## Texas Commission on Environmental Quality

Protecting Texas br Reducing and Preventing Pollution

MR MATT MARRA
VP REGULATORY COMPLIANCE \& PROJECT MANAGEMENT
LONE STAR PORTS LLC
14 BIRCHWOOD PARK PL
THE WOODLANDS TX 77382-2026

Re: Permit Number: 157150
Regulated Entity Number: RN110785011
Customer Reference Number: CN605663830
Dear Mr. Marra:
Thank you for submitting the Expedited Permitting Request form and surcharge to participate in the Texas Commission on Environmental Quality (TCEQ) Expedited Permitting Program. Your project has been accepted into the Expedited Program pursuant to Title 30 Texas Administrative Code, Chapter 101, Subchapter J.

If you have questions related to your expedited permit, you may call Ms. Kim Strong, P.E. at (512) 2390252

Sincerely,


Michael Wilson, P.E., Director
Air Permits Division
Office of Air
Enclosure
cc: Air Section Manager, Region 14 - Corpus Christi
Project Number: 302197

## Shelia Glaspie-Felix

| From: | Kim Strong |
| :--- | :--- |
| Sent: | Monday, June $3,20191: 46$ PM |
| To: | MATT.MARRA@LONESTARPORTS.COM |
| Cc: | NNYGAARD@DISORBOCONSULT.COM; RFCAIR14 |
| Subject: | Expedited Permitting Request |
| Attachments: | Expedited Permitting Request Project 302197.pdf |

Mr. Marra,

Thank you for your interest in the Texas Commission on Environmental Quality (TCEQ) Expedited Permitting Program. In response to your expedited permitting request, please review the attached letter.



| PERMIT INFORMATION |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REGULATED ENTITY NUMBER: RN110785011 |  |  |  |  |  |  |  |
| Permit | Account | Permittee Name | County | Region | City | State | Location |
| 157150 |  | HARBOR ISLAND Marine TERMINAL | NUECES | $\begin{aligned} & \text { REGION } 14 \text { - } \\ & \text { CORPUS } \\ & \text { CHRISTi } \end{aligned}$ | $\begin{aligned} & \text { PORT } \\ & \text { ARANSAS } \end{aligned}$ | TEXAS | ADJACENT TO HNY $361 \&$ NE OF FERRY LANDING |

- PERMIT AFFILIATION:
Permit1 Related Permit $2 \quad$ Relationship Type Start Date


## PROJECT NOTES:

| $06 / 07 / 2019$ | EXPEDITE PROJECT (APPLICATION POSTMARKED PRIOR TO 6/1/19)- SOS/DFC DONE $6 / 3 / 19-$ NOT ON APWL - SENT TO |
| :--- | :--- |
|  | ENERGY FOR REVIEWG/3/19 - RETURNED TO APIRT $6 / 3 / 19-$ PN1 DOCUMENT 618251 |
| $06 / 07 / 2019$ | RECEIVED ELECTRONIC EMEWAND FIGURES $1-3$ ON $6 / 2 / 19-$ FORWARDED UPON TRANSFER TO TECHNICALAREA |
|  | ON $6 / 7 / 19$-ALTERNATIVE IS NOT REQURRED BUT CONSULTANT REQUESTED THE SPANISH SIGNS PER APPLICANT |

- PERMIT NOTES:

| - FEE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Permit | Action Type | Reference | Fee Receipt Number | Fee Amount Paid | Fee Refu Amount |  |
| 157750 | INITIAL | 421207 | 582EA000347819 | 75000.00 |  | 05/3 |
| PUBLIC NOTICE: |  |  |  |  |  |  |
| Public Hearing Req Number Public Meeting Req Number |  |  |  | Comment 0 | nt Alter | ive Languag LANGUAGE |
| -TRACKING ELEMENTS: |  |  |  |  |  |  |
| TE Name |  |  |  |  | Start Date | Complete Dat |
| APIRT RECEIVED PROJECT (DATE) |  |  |  |  | 05/31/2019 |  |
| ENHANCED ADMINISTRATIVE OR APPLICATIONS REVIEW (EAR) |  |  |  |  | 06/03/2019 | 06/03/2019 |
| EXPEDITED PERMITTING |  |  |  |  | 06/03/2019 |  |
| PUBLIC NOTICE DRAFT SENT TO COMPANY (DATE) |  |  |  |  | 06/05/2019 |  |
| APIRT TRANSFERRED PROJECT TO TECHNICAL STIAFF (DATE) |  |  |  |  | 06/07/2019 |  |
| COMPANY APPRROVED DRAFT PUBLIC NOTICE (DATE) |  |  |  |  | 06/07/2019 |  |
| LEGISLATORS NOTIFIED OF APPLICATION RECEIVED (DATE) |  |  |  |  | 06/07/2019 |  |
| PROJECT DECLARED ADMIN COMPLETE (DATE) |  |  |  |  | 06/07/2019 |  |
| SITE REVIEW RFC SENT TO REGION (DATE) |  |  |  |  | 06/07/2019 |  |
| 1 ST NOTICE DCC COMPLETE (DATE) |  |  |  |  |  |  |
| 2NO NOTICE OCC COMPLETE (DATE) |  |  |  |  |  |  |
| 2ND PUBLIC NOTICE FINALIZED AND SENT (DATE) |  |  |  |  |  |  |
| COMPLIANCE HISTORY REVIEW COMPLETED (DATE) |  |  |  |  |  |  |
| DEFICIENCY CYCLE |  |  |  |  |  |  |
| EMISSIONS MODELING CYCLE DONE BY APPLICANT |  |  |  |  |  |  |
| EMISSIONS MODELING CYCLE DONE BY TCEQ |  |  |  |  |  |  |
| FINAL PACKAGE REWORK CYCLE |  |  |  |  |  |  |
| FINAL PACKAGE TO SECTION MANAGER FOR REVIEW (DATE) |  |  |  |  |  |  |
| FINAL PACKAGE TO TEAM LEADER OR SUPERVISOR FOR REVIEW (DATE) |  |  |  |  |  |  |
| INITIAL MODELING SUMMARY REVIEW CYCLE |  |  |  |  |  |  |
| LEGISLATORS NOTIFIED OF DRAFT PERMIT |  |  |  |  |  |  |
| MODELING AUDIT CYCLE |  |  |  |  |  |  |
| MODELING REQUEST FOR INFORMATION CYCLE |  |  |  |  |  |  |
| POSTED TO EXECUTIVE DIRECTOR'S AGENDA (DATE) |  |  |  |  |  |  |
| PROJECT RECEIVED BY ENGINEER (DATE) |  |  |  |  |  |  |
| PROJECT RECEIVED BY TECHNICAL STAFF FROM APIRT (DATE) |  |  |  |  |  |  |
| PUBLIC NOTICE COMMENT PERIOD (NSR 1ST NOTICE) |  |  |  |  |  |  |
| PUBLIC NOTICE COMMENT PERIOD (NSR 1 ST NOTICE) - RENEWAL |  |  |  |  |  |  |
| PUBLIC NDTICE COMMENT PERIOD (TITLE V OR NSR \#2) |  |  |  |  |  |  |
| SECOND DEFICIENCY CYCLE |  |  |  |  |  |  |
| TOXICOLOGY RFC CYCLE |  |  |  |  |  |  |
| WORKING DRAFT PERMIT REVIEW CYCLE |  |  |  |  |  |  |
| WPO FIN | L PACKAC | CLE |  |  |  |  |

