input type="checkbox"/> NO
g. The EPA has authorized the use of wet collectors designed to operate with a unit contacting energy of at least 9.95 kilopascals.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b><i>Non-sprayed Asbestos Insulation</i></b>	
6. The application area includes insulating materials (other than spray applied insulating materials) that are either molded and friable or wet-applied and friable after drying.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b><i>Asbestos Conversion</i></b>	
7. The application area includes operations that convert regulated asbestos-containing material and asbestos-containing waste material into nonasbestos (asbestos-free) material.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>F. Subpart P - National Emission Standard for Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities</b>	
1. The application area is located at a metallic arsenic production plant or at an arsenic trioxide plant that processes low-grade arsenic bearing materials by a roasting condensation process.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>G. Subpart BB - National Emission Standard for Benzene Emissions from Benzene Transfer Operations</b>	
1. The application area is located at a benzene production facility and/or bulk terminal. <i>If the response to Question VII.G.1 is "NO," go to Section VII.H.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes benzene transfer operations at marine vessel loading racks.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)</b>	
<b>G. Subpart BB - National Emission Standard for Benzene Emissions from Benzene Transfer Operations (continued)</b>	
3. The application area includes benzene transfer operations at railcar loading racks.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area includes benzene transfer operations at tank-truck loading racks.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>H. Subpart FF - National Emission Standard for Benzene Waste Operations</b>	
<b>Applicability</b>	
1. The application area includes a chemical manufacturing plant, coke by-product recovery plant, or petroleum refinery facility as defined in § 61.341.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
2. The application area is located at a hazardous waste treatment, storage, and disposal (TSD) facility site as described in 40 CFR § 61.340(b). <i>If the responses to Questions VII.H.1 and VII.H.2 are both "NO," go to Section VIII.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. The application area is located at a site that has no benzene onsite in wastes, products, byproducts, or intermediates. <i>If the response to Question VII.H.3 is "YES," go to Section VIII.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
4. The application area is located at a site having a total annual benzene quantity from facility waste less than 1 megagram per year (Mg/yr). <i>If the response to Question VII.H.4 is "YES," go to Section VIII</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
5. The application area is located at a site having a total annual benzene quantity from facility waste greater than or equal to 1 Mg/yr but less than 10 Mg/yr. <i>If the response to Question VII.H.5 is "YES," go to Section VIII.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)</b>	
<b>H. Subpart FF - National Emission Standard for Benzene Waste Operations (continued)</b>	
<b>Applicability (continued)</b>	
6. The flow-weighted annual average benzene concentration of each waste stream at the site is based on documentation.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area has waste streams with flow-weighted annual average water content of 10% or greater.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>Waste Stream Exemptions</b>	
8. The application area has waste streams that meet the exemption specified in 40 CFR § 61.342(c)(2) (the flow-weighted annual average benzene concentration is less than 10 ppmw).	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
9. The application area has waste streams that meet the exemption specified in 40 CFR § 61.342(c)(3) because process wastewater has a flow rate less than 0.02 liters per minute or an annual wastewater quantity less than 10 Mg/yr.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area has waste streams that meet the exemption specified in 40 CFR § 61.342(c)(3) because the total annual benzene quantity is less than or equal to 2 Mg/yr.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
11. The application area transfers waste off-site for treatment by another facility.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
12. The application area is complying with 40 CFR § 61.342(d).	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
13. The application area is complying with 40 CFR § 61.342(e). <i>If the response to Question VII.H.13 is "NO," go to Question VII.H.15.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
14. The application area has facility waste with a flow weighted annual average water content of less than 10%.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)</b>	
<b>H. Subpart FF - National Emission Standard for Benzene Waste Operations (continued)</b>	
<b>Container Requirements</b>	
15. The application area has containers, as defined in 40 CFR § 61.341, that receive non-exempt benzene waste. <i>If the response to Question VII.H.15 is "NO," go to Question VII.H.18.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
16. The application area is an alternate means of compliance to meet the 40 CFR § 61.345 requirements for containers. <i>If the response to Question VII.H.16 is "YES," go to Question VII.H.18.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
17. Covers and closed-vent systems used for containers operate such that the container is maintained at a pressure less than atmospheric pressure.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>Individual Drain Systems</b>	
18. The application area has individual drain systems, as defined in 40 CFR § 61.341, that receive or manage non-exempt benzene waste. <i>If the response to Question VII.H.18 is "NO," go to Question VII.H.25.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
19. The application area is using an alternate means of compliance to meet the 40 CFR § 61.346 requirements for individual drain systems. <i>If the response to Question VII.H.19 is "YES," go to Question VII.H.25.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
20. The application area has individual drain systems complying with 40 CFR § 61.346(a). <i>If the response to Question VII.H.20 is "NO," go to Question VII.H.22.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
21. Covers and closed-vent systems used for individual drain systems operate such that the individual drain system is maintained at a pressure less than atmospheric pressure.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VII. Title 40 Code of Federal Regulations Part 61 - National Emission Standards for Hazardous Air Pollutants (continued)</b>	
<b>H. Subpart FF - National Emission Standard for Benzene Waste Operations (continued)</b>	
<i>Individual Drain Systems (continued)</i>	
22. The application area has individual drain systems complying with 40 CFR § 61.346(b). <i>If the response to Question VII.H.22 is "NO," go to Question VII.H.25.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
23. Junction boxes in the individual drain systems are equipped with a system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation.	<input type="checkbox"/> YES <input type="checkbox"/> NO
24. Junction box vent pipes in the individual drain systems are connected to a closed-vent system and control device.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<i>Remediation Activities</i>	
25. Remediation activities take place at the application area subject to 40 CFR Part 61, Subpart FF.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories</b>	
<b>A. Applicability</b>	
◆ 1. The application area includes a unit(s) that is subject to one or more 40 CFR Part 63 subparts other than subparts made applicable by reference under subparts in 40 CFR Part 60, 61 or 63. <i>See instructions for 40 CFR Part 63 subparts made applicable only by reference.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>B. Subpart F - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry</b>	
1. The application area is located at a plant site that is a major source as defined in the Federal Clean Air Act § 112(a). <i>If the response to Question VIII.B.1 is "NO," go to Section VIII.D.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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**VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)**

**B. Subpart F - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (continued)**

2.	The application area is located at a site that includes at least one chemical manufacturing process unit, as defined in 40 CFR § 63.101, that manufactures as a primary product one or more of the chemicals listed in 40 CFR § 63.100(b)(1)(i) or (b)(1)(ii). <i>If the response to Question VIII.B.2 is "NO," go to Section VIII.D.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
3.	The application area is located at a site that includes at least one chemical manufacturing process unit, as defined in 40 CFR § 63.101, that manufactures as a primary product one or more of the chemicals listed in 40 CFR § 63.100(b)(1)(i) or (b)(1)(ii) and uses as a reactant or manufactures as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of 40 CFR Part 63, Subpart F.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
4.	The application area includes a chemical manufacturing process unit, as defined in 40 CFR § 63.101, that manufactures as a primary product one or more of the chemicals listed in 40 CFR § 63.100(b)(1)(i) or (b)(1)(ii) and uses as a reactant or manufactures as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of 40 CFR Part 63, Subpart F.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
5.	The application area includes a chemical manufacturing process unit, as defined in 40 CFR § 63.101, that manufactures as a primary product one or more of the chemicals listed in 40 CFR § 63.100(b)(1)(i) or (b)(1)(ii) and does <u>not</u> use as a reactant or manufacture as a product, or co-product, one or more of the organic hazardous air pollutants listed in table 2 of 40 CFR Part 63, Subpart F. <i>If the response to Questions VIII.B.3, B.4 and B.5 are all "NO," go to Section VIII.D.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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**VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)**

**C. Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater**

***Applicability***

- |   |   |
|---|---|
| 1. The application area is located at a site that is subject to 40 CFR 63, Subpart F and the application area includes process vents, storage vessels, transfer racks, or waste streams associated with a chemical manufacturing process subject to 40 CFR 63, Subpart F.<br><i>If the response to Question VIII.C.1 is "NO," go to Section VIII.D.</i> | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| 2. The application area includes fixed roofs, covers, and/or enclosures that are required to comply with 40 CFR § 63.148.   | <input type="checkbox"/> YES <input type="checkbox"/> NO            |
| 3. The application area includes vapor collection systems or closed-vent systems that are required to comply with 40 CFR § 63.148.<br><i>If the response to Question VIII.C.3 is "NO," go to Question VIII.C.8.</i>   | <input type="checkbox"/> YES <input type="checkbox"/> NO            |
| 4. The application area includes vapor collection systems or closed-vent systems that are constructed of hard-piping.   | <input type="checkbox"/> YES <input type="checkbox"/> NO            |
| 5. The application area includes vapor collection systems or closed-vent systems that contain bypass lines that could divert a vent stream away from a control device and to the atmosphere.<br><i>If the response to Question VIII.C.5 is "NO," go to Question VIII.C.8.</i>   | <input type="checkbox"/> YES <input type="checkbox"/> NO            |

***Vapor Collection and Closed Vent Systems***

- |  |  |
|--|--|
| 6. Flow indicators are installed, calibrated, maintained, and operated at the entrances to bypass lines in the application area. | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 7. Bypass lines in the application area are secured in the closed position with a car-seal or a lock-and-key type configuration. | <input type="checkbox"/> YES <input type="checkbox"/> NO |

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<b>Form OP-REQ1: Page 36</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>C. Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (continued)</b>	
<b><i>Reloading or Cleaning of Railcars, Tank Trucks, or Barges</i></b>	
8. The application area includes reloading and/or cleaning of railcars, tank trucks, or barges that deliver HAPs to a storage tank. <i>If the response to Question VIII.C.8 is "NO," go to Question VIII.C.11.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
9. The application area includes operations that are complying with § 63.119(g)(6) through the use of a closed-vent system with a control device used to reduce inlet emissions of HAPs by at least 95 percent by weight or greater.	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area includes operations that are complying with § 63.119(g)(6) through the use of a vapor balancing system.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b><i>Transfer Racks</i></b>	
11. The application area includes Group 1 transfer racks that load organic HAPs.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b><i>Process Wastewater Streams</i></b>	
12. The application area includes process wastewater streams. <i>If the response to Question VIII.C.12 is "NO," go to Question VIII.C.34.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
13. The application area includes process wastewater streams that are also subject to the provisions of 40 CFR Part 61, Subpart FF. <i>If the response to Question VIII.C.13 is "NO," go to Question VIII.C.15.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
14. The application area includes process wastewater streams that are complying with 40 CFR §§ 63.110(e)(1)(i) and (e)(1)(ii).	<input type="checkbox"/> YES <input type="checkbox"/> NO
15. The application area includes process wastewater streams that are also subject to the provisions of 40 CFR Part 61, Subpart F. <i>If the response to Question VIII.C.15 is "NO," go to Question VIII.C.17.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>C. Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (continued)</b>	
<b>Process Wastewater Streams (continued)</b>	
16. The application area includes process wastewater streams utilizing the compliance option specified in 40 CFR § 63.110(f)(4)(ii).	<input type="checkbox"/> YES <input type="checkbox"/> NO
17. The application area includes process wastewater streams that are also subject to the provisions of 40 CFR Parts 260 through 272. <i>If the response to Question VIII.C.17 is "NO," go to Question VIII.C.20.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
18. The application area includes process wastewater streams complying with 40 CFR § 63.110(e)(2)(i).	<input type="checkbox"/> YES <input type="checkbox"/> NO
19. The application are includes process wastewater streams complying with 40 CFR § 63.110(e)(2)(ii).	<input type="checkbox"/> YES <input type="checkbox"/> NO
20. The application area includes process wastewater streams, located at existing sources, that are designated as Group 1; are required to be treated as Group 1 under 40 CFR § 63.110; or are determined to be Group 1 for Table 9 compounds.	<input type="checkbox"/> YES <input type="checkbox"/> NO
21. The application area includes process wastewater streams, located at existing sources that are Group 2.	<input type="checkbox"/> YES <input type="checkbox"/> NO
22. The application area includes process wastewater streams, located at new sources, that are designated as Group 1; required to be treated as Group 1 under 40 CFR § 63.110; or are determined to be Group 1 for Table 8 or Table 9 compounds.	<input type="checkbox"/> YES <input type="checkbox"/> NO
23. The application area includes process wastewater streams, located at new sources that are Group 2 for both Table 8 and Table 9 compounds.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>C. Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (continued)</b>	
<b>Process Wastewater Streams (continued)</b>	
24. All Group 1 wastewater streams at the site are demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.C.24 is "YES," go to Question VIII.C.34.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
25. The site has untreated and/or partially treated Group 1 wastewater streams demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.C.25 is "NO," go to Question VIII.C.27.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
26. The application area includes waste management units that receive or manage a partially treated Group 1 wastewater stream prior to or during treatment.	<input type="checkbox"/> YES <input type="checkbox"/> NO
27. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an on-site treatment operation that is not owned or operated by the owner or operator of the source generating the waste stream or residual.	<input type="checkbox"/> YES <input type="checkbox"/> NO
28. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an off-site treatment operation. <i>If the responses to Questions VIII.C.27 - VIII.C.28 are both "NO," go to Question VIII.C.30.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
29. The application area includes waste management units that receive or manage a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream prior to shipment or transport.	<input type="checkbox"/> YES <input type="checkbox"/> NO
30. The application area includes containers that receive, manage, or treat a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>C. Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (continued)</b>	
<b><i>Drains</i></b>	
31. The application area includes individual drain systems that receive or manage a Group 1 wastewater stream, or a residual removed from a Group 1 wastewater stream. <i>If the response to Question VIII.C.31 is "NO," go to Question VIII.C.34.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
32. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of cover and, if vented, closed vent systems and control devices.	<input type="checkbox"/> YES <input type="checkbox"/> NO
33. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of water seals or tightly fitting caps or plugs.	<input type="checkbox"/> YES <input type="checkbox"/> NO
34. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that are part of a chemical manufacturing process unit that meets the criteria of 40 CFR § 63.100(b). <i>If the response to Question VIII.C.34 is "NO," go to Question VIII.C.39.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
35. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes (that are part of a chemical manufacturing process unit) that meet the criteria listed in 40 CFR § 63.149(d). <i>If the response to Question VIII.C.35 is "NO," go to Question VIII.C.39.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
36. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that convey water with a total annual average concentration greater than or equal to 10,000 parts per million by weight of compounds listed in 40 CFR Part 63 Subpart G, Table 9, at any flow rate.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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<b>Form OP-REQ1: Page 40</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>C. Subpart G-National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operation, and Wastewater (continued)</b>	
<b>Drains (continued)</b>	
37. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that convey water with a total annual average concentration greater than or equal to 1,000 parts per million by weight of compounds listed in 40 CFR Part 63 Subpart G, Table 9, at an annual average flow rate greater than or equal to 10 liters per minute.	<input type="checkbox"/> YES <input type="checkbox"/> NO
38. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that are part of a chemical manufacturing process unit that is subject to the new source requirements of 40 CFR § 63.100(l)(1) or (l)(2); and the equipment conveys water with a total annual average concentration greater than or equal to 10 parts per million by weight of compounds listed in 40 CFR Part 63 Subpart G, Table 8, at an average annual flow rate greater than or equal to 0.02 liter per minute.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>Gas Streams</b>	
39. The application area includes gas streams meeting the characteristics of 40 CFR § 63.107(b) - (h) or the criteria of 40 CFR § 63.113(i) and are transferred to a control device not owned or operated by the applicant.	<input type="checkbox"/> YES <input type="checkbox"/> NO
40. The applicant is unable to comply with 40 CFR §§ 63.113 - 63.118 for one or more reasons described in 40 CFR § 63.100(q)(1), (3), or (5).	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>D. Subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks</b>	
1. The application area includes chromium electroplating or chromium anodizing tanks located at hard chromium electroplating, decorative chromium electroplating, and/or chromium anodizing operations.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>E. Subpart O - Ethylene Oxide Emissions Standards for Sterilization Facilities</b>	
1. The application area includes sterilization facilities where ethylene oxide is used in the sterilization or fumigation of materials. <i>If the response to Question VIII.E.1 is "NO," go to Section VIII.F.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. Sterilization facilities located in the application area are subject to 40 CFR Part 63, Subpart O. <i>If the response to Question VIII.E.2 is "NO," go to Section VIII.F.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The sterilization source has used less than 1 ton (907 kg) of ethylene oxide within all consecutive 12-month periods after December 6, 1996.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The sterilization source has used less than 10 tons (9070 kg) of ethylene oxide within all consecutive 12-month periods after December 6, 1996.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>F. Subpart Q - National Emission Standards for Industrial Process Cooling Towers</b>	
1. The application area includes industrial process cooling towers. <i>If the response to Question VIII.F.1 is "NO," go to Section VIII.G.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
2. Chromium-based water treatment chemicals have been used on or after September 8, 1994.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>G. Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)</b>	
1. The application area includes a bulk gasoline terminal.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes a pipeline breakout station. <i>If the responses to Questions VIII.G.1 and VIII.G.2 are both "NO," go to Section VIII.H.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. The bulk gasoline terminal or pipeline breakout station is located within a contiguous area and under common control with another bulk gasoline terminal or a pipeline breakout station. <i>If the response to Question VIII.G.3 is "YES," go to Question VIII.G.10.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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**VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)**

**G. Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) (continued)**

<p>4. The bulk gasoline terminal or pipeline breakout station is located within a contiguous area and under common control with sources, other than bulk gasoline terminals or pipeline breakout stations that emit or have the potential to emit HAPs.  <i>If the response to Question VIII.G.4 is "YES," go to Question VIII.G.10.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>5. An emissions screening factor was calculated for the bulk gasoline terminal or pipeline breakout station.  <i>If the response to Question VIII.G.5 is "NO," go to Question VIII.G.10.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>6. The value 0.04(OE) is less than 5% of the value of the bulk gasoline terminal emissions screening factor (ET) or the pipeline breakout station emissions screening factor (Ep).  <i>If the response to Question VIII.G.6 is "NO," go to Question VIII.G.10.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>7. Emissions screening factor less than 0.5 (ET or EP &lt; 0.5).  <i>If the response to Question VIII.G.7 is "YES," go to Section VIII.H.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>8. Emissions screening factor greater than or equal to 0.5, but less than 1.0 (0.5 ≤ ET or EP &lt; 1.0).  <i>If the response to Question VIII.G.8 is "YES," go to Section VIII.H.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>9. Emissions screening factor greater than or equal to 1.0 (ET or EP ≥ 1.0).  <i>If the response to Question VIII.G.9 is "YES," go to Question VIII.G.11.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>10. The site at which the application area is located is a major source of HAP.  <i>If the response to Question VIII.G.10 is "NO," go to Section VIII.H.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
<p>11. The application area is using an alternative leak monitoring program as described in 40 CFR § 63.424(f).</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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**VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)**

**H. Subpart S - National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry**

1.	The application area includes processes that produce pulp, paper, or paperboard and are located at a plant site that is a major source of HAPs as defined in 40 CFR § 63.2. <i>If the response to Question VIII.H.1 is "NO," go to Section VIII.I.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2.	The application area uses processes and materials specified in 40 CFR § 63.440(a)(1) - (3). <i>If the response to Question VIII.H.2 is "NO," go to Section VIII.I.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.	The application area includes one or more sources subject to 40 CFR Part 63, Subpart S that are existing sources. <i>If the response to Question VIII.H.3 is "NO," go to Section VIII.I.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
4.	The application area includes one or more kraft pulping systems that are existing sources.	<input type="checkbox"/> YES <input type="checkbox"/> NO
5.	The application area includes one or more dissolving-grade bleaching systems that are existing sources at a kraft or sulfite pulping mill.	<input type="checkbox"/> YES <input type="checkbox"/> NO
6.	The application area includes bleaching systems that are existing sources and are complying with the Voluntary Advanced Technology Incentives Program for Effluent Limitation Guidelines in 40 CFR § 430.24. <i>If the response to Question VIII.H.6 is "NO," go to Section VIII.I.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
7.	The application area includes bleaching systems that are complying with 40 CFR § 63.440(d)(3)(i).	<input type="checkbox"/> YES <input type="checkbox"/> NO
8.	The application area includes bleaching systems that are complying with 40 CFR § 63.440(d)(3)(ii).	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>I. Subpart T - National Emission Standards for Halogenated Solvent Cleaning</b>	
1. The application area includes an individual batch vapor, in-line vapor, in-line cold, and/or batch cold solvent cleaning machine that uses a hazardous air pollutant (HAP) solvent, or any combination of halogenated HAP solvents, in a total concentration greater than 5% by weight, as a cleaning and/or drying agent.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area is located at a major source and includes solvent cleaning machines, qualifying as affected facilities, that use perchloroethylene, trichloroethylene or methylene chloride.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. The application area is located at an area source and includes solvent cleaning machines, other than cold batch cleaning machines, that use perchloroethylene, trichloroethylene or methylene chloride.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>J. Subpart U - National Emission Standards for Hazardous Air Pollutant Emissions: Group 1 Polymers and Resins</b>	
1. The application area includes elastomer product process units and/or wastewater streams and wastewater operations that are associated with elastomer product process units. <i>If the response to Question VIII.J.1 is "NO," go to Section VIII.K.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. Elastomer product process units and/or wastewater streams and wastewater operations located in the application area are subject to 40 CFR Part 63, Subpart U. <i>If the response to Question VIII.J.2 is "NO," go to Section VIII.K.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area includes process wastewater streams that are designated as Group 1 or are determined to be Group 1 for organic HAPs as defined in 40 CFR § 63.482.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area includes process wastewater streams that are Group 2 for organic HAPs as defined in 40 CFR § 63.482.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>J. Subpart U - National Emission Standards for Hazardous Air Pollutant Emissions: Group 1 Polymers and Resins (continued)</b>	
5. All Group 1 wastewater streams at the site are demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.J.5 is "YES," go to Question VIII.J.15.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The site has untreated and/or partially treated Group 1 wastewater streams demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.J.6 is "NO," go to Question VIII.J.8.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area includes waste management units that receive or manage a partially treated Group 1 wastewater stream prior to or during treatment.	<input type="checkbox"/> YES <input type="checkbox"/> NO
8. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an on-site treatment operation that is not owned or operated by the owner or operator of the source generating the waste stream or residual.	<input type="checkbox"/> YES <input type="checkbox"/> NO
9. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an off-site treatment operation. <i>If the responses to Questions VIII.J.8 - VIII.J.9 are both "NO," go to Question VIII.J.11.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area includes waste management units that receive or manage a Group 1 wastewater stream, or a residual removed from a Group 1 wastewater stream prior to shipment or transport.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>J. Subpart U - National Emission Standards for Hazardous Air Pollutant Emissions: Group 1 Polymers and Resins (continued)</b>	
<b>Containers</b>	
11. The application area includes containers that receive, manage, or treat a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>Drains</b>	
12. The application area includes individual drain systems that receive or manage a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream. <i>If the response to Question VIII.J.12 is "NO," go to Question VIII.J.15.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
13. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of cover and, if vented, closed vent systems and control devices.	<input type="checkbox"/> YES <input type="checkbox"/> NO
14. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of water seals or tightly fitting caps or plugs.	<input type="checkbox"/> YES <input type="checkbox"/> NO
15. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that are part of an elastomer product process unit. <i>If the response to Question VIII.J.15 is "NO," go to Section VIII.K.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
16. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that meet the criteria listed in 40 CFR § 63.149(d) and § 63.501(a)(12). <i>If the response to Question VIII.J.16 is "NO," go to Section VIII.K.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 47</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>J. Subpart U - National Emission Standards for Hazardous Air Pollutant Emissions: Group 1 Polymers and Resins (continued)</b>	
<b>Drains (continued)</b>	
17. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that convey water with a total annual average concentration greater than or equal to 10,000 parts per million by weight of compounds meeting the definition of organic HAP in 40 CFR § 63.482, at any flow rate.	<input type="checkbox"/> YES <input type="checkbox"/> NO
18. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that convey water with a total annual average concentration greater than or equal to 1,000 parts per million by weight of compounds meeting the definition of organic HAP in 40 CFR § 63.482, at an annual average flow rate greater than or equal to 10 liters per minute.	<input type="checkbox"/> YES <input type="checkbox"/> NO
19. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that are part of an elastomer product process unit that is a new affected source or part of a new affected source and the equipment conveys water with a total annual average concentration greater than or equal to 10 parts per million by weight of compounds meeting the definition of organic HAP in 40 CFR § 63.482, at an average annual flow rate greater than or equal to 0.02 liter per minute.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>K. Subpart W - National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-nylon Polyamides Production</b>	
1. The manufacture of basic liquid epoxy resins (BLR) and/or manufacture of wet strength resins (WSR) is conducted in the application area. <i>If the response to Question VIII.K.1 is "NO" or "N/A," go to Section VIII.L.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
2. The application area includes a BLR and/or WSR research and development facility.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>L. Subpart X - National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting</b>	
1. The application area includes one or more of the affected sources in 40 CFR § 63.541(a) that are located at a secondary lead smelter. <i>If the response to Question VIII.L.1 is "NO" or "N/A," go to Section VIII.M.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
2. The application area is using and approved alternate to the requirements of § 63.545(c)(1)-(5) for control of fugitive dust emission sources.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>M. Subpart Y - National Emission Standards for Marine Tank Vessel Loading Operations</b>	
1. The application area includes marine tank vessel loading operations that are specified in 40 CFR § 63.560 and located at an affected source as defined in 40 CFR § 63.561.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>N. Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries</b>	
<b>Applicability</b>	
1. The application area includes petroleum refining process units and/or related emission points that are specified in 40 CFR § 63.640(c)(1) - (c)(7). <i>If the response to Question VIII.N.1 is "NO," go to Section VIII.O.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. All petroleum refining process units/and or related emission points within the application area are specified in 40 CFR § 63.640(g)(1) - (g)(7). <i>If the response to Question VIII.N.2 is "YES," go to Section VIII.O.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>N. Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (continued)</b>	
<b>Applicability (continued)</b>	
3. The application area is located at a plant site that is a major source as defined in the Federal Clean Air Act § 112(a). <i>If the response to Question VIII.N.3 is "NO," go to Section VIII.O.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area is located at a plant site which emits or has equipment containing/contacting one or more of the HAPs listed in table 1 of 40 CFR Part 63, Subpart CC. <i>If the response to Question VIII.N.4 is "NO," go to Section VIII.O.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. The application area includes Group 1 wastewater streams that are not conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of 40 CFR §§ 63.133 - 63.147 of Subpart G wastewater provisions section.	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The application area includes Group 2 wastewater streams that are not conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of 40 CFR §§ 63.133 - 63.147 of Subpart G wastewater provisions section.	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area includes Group 1 or Group 2 wastewater streams that are conveyed, stored, or treated in a wastewater stream management unit that also receives streams subject to the provisions of 40 CFR §§ 63.133 - 63.147 of Subpart G wastewater provisions section. <i>If the response to Question VIII.N.7 is "NO," go to Section VIII.O.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
8. The application area includes Group 1 or Group 2 wastewater streams that are complying with 40 CFR § 63.640(o)(2)(i).	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 50</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>N. Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (continued)</b>	
<b>Applicability (continued)</b>	
9. The application area includes Group 1 or Group 2 wastewater streams that are complying with 40 CFR § 63.640(o)(2)(ii). <i>If the response to Question VIII.N.9 is "NO," go to Section VIII.O.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area includes Group 2 wastewater streams or organic streams whose benzene emissions are subject to control through the use of one or more treatment processes or waste management units under the provisions of 40 CFR Part 61, Subpart FF on or after December 31, 1992.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>Containers, Drains, and other Appurtenances</b>	
11. The application area includes containers that are subject to the requirements of 40 CFR § 63.135 as a result of complying with 40 CFR § 63.640(o)(2)(ii).	<input type="checkbox"/> YES <input type="checkbox"/> NO
12. The application area includes individual drain systems that are subject to the requirements of 40 CFR § 63.136 as a result of complying with 40 CFR § 63.640(o)(2)(ii).	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>O. Subpart DD - National Emission Standards for Off-site Waste and Recovery Operations</b>	
1. The application area receives material that meets the criteria for off-site material as specified in 40 CFR § 63.680(b)(1). <i>If the response to Question VIII.O.1 is "NO" or "N/A," go to Section VIII.P</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
2. Materials specified in 40 CFR § 63.680(b)(2) are received at the application area.	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area has a waste management operation receiving off-site material and is regulated under 40 CFR Part 264 or Part 265.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>O. Subpart DD - National Emission Standards for Off-site Waste and Recovery Operations (continued)</b>	
4. The application area has a waste management operation treating wastewater which is an off-site material and is exempted under 40 CFR §§ 264.1(g)(6) or 265.1(c)(10).	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. The application area has an operation subject to Clean Water Act, § 402 or § 307(b) but is not owned by a "state" or "municipality."	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The predominant activity in the application area is the treatment of wastewater received from off-site.	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area has a recovery operation that recycles or reprocesses hazardous waste which is an off-site material and is exempted under 40 CFR §§ 264.1(g)(2) or 265.1(c)(6).	<input type="checkbox"/> YES <input type="checkbox"/> NO
8. The application area has a recovery operation that recycles or reprocesses used solvent which is an off-site material and is not part of a chemical, petroleum, or other manufacturing process that is required to use air emission controls by another subpart of 40 CFR Part 63 or Part 61.	<input type="checkbox"/> YES <input type="checkbox"/> NO
9. The application area has a recovery operation that re-refines or reprocesses used oil which is an off-site material and is regulated under 40 CFR Part 279, Subpart F (Standards for Used Oil Processors and Refiners).	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area is located at a site where the total annual quantity of HAPs in the off-site material is less than 1 megagram per year. <i>If the response to Question VIII.O.10 is "YES," go to Section VIII.P.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 52</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>O. Subpart DD - National Emission Standards for Off-site Waste and Recovery Operations (continued)</b>	
11. The application area receives offsite materials with average VOHAP concentration less than 500 ppmw at the point of delivery that are not combined with materials having a VOHAP concentration of 500 ppmw or greater. <i>If the response to Question VIII.O.11 is "NO," go to Question VIII.O.14.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
12. VOHAP concentration is determined by direct measurement.	<input type="checkbox"/> YES <input type="checkbox"/> NO
13. VOHAP concentration is based on knowledge of the off-site material.	<input type="checkbox"/> YES <input type="checkbox"/> NO
14. The application area includes an equipment component that is a pump, compressor, and agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector or instrumentation system. <i>If the response to Question VIII.O.14 is "NO," go to Question VIII.O.17.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
15. An equipment component in the application area contains or contacts off-site material with a HAP concentration greater than or equal to 10% by weight.	<input type="checkbox"/> YES <input type="checkbox"/> NO
16. An equipment component in the application area is intended to operate 300 hours or more during a 12-month period.	<input type="checkbox"/> YES <input type="checkbox"/> NO
17. The application area includes containers that manage non-exempt off-site material.	<input type="checkbox"/> YES <input type="checkbox"/> NO
18. The application area includes individual drain systems that manage non-exempt off-site materials.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>P. Subpart GG - National Emission Standards for Aerospace Manufacturing and Rework Facilities</b>	
1. The application area includes facilities that manufacture or rework commercial, civil, or military aerospace vehicles or components. <i>If the response to Question VIII.P.1 is "NO" or "N/A," go to Section VIII.Q.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
2. The application area includes one or more of the affected sources specified in 40 CFR § 63.741(c)(1) - (7).	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>Q. Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.</b>	
◆ 1. The application area contains facilities that process, upgrade or store hydrocarbon liquids that are located at oil and natural gas production facilities prior to the point of custody transfer.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆ 2. The application area contains facilities that process, upgrade or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. <i>For SOP applications, if the responses to Questions VIII.Q.1 and VIII.Q.2 are both "NO," go to Section VIII.R.</i> <i>For GOP applications, if the responses to Questions VIII.Q.1 and VIII.Q.2 are both "NO," go to Section VIII.Z.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆ 3. The application area contains only facilities that exclusively process, store or transfer black oil as defined in § 63.761. <i>For SOP applications, if the response to Question VIII.Q.3 is "YES," go to Section VIII.R.</i> <i>For GOP applications, if the response to Question VIII.Q.3 is "YES," go to Section VIII.Z.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 4. The application area is located at a site that is a major source of HAP. <i>If the response to Question VIII.Q.4 is "NO," go to Question VIII.Q.6.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>		
<b>Q. Subpart - HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities (continued)</b>		
◆	<p>5. The application area contains only a facility, prior to the point of custody transfer, with facility-wide actual annual average natural gas throughput less than 18.4 thousand standard cubic meters (649,789.9 ft<sup>3</sup>) per day and a facility-wide actual annual average hydrocarbon liquid throughput less than 39,700 liters (10,487.6 gallons) per day.</p> <p><i>For SOP applications, if the response to Question VIII.Q.5 is "YES," go to Section VIII.R.</i></p> <p><i>For GOP applications, if the response to Question VIII.Q.5 is "YES," go to Section VIII.Z.</i></p> <p><i>For all applications, if the response to Question VIII.Q.5 is "NO," go to Question VIII.Q.9.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	<p>6. The application area includes a triethylene glycol (TEG) dehydration unit.</p> <p><i>For SOP applications, if the answer to Question VIII.Q.6 is "NO," go to Section VIII.R. For GOP applications, if the response to Question VIII.Q.6 is "NO," go to Section VIII.Z.</i></p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	<p>7. The application area is located at a site that is within the boundaries of UA plus offset or a UC, as defined in 40 CFR § 63.761.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	<p>8. The site has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP.</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	<p>9. Emissions for major source determination are being estimated based on the maximum natural gas or hydrocarbon liquid throughput as calculated in § 63.760(a)(1)(i)-(iii).</p>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>R. Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)</b>	
1. The application area includes shipbuilding or ship repair operations. <i>If the response to Question VIII.R.1 is "NO," go to Section VIII.S.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. Shipbuilding or ship repair operations located in the application area are subject to 40 CFR Part 63, Subpart II.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>S. Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations</b>	
1. The application area includes wood furniture manufacturing operations and/or wood furniture component manufacturing operations. <i>If the response to Question VIII.S.1 is "NO" or "N/A," go to Section VIII.T.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
2. The application area meets the definition of an "incidental wood manufacturer" as defined in 40 CFR § 63.801.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>T. Subpart KK - National Emission Standards for the Printing and Publishing Industry</b>	
1. The application area includes publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
<b>U. Subpart PP - National Emission Standards for Containers</b>	
1. The application area includes containers for which another 40 CFR Part 60, 61, or 63 subpart references the use of 40 CFR Part 63, Subpart PP for the control of air emissions. <i>If the response to Question VIII.U.1 is "NO," go to Section VIII.V.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes containers using Container Level 1 controls.	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area includes containers using Container Level 2 controls.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>U. Subpart PP - National Emission Standards for Containers (continued)</b>	
4. The application area includes containers using Container Level 3 controls.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>V. Subpart RR - National Emission Standards for Individual Drain Systems</b>	
1. The application area includes individual drain systems for which another 40 CFR Part 60, 61, or 63 subpart references the use of 40 CFR Part 63, Subpart RR for the control of air emissions.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards</b>	
1. The application area includes an acetal resins production process unit; an acrylic and modacrylic fiber production process unit complying with 40 CFR § 63.1103(b)(3)(i); or an existing polycarbonate production process.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes process wastewater streams generated from an acetal resins production process unit; an acrylic and modacrylic fiber production process unit complying with 40 CFR § 63.1103(b)(3)(i); or an existing polycarbonate production process. <i>If the responses to Questions VIII.W.1 and VIII.W.2 are both "NO," go to Question VIII.W.20.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. The application area includes process wastewater streams that are designated as Group 1 or are determined to be Group 1 under the requirements of 40 CFR § 63.132(c).	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area includes process wastewater streams that are determined to be Group 2 under the requirements of 40 CFR § 63.132(c).	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. All Group 1 wastewater streams at the site are determined to have a total source mass flow rate of less than 1 MG/yr.	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The site has untreated and/or partially treated Group 1 wastewater streams demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.W.6 is "NO," go to Question VIII.W.8.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards (continued)</b>	
7. The application area includes waste management units that receive or manage a partially treated Group 1 wastewater stream prior to or during treatment.	<input type="checkbox"/> YES <input type="checkbox"/> NO
8. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an on-site treatment operation that is not owned or operated by the owner or operator of the source generating the waste stream or residual.	<input type="checkbox"/> YES <input type="checkbox"/> NO
9. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an off-site treatment operation. <i>If the responses to Questions VIII.W.8 and W.9 are both "NO," go to Question VIII.W.11.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area includes waste management units that receive or manage a Group 1 wastewater stream, or a residual removed from a Group 1 wastewater stream prior to shipment or transport.	<input type="checkbox"/> YES <input type="checkbox"/> NO
11. The application area includes containers that receive, manage, or treat a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream.	<input type="checkbox"/> YES <input type="checkbox"/> NO
12. The application area includes individual drain systems that receive, manage, or treat a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream. <i>If the response to Question VIII.W.12 is "NO," go to Question VIII.W.15.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
13. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of covers and, if vented, closed vent systems and control devices.	<input type="checkbox"/> YES <input type="checkbox"/> NO
14. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of water seals or tightly fitting caps or plugs.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 58</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards (continued)</b>	
15. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that are part of an acetal resins production process unit; an acrylic and modacrylic fiber production process unit complying with 40 CFR § 63.1103(b)(3)(i); or an existing polycarbonate production process unit. <i>If the response to Question VIII.W.15 is "NO," go to Question VIII.W.20.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
16. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that meet the criteria listed in 40 CFR § 63.1106(c)(1) - (3). <i>If the response to Question VIII.W.16 is "NO," go to Question VIII.W.20.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
17. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that convey water with a total annual average concentration greater than or equal to 10,000 parts per million by weight of compounds meeting the definition of organic HAP in Table 9 to 40 CFR Part 60, Subpart G, at any flow rate.	<input type="checkbox"/> YES <input type="checkbox"/> NO
18. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that convey water with a total annual average concentration greater than or equal to 1,000 parts per million by weight of compounds meeting the definition of organic HAP in Table 9 to 40 CFR Part 60, Subpart G, at an annual average flow rate greater than or equal to 10 liters per minute.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards (continued)</b>	
19. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that are part of an acrylic resins or acrylic and modacrylic fiber production process unit that is part of a new affected source or is a new affected source and the equipment conveys water with a total annual average concentration greater than or equal to 10 ppmw of compounds meeting the definition of organic HAP in Table 9 to 40 CFR Part 60, Subpart G, at an average annual flow rate greater than or equal to 0.02 liter per minute.	<input type="checkbox"/> YES <input type="checkbox"/> NO
20. The application area includes an ethylene production process unit.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
21. The application area includes waste streams generated from an ethylene production process unit. <i>If the responses to Questions VIII.W.20 and VIII.W.21 are both "NO" or "N/A," go to Question VIII.W.54.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A
22. The waste stream(s) contains at least one of the chemicals listed in 40 CFR § 63.1103(e), Table 7(g)(1). <i>If the response to Question VIII.W.22 is "NO," go to Question VIII.W.54.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
23. Waste stream(s) are transferred off-site for treatment. <i>If the response to Question VIII.W.23 is "NO," go to Question VIII.W.25.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
24. The application area has waste management units that treat or manage waste stream(s) prior to transfer off-site for treatment. <i>If the response to Question VIII.W.24 is "NO," go to Question VIII.W.54.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards (continued)</b>	
25. The total annual benzene quantity from waste at the site is less than 10 Mg/yr as determined according to 40 CFR § 61.342(a).	<input type="checkbox"/> YES <input type="checkbox"/> NO
26. The application area contains at least one waste stream that is a continuous butadiene waste stream as defined in 40 CFR § 63.1082(b). <i>If the response to Question VIII.W.26 is "NO," go to Question VIII.W.43.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
27. The waste stream(s) contains at least 10 ppmw 1, 3-butadiene at a flow rate of 0.02 liters per minute or is designated for control. <i>If the response to Question VIII.W.27 is "NO," go to Question VIII.W.43.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
28. The control requirements of 40 CFR Part 63, Subpart G for process wastewater as specified in 40 CFR § 63.1095(a)(2) are selected for control of the waste stream(s). <i>If the response to Question VIII.W.28 is "NO," go to Question VIII.W.33.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
29. The application area includes containers that receive, manage, or treat a continuous butadiene waste stream.	<input type="checkbox"/> YES <input type="checkbox"/> NO
30. The application area includes individual drain systems that receive, manage, or treat a continuous butadiene waste stream. <i>If the response to Question VIII.W.30 is "NO," go to Question VIII.W.43.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
31. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of cover and, if vented, closed vent systems and control devices.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards (continued)</b>	
32. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of water seals or tightly fitting caps or plugs. <i>If the response to Question VIII.W.32 is required, go to Question VIII.W.43.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
33. The application area has containers, as defined in 40 CFR § 61.341, that receive a continuous butadiene waste stream. <i>If the response to Question VIII.W.33 is "NO," go to Question VIII.W.36.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
34. The application area is an alternate means of compliance to meet the 40 CFR § 61.345 requirements for containers. <i>If the response to Question VIII.W.34 is "YES," go to Question VIII.W.36.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
35. Covers and closed-vent systems used for containers operate such that the container is maintained at a pressure less than atmospheric pressure.	<input type="checkbox"/> YES <input type="checkbox"/> NO
36. The application area has individual drain systems, as defined in 40 CFR § 61.341, that receive or manage a continuous butadiene waste stream. <i>If the response to Question VIII.W.36 is "NO," go to Question VIII.W.43.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
37. The application area is using an alternate means of compliance to meet the 40 CFR § 61.346 requirements for individual drain systems. <i>If the response to Question VIII.W.37 is "YES," go to Question VIII.W.43.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards (continued)</b>	
38. The application area has individual drain systems complying with 40 CFR § 61.346(a). <i>If the response to Question VIII.W.38 is "NO," go to Question VIII.W.40.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
39. Covers and closed-vent systems used for individual drain systems operate such that the individual drain system is maintained at a pressure less than atmospheric pressure.	<input type="checkbox"/> YES <input type="checkbox"/> NO
40. The application area has individual drain systems complying with 40 CFR § 61.346(b). <i>If the response to Question VIII.W.40 is "NO," go to Question VIII.W.43.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
41. Junction boxes in the individual drain systems are equipped with a system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation.	<input type="checkbox"/> YES <input type="checkbox"/> NO
42. Junction box vent pipes in the individual drain systems are connected to a closed-vent system and control device.	<input type="checkbox"/> YES <input type="checkbox"/> NO
43. The application area has at least one waste stream that contains benzene. <i>If the response to Question VIII.W.43 is "NO," go to Question VIII.W.54.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
44. The application area has containers, as defined in 40 CFR § 61.341, that receive a waste stream containing benzene. <i>If the response to Question VIII.W.44 is "NO," go to Question VIII.W.47.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
45. The application area is an alternate means of compliance to meet the 40 CFR § 61.345 requirements for containers. <i>If the response to Question VIII.W.45 is "YES," go to Question VIII.W.47.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards (continued)</b>	
46. Covers and closed-vent systems used for containers operate such that the container is maintained at a pressure less than atmospheric pressure.	<input type="checkbox"/> YES <input type="checkbox"/> NO
47. The application area has individual drain systems, as defined in 40 CFR § 61.341, that receive or manage a waste stream containing benzene. <i>If the response to Question VIII.W.47 is "NO," go to Question VIII.W.54.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
48. The application area is using an alternate means of compliance to meet the 40 CFR § 61.346 requirements for individual drain systems. <i>If the response to Question VIII.W.48 is "YES," go to Question VIII.W.54.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
49. The application area has individual drain systems complying with 40 CFR § 61.346(a). <i>If the response to Question VIII.W.49 is "NO," go to Question VIII.W.51.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
50. Covers and closed-vent systems used for individual drain systems operate such that the individual drain system is maintained at a pressure less than atmospheric pressure.	<input type="checkbox"/> YES <input type="checkbox"/> NO
51. The application area has individual drain systems complying with 40 CFR § 61.346(b). <i>If the response to Question VIII.W.51 is "NO," go to Question VIII.W.54.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
52. Junction boxes in the individual drain systems are equipped with a system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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<b>Form OP-REQ1: Page 64</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>W. Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories - Generic Maximum Achievable Control Technology Standards (continued)</b>	
53. Junction box vent pipes in the individual drain systems are connected to a closed-vent system and control device.	<input type="checkbox"/> YES <input type="checkbox"/> NO
54. The application area contains a cyanide chemicals manufacturing process. <i>If the response to Question VIII.W.54 is "NO," go to Section VIII.X.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
55. The cyanide chemicals manufacturing process generates maintenance wastewater containing hydrogen cyanide or acetonitrile.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>X. Subpart JJJ - National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins</b>	
1. The application area includes thermoplastic product process units, and/or their associated affected sources specified in 40 CFR § 63.1310(a)(1) - (5), that are subject to 40 CFR Part 63, Subpart JJJ. <i>If the response to Question VIII.X.1 is "NO," go to Section VIII.Y.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes thermoplastic product process units and/or wastewater streams and wastewater operations that are associated with thermoplastic product process units. <i>If the response to Question VIII.X.2 is "NO," go to Section VIII.Y.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. All process wastewater streams generated or managed in the application area are from sources producing polystyrene. <i>If the response to Question VIII.X.3 is "YES," go to Section VIII.Y.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. All process wastewater streams generated or managed in the application area are from sources producing ASA/AMSAN. <i>If the response to Question VIII.X.4 is "YES," go to Section VIII.Y.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>X. Subpart JJJ - National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins (continued)</b>	
5. The application area includes process wastewater streams that are designated as Group 1 or are determined to be Group 1 for organic HAPs as defined in 40 CFR § 63.1312.	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The application area includes process wastewater streams, located at existing sources, that are Group 2 for organic HAPs as defined in 40 CFR § 63.1312.	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area includes process wastewater streams, located at new sources, that are Group 2 for organic HAPs as defined in 40 CFR § 63.1312.	<input type="checkbox"/> YES <input type="checkbox"/> NO
8. All Group 1 wastewater streams at the site are demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.X.8 is "YES," go to Question VIII.X.18.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
9. The site has untreated and/or partially treated Group 1 wastewater streams demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.X.9 is "NO," go to Question VIII.X.11.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area includes waste management units that receive or manage a partially treated Group 1 wastewater stream prior to or during treatment.	<input type="checkbox"/> YES <input type="checkbox"/> NO
11. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an on-site treatment operation that is not owned or operated by the owner or operator of the source generating the waste stream or residual.	<input type="checkbox"/> YES <input type="checkbox"/> NO
12. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an off-site treatment operation. <i>If the responses to Questions VIII.X.11 - VIII.X.12 are both "NO," go to Question VIII.X.14.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>X. Subpart JJJ - National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins (continued)</b>	
13. The application area includes waste management units that receive or manage a Group 1 wastewater stream, or a residual removed from a Group 1 wastewater stream prior to shipment or transport.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>Containers</b>	
14. The application area includes containers that receive, manage, or treat a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>Drains</b>	
15. The application area includes individual drain systems that receive or manage a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream. <i>If the response to Question VIII.X.15 is "NO," go to Question VIII.X.18.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
16. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of cover and, if vented, closed vent systems and control devices.	<input type="checkbox"/> YES <input type="checkbox"/> NO
17. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of water seals or tightly fitting caps or plugs.	<input type="checkbox"/> YES <input type="checkbox"/> NO
18. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that are part of an thermoplastic product process unit. <i>If the response to Question VIII.X.18 is "NO," go to Section VIII.Y.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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**VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)**