## - PRO.JECT ATTRIBUTES:

| Attributes | Value |
| :--- | :--- |
| SB1756 | FULL |

Shelia Glaspie-Felix

| From: | Shelia Glaspie-Felix |
| :--- | :--- |
| Sent: | Friday, June $7,20193: 19$ PM |
| To: | Colleen Krenek |
| Cc: | Ruth Alvirez; Johnny Bowers; Stephanie Ross |
| Subject: | Lone Star Ports, LLC - Permit \#157150 - EMEW/Additional Documents |
| Attachments: | PROJ302197 PRMT157150 EMEW.xIsx; PROJ302197 PRMT157150 Fig1.pdf; PROJ302197 |
|  | PRMT157150 Fig2.pdf; PROJ302197 PRMT157150 Fig3.pdf. |

Please see the EMEW and additional documents that were received on 6/2/19.

Shelia Glaspie-Felix
Air Permit Initial Review Team
Air Permits Division
Texas Commission on Environmental Quality
Phone(512)239-1210
Fax (512) 239-4500
shelia glaspie-felix@tceg.texas.gov

## Shelia Glaspie-Felix

| From: | Jennifer Mason [jmason@disorboconsult.com](mailto:jmason@disorboconsult.com) |
| :--- | :--- |
| Sent: | Friday, June 7, 2019 3:11 PM |
| To: | Shelia Glaspie-Felix |
| Subject: | RE: INiTIAL, Lone Star Ports, LLC, Project: 302197, Permit(s): 157150 |

Oh good! Thanks so much. That's the first time i've had that happen and I just assumed it would be okay, but i should have touched base with you just to make sure.
-----Original Message-----
From: Shelia Glaspie-Felix [mailto:shelia.glaspie-felix@tceq.texas.gov]
Sent: Friday, June 07, 2019 4:09 PM
To: Jennifer Mason [jmason@disorboconsult.com](mailto:jmason@disorboconsult.com)
Subject: RE: INITIAL, Lone Star Ports, LLC, Project: 3021.97, Permit(s); 1.571 .50
That's fine, I will make the notation that alternate language is not required, but the applicant requested it.
Please see the attached document.
Thanks.
Shelia Glaspie-Felix
-----Original Message-----
From: Jennifer Mason [jmason@disorboconsult.com](mailto:jmason@disorboconsult.com)
Sent: Friday, June 7, 2019 3:02 PM
To: Shelia Glaspie-Felix [shelia.glaspie-felix@tceq.texas.gov](mailto:shelia.glaspie-felix@tceq.texas.gov)
Subject: RE: INiTIAL, Lone Star Ports, LLC, Project: 302197, Permit(ș): 1571.50
The client wanted to do a Spanish notice anyway, even though it isn't required. I've never had that before, but I thought it would be okay?
-----Original Message-----
From: Shelia Glaspie-Felix [mailto:shelia.glaspie-felix@tceq.texas.gov]
Sent: Friday, June 07, 2019 4:01 PM
To: Jennifer Mason [jmason@disorboconsult.com](mailto:jmason@disorboconsult.com)
Subject: RE: $\operatorname{NNITIAL}$, Lone Star Ports, LLC, Project: 302197, Permit(s): 1.571 .50
Your application indicated that you would not require Alternative Language, it that incorrect.
-----Original Message-----
From: Jennifer Mason [jmason@disorboconsult.com](mailto:jmason@disorboconsult.com)
Sent: Friday, June 7, 2019 2:58 PM
To: Shelia Glaspie-Felix [shelia.glaspie-felix@tceq.texas.gov](mailto:shelia.glaspie-felix@tceq.texas.gov)
Subject: RE: INITIAL, Lone Star Ports, LLC, Project: 3021.97, Permit(s): 1571.50
Shelia - do you have the Spanish sign also?
Thank you!
-----Origi nai Message-----

From: Shelia Glaspie-Felix [mailto:shelia.glaspie-felix@tceq.texas.gov]
Sent: Friday, June 07, 2019 3:56 PM
To: OCC-NSR [occ-nsr@tceq.texas.gov](mailto:occ-nsr@tceq.texas.gov); R6AirPermitsTX@epa.gov; Neal Nygaard [nnygaard@disorboconsult.com](mailto:nnygaard@disorboconsult.com) Cc: RFCAIR14 [rfcair14@tceq.texas.gov](mailto:rfcair14@tceq.texas.gov); Matt Marra [Matt.Marra@lonestarports.com](mailto:Matt.Marra@lonestarports.com); Joe Kupper [jkupper@disorboconsult.com](mailto:jkupper@disorboconsult.com); Jennifer Mason [jmason@disorboconsult.com](mailto:jmason@disorboconsult.com)
Subject: INITIAL, Lone Star Ports, LLC, Project: 302197, Permit(s): 157150

Please see Public Notice attached.

## Shelia Glaspie-Felix

| From: | Shelia Glaspie-Felix |
| :--- | :--- |
| Sent: | Friday, June 7,2019 2:56 PM |
| To: | OCC-NSR; R6AirPermitsTX@epa.gov'; Neal Nygaard |
| Cc: | RFCAIR14; Matt Marra; 'jkupper@disorboconsult.com'; 'Jennifer Mason' |
| Subject: | INITIAL, Lone Star Ports, LLC, Project; 302197, Permit(s): 157150 |
| Attachments: | PN1 PROJ302197 PRMT157150.docx |

Please see Public Notice attached.

## Shelia Glaspie-Felix

| From: | Shelia Glaspie-Felix |
| :--- | :--- |
| Sent: | Friday, Jume $7,20192: 52$ PM |
| To: | RFCAR14 |
| Subject: | Site Review/Request for Comments for Project Number 302197 |
| Attachments: | RFC-302197.docx |

PLEASE DO NOT RESPOND TO THE PERSON SENDING THIS EMAIL.

This is a request for comments. Please submit comments to the individual and within the specified time frame as identified in the attached file.

## Shelia Glaspie-Felix

From:
Jennifer Mason < jmason@disorboconsuit.com>
Sent:
Friday, June 7, 2019 11:52 AM
To:
Matt Marra; Shelia Glaspie-Felix; Shanon DiSorbo
Cc:
Neal Nygaard
Subject:
RE: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150

Sheila - all changes are good with us.