**X. Subpart JJJ - National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins (continued)**

***Drains (continued)***

- |  |  |
|--|--|
| 19. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that meet the criteria listed in 40 CFR § 63.149(d) and § 63.1330(b)(12).<br><i>If the response to Question VIII.X.19 is "NO," go to Section VIII.Y.</i>  | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 20. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that convey water with a total annual average concentration greater than or equal to 10,000 parts per million by weight of compounds meeting the definition of organic HAP in 40 CFR § 63.1312, at any flow rate.  | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 21. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that convey water with a total annual average concentration greater than or equal to 1,000 parts per million by weight of compounds meeting the definition of organic HAP in 40 CFR § 63.1312, at an annual average flow rate greater than or equal to 10 liters per minute.  | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 22. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that are part of an thermoplastic product process unit that is a new affected source or part of a new affected source and the equipment conveys water with a total annual average concentration greater than or equal to 10 parts per million by weight of compounds meeting the definition of organic HAP in 40 CFR § 63.1312, at an average annual flow rate greater than or equal to 0.02 liter per minute | <input type="checkbox"/> YES <input type="checkbox"/> NO |

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>Y. Subpart UUU - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic reforming Units, and Sulfur Recovery Units.</b>	
1. The application area is subject to 40 CFR Part 63, Subpart UUU - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic reforming Units, and Sulfur Recovery Units.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>Z. Subpart AAAA - National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste (MSW) Landfills.</b>	
◆ 1. The application area is subject to 40 CFR Part 63, Subpart AAAA - National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>AA. Subpart FFFF - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Production and Processes (MON)</b>	
1. The application area is located at a site that includes process units that manufacture as a primary product one or more of the chemicals listed in 40 CFR § 63.2435(b)(1).	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
2. The application area is located at a plant site that is a major source as defined in FCAA § 112(a).	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area is located at a site that includes miscellaneous chemical manufacturing process units (MCPU) that process, use or generate one or more of the organic hazardous air pollutants listed in § 112(b) of the Clean Air Act or hydrogen halide and halogen HAP. <i>If the response to Question VIII.AA.1, AA.2 or AA.3 is "NO," go to Section VIII.BB.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area includes process vents, storage vessels, transfer racks, or waste streams associated with a miscellaneous chemical manufacturing process subject to 40 CFR 63, Subpart FFFF. <i>If the response to Question VIII.AA.4 is "NO," go to Section VIII.BB.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>AA. Subpart FFFF - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Production and Processes (MON) (continued)</b>	
5. The application area includes process wastewater streams. <i>If the response to Question VIII.AA.5 is "NO," go to Question VIII.AA.18.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
6. The application area includes process wastewater streams that are designated as Group 1 or are determined to be Group 1 for compounds listed in Table 8 of 40 CFR Part 63, Subpart G or Table 8 and Table 9, as appropriate, of 40 CFR Part 63, Subpart FFFF.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
7. The application area includes process wastewater streams that are Group 2 for compounds listed in Table 8 or Table 8 and Table 9, as appropriate, of 40 CFR Part 63, Subpart FFFF.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
8. All Group 1 wastewater streams at the site are demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.AA.8 is "YES," go to Section VIII.AA.22.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
9. The site has untreated and/or partially treated Group 1 wastewater streams demonstrated to have a total source mass flow rate of less than 1 MG/yr. <i>If the response to Question VIII.AA.9 is "NO," go to Question VIII.AA.11.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area includes waste management units that receive or manage a partially treated Group 1 wastewater stream prior to or during treatment.	<input type="checkbox"/> YES <input type="checkbox"/> NO
11. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an on-site treatment operation that is not owned or operated by the owner or operator of the source generating the waste stream or residual.	<input type="checkbox"/> YES <input type="checkbox"/> NO
12. Group 1 wastewater streams or residual removed from Group 1 wastewater streams are transferred to an off-site treatment operation. <i>If the responses to Questions VIII.AA.11 and VIII.AA.12 are both "NO," go to Question VIII.AA.18.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 70</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>AA. Subpart FFFF - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Production and Processes (MON) (continued)</b>	
13. Group 1 wastewater streams are transferred to an offsite treatment facility meeting the requirements of 40 CFR § 63.138(h). <i>If the response to Question VIII.AA.13 is "NO," go to Question VIII.AA.15.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
14. The option to document in the notification of compliance status report that the wastewater will be treated in a facility meeting the requirements of 40 CFR § 63.138(h) is elected.	<input type="checkbox"/> YES <input type="checkbox"/> NO
15. Group 1 wastewater streams or residuals with a total annual average concentration of compounds in Table 8 of 40 CFR Part 63, Subpart FFFF less than 50 ppmw are transferred offsite. <i>If the response to Question VIII.AA.15 is "NO," go to Question VIII.AA.17.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
16. The transferor is demonstrating that less than 5 percent of the HAP in Table 9 of 40 CFR Part 63, Subpart FFFF is emitted from waste management units up to the activated sludge unit.	<input type="checkbox"/> YES <input type="checkbox"/> NO
17. The application area includes waste management units that receive or manage a Group 1 wastewater stream, or a residual removed from a Group 1 wastewater stream prior to shipment or transport.	<input type="checkbox"/> YES <input type="checkbox"/> NO
18. The application area includes containers that receive, manage, or treat a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream.	<input type="checkbox"/> YES <input type="checkbox"/> NO
19. The application area includes individual drain systems that receive or manage a Group 1 wastewater stream, or a residual removed from a Group 1 wastewater stream. <i>If the response to Question VIII.AA.19 is "NO," go to Question VIII.AA.22.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
20. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of cover and, if vented, closed vent systems and control devices.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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**VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)**

**AA. Subpart FFFF - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Production and Processes (MON) (continued)**

21. The application area includes individual drain systems that are complying with 40 CFR § 63.136 through the use of water seals or tightly fitting caps or plugs.	<input type="checkbox"/> YES <input type="checkbox"/> NO
22. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that are part of a chemical manufacturing process unit that meets the criteria of 40 CFR § 63.100(b). <i>If the response to Question VIII.AA.22 is "NO," go to Section VIII.BB.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
23. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes (that are part of a miscellaneous chemical manufacturing process unit) that meet the criteria listed in 40 CFR § 63.149(d). <i>If the response to Question VIII.AA.23 is "NO," go to Section VIII.BB.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
24. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that convey water with a total annual average concentration of compounds in table 8 of 40 CFR Part 63, Subpart FFFF is greater than or equal to 10,000 ppmw at any flow rate, and the total annual load of compounds in table 8 of 40 CFR Part 63, Subpart FFFF is greater than or equal to 200 lb/yr.	<input type="checkbox"/> YES <input type="checkbox"/> NO
25. The application area includes drains, drain hubs, manholes, lift stations, trenches, or pipes that convey water with a total annual average concentration of compounds in table 8 of 40 CFR Part 63, Subpart FFFF is greater than or equal to 1,000 ppmw, and the annual average flow rate is greater than or equal to 1 liter per minute.	<input type="checkbox"/> YES <input type="checkbox"/> NO
26. The application area includes drains, drain hubs, manholes, lift stations, trenches or pipes that are part of a chemical manufacturing process unit that is subject to the new source requirements of 40 CFR § 63.2445(a); and the equipment conveys water with a combined total annual average concentration of compounds in tables 8 and 9 of 40 CFR Part 63, Subpart FFFF is greater than or equal to 30,000 ppmw, and the combined total annual load of compounds in tables 8 and 9 to this subpart is greater than or equal to 1 tpy.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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<b>Form OP-REQ1: Page 72</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>AA. Subpart FFFF - National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Production and Processes (MON) (continued)</b>	
<b>BB. Subpart GGGG - National Emission Standards for Hazardous Air Pollutants for: Solvent Extractions for Vegetable Oil Production.</b>	
1. The application area includes a vegetable oil production process that: is by itself a major source of HAP emissions or, is collocated within a plant site with other sources that are individually or collectively a major source of HAP emissions.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>CC. Subpart GGGGG - National Emission Standards for Hazardous Air Pollutants: Site Remediation</b>	
1. The application area includes a facility at which a site remediation is conducted. <i>If the answer to Question VIII.CC.1 is "NO," go to Section VIII.DD.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area is located at a site that is a major source of HAP. <i>If the answer to Question VIII.CC.2 is "NO," go to Section VIII.DD.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. All site remediation's qualify for one of the exemptions contained in 40 CFR § 63.7881(b)(1) through (6). <i>If the answer to Question VIII.CC.3 is "YES," go to Section VIII.DD.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. Prior to beginning site remediation activities it was determined that the total quantity of HAP listed in Table 1 of Subpart GGGGG that will be removed during all site remediations will be less than 1 Mg/yr. <i>If the answer to Question VIII.CC.4 is "YES," go to Section VIII.DD.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. The site remediation will be completed within 30 consecutive calendar days.	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. No site remediation will exceed 30 consecutive calendar days. <i>If the answer to Question VIII.CC.6 is "YES," go to Section VIII.DD.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. Site remediation materials subject to 40 CFR Part 63, Subpart GGGGG are transferred from the application area to an off-site facility.	<input type="checkbox"/> YES <input type="checkbox"/> NO
8. All site remediation materials subject to 40 CFR Part 63, Subpart GGGGG are transferred from the application area to an off-site facility. <i>If the answer to Question VIII.CC.8 is "YES," go to Section VIII.DD.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>CC. Subpart GGGGG - National Emission Standards for Hazardous Air Pollutants: Site Remediation (continued)</b>	
9. The application area includes containers that manage site remediation materials subject to 40 CFR Part 63, Subpart GGGGG. <i>If the response to Question VIII.CC.9 is "NO," go to Question VIII.CC.14.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The application area includes containers using Container Level 1 controls as specified in 40 CFR § 63.922(b).	<input type="checkbox"/> YES <input type="checkbox"/> NO
11. The application area includes containers with a capacity greater than 0.46 m <sup>3</sup> that meet the requirements of 40 CFR § 63.7900(b)(3)(i) and (ii).	<input type="checkbox"/> YES <input type="checkbox"/> NO
12. The application area includes containers using Container Level 2 controls as specified in 40 CFR § 63.923(b).	<input type="checkbox"/> YES <input type="checkbox"/> NO
13. The application area includes containers using Container Level 3 controls as specified in 40 CFR § 63.924(b).	<input type="checkbox"/> YES <input type="checkbox"/> NO
14. The application area includes individual drain systems complying with the requirements of 40 CFR § 63.962.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>DD. Subpart YYYYY - National Emission Standards for Hazardous Air Pollutants for Area/Sources: Electric Arc Furnace Steelmaking Facilities</b>	
1. The application area includes an electric arc furnace (EAF) steelmaking facility, and the site is an area source of hazardous air pollutant (HAP) emissions. <i>If the response to Question VIII.DD.1 is "NO," go to Section VIII.EE.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The EAF steelmaking facility is a research and development facility. <i>If the response to Question VIII.DD.2 is "YES," go to Section VIII.EE.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. Metallic scrap is utilized in the EAF.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. Scrap containing motor vehicle scrap is utilized in the EAF.	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. Scrap not containing motor vehicle scrap is utilized in the EAF.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 74</b>	
<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>EE. Subpart BBBBBBB - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants and Pipeline Facilities</b>	
1. The application area is located at a site that is an area source of HAPs. <i>If the answer to Question EE.1 is "NO," go to Section VIII.FF.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes a pipeline breakout station, as defined in 40 CFR Part 63, Subpart BBBBBBB, not subject to the control requirements of 40 CFR Part 63, Subpart R.	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area includes a pipeline pumping station as defined in 40 CFR Part 63, Subpart BBBBBB.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area includes a bulk gasoline plant as defined in 40 CFR Part 63, Subpart BBBBBB. <i>If the answer to Question VIII.EE.4 is "NO," go to Question VIII.EE.6.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. The bulk gasoline plant was operating, prior to January 10, 2010, in compliance with an enforceable State, local or tribal rule or permit that requires submerged fill as specified in 40 CFR § 63.11086(a).	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The application area includes a bulk gasoline terminal, as defined in 40 CFR Part 63, Subpart BBBBBBB, not subject to the control requirements of 40 CFR Part 63, Subpart R or Subpart CC. <i>If the answer to Question VIII.EE.6 is "NO," go to Section VIII.FF.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The bulk gasoline terminal has throughput of less than 250,000 gallons per day. <i>If the answer to Question VIII.EE.7 is "YES," go to Section VIII.FF.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
8. The bulk gasoline terminal loads gasoline into gasoline cargo tanks other than railcar cargo tanks.	<input type="checkbox"/> YES <input type="checkbox"/> NO
9. The bulk gasoline terminal loads gasoline into railcar cargo tanks. <i>If the answer to Question VIII.EE.9 is "NO," go to Section VIII.FF.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
10. The bulk gasoline terminal loads gasoline into railcar cargo tanks which do not collect vapors from a vapor balance system.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>VIII. Title 40 Code of Federal Regulations Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories (continued)</b>	
<b>EE. Subpart BBBBBB - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants and Pipeline Facilities (continued)</b>	
11. The bulk gasoline terminal loads gasoline into railcar cargo tanks which collect vapors from a vapor balance system and that system complies with a Federal, State, local, tribal rule or permit.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>FF. Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities</b>	
◆ 1. The application area is located at a site that is an area source of hazardous air pollutants. <i>If the answer to Question VIII.FF.1 is "NO," go to Section VIII.GG.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆ 2. The application area includes at least one gasoline dispensing facility as defined in 40 CFR § 63.11132. <i>If the answer to Question VIII.FF.2 is "NO," go to Section VIII.GG.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 3. The application area includes at least one gasoline dispensing facility with a monthly throughput of less than 10,000 gallons.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆ 4. The application area includes at least one gasoline dispensing facility where gasoline is dispensed from a fixed gasoline storage tank into a portable gasoline tank for the on-site delivery and subsequent dispensing into other gasoline-fueled equipment.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>GG. Recently Promulgated 40 CFR Part 63 Subparts</b>	
◆ 1. The application area is subject to one or more promulgated 40 CFR Part 63 subparts not addressed on this form. <i>If the response to Question VIII.GG.1 is "NO," go to Section IX. A list of promulgated 40 CFR Part 63 subparts not otherwise addressed on OP-REQ1 is included in the instructions.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆ 2. Provide the Subpart designation (i.e. Subpart EEE) in the space provided below.	