Jennifer Mason
ODiSorimeonsutme ue
13345 Stagg Trail Road \& Ashland, Virginia 23005
Mobile: 804.366.8274
Email: imason@disorboconsult.com | Fax: 713.955.1201
www, disorboconsult.com

From: Matt Marra [mailto:Matt.Marra@lonestarports.com]
Sent: Friday, June 07, 2019 12:20 PM
To: Shelia Glaspie-Felix [shelia.glaspie-felix@tceq.texas.gov](mailto:shelia.glaspie-felix@tceq.texas.gov); Jennifer Mason [jmason@disorboconsult.com](mailto:jmason@disorboconsult.com); Shanon
DiSorbo [sdisorbo@disorboconsult.com](mailto:sdisorbo@disorboconsult.com)
Cc: Neal Nygaard [nnygaard@disorboconsuit.com](mailto:nnygaard@disorboconsuit.com)
Subject: Re: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150

Hi Sheila. That's fine. Thank you. Matt.

Get Outlook for iOS

From: Shelia Glaspie-Felix [shelia.glaspie-felix@tceg.texas.gov](mailto:shelia.glaspie-felix@tceg.texas.gov)
Sent: Friday, June 7, 2019 11:15:49 AM
To: Jennifer Mason; Shanon DiSorbo; Matt Marra
Cc: Neal Nygaard
Subject: RE: Public Notice Draft - Lone Star Ports, $\amalg \mathbf{L C}$ - Permit \#157150

The address listed has to reflect the information that you provided for the company's official contact (Matt Marra). It was my error to not put the company name for Mr. Nygaard. The last paragraph of Example A will be changed to reflect the following:

Further information may also be obtained from Lone Star Ports, LLC, 14 Birchwood Park Place, The Woodlands, Texas 77382-2026 or by calling Mr. Neal Nygaard, DiSorbo Consulting, LC at (713) 955-1221.

The contaminants will reflect the following:

The facility will emit the following contaminants: carbon monoxide, hazardous air pollutants, hydrogen sulfide, nitrogen oxides, organic compounds, particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less, and sulfur dioxide.

Please indicate if you are in agreement or need to discuss the listed changes.

## Shelia Glaspie-Felix

From: Jennifer Mason [imason@disorboconsult.com](mailto:imason@disorboconsult.com)
Sent: Thursday, June 6, 2019 3:38 PM
To: Shanon DiSorbo [sdisorbo@disorboconsult.com](mailto:sdisorbo@disorboconsult.com); Matt Marra [Matt.Marra@lonestarports.com](mailto:Matt.Marra@lonestarports.com); Shelia GlaspieFelix [shelia.glaspie-felix@tceq.texas.gov](mailto:shelia.glaspie-felix@tceq.texas.gov)
Cc: Neal Nygaard [nnygaard@disorboconsult.com](mailto:nnygaard@disorboconsult.com)
Subject: RE: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150
Hi Sheila,

## We have an update to the Public Notice for the last paragraph:

Further information may also be obtained from Lone Star Ports, LLC, 1414 Valero Way, Corpus Christi, Texas 78410, or by calling Mr. Neal Nygaard, Chief Operating Officer, DiSorbo Consulting, at (713) 955-1221.

Also, the following should be updated to the contaminants list:
The facility will emit the following contaminants: carbon monoxide, hazardous air pollutants, hydrogen sulfide, nitrogen oxides, organic compounds, particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less and sulfur dioxide.

The rest of the public notice draft looks good to me.

## Jennifer Mason

## ODiSorbo consuting Le

13345 Stagg Trail Road | Ashland, Virginia 23005
Mobile: 804.366.8274
Email: jmason@disorboconsult.com | Fax: 713.955.1201
www.disorboconsult.com

On Jun 5, 2019, at 9:56 AM, Matt Marra [Matt.Marra@lonestarports.com](mailto:Matt.Marra@lonestarports.com) wrote:
FYI. Please review. I'll review in parallel. Thanks. Matt
Get Outlook for iOS
From: Shelia Glaspie-Felix [shelia.glaspie-felix@tceg.texas.gov](mailto:shelia.glaspie-felix@tceg.texas.gov)
Sent: Wednesday, June 5, 2019 9:54 AM
To: NNYGAARD@DISORBOCONSULT.COM
Cc: Matt Marra
Subject: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150

We have attached a draft portion of the Notice of Receipt of Application and Intent to Obtain a Permit, which contains information relevant to your application. The public notice is a legally approved document and only the items listed below are subject to approval/correction. If draft approval is not received within 2 working days, the notice package will be filed with the Chief Clerks' office "As Is".

Please review the following information carefully and provide us with any corrections as soon as possible:

* facility address or driving directions to the facility
* hyperlink for the map to facility- please confirm the map shows the general vicinity of the facility
* contaminants list
* public viewing place (must be in the same county as the facility and may be required to have internet access)
* for renewal applications, check all previous permitting actions to make sure they are listed in example A
* contact person and contact information
* big or small business status (if your answers on your application indicate that you qualify as a small business, you will not receive Example B with your draft or final package)

If you determine that you must meet the alternative language notice requirements, you are responsible for ensuring that the publication in the alternative language is complete and accurate in that language. Spanish notice templates are available through the Air Permits Division Web site at www.tceg.texas.gov/permitting/air/nav/air publicnotice.html. All italic notes should be replaced with the corresponding Spanish translations for the specific application and published in the alternative language publication.

Please do not publish until your application has been declared administratively complete or you may be required to re-publish. Once declared administratively complete you will receive an email containing an administratively complete letter and public notice package. Then we will file the orginal notice package with the Chief Clerk for mailing.

Please reply to send approval via e-mail.

Your prompt response is appreciated.
Shelia Glaspie-Felix
Air Permit Initial Review Team
Air Permits Division
Texas Commission on Environmental Quality
Phone(512)239-1210
Fax (512) 239-4500
she lia.glaspie-felix@tceq.texas.gov
<PNI PROJ302197 PRMT1 57150 draft.docx>

## Shelia Glaspie-Felix

From:
Matt Marra [Matt.Marra@lonestarports.com](mailto:Matt.Marra@lonestarports.com)
Sent:
To:
Wednesday, June 5, 2019 9:58 AM
Shelia Glaspie-Felix
Sub ject:
Re: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150

Thank you, Shelia. -Matt

## Get Outiook for iOS

From: Shelia Glaspie-Felix [shelia.glaspie-felix@tceq.texas.gov](mailto:shelia.glaspie-felix@tceq.texas.gov)
Sent: Wednesday, June 5, 2019 9:54:45 AM
To: NNYGAARD@DISORBOCONSULT.COM
Cc: Matt Marra
Subject: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150

We have attached a draft portion of the Notice of Receipt of Application and Intent to Obtain a Permit, which contains information relevant to your application. The public notice is a legally approved document and only the items listed below are subject to approval/correction. If draft approval is not received within 2 working days, the notice package will be filed with the Chief Clerks' office "As Is". Please review the following information carefully and provide us with any corrections as soon as possible:

* facility address or driving directions to the facility
* hyperlink for the map to facility - please confirm the map shows the general vicinity of the facility
* contaminants list
* public viewing place (must be in the same county as the facility and may be required to have internet access)
* for renewal applications, check all previous permitting actions to make sure they are listed in example A
* contact person and contactinformation
* big or small business status (If your answers on your application indicate that you qualify as a small business, you will not receive Example $B$ with your draft or final package)

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Please do not publish until your application has been declared administratively complete or you may be required to republish. Once declared administratively complete you will receive an email containing an administratively complete letter and public notice package. Then we will file the original notice package with the Chief Clerk for mailing.

Please reply to send approval via e-mail.

Your prompt response is appreciated.

Shelia Glaspie-Felix
Air Permit Initial Review Team
Air Permits Division
Texas Commission on Environmental Quality

Phone(512)239-1210
Fax (512) 239-4500
she liaglaspie-felix@tceg.texas.gov

## Shelia Glaspie-Felix

| From: | Joe Kupper [jkupper@disorboconsult.com](mailto:jkupper@disorboconsult.com) |
| :--- | :--- |
| Sent: | Wednesday, June 5, 2019 10:02 AM |
| To: | Shelia Glaspie-Felix |
| Subject: | Automatic reply: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150 |

I will be out of the office on vacation through Monday June 10. If you need to speak to someane before my return you can cali Jesse Lovegren at 512-961-4471

Thanks, Joe

## Shelia Glaspie-Felix

From:
Sent:
To:
Subject:
Attachments:

Shelia Glaspie-Felix
Wednesday, June 5, 2019 10:01 AM
'jkupper@disorboconsult.com'
FW: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150
PN1 PROJ302197 PRMT157150 draft.docx

Mr. Nygaard's email states that he will be out of the office, please ensure that a response is submitted.
Thank you.
Shelia Glaspie-Felix

From: Shelia Glaspie-Felix
Sent: Wednesday, June 5, 2019 9:55 AM
To: NNYGAARD@DISORBOCONSULT.COM
Cc: MATT.MARRA@LONESTARPORTS.COM
Subject: Public Notice Draft - Lone Star Ports, LLC - Permit \#157150
We have attached a draft portion of the Notice of Receipt of Application and Intent to Obtain a Permit, which contains information relevant to your application. The public notice is a legally approved document and only the items listed below are subject to approval/correction. If draft approval is not received within 2 working days, the notice package will be filed with the Chief Clerks' office "As Is". Please review the following information carefully and provide us with any corrections as soon as possible:

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* big or small business status (If your answers on your application indicate that you qualify as a small business, you will not receive Example B with your draft or final package)

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Please reply to send approval via e-mail.
Your prompt response is appreciated.
Shelia Glaspie-Felix
Air Permit Initial Review Team

Air Permits Division
Texas Commission on Environmental Quality
Phone(512)239-1210
Fax(512) 239-4500
she lia glaspie-felix@tceg.texas.gov

## Shelia Glaspie-Felix

| From: | Neal Nygaard [nnygaard@disorboconsult.com](mailto:nnygaard@disorboconsult.com) |
| :--- | :--- |
| Sent: | Wednesday, June 5, 2019 9:55 AM |
| To: | Shetia Glaspie-Felix |
| Subject: | Automatic reply: Public Notice Draft - Lone Star Ports, LLC - Permit \# 157150 |

I am currently out of the office and will return on June 14th. If you need immediate assistance, please contact Shanon DiSorbo at 713-955-1221 or Joe Kupper at 512-693-4186.

## Shelia Glaspie-Felix

## From:

Sent:
To:
Cc:
Subject:
Attachments:

Shelia Glaspie-Felix
Wednesday, June 5, 2019 9:55 AM
NNYGAARD@DISORBOCONSULT.COM
MATT.MARRA@LONESTARPORTS.COM
Public Notice Draft - Lone Star Ports, LLC - Permit \#157150 PN 1 PROJ302197 PRMT1571 50 draft.docx

We have attached a draft portion of the Notice of Receipt of Application and Intent to Obtain a Permit, which contains information relevant to your application. The public notice is a legally approved document and only the items listed below are subject to approval/correction. If draft approval is not received within 2 working days, the notice package will be filed with the Chief Clerks' office "As Is". Please review the following information carefully and provide us with any corrections as soon as possible:

* facility address or driving directions to the facility
* hyperlink for the map to facility- please confirm the map shows the general vicinity of the facility
* contaminants list
* public viewing place (must be in the same county as the facility and may be required to have internet access)
* for renewal applications, check all previous permitting actions to make sure they are listed in example A
* contact person and contact information
* big or small business status (If your answers on your application indicate that you qualify as a small business, you wilt not receive Example $B$ with your draft or final package)

If you determine that you must meet the alternative language notice requirements, you are responsible for ensuring that the publication in the alternative language is complete and accurate in that language. Spanish notice templates are available through the Air Permits Division Web site at www.tceqtexas.gov/permitting/air/nav/air publicnotice.html. All italic notes should be replaced with the corresponding Spanish translations for the specific application and published in the alternative language publication.

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Please reply to send approval via e-mail.

Your prompt response is appreciated.

Shelia Glaspie-Felix
Air Permit Initial Review Team
Air Permits Division
Texas Commission on Environmental Quality
Phone(512)239-1210
Fax (S12) 239-4500
shelia glaspie-felix@tceg texas.gov

# Texas Commission on Environmental Quality 



## EXAMPLE A

## NOTICE OF RECEIPT OF APPLICATION AND INTENT TOOBTAIN AIR PERMIT <br> PROPOSED AIR QUALITY PERMIT NUMBERW 5

APPLICATION Lone Star Ports, LLC has applied to the Texas Commissi of on Envirommental Quality (TCEQ) for: Issuance of Permit 157150

This application would authorize construction of the Harbor Island, Matine Terminal. The appoficant has provided the following driving directions: adjacent to Highway 361 and northésstiof Ferry Landing, Port Aitans Nueces County, Texas 78336. This application is being processed in an expedifed manner, as allowed by the co manission's rules in 30 Texas Administrative Code, Chapter 101, Subchapter J. This "thto an electrofitiomap of the site drataily's general location is provided as a public courtesy and not part of the applitaton or fot tice. For exact location, refer to application.
 will emit the following contaminants: carbon monofite hydrogen sult the whitrogen oxides, organic compounds, particulate matter including particulate matter with diameters of athierons or less ande. 5 microns or less and sulfur dioxide.