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<b>IX. Title 40 Code of Federal Regulations Part 68 (40 CFR Part 68) - Chemical Accident Prevention Provisions</b>	
<b>A. Applicability</b>	
◆ 1. The application area contains processes subject to 40 CFR Part 68, Chemical Accident Prevention Provisions, and specified in 40 CFR § 68.10.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<b>X. Title 40 Code of Federal Regulations Part 82 (40 CFR Part 82) - Protection of Stratospheric Ozone</b>	
<b>A. Subpart A - Production and Consumption Controls</b>	
◆ 1. The application area is located at a site that produces, transforms, destroys, imports, or exports a controlled substance or product.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
<b>B. Subpart B - Servicing of Motor Vehicle Air Conditioners</b>	
◆ 1. Servicing, maintenance, and/or repair of fleet vehicle air conditioning systems using ozone-depleting refrigerants is conducted in the application area.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>C. Subpart C - Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances</b>	
◆ 1. The application area sells or distributes one or more nonessential products (which release a Class I or Class II substance) that are subject to 40 CFR Part 82, Subpart C.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
<b>D. Subpart D - Federal Procurement</b>	
◆ 1. The application area is owned/operated by a department, agency, or instrumentality of the United States.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
<b>E. Subpart E - The Labeling of Products Using Ozone Depleting Substances</b>	
◆ 1. The application area includes containers in which a Class I or Class II substance is stored or transported prior to the sale of the Class I or Class II substance to the ultimate consumer.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
◆ 2. The application area is a manufacturer, importer, wholesaler, distributor, or retailer of products containing a Class I or Class II substance.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
◆ 3. The application area is a manufacturer, importer, wholesaler, distributor, or retailer of products manufactured with a process that uses a Class I or Class II substance.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A

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<b>X. Title 40 Code of Federal Regulations Part 82 (40 CFR Part 82) - Protection of Stratospheric Ozone (continued)</b>	
<b>F. Subpart F - Recycling and Emissions Reduction</b>	
◆	1. Servicing, maintenance, and/or repair on refrigeration and non-motor vehicle air condition appliances using ozone-depleting refrigerants or non-exempt substitutes is conducted in the application area.
	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
◆	2. Disposal of appliances (including motor vehicle air conditioners) or refrigerant or non-exempt substitute reclamation occurs in the application area.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
◆	3. The application area manufactures appliances or refrigerant recycling and recovery equipment.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
<b>G. Subpart G - Significant New Alternatives Policy Program</b>	
◆	1. The application area manufactures, formulates, or creates chemicals, product substitutes, or alternative manufacturing processes that are intended for use as a replacement for a Class I or Class II compound. <i>If the response to Question X.G.1 is "NO" or "N/A," go to Section X.H.</i>
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
◆	2. All substitutes produced by the application area meet one or more of the exemptions in 40 CFR § 82.176(b)(1) - (7).
	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
<b>H. Subpart H -Halon Emissions Reduction</b>	
◆	1. Testing, servicing, maintaining, repairing, or disposing of equipment containing halons is conducted in the application area.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
◆	2. Disposal of halons or manufacturing of halon blends is conducted in the application area.
	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
<b>XI. Miscellaneous</b>	
<b>A. Requirements Reference Tables (RRT) and Flowcharts</b>	
1.	The application area contains units that are potentially subject to a regulation for which the TCEQ has not developed an RRT and flowchart.
	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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<b>XI. Miscellaneous (continued)</b>	
<b>B. Forms</b>	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>1. The application area contains units that are potentially subject to a regulation for which the TCEQ has not developed a unit attribute form.</p> <p><i>If the response to Question XI.B.1 is "NO" or "N/A," go to Section XI.C.</i></p> </div> <div style="width: 20%;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO  <input type="checkbox"/> N/A </div> </div>
◆	<p>2. Provide the Part and Subpart designation for the federal rule(s) or the Chapter, Subchapter, and Division designation for the State regulation(s) in the space provided below.</p>
<b>C. Emission Limitation Certifications</b>	
◆	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>1. The application area includes units for which federally enforceable emission limitations have been established by certification.</p> </div> <div style="width: 20%;"> <input checked="" type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>
<b>D. Alternative Means of Control, Alternative Emission Limitation or Standard, or Equivalent Requirements</b>	
	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>1. The application area is located at a site that is subject to a site-specific requirement of the state implementation plan (SIP).</p> </div> <div style="width: 20%;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>2. The application area includes units located at the site that are subject to a site-specific requirement of the SIP.</p> </div> <div style="width: 20%;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>3. The application area includes units which demonstrate compliance by using an alternative means of control, alternative emission limitation or standard or equivalent requirements approved by the EPA Administrator.</p> <p><i>If the response to Question XI.D.3 is "YES," please include a copy of the approval document with the application.</i></p> </div> <div style="width: 20%;"> <input type="checkbox"/> YES   <input checked="" type="checkbox"/> NO </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div style="width: 75%;"> <p>4. The application area includes units which demonstrate compliance by using an alternative means of control, alternative emission limitation or standard or equivalent requirements approved by the TCEQ Executive Director.</p> <p><i>If the response to Question XI.D.4 is "YES," please include a copy of the approval document with the application.</i></p> </div> <div style="width: 20%;"> <input checked="" type="checkbox"/> YES   <input type="checkbox"/> NO </div> </div>

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<b>XI. Miscellaneous (continued)</b>	
<b>E. Title IV - Acid Rain Program</b>	
1. The application area includes emission units subject to the Acid Rain Program (ARP), including the Opt-In Program.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes emission units qualifying for the new unit exemption under 40 CFR § 72.7.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
3. The application area includes emission units qualifying for the retired unit exemption under 40 CFR § 72.8.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>F. 40 CFR Part 97, Subpart EEEEE - Cross-State Air Pollution Rule (CSAPR) NO<sub>x</sub> Ozone Season Group 2 Trading Program</b>	
1. The application area includes emission units subject to the requirements of the CSAPR NO <sub>x</sub> Ozone Season Group 2 Trading Program. <i>If the response to Question XI.F.1 is "NO," go to Question XI.F.7.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes units that are complying with the CEMS requirements of 40 CFR Part 75, Subpart H for NO <sub>x</sub> and heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area includes gas or oil-fired units that are complying with the CEMS requirements of 40 CFR Part 75, Subpart H for NO <sub>x</sub> , and the monitoring requirements of 40 CFR Part 75, Appendix D for heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area includes gas or oil-fired peaking units that are complying with the monitoring requirements of 40 CFR Part 75, Appendix E for NO <sub>x</sub> , and the monitoring requirements of 40 CFR Part 75, Appendix D for heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. The application area includes gas or oil-fired units that are complying with the Low Mass Emissions monitoring requirements of 40 CFR § 75.19 for NO <sub>x</sub> and heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The application area includes units that are complying with EPA-approved alternative monitoring system requirements of 40 CFR Part 75, Subpart E for NO <sub>x</sub> and heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
7. The application area includes emission units that qualify for the CSAPR NO <sub>x</sub> Ozone Season Group 2 retired unit exemption.	<input type="checkbox"/> YES <input type="checkbox"/> NO



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*For SOP applications, answer ALL questions unless otherwise directed.*

◆ *For GOP applications, answer ONLY these questions unless otherwise directed.*

<b>Form OP-REQ1: Page 80</b>	
<b>XI. Miscellaneous (continued)</b>	
<b>G. 40 CFR Part 97, Subpart FFFFF - Texas SO<sub>2</sub> Trading Program</b>	
1. The application area includes emission units complying with the requirements of the Texas SO <sub>2</sub> Trading Program. <i>If the response to Question XI.G.1 is "NO," go to Question XI.G.6.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
2. The application area includes units that are complying with the CEMS requirements of 40 CFR Part 75, Subpart B for SO <sub>2</sub> and 40 CFR Part 75, Subpart H for heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
3. The application area includes gas or oil-fired units that are complying with the monitoring requirements of 40 CFR Part 75, Appendix D for SO <sub>2</sub> and heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
4. The application area includes gas or oil-fired units that are complying with the Low Mass Emissions monitoring requirements of 40 CFR § 75.19 for SO <sub>2</sub> and heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
5. The application area includes units that are complying with EPA-approved alternative monitoring system requirements of 40 CFR Part 75, Subpart E for SO <sub>2</sub> and heat input.	<input type="checkbox"/> YES <input type="checkbox"/> NO
6. The application area includes emission units that qualify for the Texas SO <sub>2</sub> Trading Program retired unit exemption.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>H. Permit Shield (SOP Applicants Only)</b>	
1. A permit shield for negative applicability entries on Form OP-REQ2 (Negative Applicable Requirement Determinations) is being requested or already exists in the permit.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 81</b>		
<b>XI. Miscellaneous (continued)</b>		
<b>I. GOP Type (Complete this section for GOP applications only)</b>		
◆	1. The application area is applying for initial issuance, revision, or renewal of an oil and gas general operating permit under GOP No. 511 - Oil and Gas General Operating Permit for Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Ellis, Fort Bend, Galveston, Hardin, Harris, Jefferson, Johnson, Kaufman, Liberty, Montgomery, Orange, Parker, Rockwall, Tarrant, Waller, and Wise Counties.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	2. The application area is applying for initial issuance, revision, or renewal of an oil and gas general operating permit under GOP No. 512 - Oil and Gas General Operating Permit for Gregg, Nueces, and Victoria Counties.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	3. The application area is applying for initial issuance, revision, or renewal of an oil and gas general operating permit under GOP No. 513 - Oil and Gas General Operating Permit for Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	4. The application area is applying for initial issuance, revision, or renewal of an oil and gas general operating permit under GOP No. 514 - Oil and Gas General Operating Permit for All Texas Counties Except Aransas, Bexar, Brazoria, Calhoun, Chambers, Collin, Dallas, Denton, El Paso, Ellis, Fort Bend, Galveston, Gregg, Hardin, Harris, Jefferson, Johnson, Kaufman, Liberty, Matagorda, Montgomery, Nueces, Orange, Parker, Rockwall, San Patricio, Tarrant, Travis, Victoria, Waller, and Wise County.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	5. The application area is applying for initial issuance, revision, or renewal of a solid waste landfill general operating permit under GOP No. 517 - Municipal Solid Waste Landfill general operating permit.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>J. Title 30 TAC Chapter 101, Subchapter H</b>		
◆	1. The application area is located in a nonattainment area. <i>If the response to Question XI.J.1 is "NO," go to question XI.J.3.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	2. The applicant has or will generate emission reductions to be credited in the TCEQ Emissions Banking and Trading Program.	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
◆	3. The applicant has or will generate discrete emission reductions to be credited in the TCEQ Emissions Banking and Trading Program.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A

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*For SOP applications, answer ALL questions unless otherwise directed.*

◆ *For GOP applications, answer ONLY these questions unless otherwise directed.*

<b>Form OP-REQ1: Page 82</b>		
<b>XI. Miscellaneous (continued)</b>		
<b>J. Title 30 TAC Chapter 101, Subchapter H (continued)</b>		
◆	4. The application area is located at a site in the Houston/Galveston/Brazoria nonattainment area where the facilities have a collective uncontrolled design capacity to emit 10 tpy or more of NO <sub>x</sub> .	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	5. The application area includes an electric generating facility permitted under 30 TAC Chapter 116, Subchapter I.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	6. The application area is located at a site in the Houston/Galveston/Brazoria nonattainment area and the site has a potential to emit more than 10 tpy of highly-reactive volatile organic compounds (HRVOC) from facilities covered under 30 TAC Chapter 115, Subchapter H, Divisions 1 and 2.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	7. The application area is located at a site in the Houston/Galveston/Brazoria nonattainment area, the site has a potential to emit 10 tpy or less of HRVOC from covered facilities and the applicant is opting to comply with the requirements of 30 TAC Chapter 101, Subchapter H, Division 6, Highly Reactive VOC Emissions Cap and Trade Program.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>K. Periodic Monitoring</b>		
◆	1. The applicant or permit holder is submitting at least one periodic monitoring proposal described on Form OP-MON in this application.	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
◆	2. The permit currently contains at least one periodic monitoring requirement. <i>If the responses to Questions XI.K.1 and XI.K.2 are both "NO," go to Section XI.L.</i>	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
◆	3. All periodic monitoring requirements are being removed from the permit with this application.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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*For SOP applications, answer ALL questions unless otherwise directed.*

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<b>Form OP-REQ1: Page 83</b>		
<b>XI. Miscellaneous (continued)</b>		
<b>L. Compliance Assurance Monitoring</b>		
◆	1. The application area includes at least one unit that does not meet the CAM exemptions in 40 CFR § 64.2(b) for all applicable requirements that it is subject to, and the unit has a pre-control device potential to emit greater than or equal to the amount in tons per year required in a site classified as a major source. <i>If the response to Question XI.L.1 is "NO," go to Section XI.M.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	2. The unit or units defined by XI.L.1 are using a control device to comply with an applicable requirement. <i>If the response to Question XI.L.2 is "NO," go to Section XI.M.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	3. The permit holder has submitted a CAM proposal on Form OP-MON in a previous application.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	4. The owner/operator or permit holder is submitting a CAM proposal on Form OP-MON according to the deadlines for submittals in 40 CFR § 64.5 in this application. <i>If the responses to Questions XI.L.3 and XI.L.4 are both "NO," go to Section XI.M.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
	5. The owner/operator or permit holder is submitting a CAM implementation plan and schedule to be incorporated as enforceable conditions in the permit.	<input type="checkbox"/> YES <input type="checkbox"/> NO
	6. Provide the unit identification numbers for the units for which the applicant is submitting a CAM implementation plan and schedule in the space below.	
◆	7. At least one unit defined by XI.L.1 and XI.L.2 is using a CEMS, COMS or PEMS meeting the requirements of 40 CFR § 64.3(d)(2).	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	8. All units defined by XI.L.1 and XI.L.2 are using a CEMS, COMS or PEMS meeting the requirements of 40 CFR § 64.3(d)(2). <i>If the response to Question XI.L.8 is "YES," go to Section XI.M.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO

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*For SOP applications, answer ALL questions unless otherwise directed.*

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<b>Form OP-REQ1: Page 84</b>		
<b>XI. Miscellaneous (continued)</b>		
<b>L. Compliance Assurance Monitoring (continued)</b>		
◆	9. At least one of the CAM proposals as described by question XI.L.3 or XI.L.4 addresses particulate matter, and the emission unit has a capture system as defined in 40 CFR §64.1.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	10. At least one of the CAM proposals as described by question XI.L.3 or XI.L.4 addresses VOC, and the emission unit has a capture system as defined in 40 CFR §64.1.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	11. At least one of the CAM proposals as described by question XI.L.3 or XI.L.4 addresses a regulated pollutant other than particulate matter or VOC, and the emission unit has a capture system as defined in 40 CFR §64.1.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	12. The control device in the CAM proposal as described by question XI.L.3 or XI.L.4 has a bypass.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>M. Title 30 TAC Chapter 113, Subchapter D, Division 5 - Emission Guidelines and Compliance Times</b>		
◆	1. The application area includes at least one air curtain incinerator that commenced construction on or before December 9, 2004. <i>If the response to Question XI.M.1 is "NO," or "N/A," go to Section XII.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> N/A
◆	2. All air curtain incinerators constructed on or before December 9, 2004 combust only wood waste, clean lumber, or yard waste or a mixture of these materials.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>XII. New Source Review (NSR) Authorizations</b>		
<b>A. Waste Permits with Air Addendum</b>		
◆	1. The application area includes a Municipal Solid Waste Permit or an Industrial Hazardous Waste with an Air Addendum. <i>If the response to XII.A.1 is "YES," include the waste permit numbers and issuance date in Section XII.J.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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<b>Form OP-REQ1: Page 85</b>		
<b>XII. New Source Review (NSR) Authorizations (continued)</b>		
<b>B. Air Quality Standard Permits</b>		
◆	1. The application area includes at least one Air Quality Standard Permit NSR authorization.  <i>If the response to XII.B.1 is "NO," go to Section XII.C. If the response to XII.B.1 is "YES," be sure to include the standard permit's registration numbers in Section XII.H and answer XII.B.2 - B.16 as appropriate.</i>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
◆	2. The application area includes at least one "State Pollution Control Project" Air Quality Standard Permit NSR authorization under 30 TAC § 116.617.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	3. The application area includes at least one non-rule Air Quality Standard Permit for Pollution Control Projects NSR authorization.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	4. The application area includes at least one "Installation and/or Modification of Oil and Gas Facilities" Air Quality Standard Permit NSR authorization under 30 TAC § 116.620.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	5. The application area includes at least one non-rule Air Quality Standard Permit for Oil and Gas Handling and Production Facilities NSR authorization.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	6. The application area includes at least one "Municipal Solid Waste Landfill" Air Quality Standard Permit NSR authorization under 30 TAC § 116.621.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	7. The application area includes at least one "Municipal Solid Waste Landfill Facilities and Transfer Stations" Standard Permit authorization under 30 TAC Chapter 330, Subchapter U.	<input type="checkbox"/> YES <input type="checkbox"/> NO
	8. The application area includes at least one "Concrete Batch Plant" Air Quality Standard Permit NSR authorization.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	9. The application area includes at least one "Concrete Batch Plant with Enhanced Controls" Air Quality Standard Permit NSR authorization.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	10. The application area includes at least one "Hot Mix Asphalt Plant" Air Quality Standard Permit NSR authorization.	<input type="checkbox"/> YES <input type="checkbox"/> NO

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<b>Form OP-REQ1: Page 86</b>		
<b>XII. New Source Review (NSR) Authorizations (continued)</b>		
<b>B. Air Quality Standard Permits (continued)</b>		
◆	11. The application area includes at least one "Rock Crusher" Air Quality Standard Permit NSR authorization.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	12. The application area includes at least one "Electric Generating Unit" Air Quality Standard Permit NSR authorization. <i>If the response to XII.B.12 is "NO," go to Question XII.B.15.</i>	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	13. For purposes of "Electric Generating Unit" Air Quality Standard Permit, the application area is located in the East Texas Region.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	14. For purposes of "Electric Generating Unit" Air Quality Standard Permit, the application area is located in the West Texas Region.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	15. The application area includes at least one "Boiler" Air Quality Standard Permit NSR authorization.	<input type="checkbox"/> YES <input type="checkbox"/> NO
◆	16. The application area includes at least one "Sawmill" Air Quality Standard Permit NSR authorization.	<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>C. Flexible Permits</b>		
	1. The application area includes at least one Flexible Permit NSR authorization.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>D. Multiple Plant Permits</b>		
	1. The application area includes at least one Multi-Plant Permit NSR authorization.	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

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<b>Form OP-REQ1: Page 87</b>			
<b>XII. NSR Authorizations (Attach additional sheets if necessary for sections E-J)</b>			
<b>E. PSD Permits and PSD Major Pollutants</b>			
PSD Permit No.: PSDTX1222	Issuance Date: 05/28/2013	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.: PSDTX1224	Issuance Date: 11/21/2014	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.: PSDTX1232	Issuance Date: 05/28/2013	Pollutant(s): CO, NO <sub>x</sub> , VOC, PM <sub>10</sub>	
PSD Permit No.:	Issuance Date:	Pollutant(s):	
<i>If PSD Permits are held for the application area, please complete the Major NSR Summary Table located under the Technical Forms heading at: <a href="http://www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html">www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html</a>.</i>			
<b>F. Nonattainment (NA) Permits and NA Major Pollutants</b>			
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
NA Permit No.:	Issuance Date:	Pollutant(s):	
<i>If NA Permits are held for the application area, please complete the Major NSR Summary Table located under the Technical Forms heading at: <a href="http://www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html">www.tceq.texas.gov/permitting/air/titlev/site/site_experts.html</a>.</i>			
<b>G. NSR Authorizations with FCAA § 112(g) Requirements</b>			
NSR Permit No.: 19201	Issuance Date: 08/12/2019	NSR Permit No.:	Issuance Date:
NSR Permit No.: 20203	Issuance Date: 08/11/2022	NSR Permit No.:	Issuance Date:
NSR Permit No.: 40157	Issuance Date: 02/07/2020	NSR Permit No.:	Issuance Date:
NSR Permit No.:	Issuance Date:	NSR Permit No.:	Issuance Date:
◆ <b>H. Title 30 TAC Chapter 116 Permits, Special Permits, Standard Permits, Other Authorizations (Other Than Permits By Rule, PSD Permits, NA Permits) for the Application Area</b>			
Authorization No.: 134477	Issuance Date: 11/06/2015	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:
Authorization No.:	Issuance Date:	Authorization No.:	Issuance Date:



**Texas Commission on Environmental Quality**  
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<b>Form OP-REQ1: Page 88</b>	
<b>XII. NSR Authorizations (Attach additional sheets if necessary for sections E-J)</b>	
◆ <b>I. Permits by Rule (30 TAC Chapter 106) for the Application Area</b>	
<i>A list of selected Permits by Rule (previously referred to as standard exemptions) that are required to be listed in the FOP application is available in the instructions.</i>	
PBR No.: 106.261	Version No./Date: 11/01/2003
PBR No.: 106.262	Version No./Date: 11/01/2003
PBR No.: 106.263	Version No./Date: 11/01/2003
PBR No.: 106.264	Version No./Date: 09/04/2000
PBR No.: 106.371	Version No./Date: 09/04/2000
PBR No.: 106.373	Version No./Date: 09/04/2000
PBR No.: 106.393	Version No./Date: 09/04/2000
PBR No.: 106.472	Version No./Date: 09/04/2000
PBR No.: 106.476	Version No./Date: 09/04/2000
PBR No.: 106.532	Version No./Date: 09/04/2000
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
PBR No.:	Version No./Date:
◆ <b>J. Municipal Solid Waste and Industrial Hazardous Waste Permits With an Air Addendum</b>	
Permit No.:	Issuance Date:
Permit No.:	Issuance Date:
Permit No.:	Issuance Date:
Permit No.:	Issuance Date:

**Form OP-REQ2**  
**Negative Applicable/Superseded Requirement Determinations**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	100218973

Unit AI	Revision No.	Unit/Group/Process ID No.	Unit/Group/Process Applicable Form	Potentially Applicable Regulatory Name	Negative Applicability/Superseded Requirement Citation	Negative Applicability/Superseded Requirement Reason
		5T6030	OP-UA3	40 CFR 60, Subpart Kb	§63.2535(c)	FPC is electing to comply only with the provisions of 40 CFR Part 63, Subpart FFFF instead of Subpart Kb, in accordance with §63.2535(c)
		5T6050	OP-UA3	40 CFR 60, Subpart Kb	§63.2535(c)	FPC is electing to comply only with the provisions of 40 CFR Part 63, Subpart FFFF instead of Subpart Kb, in accordance with §63.2535(c)
		5T6010	OP-UA3	40 CFR 60, Subpart Kb	§63.2535(c)	FPC is electing to comply only with the provisions of 40 CFR Part 63, Subpart FFFF instead of Subpart Kb, in accordance with §63.2535(c)
		5T6020	OP-UA3	40 CFR 60, Subpart Kb	§63.2535(c)	FPC is electing to comply only with the provisions of 40 CFR Part 63, Subpart FFFF instead of Subpart Kb, in accordance with §63.2535(c)
		5T6040	OP-UA3	40 CFR 60, Subpart Kb	§63.2535(c)	FPC is electing to comply only with the provisions of 40 CFR Part 63, Subpart FFFF instead of Subpart Kb, in accordance with §63.2535(c)



## Appendix C   Monitoring Forms

**Texas Commission on Environmental Quality**  
**Monitoring Requirements**  
**Form OP-MON (Page 3)**  
**Federal Operating Permit Program**  
**Table 1c: CAM/PM Case-By-Case Additions**

<b>I. Identifying Information</b>		
Account No.: CB-0038-Q	RN No.: 100218973	CN: 600130017
Permit No: O1957		Project No.: TBD
Area Name: Polyethylene Plants		
Company Name: Formosa Plastics Corporation, Texas		
<b>II. Unit/Emission Point/Group/Process Information</b>		
Revision No.: N/A		
Unit/EPN/Group/Process ID No.: LL-CT		
Applicable Form: OP-UA13		
<b>III. Applicable Regulatory Requirement</b>		
Name: Chapter 111		
SOP/GOP Index No.: R1111-2		
Pollutant: Opacity		
Main Standard: 30 TAC 111.111(a)(1)(C)		
Monitoring Type: PM		
Unit Size:		
Deviation Limit: Same as PM-P-001		
<b>IV. Control Device Information</b>		
Control Device ID No.:		
Device Type:		
<b>V. CAM Case-by-case</b>		
Indicator:		
Minimum Frequency:		
Averaging Period:		
QA/QC Procedures:		
Verification Procedures:		
Representative Date:		
<b>VI. Periodic Monitoring Case-by-case</b>		
Indicator: Same as PM-P-001		Minimum Frequency: Once per year
Averaging Period: N/A		
Periodic Monitoring Text: Same as PM-P-001		