The executive director has detel med the applifition is admptratively complete and will conduct a technical review of the application.

PUBLIC COMMENT/PUBLIC MEEANGGoumay subinitpublic comments, or request a public meeting or a contested case heditighto the Office of the Chief Clerk at the address below. The TCEQ will consider all public comments in deyeforing a fithatidecion onthe application. After the deadine for public comments, the executive director will prepare atesponse to all publcicomments

The purpose of abublic meeting is to p.pvide the doportunity to submit comments or ask questions about the application. A public meeting apodit the application What be held if the executive director determines that there is a significant degree of public interest in the amplication, if requested by an interested person, or if requested by a local legislator. A public meeting is not a contestedmase hearing

After technical review of the apeligation is complete, the executive director may prepare a draft permit and will issue a preliminary decision on the appitgation. Notice of Application and Preliminary Decision for an Air Quality Permit will then be published and mailed to those who made comments, submitted hearing requests or are on the mailing list for this application. That notice will contain the final deadline for submitting public comments.

OPPORTUNITY FOR A CONTESTED CASE HEARING You may request a contested case hearing. A contested case hearing is a legal proceeding similar to a civil trial in state district court. A contested case hearing will only be granted based on disputed issues of fact that are relevant and material to the Commission's decision. Further, the Commission will only grant a hearing on those issues submitted during the public comment period and not withdrawn. The deadline to submit a request for a contested case hearing is 30 days after newspaper notice is published. If a request is timely filed, the deadline for requesting a contested case hearing will be extended to 30 days after the mailing of the response to comments.

A person who may be affected by emissions of air contaminants from the facility is entitled to request a hearing. If requesting a contested case hearing, you must submit the following: (1) your name (or for a group or
association, an official representative), mailing address, and daytime phone number; (2) applicant's name and permit number; (3) the statement "[l/we] request a contested case hearing"; (4) a specific description of how you would be adversely affected by the application and air emissions from the facility in a way not common to the general public; (5) the location and distance of your property relative to the facility; (6) a description of how you use the property which may be impacted by the facility; and (7) a list of all disputed issues of fact that you submit during the comment period. If the request is made by a group or an association, one or more members who have standing to request a hearing must be identified by name and physical address. The interests the group or association seeks to protect must also be identified. You may also submit your proposed adjustments to the application/permit which would satisfy your concerns.

If a hearing request is timely filed, following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for contested case hearing to the Commissioners for their consideration at a scheduled Commission meeting. The Commission may only granta request for a contested case hearing on issues the requestor submitted in their timely comments that were not sudgesquently withdrawn. If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact gr ${ }^{4}$ wived questions of fact and law relating to relevant and material air quality concerns submitted during the cosmment period. Issues such as property values, noise, traffic safety, and zoning are outside of the Commissifoct (4) proceeding.
 public notices for this specific application by sending a written reghagto the Office of the Chiticiclerk at the address below.

AGENCY CONTACTS AND INFORMATION Public commentseand requesty 4 , www14.tceq.texas.gov/epic/eComment, or in writing to the Texas' Commiss Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please provide, including your name, phone number, emailuddress and physical taddress will become part of the agency's public record. For more information about this permit applyentiononthe permitting ghrocess, please call the Public Education Program toll free at 1-800-687-4040. Si desea informacion andespañol, puede famar al 1-800-687-4040.
 77382-2026 or by calling Mr. Neal Nysaraynhief Operation oftwer, Princtatat (713) 955-1221.
Notice Issuance Date:

## Example B

## Publication Elsewhere in the Newspaper:

TO ALL INTERESTED PERSONS AND PARTIES:
Lone Star Ports, LLC has applied to the Texas Commission on Environmental Quality (TCEQ) for:

Issuance of Permit 157150
This application would authorize construction of the watbor Island Marine Terminal. The applicant has provideduthe
following driving directions: adjacent to Highwayd36. and northeast of Ferry Landing, Port Aransas, Nfecestorunty, Texas 78336. This application is being processed in ant expedited manner, as allowed by the ofmmission's rule sim, 30 Texas Administrative Code, Chapte 1014 , Subchapter J. Additional information concerningthis application is contained in the public notice section of thf fiswspaper.


## Example C

## Sign Posting

Sign(s) must be in place on day of publication of first newspaper notice and must remain in place and the lettering must be legible during that designated comment period ( 30 days). It is recommended that the signs remain in place until 30 days after the last newspaper publication of the second notice (either English or alternate language notice, whichever is later). Note - The information shown is an example only. It is your responsibility to verify that the appropriate information pertaining to your application is accurate. Each sign placed at the site must be located within 10 feet of each (every) property line paralleling a public highway, street or road. Signs must be visible from the street and spaced at not more than 1,500 -foot intervals. A minimum of one sign, but not more than three signs shall be required along any property line paralleling a public highway, street, or road.


Sign(s) must be placed at whatever height above the ground is necessary for sign(s) to be $100 \%$ visible from the street.

## WHITE BACKGROUND WITH BLACK LETTERS

All lettering must be no less than $1-1 / 2$ inch block printed capitals.

## Shelia Glaspie-Felix

| From: | Joe Kupper [jkupper@disorboconsult.com](mailto:jkupper@disorboconsult.com) |
| :--- | :--- |
| Sent: | Sunday, June $2,20197.47$ AM |
| To: | APIRT |
| Cc: | Neal Nygaard |
| Subject: | Lone Start Ports, LLC - Permit Number TBD - NSR Permit Application |
| Attachments: | EMEW Lone Star Ports.xisx; fig2.pdf; Fig1.pdf; fig3.pdf |
|  |  |
| Categories: | Shelia |

Attached is the EMEW and attachments for the project referenced above.

Electronic modeling files can be found at the following link:
https:/ /disorboconsult.box.com/s/uanmvb65y9omle797yhmnt74leod50hd

Joe M. Kupper, PE
Manager-Austin Office, Principal

8501 N. MoPac Expy., Suite 300 | Austin, Texas 78759

Direct: 512-693-4186 | Mobile: 512-940-5516
Email: jkupper@disorboconsult.com | Fax: 512-279-3118
www disorboconsultcons

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- Homer
- Libraries $\%$
- Guidesa
- Documents ;
- Vendorss
- News
- Jobs
- Procurement
- Member Login "


## Anita and W.T. Neyland Public Library

Corpus Christi, TX

Address: 1230 Carmel Pkwy
Corpus Christi, Texas
78411-2908
United States

## County: Nueces



## Region: South Texas

Phone: 36ヶ-853-9967

## Connect to: Library Web Site $\checkmark$ Online Catalog

Library details: Anita and W.T. Neyland Public Library is a Public fibrary.
This library is affiliated with Corpus Christi Public Libraries (view map)

Permalink: https:/llibrarytechnology.org/ibrary/24699 (Use this link to refer back to this listing.)

Organizational structure: This is a publicly funded and managed library.
See aiso: Directory of Public Libraries in the United States
See also: Directory of Public Libraries in Texas

Technology Profile
Product Name Year Contracted

| Current Automation System | Koha - ByWater Solutions | 2011 |
| ---: | ---: | ---: |
| Previous Automation System | Symphony | 2009 |
| Previous Automation Systern | Horizon | 2004 |
| Prevlous Automation System | Dynix | 1987 |

fibraries.org ID 24699

Anita and WT. Neyland Pi


## Related Libraries

[^0]
# Texas Commission on Environmental Quality <br> Form Pl-1 General Application for Air Preconstruction Permit and Amendment <br> Page 1 

Important Note: The agency requires that a Core Data Form be submitted on all incoming applications unless a Regulated Entity and Customer Reference Number have been issued and no core data information has changed. For more information regarding the Core Data Form, call (512) 239-5175 or go to www.tceq.texas.gov/permitting/central registry/guidance.html.
Important Note: we strongly encourage you to utilize the NSR Application Workbook to improve your permitting timeline. The workbook can be found at www.tceq.texas.gov/permitting/air/guidance/newsourcereview/nsrapptools.htm

$\qquad$

## Texas Commission on Environmental Quality <br> Form Pl-1 General Application for Air Preconstruction Permit and Amendment Page 2


$\qquad$
$\qquad$

## Texas Commission on Environmental Quality Form Pl-1 General Application for Air Preconstruction Permit and Amendment Page3


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## Texas Commission on Environmental Quality <br> Form $\mathrm{Pl}-1$ General Application for Air Preconstruction Permit and Amendment Page 4


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## Texas Commission on Environmental Quality <br> Form PI-1 General Application for Air Preconstruction Permit and Amendment Page5



TCEQ-10252 (APDG 5171v43, Revised 02/19) Pl-1
This form is for use by facilities subject to air quality requirements and may be revised periodically. $\qquad$ of

## Texas Commission on Environmental Quality <br> Form Pl-1 General Application for Air Preconstruction Permit and Amendment Page 6


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## Texas Commission on Environmental Quality <br> Form Pl-1 General Application for Air Preconstruction Permit and Amendment Page 7



## Texas Commission on Environmental Quality <br> Form Pl-1 General Application for Air Preconstruction Permit and Amendment Page 8

VII. Technical Information
A. The following information must be submitted with your Form $\mathrm{Pl}-1$
(this is just a checklist to make sure you have included everything)
© Current Area Map
X Plot Plan
$\square$ Existing Authorizations
Process Flow Diagram
X Process Description
区 Maximum Emissions Data and Calculations
$\boxtimes$ Air Permit Application Tables
$\boxtimes$ Table 1 (a) (Form 10153) entitled, Emission Point Summary
$\square$ Table 2 (Form 10155) entitled, Material Balance
$\square$ Other equipment, process or control device tables
B. Are any schools located within 3,000 feet of this facility?
$\square$ YESXNO
C. Maximum Operating Schedule: 8760

| Hour(s): 24 | Day(s): 7 |
| :--- | :--- | :--- |
| Week(s): 52 | Year(s): |
| Seasonal Operation? If Yes, please describe in the space provide below. | $\square$ YES区 NO |


| Hour(s): | Day(s): |
| :--- | :--- |
| Week(s): | Year(s): |

D. Have the planned MSS emissions been previously submitted as part of an emissions inventory?
Provide a list of each planned MSS facility or related activity and indicate which years the MSS activities have been included in the emissions inventories. Attach pages as needed.

| MSs Facility(s) or Activity | Year(s) |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

$\qquad$ of $\qquad$

## Texas Commission on Environmental Quality <br> Form $\mathrm{Pl}-1$ General Application for Air Preconstruction Permit and Amendment Page 9


$\qquad$ of $\qquad$

## Texas Commission on Environmental Quality <br> Form Pl-1 General Application for <br> Air Preconstruction Permit and Amendment <br> Page 10


$\qquad$ of $\qquad$

## TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 51
SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space prowided.)
$\boxtimes$ New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)

| $\square$ Renewal (Core Data Form should be submilted w |
| :--- |
| 2 Customer Reference Number (if issued) |
| CN |

Folow this link to search for CN ar RN numbers in Central Registr***

Other
3. Regulated Entity Reference Number (ff issued) RN

## SECTION II: Customer Information



## SECTION III: Regulated Entity Information




Enter Physical Location Description if no street address is provided.

39. TCEQ Programs and ID Numbers Check al Programs and wrie in the permitsfregistration numbers that will be affected by the updates submiled on this form. See the Core Dala Form instructions for additional guidance.

| $\square$ Dam Safey | $\square$ Districis | $\square$ Edwards Aquiler | XEmissions hventory Air | X Industrial Hazardous Waste |
| :---: | :---: | :---: | :---: | :---: |
| $\square$ Municipal Solid Waste | Q New Source Review Ai | ПossF | $\square$ Petrodeum Slorage Tank | $\square \mathrm{PWS}$ |
| $\square$ Sludge | Q Storm Water | $\triangle$ Tile V Air | $\square$ Tires | $\square$ Used OI |
| $\square$ Vountay Cleanup | $\square$ Wase Water | $\square$ Wastewater Agriculture | $\square$ Water Rights | $\square$ Other: |

## SECTION IV: Preparer Information

| 40. Name: | James F. Wedemeier II |  | 41. Title: | Senior Staff Consultant |
| :--- | :--- | :--- | :--- | :--- |
| 42. Telephone Number | 43. Ext./Code | 44. Fax Number | 45. E-Mail Address |  |
| $(713) 955-1223$ |  | $(713) 955-1201$ | jwedemeier@disorboconsult.com |  |

## SECTION Y: Authorized Signature

46. By my signature below, I cerifify. w the best of my knowledge, that the information provided in this firm is true and complece, and that $I$ have signature authority to submit this form on behalf of the entily specilied in Section II, Field 6 and/or as required for lhe updates to the iD numbers identified in freld 39.

| Company: | Lone Slar Pots, LC | Job Title: | vP, Regulatory Compliance \& Project Management |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Name(In Prind : | Matl Marra |  | Phone: | $(713) 253-9948$ |  |  |
| Signature: |  |  |  | Date: |  | 29 |