**Texas Commission on Environmental Quality**  
**Monitoring Requirements**  
**Form OP-MON (Page 3)**  
**Federal Operating Permit Program**  
**Table 1c: CAM/PM Case-By-Case Additions**

<b>I. Identifying Information</b>		
Account No.: CB-0038-Q	RN No.: 100218973	CN: 600130017
Permit No: O1957		Project No.: TBD
Area Name: Polyethylene Plant		
Company Name: Formosa Plastics Corporation, Texas		
<b>II. Unit/Emission Point/Group/Process Information</b>		
Revision No.: N/A		
Unit/EPN/Group/Process ID No.: LO-CT		
Applicable Form: OP-UA13		
<b>III. Applicable Regulatory Requirement</b>		
Name: Chapter 111		
SOP/GOP Index No.: R1111-2		
Pollutant: Opacity		
Main Standard: 30 TAC 111.111(a)(1)(C)		
Monitoring Type: PM		
Unit Size:		
Deviation Limit: Same as PM-P-001		
<b>IV. Control Device Information</b>		
Control Device ID No.:		
Device Type:		
<b>V. CAM Case-by-case</b>		
Indicator:		
Minimum Frequency:		
Averaging Period:		
QA/QC Procedures:		
Verification Procedures:		
Representative Date:		
<b>VI. Periodic Monitoring Case-by-case</b>		
Indicator: Same as PM-P-001		Minimum Frequency: Once per year
Averaging Period: N/A		
Periodic Monitoring Text: Same as PM-P-001		

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**Monitoring Requirements**  
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**Table 1c: CAM/PM Case-By-Case Additions**

<b>I. Identifying Information</b>		
Account No.: CB-0038-Q	RN No.: 100218973	CN: 600130017
Permit No: O1957		Project No.: TBD
Area Name: Polyethylene Plant		
Company Name: Formosa Plastics Corporation, Texas		
<b>II. Unit/Emission Point/Group/Process Information</b>		
Revision No.: N/A		
Unit/EPN/Group/Process ID No.: PP2-CT		
Applicable Form: OP-UA13		
<b>III. Applicable Regulatory Requirement</b>		
Name: Chapter 111		
SOP/GOP Index No.: R1111-2		
Pollutant: Opacity		
Main Standard: 30 TAC 111.111(a)(1)(C)		
Monitoring Type: PM		
Unit Size:		
Deviation Limit: Same as PM-P-001		
<b>IV. Control Device Information</b>		
Control Device ID No.:		
Device Type:		
<b>V. CAM Case-by-case</b>		
Indicator:		
Minimum Frequency:		
Averaging Period:		
QA/QC Procedures:		
Verification Procedures:		
Representative Date:		
<b>VI. Periodic Monitoring Case-by-case</b>		
Indicator: Same as PM-P-001		Minimum Frequency: Once per year
Averaging Period: N/A		
Periodic Monitoring Text: Same as PM-P-001		



## Appendix D   Unit Attributes Forms

**Storage Tank/Vessel Attributes**  
**Form OP-UA3 (Page 3)**  
**Federal Operating Permit Program**  
**Table 3: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**  
**Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels**  
**(Including Petroleum Liquid Storage Vessels)**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN100218973

Unit ID No.	SOP/GOP Index No.	Product Stored	Storage Capacity	WW Tank Control	Maximum TVP	Storage Vessel Description	AMEL ID No.	Guidepole	Reid Vapor Pressure	Control Device ID No.
5T6010	60KB-1	VOL	40K+		0.75-11.1	IFR-LQ				
5T6020	60KB-1	VOL	40K+		0.75-11.1	IFR-LQ				
5T6030	60KB-1	VOL	40K+		0.75-11.1	IFR-LQ				
5T6040	60KB-1	VOL	40K+		0.75-11.1	IFR-LQ				
5T6050	60KB-1	VOL	40K+		0.75-11.1	IFR-LQ				
LL-065	60KB-1	VOL	10K-							
LL-066	60KB-1	VOL	10K-							
LL-067	60KB-1	VOL	40K+		0.75-11.1	IFR-LQ				
LL-068	60KB-1	VOL	40K+		0.75-11.1	IFR-LQ				



**Storage Tank/Vessel Attributes**  
**Form OP-UA3 (Page 4)**  
**Federal Operating Permit Program**  
**Table 4a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**  
**Subchapter B: Storage of Volatile Organic Compounds (VOCs)**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP/GOP Index No.	Alternate Control Requirement	ACR ID No.	Product Stored	Storage Capacity	Throughput	Potential to Emit	Uncontrolled Emissions
5T6010	R5112-1	NO		VOC2	C25K+			
5T6020	R5112-1	NO		VOC2	C25K+			
5T6030	R5112-1	NO		VOC2	C25K+			
5T6040	R5112-1	NO		VOC2	C25K+			
5T6050	R5112-1	NO		VOC2	C25K+			
LL-065	R5112-1	NO		VOC2	C1K-			
LL-066	R5112-1	NO		VOC2	C1K-			
LL-067	R5112-1	NO		VOC2	C25K+			
LL-068	R5112-1	NO		VOC2	C25K+			

**Storage Tank/Vessel Attributes**  
**Form OP-UA3 (Page 5)**  
**Federal Operating Permit Program**  
**Table 4b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**  
**Subchapter B: Storage of Volatile Organic Compounds (VOCs)**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP/GOP Index No.	Construction Date	Tank Description	True Vapor Pressure	Primary Seal	Secondary Seal	Control Device Type	Control Device ID No.
5T6010	R5112-1		IFR3	1.5+B				
5T6020	R5112-1		IFR3	1.5+B				
5T6030	R5112-1		IFR3	1.5+B				
5T6040	R5112-1		IFR3	1.5+B				
5T6050	R5112-1		IFR3	1.5+B				
LL-065	R5112-1							
LL-066	R5112-1							
LL-067	R5112-1		IFR3	1.5+B				
LL-068	R5112-1		IFR3	1.5+B				

**Storage Tank/Vessel Attributes**

**Form OP-UA3 (Page 51)**

**Federal Operating Permit Program**

**Table 21a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, Storage Vessels**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP Index No.	Emission Standard	Comb Device	95% Scrubber	PERF Test	Negative Pressure	Bypass Line
T501	63FFFF-7	63WW	NO		NO	NO	CARSEAL
T502	63FFFF-7	63WW	NO		NO	NO	CARSEAL
T503	63FFFF-7	63WW	NO		NO	NO	CARSEAL
2T502	63FFFF-7	63WW	NO		NO	NO	CARSEAL
2T503	63FFFF-7	63WW	NO		NO	NO	CARSEAL
3T501	63FFFF-7	63WW	NO		NO	NO	CARSEAL
3T502	63FFFF-7	63WW	NO		NO	NO	CARSEAL
3T503	63FFFF-7	63WW	NO		NO	NO	CARSEAL

**Storage Tank/Vessel Attributes**

**Form OP-UA3 (Page 54)**

**Federal Operating Permit Program**

**Table 21d: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, Storage Vessels  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID No.	SOP Index No.	WW Tank Control	Unslotted Guidepole	Slotted Guidepole	Seal Configuration	Inspection Requirement
T501	63FFFF-7	IFR	YES		IFR-LQ	
T502	63FFFF-7	IFR	YES		IFR-LQ	
T503	63FFFF-7	IFR	YES		IFR-LQ	
2T502	63FFFF-7	IFR	YES		IFR-LQ	
2T503	63FFFF-7	IFR	YES		IFR-LQ	
3T501	63FFFF-7	IFR	YES		IFR-LQ	
3T502	63FFFF-7	IFR	YES		IFR-LQ	
3T503	63FFFF-7	IFR	YES		IFR-LQ	

**Storage Tank/Vessel Attributes**

**Form OP-UA3 (Page 56)**

**Federal Operating Permit Program**

**Table 21f: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing, Storage Vessels  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP Index No.	Determined HAL	HAL Device Type	Prior Test	Test Waiver	Formaldehyde	Negative Pressure	Bypass Line
T501	63FFFF-7	NO	NONE	NO	NO	NO	NO	CARSEAL
T502	63FFFF-7	NO	NONE	NO	NO	NO	NO	CARSEAL
T503	63FFFF-7	NO	NONE	NO	NO	NO	NO	CARSEAL
2T502	63FFFF-7	NO	NONE	NO	NO	NO	NO	CARSEAL
2T503	63FFFF-7	NO	NONE	NO	NO	NO	NO	CARSEAL
3T501	63FFFF-7	NO	NONE	NO	NO	NO	NO	CARSEAL
3T502	63FFFF-7	NO	NONE	NO	NO	NO	NO	CARSEAL
3T503	63FFFF-7	NO	NONE	NO	NO	NO	NO	CARSEAL

**Texas Commission on Environmental Quality**  
**Loading/Unloading Operations Attributes**  
**Form OP-UA04 (Page 1)**  
**Federal Operating Permit Program**  
**Table 1a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**  
**Subchapter C: Loading and Unloading of Volatile Organic Compounds**

Date	Permit No.:	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP/GOP Index No.	Chapter 115 Facility Type	Alternate Control Requirement (ACR)	ACR ID No.	Product Transferred	Transfer Type	True Vapor Pressure	Daily Through-put	Control Options
LE/HEI	R5211-1	OTHER	NONE		VOC2	Load	1.5+	NCE2	BAL
LE/HEII	R5211-1	OTHER	NONE		VOC2	Load	1.5+	NCE2	BAL

**Texas Commission on Environmental Quality**  
**Loading/Unloading Operations Attributes**  
**Form OP-UA04 (Page 2)**  
**Federal Operating Permit Program**  
**Table 1b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**  
**Subchapter C: Loading and Unloading of Volatile Organic Compounds**

Date	Permit No.:	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP Index No.	Chapter 115 Control Device Type	Chapter 115 Control Device ID No.	Vapor-Tight	Vapor Space Holding Tank	Marine Terminal Exemptions	VOC Flash Point	Uncontrolled VOC Emissions
LE/HEI	R5211-1	NONE		NO				
LE/HEII	R5211-1	NONE		NO				

**Process Heater/Furnace Attributes  
Form OP-UA5 (Page 10)  
Federal Operating Permit Program  
Table 6a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)  
Subchapter DDDDD: Industrial, Commercial, and Institutional Process Heaters  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	100218973

Unit ID No.	SOP/GOP Index No.	Commence	Table Applicability	HCl Emission	HCl-CMS
H-601	63DDDDD-1	EXIST	T3.3G1		



**Boiler/Steam Generator/Steam Generating Unit Attributes**  
**Form OP-UA6 (Page 11)**  
**Federal Operating Permit Program**  
**Table 4a: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**  
**Subpart Dc: Standards of Performance for Industrial-Commercial Steam Generating Units**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID No.	SOP Index No.	Construction/Modification Date	Maximum Design Heat Input Capacity	Applicability	Heat Input Capacity	D-Series Fuel Type	D-Series Fuel Type	D-Series Fuel Type	ACF Option SO <sub>2</sub>	ACF Option PM	30% Coal Duct Burner
H923A	60Dc-1	89+	10-100		75-100	NG	OTHER		OTHR	OTHR	NO
H923B	60Dc-1	89+	10-100		75-100	NG	OTHER		OTHR	OTHR	NO

**Fugitive Emission Unit Attributes  
Form OP-UA12 (Page 44)**

**Federal Operating Permit Program**

**Table 5a: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID No.	SOP Index No.	Manufactured Product	Continuous Process	Construction/Modification Date	VOC Service	Design Capacity	Equipment in Vacuum Service	VOC Service Less Than 300 Hours
PROCESS	60DDD-1	PROPYL	YES	89+	SOME	1000+	NO	NO
006	60DDD-1	PROPYL	YES	89+	SOME	1000+	NO	NO

**Fugitive Emission Unit Attributes  
Form OP-UA12 (Page 45)**

**Federal Operating Permit Program**

**Table 5b: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID. No.	SOP Index No.	Title 40 CFR Part 60, Subpart DDD Fugitive Unit Components							
		Pumps							
		Light Liquid Service	EEL	EEL ID No.	Complying with § 60.482-2	Heavy Liquid Service	EEL	EEL ID No.	Complying with § 60.482-8
PROCESS	60DDD-1	YES	NO		YES	NO			
006	60DDD-1	YES	NO		YES	NO			

**Fugitive Emission Unit Attributes  
Form OP-UA12 (Page 46)**

**Federal Operating Permit Program**

**Table 5c: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID No.	SOP Index No.	Title 40 CFR Part 60, Subpart DDD Fugitive Unit Components (continued)							
		Flanges and Other Connectors	EEL	EEL ID No.	Complying with § 60.482-8	Compressors	EEL	EEL ID No.	Complying with § 60.482-3
PROCESS	60DDD-1	YES	NO		YES	YES	NO		YES
006	60DDD-1	YES	NO		YES	NO			

**Fugitive Emission Unit Attributes  
Form OP-UA12 (Page 47)**

**Federal Operating Permit Program**

**Table 5d: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID. No.	SOP Index No.	Title 40 CFR Part 60, Subpart DDD Fugitive Unit Components								
		Pressure Relief Devices								
		Gas/Vapor Service	Light Liquid or Heavy Liquid Service	EEL	EEL ID No.	Complying with § 60.482-8	Sampling Connection Systems	EEL	EEL ID No.	Complying with § 60.482-5
PROCESS	60DDD-1	YES	NO			YES	YES	NO		YES
006	60DDD-1	YES	NO			YES	YES	NO		YES

**Fugitive Emission Unit Attributes  
Form OP-UA12 (Page 48)**

**Federal Operating Permit Program**

**Table 5e: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID. No.	SOP Index No.	Title 40 CFR Part 60, Subpart DDD Fugitive Unit Components (continued)								
		Valves								
		Gas/Vapor or Light Liquid Service	2.0%	EEL	EEL ID No.	Complying with § 60.482-7	Heavy Liquid Service	EEL	EEL ID No.	Complying with § 60.482-8
PROCESS	60DDD-1	YES	YES	NO		YES	NO			
006	60DDD-1	YES	YES	NO		YES	NO			

**Fugitive Emission Unit Attributes  
Form OP-UA12 (Page 49)**

**Federal Operating Permit Program**

**Table 5f: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID No	SOP Index No.	Title 40 CFR Part 60, Subpart DDD Fugitive Unit Components (continued)							
		Open-ended Valves or Lines	EEL	EEL ID No.	Complying with § 60.482-6	Closed-Vent (or Vapor Collection) Systems	EEL	EEL ID No.	Complying with § 60.482-10
PROCESS	60DDD-1	YES	NO		YES	YES	NO		YES
006	60DDD-1	YES	NO		YES	NO			

**Fugitive Emission Unit Attributes  
Form OP-UA12 (Page 50)**

**Federal Operating Permit Program**

**Table 5g: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID No.	SOP Index No.	Title 40 CFR Part 60, Subpart DDD Fugitive Unit Components (continued)									
		Vapor Recovery System	EEL	EEL ID No.	Complying with § 60.482-10	Control Device ID No.	Enclosed Combustion Device	EEL	EEL ID No.	Complying with § 60.482-10	Control Device ID No.
PROCESS	60DDD-1	NO					YES	NO		YES	LI-01
006	60DDD-1	NO					NO				



**Fugitive Emission Unit Attributes  
Form OP-UA12 (Page 51)**

**Federal Operating Permit Program**

**Table 5h: Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60)**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Unit ID No	SOP Index No.	Title 40 CFR Part	60, Subpart DDD	Fugitive Unit	Components	(continued)	Title 40 CFR Part 60, Subpart DDD Fugitive Unit Description
		Flare	BEEL	BEEL ID No.	Complying with § 60.482-10	Control Device ID No.	
PROCESS	60DDD-1	YES	NO		YES	1018, 1067	Piping Equipment Fugitives
006	60DDD-1	YES	NO		YES	1018, 1067	Piping Equipment Fugitives

**Water Separator Attributes**  
**Form OP-UA14 (Page 1)**  
**Federal Operating Permit Program**  
**Table 1: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115) Water Separation**  
**Texas Commission on Environmental Quality**

Date	Permit No.:	Regulated Entity No.
	01957	RN 100218973

Unit ID No.	SOP/GOP Index No.	Alternate Control Requirement (ACR)	ACR ID No.	Exemption	Emission Control Option	Control Device	Control Device ID No.
DO-615	R5137-1	NO		CTVP			
FO-604	R5137-1	NO		CTVP			

**Water Separator Attributes**  
**Form OP-UA14 (Page 2)**  
**Federal Operating Permit Program**  
**Table 2a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart VV: National Emission Standards for Oil-Water Separators and Organic-Water Separators**  
**Texas Commission on Environmental Quality**

Date	Permit No.:	Regulated Entity No.

Unit ID No.	SOP Index No.	Control	Emissions Control	No Detectable Organic Emissions	Inspected and Monitored	By-pass Device	Flow Meter	Design Analysis

**Water Separator Attributes**  
**Form OP-UA14 (Page 3)**  
**Federal Operating Permit Program**  
**Table 2b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart VV: National Emission Standards for Oil-Water Separators and Organic-Water Separators**  
**Texas Commission on Environmental Quality**

Date	Permit No.:	Regulated Entity No.

Unit ID No.	SOP Index No.	Control Device	Control Device ID No.	Alternative Operating Parameters	AOP ID No.	HAP Recovery	Regenerable Carbon Adsorber	Exhaust Stream Temperature Monitor

**Water Separator Attributes**

**Form OP-UA14 (Page 27)**

**Federal Operating Permit Program**

**Table 11a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing**

**Texas Commission on Environmental Quality**

Date	Permit No.:	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP Index No.	Process Wastewater	Meets 40 CFR § 63.149(d)	Unit Category	Control Requirement	EEL ID No	Floating Roof Alternate Monitoring Parameters	Floating Roof AMP ID No.
DO-615	63FFFF-5	YES		TBLE35	CVS		NO	
DO-615	63FFFF-6	YES		TBLE35	CVS		NO	
EO-604	63FFFF-5	YES		TBLE35	CVS		NO	
EO-604	63FFFF-6	YES		TBLE35	CVS		NO	
FO-604	63FFFF-5	YES		TBLE35	CVS		NO	
FO-604	63FFFF-6	YES		TBLE35	CVS		NO	
V302	63FFFF-5	YES		TBLE35	CVS		NO	
V302	63FFFF-6	YES		TBLE35	CVS		NO	
2V302	63FFFF-5	YES		TBLE35	CVS		NO	
2V302	63FFFF-6	YES		TBLE35	CVS		NO	
3V302	63FFFF-5	YES		TBLE35	CVS		NO	
3V302	63FFFF-6	YES		TBLE35	CVS		NO	

TCEQ-10038 (APD-ID 49v2, Revised 11/22) OP-UA14

This form is for use by facilities subject to air quality permit requirements and may be revised periodically. (Title V Release 11/22)

**Water Separator Attributes**

**Form OP-UA14 (Page 28)**

**Federal Operating Permit Program**

**Table 11b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing**

**Texas Commission on Environmental Quality**

Date	Permit No.:	Regulated Entity No.
	O1957	RN 100218973

Unit ID No.	SOP Index No.	Closed Vent System	By-pass Lines	Combination of Control Devices	Control Devices	Control Device ID No	Compliance With 40 CFR §63.139(c)(1)	Halogenated
DO-615	63FFFF-5	SUBPTG	CARSEAL		FLARE	1018 or 1067		NON
DO-615	63FFFF-6	SUBPTG	CARSEAL		VAPTH	LI-01	C1III	NON
EO-604	63FFFF-5	SUBPTG	CARSEAL		FLARE	1018 or 1067		NON
EO-604	63FFFF-6	SUBPTG	CARSEAL		VAPTH	LI-01	C1III	NON
FO-604	63FFFF-5	SUBPTG	CARSEAL		FLARE	1018 or 1067		NON
FO-604	63FFFF-6	SUBPTG	CARSEAL		VAPTH	LI-01	C1III	NON
V302	63FFFF-5	SUBPTG	CARSEAL		FLARE	1018 or 1067		NON
V302	63FFFF-6	SUBPTG	CARSEAL		VAPTH	LI-01	C1III	NON
2V302	63FFFF-5	SUBPTG	CARSEAL		FLARE	1018 or 1067		NON
2V302	63FFFF-6	SUBPTG	CARSEAL		VAPTH	LI-01	C1III	NON
3V302	63FFFF-5	SUBPTG	CARSEAL		FLARE	1018 or 1067		NON
3V302	63FFFF-6	SUBPTG	CARSEAL		VAPTH	LI-01	C1III	NON

**Water Separator Attributes**  
**Form OP-UA14 (Page 29)**  
**Federal Operating Permit Program**  
**Table 11c: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing**  
**Texas Commission on Environmental Quality**

Date	Permit No.:	Regulated Entity No.
	01957	RN 100218973

Unit ID No.	SOP Index No.	Halogen Reduction	Alt 63G Mon Parameters	AMP ID No.	Regeneration	Performance Tests	2485(h)(3)	95% Performance Tests	Monitoring Options
DO-615	63FFFF-5		NO						
DO-615	63FFFF-6		NO			YES	NO	YES	TABLE13
EO-604	63FFFF-5		NO						
EO-604	63FFFF-6		NO			YES	NO	YES	TABLE13
FO-604	63FFFF-5		NO						
FO-604	63FFFF-6		NO			YES	NO	YES	TABLE13
V302	63FFFF-5		NO						
V302	63FFFF-6		NO			YES	NO	YES	TABLE13
2V302	63FFFF-5		NO						
2V302	63FFFF-6		NO			YES	NO	YES	TABLE13
3V302	63FFFF-5		NO						
3V302	63FFFF-6		NO			YES	NO	YES	TABLE13