## Texas Commission on Environmental Quality <br> Table 30 <br> Estimated Capital Cost and Fee Verification



## Texas Commission on Environmental Quality Table 30 <br> Estimated Capital Cost and Fee Verification

I certify that the total estimated capital cost of the project as defined in 30 TAC § 116.141 is equal to or less than the above figure. I futher state that I have read and understand Texas Water Code§ 7.179, which defines Criminal Offenses for certain violations, including intentionally or knowingly making, or causing to be made, false material statements or representations.
Company Name: Lone Star Ports, LLC
Company Representative Name (please print). Matt Marra
Title: VP, Regulatory Compliance \& Project Management
Company Representative Signature:

| Estin | Capital Cost | Permit Application Fee | GHG*/PSD/Nonattainment Application Fee |
| :---: | :---: | :---: | :---: |
| Less than | \$300,000 | $\$ 900$ (minimum fee) | \$3,000 (minimum fee) |
| \$300,000 to | \$25,000,000 | 0.30\% of capital cost |  |
| \$300,000 to | \$7,500,000 |  | 1.0\% of capital cost |
| Greater than | \$25,000,000 | \$75,000 (maximum fee) |  |
| Greater than | \$7,500,000 |  | \$75,000 (maximum fee) |

*A single PSD fee (calculated on the capital cost of the project per $30 \mathrm{TAC} \S 116.163$ ) will be required for all of the associated permitting actions for a GHG PSD project. Other NSR permit fees related to the project that have already been remitted to the TCEQ can be subtracted when deterninuing the appropriate fee to submit with the GHG PSD application; please identify these other fees in the GHG PSD permit application.

Permit Application Fee (firm table above)= $\quad \$ 75,000$

MAY 312019 APIRT
Texas Commission on Environmental Quality Air Permits Initial Review Team-MC161 12100 Park 35 Circle Austin, TX, 78753

Re: New Source Review Permit Application
Lone Star Ports, LLC
Harbor Island Marine Terminal Port Aransas, Nueces County

Dear Mr. Bowers:
On behalf of Lone Star Ports, LLC (Lone Star), DiSorbo Consulting, LLC is submitting the enclosed permit application to authorize the construction and operation of a marine terminal capable of loading crude oil and/or crude oil condensates onto ocean going ships/barges and inland barges via two loading berths near Port Aransas, Texas.

Lone Star requests this application to be reviewed via the expedited permitting process as the facilities included in this application will benefit the economy by providing economic opportunities to both third party contractors and the local communities near Port Aransas, TX. If you have any questions or require additional information, please feel free to contact me at (713) 955-1221 or Mr. Matt Marra of Lone Star at 713-2536948.

Sincerely,
DiSorbo Consulting, LLC


Neal A. Nygaard


Chief Operating Officer, Principal
Enclosures
cc: Ms. Kelly Ruble, Air Section Manager, TCEQ Region 14, Corpus Christi, TX

# New Source Review Permit Application Texas Commission on Environmental Quality 

# Lone Star Ports, LLC <br> Port Aransas, Nueces County, Texas 

May2019


Shanon G. DiSorbo, P.E.
DiSorbo Consulting, LC

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## Section 1 Project Information

### 1.1 Introduction

Lone Star Ports, LLC (Lone Star) is planning to construct and operate a marine terminal on Harbor Island near Port Aransas, Nueces County, Texas. The Harbor Island Marine Terminal will receive and load crude oil and/or crude oil condensates onto ocean going ships/barges and inland barges.

This application provides all of the information necessary for the TCEQ to make the determination that the construction of the proposed facilities, discussed below, are authorized by 30 TAC Chapter 11.6.

### 1.2 Project Description

Lone Star proposes to construct and operate a marine terminal capable of loading crude oil and/or crude oil condensates onto ocean going ships/barges and inland barges via two loading berths. Vapors associated with the loading of crude oil and/or crude oil condensates will be collected and routed to a vapor control system which consists of eight vapor combustion units (VCUs). In addition, Lone Star proposes to construct two storage tanks to be utilized for pipeline relief and/or the storage of residual crude and/or crude oil condensate associated with loading operations. Also included in this application are piping components and maintenance, startup, and shutdown activities associated with the storage tanks and marine loading operations.

Table 1-1, at the end of this section, presents a summary of the project emissions compared to Prevention of Significant Deterioration (PSD) applicability thresholds. As shown Table 1-1, the project emissions are below the major source thresholds for all pollutants; therefore, PSD permitting does not apply to the facilities included in this application.

### 1.3 Application Organization

This application is organized into the following sections:

Section 1 presents the application objectives and organization.

Section 2 contains the TCEQ Core Data Form, TCEQ Form APD-EXP, TCEQ form Pl-1 and Table 30; as well as a copy of the fee check.

Section 3 contains an Area Map showing the site location.
Section 4 contains a process description of the sources associated with this permit application for the proposed Harbor Island Marine Terminal.

Section 5 contains a discussion of the estimated emissions from the facilities included in this application.

Section 6 presents the BACT analysis for the facilities included in this application.
Section I addresses applicability of the federal Nonattainment New Source Review (NNSR) and Prevention of Significant Deterioration (PSD) permitting requirements.

Section 8 presents the General Application Requirements that address the applicability of state and federal air regulations.

Appendix A contains the detailed routine emission calculations for the facilities included in this application (Contains Confidential Information).

Appendix B contains detailed emission calculations for maintenance, startup, and shutdown (MSS) activities (Contains Confidential Information).

Appendix $\mathbb{C}$ contains the Air Quality Analysis for the facilities included in this application.


Table 1.4
Federal NsP


Table 1-2
Emlsslons Summary
Lone Star Ports, LLC
Harbor Island Marine Terminal
May 2019


## Administrative Forms

This section contains the following forms and information:

- TCEQ Core Data Form
- TCEQ Form APD-EXP
- TCEQ Form Pl-1
- Table 30
- Copy of Fee Payment


The Harbor Island Marine Terminal is located near Port Aransas, Nueces County. An Area Map indicating a 3,000 foot radius around the terminal is included as Figure 3-1.


## Section 4 <br> Process Description

The Harbor Island Marine Terminal is a for-hire bulk liquid marine loading terminal. Crude oils and/or crude oil condensates are transferred through pipeline to the marine loading dock. A simplified process flow diagram for the facilities included in this application is included as Figure 4-1.


## Section 5 <br> Emission Calculations

The following describes the calculations used to determine the emission rates associated with each emission source category included in this permit application. A summary of the proposed emissions are included in Table 1(a) at the end of this section. Detailed emission calculations are presented in Appendices A and B of this application.

The terminal will handle a wide range of crude oils and/or crude oil condensates. The Reid Vapor Pressure (RVP) of the crude and/or crude oil condensates managed at the terminal vary from month to month; however, a maximum TVP of 11 psia is the basis for the proposed emission limits.

Lone Star proposes to establish emission caps for loading facilities rather than individual throughput limits due to the varying nature of crude oils and crude oil condensates and customer markets at the proposed terminal. Specifically, rather than limiting throughputs, Lone Star proposes to manage the loading facilities included in this application such that the permitted emission limits are not exceeded. Managing to the emissions caps allows Lone Star the operational flexibility to respond to market changes and customer demands.