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 1)**  
**Federal Operating Permit Program**  
**Table 1a: Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111)**  
**Subchapter A: Visible Emissions**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Emission Point ID No.	SOP/GOP Index No.	Alternate Opacity Limitation	AOL ID No.	Vent Source	Opacity Monitoring System	Construction Date	Effluent Flow Rate
H923A	R1111-1	NO		OTHER	NONE	72+	100+
H923B	R1111-1	NO		OTHER	NONE	72+	100+



**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 3)**  
**Federal Operating Permit Program**  
**Table 2a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**  
**Subchapter B: Vent Gas Control**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Emission Point ID No.	SOP/GOP Index No.	Chapter 115 Division	Combustion Exhaust	Vent Type	Total Uncontrolled VOC Weight	Combined 24-Hour VOC Weight	VOC Concentration	VOC Concentration or Emission Rate at Maximum Operating Conditions
001	R5121-1	NO	NO	SPECVOC		100-	30K-	
003	R5121-1	NO	NO	SPECVOC		100-	30K-	
004	R5121-1	NO	NO	SPECVOC		100-	30K-	
005	R5121-1	NO	NO	SPECVOC		100-	30K-	
013	R5121-1	NO	NO	SPECVOC		100-	30K-	
3V305	R5121-1	NO	NO	SPECVOC		100-	30K-	
H-601	R5121-1	NO	NO	SPECVOC		100-	30K-	
LL-003	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-004	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-005	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-006	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-048	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-049	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-050	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-051	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-052	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-054	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-055	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-056	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-057	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-059	R5121-1	NO	NO	EXLDPE		100-	30K-	

LL-060	R5121-1	NO	NO	EXLDPE		100-	30K-	
V102	R5121-1	NO	NO	SPECVOC		100-	30K-	
1018	R5121-2	NO	NO	SPECVOC		100+	30K-	
1067	R5121-2	NO	NO	SPECVOC		100+	30K-	
2-HDPE	R5121-2	NO	NO	SPECVOC		100+	30K-	
3-HDPE	R5121-2	NO	NO	SPECVOC		100+	30K-	
LI-01	R5121-2	NO	NO	EXLDPE		100+	30K-	
LL-001	R5121-2	NO	NO	EXLDPE		100+	30K-	
D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
2D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
3D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
H923A	R5121-3	NO	NO	SPECVOC		100+	30K-	
H923B	R5121-3	NO	NO	SPECVOC		100+	30K-	

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 4)**

**Federal Operating Permit Program**

**Table 2b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**

**Subchapter B: Vent Gas Control**

**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Emission Point ID No.	SOP Index No.	Alternate Control Requirement	ACR ID No.	Control Device Type	Control Device ID No.
1018	R5121-2	NONE		FLARE	1018
1067	R5121-2	NONE		FLARE	1067
D301	R5121-3	NONE		DIRFLM	D301
2D301	R5121-3	NONE		DIRFLM	2D301
3D301	R5121-3	NONE		DIRFLM	3D301
H923A	R5121-3	NONE		DIRFLM	H923A
H923B	R5121-3	NONE		DIRFLM	H923B

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 32)**

**Federal Operating Permit Program**

**Table 13a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

<b>Date</b>	<b>Permit No.</b>	<b>Regulated Entity No.</b>
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Emission Standard	Comb Device	95% Scrubber	PERF Test	Negative Pressure	Bypass Line
C501	63FFFF-3	BLWFLR					
C501	63FFFF-4	CD98					
2C501	63FFFF-3	BLWFLR					
2C501	63FFFF-4	CD98					
3C501	63FFFF-3	BLWFLR					
3C501	63FFFF-4	CD98					
V103	63FFFF-3	BLWFLR					
V103	63FFFF-4	CD98					
D0-630	63FFFF-3	BLWFLR					
D0-630	63FFFF-4	CD98					
F0-530	63FFFF-3	BLWFLR					
F0-530	63FFFF-4	CD98					
F0-540	63FFFF-3	BLWFLR					
F0-540	63FFFF-4	CD98					
F0-541	63FFFF-3	BLWFLR					
F0-541	63FFFF-4	CD98					
F0-620	63FFFF-3	BLWFLR					
F0-620	63FFFF-4	CD98					
F0-660	63FFFF-3	BLWFLR					

F0-660	63FFFF-3	BLWFLR					
F0-680	63FFFF-4	CD98					
F0-680	63FFFF-3	BLWFLR					
F0-690	63FFFF-4	CD98					
F0-690	63FFFF-3	BLWFLR					
F1-060	63FFFF-4	CD98					
F1-060	63FFFF-3	BLWFLR					
F1-061	63FFFF-4	CD98					
F1-061	63FFFF-3	BLWFLR					
F1-062	63FFFF-4	CD98					
F1-140	63FFFF-3	BLWFLR					
F1-140	63FFFF-4	CD98					
F1-141	63FFFF-3	BLWFLR					
F1-141	63FFFF-4	CD98					
F1-211	63FFFF-3	BLWFLR					
F1-211	63FFFF-4	CD98					
F1-300	63FFFF-3	BLWFLR					
F1-300	63FFFF-4	CD98					
F1-301	63FFFF-3	BLWFLR					
F1-301	63FFFF-4	CD98					

F2-060	63FFFF-3	BLWFLR					
F2-060	63FFFF-4	CD98					
F2-061	63FFFF-3	BLWFLR					
F2-061	63FFFF-4	CD98					
F2-062	63FFFF-3	BLWFLR					
F2-062	63FFFF-4	CD98					
F2-140	63FFFF-3	BLWFLR					
F2-140	63FFFF-4	CD98					
F2-141	63FFFF-3	BLWFLR					
F2-141	63FFFF-4	CD98					
F2-211	63FFFF-3	BLWFLR					
F2-211	63FFFF-4	CD98					
F2-300	63FFFF-3	BLWFLR					
F2-300	63FFFF-4	CD98					
F2-301	63FFFF-3	BLWFLR					
F2-301	63FFFF-4	CD98					
S0-0621	63FFFF-3	BLWFLR					
S0-0621	63FFFF-4	CD98					
S0-690A	63FFFF-3	BLWFLR					
S0-690A	63FFFF-4	CD98					



S0-690B	63FFFF-3	BLWFLR					
S0-690B	63FFFF-4	CD98					
S1-062	63FFFF-3	BLWFLR					
S1-062	63FFFF-4	CD98					
S1-210	63FFFF-3	BLWFLR					
S1-210	63FFFF-4	CD98					
S1-301	63FFFF-3	BLWFLR					
S1-301	63FFFF-4	CD98					
S1-304	63FFFF-3	BLWFLR					
S1-304	63FFFF-4	CD98					
S2-062	63FFFF-3	BLWFLR					
S2-062	63FFFF-4	CD98					
S2-210	63FFFF-3	BLWFLR					
S2-120	63FFFF-4	CD98					
S2-301	63FFFF-3	BLWFLR					
S2-301	63FFFF-4	CD98					
S2-304	63FFFF-3	BLWFLR					
S2-304	63FFFF-4	CD98					
C301	63FFFF-3	BLWFLR					
C302	63FFFF-3	BLWFLR					

V112A	63FFFF-3	BLWFLR					
V112B	63FFFF-3	BLWFLR					

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
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**Federal Operating Permit Program**

**Table 13d: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

<b>Date</b>	<b>Permit No.</b>	<b>Regulated Entity No.</b>
	01957	RN 100218973

<b>Emission Point ID No.</b>	<b>SOP Index No.</b>	<b>Designated GRP1</b>	<b>Designated HAL</b>	<b>Determined HAL</b>	<b>Prior Eval</b>	<b>Assessment Waiver</b>	<b>Assessment Waiver ID</b>	<b>Negative Pressure</b>	<b>Bypass Line</b>
C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
2C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
3C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
V103	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
D0-630	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-530	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-540	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-541	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-620	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-660	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-680	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-690	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-060	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-061	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-062	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-140	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-141	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-211	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-300	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL

F1-301	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-060	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-061	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-062	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-140	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-141	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-211	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-300	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-301	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S0-621	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S0-690A	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S0-690B	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S1-062	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S1-210	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S1-301	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S1-304	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S2-062	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S2-210	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S2-301	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S2-304	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL

C301	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
C302	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
V112A	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
V112B	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 36)**

**Federal Operating Permit Program**

**Table 13e: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

<b>Date</b>	<b>Permit No.</b>	<b>Regulated Entity No.</b>
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Designated GRP1	Small Device	1257A1	1257A1 Device Type	1257A1 Device ID	Alt 63SS Mon Parameters	Alt 63SS Mon ID	CEMS	SS Device Type	SS Device ID
C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
2C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
3C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
V103	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
D0-630	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-530	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-540	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-541	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-620	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-660	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-680	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-690	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-060	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-061	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-062	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-140	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-141	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-211	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-300	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-301	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-060	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01



F2-061	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-062	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-140	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-141	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-211	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-300	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-301	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S0-621	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S0-690A	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S0-690B	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S1-062	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S1-210	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S1-301	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S1-304	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S2-062	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S2-210	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S2-301	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S2-304	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes  
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**Federal Operating Permit Program**

**Table 13f: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)  
Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:  
Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Meets 63.988(b)(2)	Water	Designated HAL	Determined HAL
C501	63FFFF-4	NO		NO	NO
2C501	63FFFF-4	NO		NO	NO
3C501	63FFFF-4	NO		NO	NO
V103	63FFFF-4	NO		NO	NO
D0-630	63FFFF-4	NO		NO	NO
F0-530	63FFFF-4	NO		NO	NO
F0-540	63FFFF-4	NO		NO	NO
F0-541	63FFFF-4	NO		NO	NO
F0-620	63FFFF-4	NO		NO	NO
F0-660	63FFFF-4	NO		NO	NO
F0-680	63FFFF-4	NO		NO	NO
F0-690	63FFFF-4	NO		NO	NO

Emission Point ID No.	SOP Index No.	Meets 63.988(b)(2)	Water	Designated HAL	Determined HAL
F1-060	63FFFF-4	NO		NO	NO
F1-061	63FFFF-4	NO		NO	NO
F1-062	63FFFF-4	NO		NO	NO
F1-140	63FFFF-4	NO		NO	NO
F1-141	63FFFF-4	NO		NO	NO
F1-211	63FFFF-4	NO		NO	NO
F1-300	63FFFF-4	NO		NO	NO
F1-301	63FFFF-4	NO		NO	NO
F2-060	63FFFF-4	NO		NO	NO
F2-061	63FFFF-4	NO		NO	NO
F2-062	63FFFF-4	NO		NO	NO
F2-140	63FFFF-4	NO		NO	NO
F2-141	63FFFF-4	NO		NO	NO
F2-211	63FFFF-4	NO		NO	NO
F2-300	63FFFF-4	NO		NO	NO
F2-301	63FFFF-4	NO		NO	NO
S0-621	63FFFF-4	NO		NO	NO
S0-690A	63FFFF-4	NO		NO	NO
S0-690B	63FFFF-4	NO		NO	NO
S1-062	63FFFF-4	NO		NO	NO

Emission Point ID No.	SOP Index No.	Meets 63.988(b)(2)	Water	Designated HAL	Determined HAL
S1-210	63FFFF-4	NO		NO	NO
S1-301	63FFFF-4	NO		NO	NO
S1-304	63FFFF-4	NO		NO	NO
S2-062	63FFFF-4	NO		NO	NO
S2-210	63FFFF-4	NO		NO	NO
S2-301	63FFFF-4	NO		NO	NO
S2-304	63FFFF-4	NO		NO	NO

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 38)**

**Federal Operating Permit Program**

**Table 13g: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	HAL Device Type	HAL Device ID	Prior Eval	Assessment Waiver	Assessment Waiver ID	Formaldehyde	Negative Pressure	Bypass Line
C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
2C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
3C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
V103	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
D0-630	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-530	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-540	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-541	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-620	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-660	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-680	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL

Emission Point ID No.	SOP Index No.	HAL Device Type	HAL Device ID	Prior Eval	Assessment Waiver	Assessment Waiver ID	Formaldehyde	Negative Pressure	Bypass Line
F0-690	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-060	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-061	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-062	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-140	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-141	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-211	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-300	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-301	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-060	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-061	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-062	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-140	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-141	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-211	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-300	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-301	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S0-621	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S0-690A	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL

<b>Emission Point ID No.</b>	<b>SOP Index No.</b>	<b>HAL Device Type</b>	<b>HAL Device ID</b>	<b>Prior Eval</b>	<b>Assessment Waiver</b>	<b>Assessment Waiver ID</b>	<b>Formaldehyde</b>	<b>Negative Pressure</b>	<b>Bypass Line</b>
S0-690B	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S1-062	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S1-210	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S1-301	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S1-304	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S2-062	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S2-210	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S2-301	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S2-304	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 1)**  
**Federal Operating Permit Program**  
**Table 1a: Title 30 Texas Administrative Code Chapter 111 (30 TAC Chapter 111)**  
**Subchapter A: Visible Emissions**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Emission Point ID No.	SOP/GOP Index No.	Alternate Opacity Limitation	AOL ID No.	Vent Source	Opacity Monitoring System	Construction Date	Effluent Flow Rate
H923A	R1111-1	NO		OTHER	NONE	72+	100+
H923B	R1111-1	NO		OTHER	NONE	72+	100+



**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 3)**  
**Federal Operating Permit Program**  
**Table 2a: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**  
**Subchapter B: Vent Gas Control**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Emission Point ID No.	SOP/GOP Index No.	Chapter 115 Division	Combustion Exhaust	Vent Type	Total Uncontrolled VOC Weight	Combined 24-Hour VOC Weight	VOC Concentration	VOC Concentration or Emission Rate at Maximum Operating Conditions
001	R5121-1	NO	NO	SPECVOC		100-	30K-	
003	R5121-1	NO	NO	SPECVOC		100-	30K-	
004	R5121-1	NO	NO	SPECVOC		100-	30K-	
005	R5121-1	NO	NO	SPECVOC		100-	30K-	
013	R5121-1	NO	NO	SPECVOC		100-	30K-	
3V305	R5121-1	NO	NO	SPECVOC		100-	30K-	
H-601	R5121-1	NO	NO	SPECVOC		100-	30K-	
LL-003	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-004	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-005	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-006	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-048	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-049	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-050	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-051	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-052	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-053	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-054	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-055	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-056	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-057	R5121-1	NO	NO	EXLDPE		100-	30K-	

LL-059	R5121-1	NO	NO	EXLDPE		100-	30K-	
LL-060	R5121-1	NO	NO	EXLDPE		100-	30K-	
V102	R5121-1	NO	NO	SPECVOC		100-	30K-	
1018	R5121-2	NO	NO	SPECVOC		100+	30K-	
1067	R5121-2	NO	NO	SPECVOC		100+	30K-	
2-HDPE	R5121-2	NO	NO	SPECVOC		100+	30K-	
3-HDPE	R5121-2	NO	NO	SPECVOC		100+	30K-	
LI-01	R5121-2	NO	NO	EXLDPE		100+	30K-	
D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
2D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
3D301	R5121-3	NO	NO	SPECVOC		100+	30K-	
H923A	R5121-3	NO	NO	SPECVOC		100+	30K-	
H923B	R5121-3	NO	NO	SPECVOC		100+	30K-	

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 4)**

**Federal Operating Permit Program**

**Table 2b: Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115)**

**Subchapter B: Vent Gas Control**

**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Emission Point ID No.	SOP Index No.	Alternate Control Requirement	ACR ID No.	Control Device Type	Control Device ID No.
1018	R5121-2	NONE		FLARE	1018
1067	R5121-2	NONE		FLARE	1067
D301	R5121-3	NONE		DIRFLM	D301
2D301	R5121-3	NONE		DIRFLM	2D301
3D301	R5121-3	NONE		DIRFLM	3D301
H923A	R5121-3	NONE		DIRFLM	H923A
H923B	R5121-3	NONE		DIRFLM	H923B

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 32)**

**Federal Operating Permit Program**

**Table 13a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

<b>Date</b>	<b>Permit No.</b>	<b>Regulated Entity No.</b>
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Emission Standard	Comb Device	95% Scrubber	PERF Test	Negative Pressure	Bypass Line
C501	63FFFF-3	BLWFLR					
C501	63FFFF-4	CD98					
2C501	63FFFF-3	BLWFLR					
2C501	63FFFF-4	CD98					
3C501	63FFFF-3	BLWFLR					
3C501	63FFFF-4	CD98					
V103	63FFFF-3	BLWFLR					
V103	63FFFF-4	CD98					
D0-630	63FFFF-3	BLWFLR					
D0-630	63FFFF-4	CD98					
F0-530	63FFFF-3	BLWFLR					
F0-530	63FFFF-4	CD98					
F0-540	63FFFF-3	BLWFLR					
F0-540	63FFFF-4	CD98					
F0-541	63FFFF-3	BLWFLR					
F0-541	63FFFF-4	CD98					
F0-620	63FFFF-3	BLWFLR					
F0-620	63FFFF-4	CD98					
F0-660	63FFFF-3	BLWFLR					

F0-660	63FFFF-3	BLWFLR					
F0-680	63FFFF-4	CD98					
F0-680	63FFFF-3	BLWFLR					
F0-690	63FFFF-4	CD98					
F0-690	63FFFF-3	BLWFLR					
F1-060	63FFFF-4	CD98					
F1-060	63FFFF-3	BLWFLR					
F1-061	63FFFF-4	CD98					
F1-061	63FFFF-3	BLWFLR					
F1-062	63FFFF-4	CD98					
F1-140	63FFFF-3	BLWFLR					
F1-140	63FFFF-4	CD98					
F1-141	63FFFF-3	BLWFLR					
F1-141	63FFFF-4	CD98					
F1-300	63FFFF-3	BLWFLR					
F1-300	63FFFF-4	CD98					
F1-301	63FFFF-3	BLWFLR					
F1-301	63FFFF-4	CD98					
F2-060	63FFFF-3	BLWFLR					
F2-060	63FFFF-4	CD98					

F2-061	63FFFF-3	BLWFLR					
F2-061	63FFFF-4	CD98					
F2-062	63FFFF-3	BLWFLR					
F2-062	63FFFF-4	CD98					
F2-140	63FFFF-3	BLWFLR					
F2-140	63FFFF-4	CD98					
F2-141	63FFFF-3	BLWFLR					
F2-141	63FFFF-4	CD98					
F2-300	63FFFF-3	BLWFLR					
F2-300	63FFFF-4	CD98					
F2-301	63FFFF-3	BLWFLR					
F2-301	63FFFF-4	CD98					
S0-0621	63FFFF-3	BLWFLR					
S0-0621	63FFFF-4	CD98					
S0-690A	63FFFF-3	BLWFLR					
S0-690A	63FFFF-4	CD98					
S0-690B	63FFFF-3	BLWFLR					
S0-690B	63FFFF-4	CD98					
S1-062	63FFFF-3	BLWFLR					
S1-062	63FFFF-4	CD98					



S1-210	63FFFF-3	BLWFLR					
S1-210	63FFFF-4	CD98					
S1-301	63FFFF-3	BLWFLR					
S1-301	63FFFF-4	CD98					
S1-304	63FFFF-3	BLWFLR					
S1-304	63FFFF-4	CD98					
S2-062	63FFFF-3	BLWFLR					
S2-062	63FFFF-4	CD98					
S2-210	63FFFF-3	BLWFLR					
S2-210	63FFFF-4	CD98					
S2-301	63FFFF-3	BLWFLR					
S2-301	63FFFF-4	CD98					
S2-304	63FFFF-3	BLWFLR					
S2-304	63FFFF-4	CD98					
C301	63FFFF-3	BLWFLR					
C302	63FFFF-3	BLWFLR					
V112A	63FFFF-3	BLWFLR					
V112B	63FFFF-3	BLWFLR					

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 33)**

**Federal Operating Permit Program**

**Table 13b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.

Emission Point ID No.	SOP Index No.	Recovery Device	Existing Source	TRE Index Threshold	Alt 63SS Mon Parameters	Alt 63SS Mon ID	SS Device Type	SS Device ID	Water

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 35)**

**Federal Operating Permit Program**

**Table 13d: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

<b>Date</b>	<b>Permit No.</b>	<b>Regulated Entity No.</b>
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Designated GRP1	Designated HAL	Determined HAL	Prior Eval	Assessment Waiver	Assessment Waiver ID	Negative Pressure	Bypass Line
C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
2C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
3C501	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
V103	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
D0-630	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-530	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-540	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-541	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-620	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-660	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-680	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F0-690	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-060	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-061	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-062	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-140	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-141	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-300	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F1-301	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL

F2-060	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-061	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-062	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-140	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-141	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-300	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
F2-301	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S0-621	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S0-690A	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S0-690B	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S1-062	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S1-210	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S1-301	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S1-304	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S2-062	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S2-210	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S2-301	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
S2-304	63FFFF-3	YES	NO	NO	NO	NO		NO	CARSEAL
C301	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
C302	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL

V112A	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL
V112B	63FFFF-3	YES	NO	NO	YES			NO	CARSEAL

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 36)**

**Federal Operating Permit Program**

**Table 13e: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Designated GRP1	Small Device	1257A1	1257A1 Device Type	1257A1 Device ID	Alt 63SS Mon Parameters	Alt 63SS Mon ID	CEMS	SS Device Type	SS Device ID
C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
2C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
3C501	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
V103	63FFFF-4	YES	YES	YES	05RT	H923A/B	NO		YES	INCIN	H923A/B
D0-630	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-530	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-540	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-541	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-620	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-660	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-680	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F0-690	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-060	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-061	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-062	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-140	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-141	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-300	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F1-301	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-060	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-061	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01



F2-062	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-140	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-141	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-300	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
F2-301	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S0-621	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S0-690A	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S0-690B	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S1-062	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S1-210	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S1-301	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S1-304	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S2-062	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S2-210	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S2-301	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01
S2-304	63FFFF-4	YES	YES	YES	05RT	LI-01	NO		YES	INCIN	LI-01

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes  
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**Federal Operating Permit Program**

**Table 13f: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)  
Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:  
Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents  
Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	Meets 63.988(b)(2)	Water	Designated HAL	Determined HAL
C501	63FFFF-4	NO		NO	NO
2C501	63FFFF-4	NO		NO	NO
3C501	63FFFF-4	NO		NO	NO
V103	63FFFF-4	NO		NO	NO
D0-630	63FFFF-4	NO		NO	NO
F0-530	63FFFF-4	NO		NO	NO
F0-540	63FFFF-4	NO		NO	NO
F0-541	63FFFF-4	NO		NO	NO
F0-620	63FFFF-4	NO		NO	NO
F0-660	63FFFF-4	NO		NO	NO
F0-680	63FFFF-4	NO		NO	NO
F0-690	63FFFF-4	NO		NO	NO

Emission Point ID No.	SOP Index No.	Meets 63.988(b)(2)	Water	Designated HAL	Determined HAL
F1-060	63FFFF-4	NO		NO	NO
F1-061	63FFFF-4	NO		NO	NO
F1-062	63FFFF-4	NO		NO	NO
F1-140	63FFFF-4	NO		NO	NO
F1-141	63FFFF-4	NO		NO	NO
F1-300	63FFFF-4	NO		NO	NO
F1-301	63FFFF-4	NO		NO	NO
F2-060	63FFFF-4	NO		NO	NO
F2-061	63FFFF-4	NO		NO	NO
F2-062	63FFFF-4	NO		NO	NO
F2-140	63FFFF-4	NO		NO	NO
F2-141	63FFFF-4	NO		NO	NO
F2-300	63FFFF-4	NO		NO	NO
F2-301	63FFFF-4	NO		NO	NO
S0-621	63FFFF-4	NO		NO	NO
S0-690A	63FFFF-4	NO		NO	NO
S0-690B	63FFFF-4	NO		NO	NO
S1-062	63FFFF-4	NO		NO	NO
S1-210	63FFFF-4	NO		NO	NO
S1-301	63FFFF-4	NO		NO	NO

TCEQ - 10046 (APD-ID50v2, Revised 11/22) OP-UA15

This form is for use by facilities subject to air quality permit requirements and may be revised periodically. (Title V Release 11/22)

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Emission Point ID No.	SOP Index No.	Meets 63.988(b)(2)	Water	Designated HAL	Determined HAL
S1-304	63FFFF-4	NO		NO	NO
S2-062	63FFFF-4	NO		NO	NO
S2-210	63FFFF-4	NO		NO	NO
S2-301	63FFFF-4	NO		NO	NO
S2-304	63FFFF-4	NO		NO	NO

**Emission Point/Stationary Vent/Distillation Operation Vent/Process Vent Attributes**  
**Form OP-UA15 (Page 38)**

**Federal Operating Permit Program**

**Table 13g: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**  
**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants:**  
**Miscellaneous Organic Chemical Manufacturing - Continuous Process Vents**  
**Texas Commission on Environmental Quality**

Date	Permit No.	Regulated Entity No.
	01957	RN 100218973

Emission Point ID No.	SOP Index No.	HAL Device Type	HAL Device ID	Prior Eval	Assessment Waiver	Assessment Waiver ID	Formaldehyde	Negative Pressure	Bypass Line
C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
2C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
3C501	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
V103	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
D0-630	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-530	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-540	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-541	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-620	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-660	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F0-680	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL

Emission Point ID No.	SOP Index No.	HAL Device Type	HAL Device ID	Prior Eval	Assessment Waiver	Assessment Waiver ID	Formaldehyde	Negative Pressure	Bypass Line
F0-690	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-060	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-061	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-062	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-140	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-141	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-300	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F1-301	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-060	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-061	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-062	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-140	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-141	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-300	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
F2-301	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S0-621	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S0-690A	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S0-690B	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S1-062	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL

<b>Emission Point ID No.</b>	<b>SOP Index No.</b>	<b>HAL Device Type</b>	<b>HAL Device ID</b>	<b>Prior Eval</b>	<b>Assessment Waiver</b>	<b>Assessment Waiver ID</b>	<b>Formaldehyde</b>	<b>Negative Pressure</b>	<b>Bypass Line</b>
S1-210	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S1-301	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S1-304	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S2-062	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S2-210	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S2-301	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL
S2-304	63FFFF-4	NONE		NO	NO		NO	NO	CARSEAL

**Texas Commission on Environmental Quality**  
**Polymer Manufacturing Attributes**  
**Form OP-UA28 (Page 1)**  
**Federal Operating Permit Program**  
**Table 1a: Title 40 Code of Federal Regulations Part 60**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Process ID No.	SOP Index No.	Manufactured Product	Continuous Process	Construction/Modification Date	Experimental Process Line	Modified After Applicability Date	Table 2 Threshold Emission Rates
LLDPE	60DDD-3	PROPYL	YES	89+	NO		
LLDPE	60DDD-4	PROPYL	YES	89+	NO		
HDPE I	60DDD-2	PROPYL	YES	89+	NO		
HDPE I	60DDD-3A	PROPYL	YES	89+	NO		
HDPE I	60DDD-3B	PROPYL	YES	89+	NO		
HDPE I	60DDD-3C	PROPYL	YES	89+	NO		
HDPE I	60DDD-3D	PROPYL	YES	89+	NO		
HDPE I	60DDD-4	PROPYL	YES	89+	NO		
HDPE II	60DDD-2	PROPYL	YES	89+	NO		
HDPE II	60DDD-3A	PROPYL	YES	89+	NO		
HDPE II	60DDD-3B	PROPYL	YES	89+	NO		
HDPE II	60DDD-3C	PROPYL	YES	89+	NO		

TCEQ-10048 (APDG5282v11, 10/21) OP-UA28

This form for use by facilities subject to air quality permit requirements and may be revised periodically (Title V Release 03/03)

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**Texas Commission on Environmental Quality  
Polymer Manufacturing Attributes  
Form OP-UA28 (Page 4)  
Federal Operating Permit Program  
Table 1d: Title 40 Code of Federal Regulations Part 60**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Process ID No.	SOP Index No.	Polyolefin Production	Process Emissions	Uncontrolled Annual Emissions	Weight Percent TOC
LLDPE	60DDD-3	1+	BOTH	1.6-	0.1+
LLDPE	60DDD-4	1+	BOTH	1.6+	0.1+
HDPE I	60DDD-2	1-	BOTH	1.6-	0.1+
HDPE I	60DDD-3A	1-	BOTH	1.6+	0.1-
HDPE I	60DDD-3B	1-	BOTH	1.6+	0.1-
HDPE I	60DDD-3C	1-	BOTH	1.6-	0.1+
HDPE I	60DDD-3D	1-	BOTH	1.6+	0.1-
HDPE I	60DDD-4	1-	BOTH	1.6+	0.1+
HDPE II	60DDD-2	1+	BOTH	1.6+	0.1+
HDPE II	60DDD-3A	1+	BOTH	1.6-	0.1+
HDPE II	60DDD-3B	1+	BOTH	1.6-	0.1-
HDPE II	60DDD-3C	1+	BOTH	1.6+	0.1-

TCEQ-10048 (APDG5282v11, 10/21) OP-UA28

This form for use by facilities subject to air quality permit requirements and may be revised periodically (Title V Release 03/03)

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**Texas Commission on Environmental Quality  
Polymer Manufacturing Attributes  
Form OP-UA28 (Page 5)  
Federal Operating Permit Program  
Table 1e: Title 40 Code of Federal Regulations Part 60**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry**

Date	Permit No.	Regulated Entity No.

Process ID No.	SOP Index No.	Control of Continuous Emissions	Continuous Control Device	Control Device ID No.	Annual Emissions Entering the Control Device	Table 3 Control Requirements	Emission Reduction From Control Device
LLDPE	60DDD-3	SOME	INCIN	LI-01	N/A	N/A	98+
LLDPE	60DDD-4	ALL	INCIN	LI-01	N/A	N/A	98+
HDPE I	60DDD-2	ALL	FLARE	1018/1067	N/A	N/A	98+
HDPE I	60DDD-3A	SOME	INCIN	H923A/B	N/A	N/A	98+
HDPE I	60DDD-3B	SOME	INCIN	H923A/B	N/A	N/A	98+
HDPE I	60DDD-3C	SOME	FLARE	1018/1067	N/A	N/A	98+
HDPE I	60DDD-3D	SOME	FLARE	1018/1067	N/A	N/A	98+
HDPE I	60DDD-4	ALL	INCIN	H923A/B	N/A	N/A	98+
HDPE II	60DDD-2	ALL	FLARE	1018/1067	N/A	N/A	98+
HDPE II	60DDD-3A	SOME	FLARE	1018/1067	N/A	N/A	98+
HDPE II	60DDD-3B	SOME	FLARE	1018/1067	N/A	N/A	98+
HDPE II	60DDD-3C	SOME	FLARE	1018/1067	N/A	N/A	98+

**Texas Commission on Environmental Quality  
Polymer Manufacturing Attributes  
Form OP-UA28 (Page 6)  
Federal Operating Permit Program  
Table 1f: Title 40 Code of Federal Regulations Part 60**

**Subpart DDD: Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry**

Date	Permit No.	Regulated Entity No.
	O1957	RN 100218973

Process ID No.	SOP Index No.	Emergency Vent	Existing Control Device	Intermittent Control Device	Control Device ID No.
LLDPE	60DDD-3	NO	NO	INCIN	LI-01
LLDPE	60DDD-4	NO	NO	INCIN	LI-01
HDPE I	60DDD-2	NO	NO	FLARE	1018/1067
HDPE I	60DDD-3A	NO	NO	INCIN	H923A/B
HDPE I	60DDD-3B	NO	NO	INCIN	H923A/B
HDPE I	60DDD-3C	NO	NO	FLARE	1018/1067
HDPE I	60DDD-3D	NO	NO	FLARE	1018/1067
HDPE I	60DDD-4	NO	NO	INCIN	H923A/B
HDPE II	60DDD-2	NO	NO	FLARE	1018/1067
HDPE II	60DDD-3A	NO	NO	FLARE	1018/1067
HDPE II	60DDD-3B	NO	NO	FLARE	1018/1067
HDPE II	60DDD-3C	NO	NO	FLARE	1018/1067

TCEQ-10048 (APDG5282v11, 10/21) OP-UA28

This form for use by facilities subject to air quality permit requirements and may be revised periodically (Title V Release 03/03)

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**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 9)**  
**Federal Operating Permit Program**

**Table 5b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic  
Chemical Manufacturing - MCPU Processes**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

Process ID No.	SOP Index No.	Startup 2003	Shared Batch Vent	PUG	Startup 2002	PP Alt	Cont Proc
TTC VENT	63FFFF-8	YES	NO	NO	YES	NO	

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 10)**  
**Federal Operating Permit Program**

**Table 5c: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic  
Chemical Manufacturing - MCPU Processes**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

Process ID No.	SOP Index No.	>1000 Lb/Yr	Reduction	New Source	HAP Metals	Fabric Filter	Small CD	Design Eval	Batch Proc Vents
TTC VENT	63FFFF-8	NO		NO				NO	YES

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 11)**  
**Federal Operating Permit Program**

**Table 6a: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.:</b>	<b>Regulated Entity No.:</b>
<b>Area Name:</b>		<b>Customer Reference No.:</b>

Process ID No.	SOP Index No.	Designated Grp1	Determined Grp1	Vent Emission Control
D1-050	63FFFF-1	YES		CFL
D1-050	63FFFF-2	YES		CFL-ACD
D1-200	63FFFF-1	YES		CFL
D1-200	63FFFF-2	YES		CFL-ACD
D2-050	63FFFF-1	YES		CFL
D2-050	63FFFF-2	YES		CFL-ACD
D2-200	63FFFF-1	YES		CFL
D2-200	63FFFF-2	YES		CFL-ACD
B1-300	63FFFF-1	YES		CFL
B1-300	63FFFF-2	YES		CFL-ACD
B2-300	63FFFF-1	YES		CFL
B2-300	63FFFF-2	YES		CFL-ACD

B0-610	63FFFF-1	YES		CFL
B0-610	63FFFF-2	YES		CFL-ACD
V104	63FFFF-1	YES		CFL
V104	63FFFF-2	YES		CFL-ACD
2V104	63FFFF-1	YES		CFL
2V104	63FFFF-2	YES		CFL-ACD
3V104	63FFFF-1	YES		CFL
3V104	63FFFF-2	YES		CFL-ACD



**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 12)**  
**Federal Operating Permit Program**

**Table 6b: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

<b>Process ID No.</b>	<b>SOP Index No.</b>	<b>Designated HAL</b>	<b>Determined HAL</b>	<b>Scrubber</b>	<b>Prior Eval</b>	<b>Assessment Waiver</b>	<b>Assessment Waiver ID</b>	<b>Negative Pressure</b>	<b>Bypass Line</b>
D1-050	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
D1-200	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
D2-050	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
D2-200	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
B1-300	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
B2-300	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
B0-610	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
V104	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
2V104	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL
3V104	63FFFF-1	NO	NO	NO	NO	NO		NO	CARSEAL

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 13)**  
**Federal Operating Permit Program**

**Table 6c: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

Process ID No.	SOP Index No.	Small Device	1257A1	1257A1 Device Type	1257A1 Device ID	Alt 63SS Mon Parameters	Alt 63SS Mon ID	CEMS	SS Device Type	SS Device ID
D1-050	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
D1-200	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
D2-050	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
D2-200	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
B1-300	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
B2-300	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
B0-610	63FFFF-2	YES	YES	O5RT	LI-01	NO		YES	INCIN	LI-01
V104	63FFFF-2	YES	YES	O5RT	H923A/B	NO		YES	INCIN	H923!/B
2V104	63FFFF-2	YES	YES	O5RT	H923A/B	NO		YES	INCIN	H923!/B
3V104	63FFFF-2	YES	YES	O5RT	H923A/B	NO		YES	INCIN	H923!/B

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 14)**  
**Federal Operating Permit Program**

**Table 6d: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

<b>Process ID No.</b>	<b>SOP Index No.</b>	<b>Meets 63.988(b)(2)</b>	<b>Water</b>	<b>Designated HAL</b>	<b>Determined HAL</b>
D1-050	63FFFF-2	NO		NO	NO
D1-200	63FFFF-2	NO		NO	NO
D2-050	63FFFF-2	NO		NO	NO
D2-200	63FFFF-2	NO		NO	NO
B1-300	63FFFF-2	NO		NO	NO
B2-300	63FFFF-2	NO		NO	NO
B0-610	63FFFF-2	NO		NO	NO
V104	63FFFF-2	NO		NO	NO
2V104	63FFFF-2	NO		NO	NO
3V104	63FFFF-2	NO		NO	NO

**Chemical Manufacturing/Elastomer/Thermoplastic Process Unit Attributes**  
**Form OP-UA60 (Page 15)**  
**Federal Operating Permit Program**

**Table 6e: Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63)**

**Subpart FFFF: National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic  
Chemical Manufacturing - MCPU Processes with Batch Vents**

<b>Date:</b>	<b>Permit No.: O1957</b>	<b>Regulated Entity No.: RN 100218973</b>
<b>Area Name: Polyethylene Plant</b>		<b>Customer Reference No.: CN 600130017</b>

Process ID No.	SOP Index No.	HAL Device Type	HAL Device ID	Halogen Reduction Option	Prior Eval	Assessment Waiver	Assessment Waiver ID	Formaldehyde	Negative Pressure	Bypass Line
D1-050	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
D1-200	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
D2-050	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
D2-200	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
B1-300	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
B2-300	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
B0-610	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
V104	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
2V104	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL
3V104	63FFFF-2	NONE			NO	NO		NO	NO	CARSEAL



## **Appendix E     Alternative Method of Compliance**

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Jon Niermann, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

December 14, 2016

MR RICK CRABTREE  
ASSISTANT GENERAL MANAGER  
FORMOSA PLASTICS CORPORATION TEXAS  
PO BOX 700  
POINT COMFORT TX 77978-0700

Re: Alternative Method of Compliance (AMOC) No. 66  
Alternative Monitoring For Cooling Towers  
Formosa Point Comfort Plant  
Regulated Entity Number: RN100218973  
Customer Reference Number: CN600130017  
Associated Permit Numbers: 7699, 19166, 19167, 19168, 19198, 19199, 19200,  
19201, 20203, 40157, 76044, 76305, 91780, 107518, 107520, 127838, 128752,  
HAP10, PSDTX1053, PSDTX1058, PSDTX1222, PSDTX1224, PSDTX1226,  
PSDTX1232, PSDTX1234, PSDTX1237, PSDTX1238, PSDTX1240, PSDTX1383,  
PSDTX1384, PSDTX226M7, PSDTX760M9, O1484, O1951, O1953, O1954, O1956,  
O1957, O1958, O3409, and O3421

Dear Mr. Crabtree:

This correspondence is in response to Formosa Plastics Corporation, Texas's (Formosa's) request for Alternative Monitoring for all cooling towers (CT) at the Formosa Point Comfort Plant. The AMOC is used to comply with requirements for sampling and analysis of VOCs in cooling tower feed water and makeup water.

We understand that Formosa is requesting clarification and confirmation of the alternative VOC sampling procedure for all authorized CT at the site installed on similar product processes (see Attachment 1). This alternative method was previously approved for Formosa on December 2, 1992, January 11, 1996, and August 1997.

The alternative VOC sampling (referenced in historical correspondence as FPC TX VOC IN WATER AND WASTEWATER) is equivalent to Test Method 8020A. The method is detailed in Attachment 2 and should provide representative concentrations of non-methane hydrocarbons to comply with the above-referenced permits. This alternative method does not apply to any requirements that may in 40 Code of Federal Regulations Part 60, New Source Performance Standards (NSPS), 40 Code of Federal Regulations Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP), or 40 Code of Federal Regulations Part 63, Maximum Achievable Control Technology (MACT) Standards for Hazardous Air Pollutants.



December 14, 2016  
Page 2  
Mr. Rick Crabtree

Re: AMOC #66

The Texas Commission on Environmental Quality (TCEQ) Executive Director has made a final decision to approve your AMOC request. You are reminded that approval of any AMOC shall not abrogate the Executive Director or Administrator's authority under the Act or in any way prohibit later canceling the AMOC.

This AMOC approval may supersede certain requirements or representations in Permit Nos. 7699, 19166, 19167, 19168, 19198, 19199, 19200, 19201, 20203, 40157, 76044, 76305, 91780, 107518, 107520, 127838, 128752, HAP10, PSDTX1053, PSDTX1058, PSDTX1222, PSDTX1224, PSDTX1226, PSDTX1232, PSDTX1234, PSDTX1237, PSDTX1238, PSDTX1240, PSDTX1383, PSDTX1384, PSDTX226M7, and PSDTX760M9. To ensure effective and consistent enforceability, we request that Formosa incorporate this AMOC into the permit(s) through submittal of alteration(s) no later than 90 days after this approval, if not already included.

This approval may also change applicable requirements for the site, which are identified in the site operating permits (SOP) O1484, O1951, O1953, O1954, O1956, O1957, O1958, O3409, and O3421. The TCEQ recommends the submittal of a SOP administrative revision if any changes are necessary. Changes meeting the criteria for an administrative revision can be operated before issuance of the revision if a complete application is submitted to the TCEQ and this information is maintained with the SOP records at the site.

If you need further information or have any questions, please contact Ms. Anne Inman, P.E. at (512) 239-1276 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,



Michael Wilson, P.E., Director  
Air Permits Division  
Office of Air  
Texas Commission on Environmental Quality

cc: Air Permits Section Chief, New Source Review Section (6PD-R), U.S. Environmental Protection Agency, Region 6, Dallas

Project Number: 255806

December 14, 2016  
Page 5  
Mr. Rick Crabtree

Re: AMOC #66

Attachment 1 - Summary of Cooling Towers and Authorizations				
Permit Nos.	Type of Process	Plant	EPNs	Previous Approval
19166, HAP10, PSDTX760M9, O1951	Inorganic	Utilities Plant	Not identified on MAERT	12/2/1992
19167, O1953	Inorganic	Caustic Chlorine Plant	Not identified on MAERT (shares with EDC-CT)	1/11/1996
76044, PSDTX1053, O3421	Inorganic	Pet Coke / Coal Fired Generation	CT-1 through CT-12	N/A
19168, PSDTX1226, O1958	Organic Olefins	Olefins I Olefins II GIU PPU FRACII	1010 1064 8801U  FRACII-CT	N/A
107518, PSDTX1383 SOP PENDING	Organic Olefins	Olefins III PDII	OL3-CTWR PDII-CWTR	N/A
19201, PSDTX1232 O1957	Organic Polyolefins	HDPE I	PO-CT	1/11/1996
40157, PSDTX1222 O1957	Organic Polyolefins	HDPE II	PP2-CT	N/A
20203, PSDTX1224 O1957	Organic Polyolefins	LLDPE	LL-CT	12/2/1992
107520, PSDTX1384 SOP PENDING	Organic Polyolefins	LDPE	LD-CT	N/A
19200, PSDTX1237, O1956	Organic Polyolefins	Polypropylene I Plant (PP I)	PO-CT PP1-CT	1/11/1996
91780, PSDTX1240 O1956	Organic Polyolefins	PP II	PP20CT	N/A
127838 SOP PENDING	Organic Polyolefins	HDPE 3	PE3-12	N/A
19199, PSDTX1238 O1953	Organic Other	Ethylene Dichloride (EDC)	2C-C1 2C-C2 EDC-CT	
7699, PSDTX226M7 O1954	Organic Other	EDC Cracking, VCM, PVC	999 VW-C02 VW-C11	12/2/1992
19198, PSDTX1234 O1484	Organic Other	Ethylene Glycol (EG)	EG-CT	8/1997
128752 SOP PENDING	Organic Other	EG 2	EG2-CT	N/A
76305, PSDTX1058 O3409	Organic Other	Specialty PVC	CT-01	N/A



December 14, 2016  
Page 6  
Mr. Rick Crabtree  
  
Re: AMOC #66

Mr. Wilson  
June 11, 2015

Attachment 2

VOC in Water and Wastewater by TACH-VOC Method Procedure

December 14, 2016

Page 7

Mr. Rick Crabtree

Re: AMOC #66

LABORATORY STANDARD OPERATING PROCEDURES  
VOC IN WATER AND WASTEWATER BY TACR-VOC METHOD

Page 1 of 14

1.0 PURPOSE \*

Revision Number: 1

In an effort to maintain Quality, Efficiency, Safety, and Environmental Responsibility, this procedure has been developed for L.S. & Q.A. Department Operation.

2.0 SCOPE \*

This method is for the analysis of water and wastewater samples containing volatile organic compounds (VOC) and non-halogenated hydrocarbons (NMHC). It is intended for analyzing ground water and wastewater streams permitted in PPC expansion complex. This method can be used to quantify volatile organic compounds that have boiling points less than 200°C and are insoluble or slightly soluble in water.

only all of  
the test items  
(distilled  
water)

3.0 ORGANIZATIONS AFFECTED

This procedure affects operation within the L.S. & Q.A. Department and any other department that may request this analysis.

4.0 RESPONSIBILITIES

Personnel	Responsibility
Management/Supervision	Responsible for development and implementation of the procedure, training needed, and training of subordinates.
QA/QC	Responsible for auditing the performance of the procedure.
Lab Technicians	Responsible for knowing and performing analysis per procedure.

5.0 DEFINITIONS

VOC: Volatile Organic Compounds (VOC) are organic compounds that have boiling points approximately less than 200°C.

6.0 KEY POINTS

Not Applicable

Developed by: L.S. & Q.A.

Effective Date: May 24, 2015

Document Code: FTTCH503

File Name: FTTCH503\_rev3.docx

December 14, 2016

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Mr. Rick Crabtree

Re: AMOC #66

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## LABORATORY STANDARD OPERATING PROCEDURES VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 5

### 7.0 POLICIES \*

This procedure has been developed to insure adherence to EPC Quality, Environmental Health and Safety Policies, EPC Corporate Total Quality Management Policies, L.S. & Q.A. Department Quality Management Plan and L.S. & Q.A. Department Quality Assurance Project Plan.

### 8.0 GUIDELINES

#### Summary

Volatilic organic compounds (VOC) are extracted from samples by purge and trap techniques. Stripped sample components are swept to the gas chromatograph inlet where the individual compounds are detected using a flame ionization detector. The resulting peaks are summed and quantitated against external calibration curves constructed using benzene as a standard.

#### Interferences

Major contaminant peaks are volatile materials in the laboratory and impurities in the liquid purging reagents. A trip blank prepared from organo-free reagent water and carried through the sampling and handling protocol can serve as a check for any possible contamination of sample.

#### Safety Considerations

The use of proper glassware, safety glasses, and PPE should be exercised when using reagents. Exercise caution when working with glassware. Wipe any spills, clean up immediately and dispose of properly. Avoid skin or eye contact, inhalation or ingestion. Do not operate instrument without all protective equipment in place.

#### Sample Collection and Storage

Water samples are collected in 40mL vial with a Teflon-lined septum and an open top screw cap. Two vials per sampling event must be collected at a minimum per sample point. The containers must be filled in such manner that the sample passes through the sample as the container is being filled. Should bubbles occur, the sample must be poured out and the vial refilled. Seal the vial so that no air bubbles are entrapped in it.

Due to differing solubility and diffusion properties of gases in liquid matrices at different temperatures, it is possible for the sample to generate some headspace during storage. This headspace will appear in the form of micro-bubbles, and should not invalidate a sample for volatile analysis.

The presence of a macro-bubble, generally indicates either improper sampling technique or a source of gas evolution within the sample. Studies conducted by the USHQA (HMSI-CI, unpublished data) indicate that "pea-sized" bubbles (i.e. diameter < 1/4 in.) did not adversely affect volatile data. These bubbles were generally encountered in wastewater samples, which are more susceptible to variations in gas solubility than are ground water samples.

Department L.S. & Q.A.

Effective Date: May 23, 2015

Document Code: PFTC4505

File Name: PFTC4505\_rev5.docx



December 14, 2016  
Page 9  
Mr. Rick Crabtree

Re: AMOC #66

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## LABORATORY STANDARD OPERATING PROCEDURES VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number 3

### 7.0 POLICIES \*

This procedure has been developed to insure adherence to PPG Quality, Environmental Health and Safety Policies, PPG Corporate Total Quality Management Policies, L.S. & Q.A. Department Quality Management Plan and L.S. & Q.A. Department Quality Assurance Project Plan.

### 8.0 GUIDELINES

#### Summary

Volatile organic compounds (VOC) are extracted from sample by purge and trap techniques. Stripped sample components are swept to the gas chromatograph inlet where the individual compounds are detected using a flame ionization detector. The resulting peaks are summed and quantitated against external calibration curve constructed using benzene as a standard.

#### Interferences

Major contaminant peaks are volatile materials in the laboratory and impurities in the inert purging gas carrier gas. A trip blank prepared from organic-free reagent water and carried through the sampling and handling protocol can serve as a check for any possible contamination of sample.

#### Safety Considerations

The use of proper gloves, safety glasses, and PRC should be exercised when using reagents. Be careful when working with glassware. Wipe any spills, clean area immediately and dispose of properly. Avoid skin or eye contact, inhalation or ingestion. Do not operate instrument without all protective equipment in place.

#### Sample Collection and Storage

Water sample are collected in 40mL vial with a Teflon-lined septum and an open top screw cap. Two vials per sampling event must be collected at a minimum per sample point. The containers must be filled in such manner that no air bubbles pass through the sample as the container is being filled. Should bubbling occur, the sample must be poured out and the vial refilled. Seal the vial so that no air bubbles are entrapped in it.

Due to differing solubility and diffusion properties of gases in liquid matrices at different temperatures, it is possible for the sample to generate some headspace during storage. This headspace will appear in the form of small bubbles, and should not invalidate a sample for volatile analysis. The presence of a macro-bubble, generally indicates either improper sampling technique or a source of gas evolution within the sample. Studies conducted by the USEPA (EHS-1, unpublished data) indicate that "pocket-sized" bubbles (i.e. diameter < 1/4 in.) did not adversely affect volatile data. These bubbles were generally encountered in wastewater samples, which are more susceptible to variations in gas solubility than are ground water samples.

Developed by L.S. & Q.A.

Effective Date: May 25, 2015

Document Code: PTTCC4305

File Name: PTTCC4305\_rev3.docx

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**LABORATORY STANDARD OPERATING PROCEDURES**  
**VOC IN WATER AND WASTEWATER BY TACH-VOC METHOD**

Revision Number 0

**QC Requirements**

QC	DESCRIPTION	FREQUENCY	CRITERIA	CORRECTIVE ACTION
MB	Method blank; Organic-free reagent water	1/10 sample	< 20 ppb Which is the amount of the lowest std.	Investigate system contamination; correct the problem and reanalyze the samples.
ICV	Initial Calibration verification, Benzene: 100 ppb.	1/10 sample	20% deviation from actual value. (80 ppb-120 ppb)	Check the reagent, malfunction. Correct the instrument problem and reanalyze. Perform initial calibration after the third failure.

**Calculations**

Deviation (%)

$$D = \frac{|X - T|}{T} \times 100$$

Where, D = percent deviation  
X = the observed value for the measurement  
T = actual value for the measurement

**Precision and Accuracy**

None

**Reporting**

1. Analytical reporting limit is 20 ppb (ug/L).
2. All verified results must be entered in LIMS and/or the appropriate non-routine log sheet upon completion.
3. For the purpose of reporting to applicable agencies, preliminary results from LIMS may be used to prevent greater than 48hr delay in reporting time.

Department, L&S, & Q.A.

Effective Date: May 28, 2015

Document Code: PTTC4505

File Name: PTTC4505\_rev5.docx

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VOC IN WATER AND WASTEWATER BY TALK-VOC METHOD

9.0 PROCEDURES

9.1 Standard Preparation

9.1.2 Calibration Standards

Fill 40 mL VOA vials with reagent water, taking care not to trap any air in the vial. Add the Calibration Standard (AS-10000) to the vial using a clean micro-syringe. Add the following to prepare the calibration standards:

	Stock solution
Blank	0.0 mL
20 ppb	0.8 mL
50 ppb	2.0 mL
100 ppb	4.0 mL
250 ppb	10.0 mL
500 ppb	20.0 mL
1000 ppb	40.0 mL

9.1.3 Initial Calibration Verification Standard: Upon receipt of the certified benzene standard (e.g. MSQ2-Q1-10X), transfer to a 1 mL reaction vial and cap with Teflon valve. This standard may be good up to 6 months, but should be replaced if GCY falls off 100 ppb VOA vial with reagent water, taking care not to trap any air in the vial. Add 2.0 mL to the vial using a clean micro-syringe for a 100 ppb std.

9.1.4 All standard preparation activities must be logged in the standards logbook.

9.2 Instrument Setup

9.2.1 GC/MS is configured as follows:

Inlet	Gas Helium
Mode: split	20:1
Heater:	250°C
Pressure:	102 psi
Flow Rate:	1.0 mL/min
Split Ratio:	20:1
Split Flow:	0.5 mL/min
Column:	Capillary
Mode:	Split
Pressure:	60 psi
Flow:	10.0 mL/min
Sample Velocity:	30 cm/sec

Document ID: L-142 & Q-1

Effective Date: May 25, 2015

Document Code: RPT-4505

File Name: RPT-4505\_revA.docx



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LABORATORY STANDARD OPERATING PROCEDURES  
VOC IN WATER AND WASTEWATER BY TAQD-VOC METHOD

Revision Number

Oven  
Setpoint: 30 °C

Oven Maximum: 300 °C  
Equilib/hold: 0.5 min

Oven Ramp	°C/min	Start °C	Hold min	End min
Initial		50	2.00	2.00
Ramp 1	20.00	250	9.00	16.00
Post Run		50	0	16.00

Detector:

Carrier: 280 °C  
H<sub>2</sub> flow: 40.0 mL/min  
Air flow: 450 mL/min  
Makeup flow (H<sub>2</sub>O): 25.0 mL/min  
Flame: On

9.2.2 Purge-and-Trap (OI 4560):

Purge flow: 35 mL/min  
Purge: 1 min at 25 °C  
Desorb: 2 min at 180 °C  
Bake: 10 min at 185 °C  
Transfer line: 100 °C  
Valve: 100 °C  
Sample size: 5 mL  
Dry purge: 1 min

9.3 Re-Calibration

9.3.1 Recalibration is recommended once a year or when new ICV falls 20% recovery. Prior to recalibration, GC and sample tray are baked out. Raise the GC oven temp to 250 °C and bake for at least 30 min. It is also necessary to cycle the purge-and-trap through one bake cycle to ensure that there are no contaminants present in the trap. After 30 min lower GC temp to 50 °C.

9.3.2 Prepare the calibration standards as outlined in 9.1.2 just prior to analysis. Load the standard vials in the correct slots of the autosampler and prepare following re-calibration sequence in the method and Run control window of the Chromatation Software. Start the sequence by following steps from 9.A.4 to 9.A.9.

Dep. Analyst: L.S. & Q.A.

Effective Date: May 25, 2015

Document Code: FTTC1505

File Name: FTTC1505\_rev3.docx

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LABORATORY STANDARD OPERATING PROCEDURES  
VOC IN WATER AND WASTEWATER BY TACH-VOC METHOD

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Re-calibration sequence:

Line	Vial	Sample Name	Method Name	In/Vial	Sample Type	Cal Level	Update RT	Update RT
1	1	Blank (Blank)	TACH-VOC	1	Sample	1	Replace	No Update
2	1	20 ppb	TACH-VOC	1	Calibration	2	Replace	No Update
3	1	50 ppb	TACH-VOC	1	Calibration	3	Replace	No Update
4	1	100 ppb	TACH-VOC	1	Calibration	4	Replace	Replace
5	1	250 ppb	TACH-VOC	1	Calibration	5	Replace	No Update
6	1	500 ppb	TACH-VOC	1	Calibration	6	Replace	No Update
7	1	1000 ppb	TACH-VOC	1	Calibration	7	Replace	No Update

- 9.3.3 In the data analysis window of the Chemstation software, load the chromatogram for the blank (solvent vial). Check to see that there are no contaminant peaks. For some low level analysis, a small peak will show at the beginning of the run. This is due to a change in volume when the sampler injects. If a calibration exists, the run time should be less than two times the lower analytical limit for the analysis.
- 9.3.4 Open the calibration file and check to see if there are only two significant peaks. The first peak will be the solvent or methanol peak, and the second will be sharp with minimum tailing. If there are more than two peaks, the calibration must be re-run. Water is recontaminated. Correct this condition and begin the calibration again.
- 9.3.5 Once the calibration file is loaded, the results must be rechecked in a linear calibration curve. Display the calibration curve and check that the fit is at least  $R^2 \geq 0.99$ . Calculate a new area reject from the calibration curve. The number value is approximately 0. The number value is the slope of the calibration curve. The amount is 20. Enter this new value into the integration event's table in the value list of the report.
- 9.3.6 Calibration should be re-run if uncalibrated peaks with compound retention. The parameters should sum the individual peak areas of chromatogram.

2.4 Sample Preparation

- 9.4.1 **2.4.1.1 Sample Preparation:** A volumetric composition is performed by combining the chilled (4°C) samples collected during a weeklong sampling event in a chilled jar that is surrounded by ice. This must be performed quickly to prevent loss of volatile components. The sample is mixed and transferred to 40mL vials.

Department: J.B. & C.A.

Effective Date: May 24, 2016

Document Code: JTTC4503

File Name: JTTC4503\_rev3.docx



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# LABORATORY STANDARD OPERATING PROCEDURES VOC IN WATER AND WASTEWATER BY TACB-VOC METHOD

Revision Number

Note: The volumetric composite may not reflect the true emissions over a week long period due to fluctuations in flow rate of the stream to be tested.

- 9.4.2 For grab samples, directly use the vial that the sample was received in.
- 9.4.3 Load the samples in the autosampler racks onto their positions.
- 9.4.4 Bring up the window P & T 6890C (online); Method & Run control by Click Start/Program/IF Chromatoflow/Instrument online if it is not opened on the computer monitor.
- 9.4.5 Click Sequence/Load Sequence to load an existing sequence.
- 9.4.6 Click Sequence/Sequence Parameter to change the Subdirectory to today's date.
- 9.4.7 Click Sequence/Sequence Table to edit the sequence at the data station. Enter the sample information in a sequence file located in the data station. Be sure that the vial positions correspond with vial locations and the correct method is chosen for the analysis.

Following sequence table is an example:

Line	Vial	Sample Name	Method Name	In/Vial	Sample Type
1	1	MB (Blank)	TACB-VOC	1	Sample
2	1	ICV	TACB-VOC	1	Sample
3	1	OLI CWR 2/5	TACB-VOC	1	Sample
4	1	OLI CWR 2/5	TACB-VOC	1	Sample
5	1	OLI CWR 2/08	TACB-VOC	1	Sample
6	1	OLI CWR 2/08	TACB-VOC	1	Sample
7	1	OLI CWR 2/5	TACB-VOC	1	Sample
8	1	OLI CWR 2/5	TACB-VOC	1	Sample
9	1	T971 2/1-2/7	TACB-VOC	1	Sample
10	1	3T971 2/1-2/7	TACB-VOC	1	Sample
11	1	CWTP 2/1/2/7	TACB-VOC	1	Sample
12	1	LLDPH CWR 2/3	TACB-VOC	1	Sample
13	1	MB	TACB-VOC	1	Sample
14	1	ICV	TACB-VOC	1	Sample
15	1	Sample	TACB-VOC	1	Sample
16	1	Sample	TACB-VOC	1	Sample

Note: Method blank and calibration verification used be run every 10 samples.

- 9.4.8 Press Run Sequence button. Now system is ready and waiting for Purge-and-Trap device to start.
- 9.4.9 Purge-and-Trap device preparation:  
(1) Push SPL button on the front panel, the window will show: 1.551 start; end;  
(2) Set the start and end positions that need match with actual sample position and run sequence, use  
Row ON button and OFF button to switch between start and end, then use keypad to key in position number.

Department: I.S. & Q.A.

Effective Date: May 25, 2015

Document Code: PFTC4505

File Name: PFTC4505\_juv5.docx

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**LABORATORY STANDARD OPERATING PROCEDURES**  
**VOC IN WATER AND WASTEWATER BY TAC-VOC METHOD**

(3) Press Enter key, then press Clear button, then press Start button to run the sequence.

- 9.4.10 Once data have been generated, check that the chromatograms have been integrated correctly. Samples that are 10 % out of the analytical range for the determination must be diluted and re-analyzed using the appropriate methodology (See table 1).

**10.0 TRAINING REQUIREMENTS**

Personnel who perform this analysis will be required to complete the following training requirements:

Initial	Period	Requirement
Initial	SOV Training, Test, and Test Qualification	
Annual Refresh and Proficiency	SOV Training and Test	
Task Finding	SOV Training, Test and Test Qualification	

**11.0 FLOWCHART**

Not applicable

**12.0 REFERENCES**

1. "Guidelines for Preparation of Policies, Guidelines and Procedures," PRTCM Manual.
2. "Test Method for Biphenyls in Solid Waste (SW-846), "Determining Gas Chromatographic Separations," Revision 3, March 2003, Method 8000.
3. "Test Method for Biphenyls in Solid Waste (SW-846), "Preparation and Test for Aqueous Samples," Revision 3, March 2003, Method 8010C.
4. "Test Method for Biphenyls in Solid Waste (SW-846), "Organic Analysis," Revision 4, February 2007, Chapter 10, Section 1, for sample 4 (drugs).

**13.0 RECORD RETENTION PERIOD**

Records produced using this procedure will be retained for a period of not less than 5 years.

**14.0 ATTACHMENTS**

Initial  
Initial of chromatograms of Calibration Standards and test results  
Attachment 1: PRTCM Approved List

Developed by: L.S. & Q.A.      Effective Date: May 25, 2013      Document Number: PRTCM303  
File Name: PRTCM303\_1575.docx

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LABORATORY STANDARD OPERATING PROCEDURES  
VOC IN WATER AND WASTEWATER BY TAGH-VOC METHOD

Revision Number

TABLE 1. Examples of sample dilution

Add the required amount of high concentration sample to a 50 mL volumetric flask and then bring level to exact 50 mL with organic-free reagent water.

Dilution factor	High concentration sample	Total volume
30000	1.67 $\mu$ L	50 mL
20000	2.5 $\mu$ L	50 mL
10000	5 $\mu$ L	50 mL
5000	10 $\mu$ L	50 mL
4000	12.5 $\mu$ L	50 mL
3000	16.7 $\mu$ L	50 mL
2000	25 $\mu$ L	50 mL
1000	50 $\mu$ L	50 mL
500	100 $\mu$ L	50 mL
400	125 $\mu$ L	50 mL
300	167 $\mu$ L	50 mL
200	250 $\mu$ L	50 mL
100	500 $\mu$ L	50 mL
80	625 $\mu$ L	50 mL
70	714 $\mu$ L	50 mL
60	833 $\mu$ L	50 mL
50	1 mL	50 mL
40	1.25 mL	50 mL
30	1.67 mL	50 mL
20	2.5 mL	50 mL
10	5 mL	50 mL
5	10 mL	50 mL
2	25 mL	50 mL

Figure 1: Sample Chromatogram  
Calibration Standard Run

Document L.S. & Q.A.

Effective Date: May 25, 2015

Document Color: P1TC4503

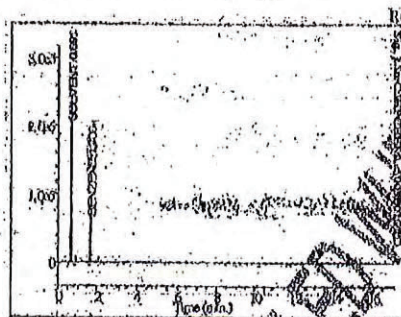
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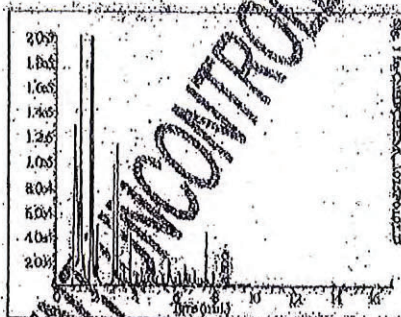
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VOLICIN WATER AND WASTEWATER BY TACB-VOG METHOD



Sample Run



Attachment 1r TNRC Approval Letter

The next page is a copy of the approval letter from the TNRC.

Revised: L.S. & Q.A.

Effective Date: May 24, 2016

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