### 5.1 Routine Emissions

The following describes the emission calculations associated with each routine emission source category in this permit application.

### 5.1.1 Storage Tank Emissions

For storage tanks, the emission calculations for routine working and breathing emissions are estimated using the calculations methods in Compilation of Air Pollutant Emission Factors: Volume I Stationary Point and Area Sources (AP-42, Fifth Edition, US EPA, November 2006 (hereafter referred to in this application as AP-42) Section 7.1. Short-term emission rates are calculated using AP-42 Section 7 equations using maximum temperature and vapor pressure.

In addition to routine IFR storage tank working and breathing emissions, routine IFR storage tank roof-landing events occur for periods of inventory control and product changes (EPNs: T-COMB-1). Floating roof landing emissions are estimated using the methods in Subsection 7.1.3.2.2 Roof

Landings of Section 7.1 Organic Liquid Storage Tanks of AP-42. For a given roof-landing event, total landing loss emissions are therefore the sum of the filling losses and the daily standing idle losses over the entire period that the roof remained landed. Landing losses are inherently episodic in nature and must be determined each time a tank's floating roof is landed.

Landing losses occur from floating roof tanks whenever the tank is drained to a level where its roof lands on its legs or other supports. When a floating roof lands on its supports or legs while the tank is being drained, the floating roof remains at the same height while the product level continues to lower. This creates a vapor space underneath the roof. Liquid remaining in the bottom of the tank provides a continuous source of vapors to replace those expelled by breathing (in the case of internal floating roof tanks) or wind action (in the case of external floating roof tanks). These emissions, referred to as standing idle losses (LSL), occur daily as long as the floating roof remains landed. Additional emissions occur when incoming stock liquid fills a tank with a landed roof. The incoming volume of liquid not only displaces an equivalent volume of vapors from below the floating roof, but also generates its own set of product vapors that are displaced during the filling process. These two types of emissions are collectively referred to as filling losses (LFL). The calculation methodology used of the standing loss and refilling emissions is discussed in further detail below.

Similar to breathing losses under normal operating conditions, standing idle losses occur during that period a roof is landed with product still in the tank. Emission calculation equations for these losses are from Subsection 7.1.2.2.1 Standing Idle Losses in Section 7.1 of AP-42. The quantity of emissions is dependent upon the number of days idle, tank type, type of product stored, and the time of the year. Maximum hourly VOC emissions for tanks with idle standing losses were determined by calculating the losses for one day and then dividing by twelve hours/day. Twelve hours were used since the tanks breathe out for twelve hours/day and breathe in the other twelve hours.

Similar to loading losses, refiling losses occur while a tank is being filled with product during that period of time a roof is landed. Emission calculation equations for these losses are from Subsection 7.1.3.2.2.2 of AP-42. The quantity of emissions is dependent upon the tank type (IFR/EFR), type of product stored, time of year, and fill rate. The maximum refilling loss is based on: (1) the tank re-fill rate; and (2) the month resulting in the highest emission as a function of vapor pressure. Maximum hourly VOC emissions were determined by dividing the filing emissions (LFL) by the maximum pumping rate. The calculation assumes that the product vapors within the vapor space under the tank roof are emitted from the tank at the same rate as the liquid coming into the tank.

Tank roof landing emissions associated with crude oils and crude oil condensates will be collected via vapor recovery equipment and routed to vapor combustion devices (EPN: T-COMB-1). Emissions from the vapor combustion device have been estimated using the methods outlined in the TCEQ's Air Permit Technical Guidance for Chemical Sources: Flares and Oxidizers, October 2002. VOC, NOx, CO, $\mathrm{SO}_{2}, \mathrm{H}_{2} \mathrm{~S}$, and $\mathrm{PM} / \mathrm{PM}_{10} / \mathrm{PM}_{2.5}$ emissions were estimated from the vapor combustion due to tank roof landing in the VCU system. VOC emissions are based on vendor guaranteed destruction efficiency of at least $99.8 \%$. NOx and CO emissions were based on vendor guaranteed emission factors and an estimated roof landing vapor heat content of $20,000 \mathrm{Btu} / \mathrm{lb} . \mathrm{SO}_{2}$ emissions associated with crude oil and crude condensate vapor control were based on $100 \%$ conversion of any $\mathrm{H}_{2} \mathrm{~S}$ in the waste gas stream while $\mathrm{SO}_{2}$ emissions associated with assist gas usage were based on AP-42, Section 3.2.7 emission factors. $\mathrm{H}_{2} \mathrm{~S}$ emissions were based on a max vapor space concentration of $1,000 \mathrm{ppm}$ and a corresponding DRE of $98 \%$. $\mathrm{PM} / \mathrm{PM}_{10} / \mathrm{PM} \mathrm{M}_{2.5}$ emissions were based on emission factors from AP-42, Section 3-2-7.

Detailed storage tank emission calculations are included in Appendix A, as Tables A-1 through A.4

### 5.1.2 Marine Vessel Loading

Loading losses are comprised of the total vapors displaced and generated by loading crude oils and/or crude oil condensate into the marine vessels. The uncontrolled loading losses have been calculated using Equation 1 from AP-42, Section 5.2:

$$
L_{L}=12.46 \frac{S P M}{T}
$$

where:
$\mathrm{L}=$ loading loss, $\mathrm{b} / 1000$ gallons of product loaded.
$S=A P 42$ saturation factor.
$\mathrm{P}=$ True Vapor Pressure at maximum temperature, psia.
$\mathrm{M}=\mathrm{Molecular}$ weight of gasoline vapor, $\mathrm{lb}-\mathrm{lb} /$ mole
$\mathrm{T}=$ Temperature of product loaded, degrees Rankine.

A Saturation factor of 0.2 was used in the calculation for ship and ocean-going barge loading operations with a factor of 0.5 for inland barges. The loading loss vapors from crude oil and crude oil condensate loading will be captured and routed to vapor combustion devices (EPNs: MVCU-1
through MVCU-8) for VOC destruction. Emissions from the vapor combustion devices have been estimated using the methods outlined in the TCEQ's Air Permit Technical Guidance for Chemical Sources: Flares and Oxidizers, October 2002. VOC emissions are based on a vendor guaranteed destruction efficiency of at least $99.8 \%$. Uncollected fugitive loading emissions are calculated based on a collection efficiency of 99.89\% for inerted vessel loading (EPNs: BERTH-1 \& BERTH-2). SO2 emissions associated with crude oil and crude condensate vapor control were based on $100 \%$ conversion of any $\mathrm{H}_{2} \mathrm{~S}$ in the waste gas stream while $\mathrm{SO}_{2}$ emissions associated with assist gas usage were based on AP-42, Section 3.2.7 emission factors. $\mathrm{H}_{2} \mathrm{~S}$ emissions were based on a max vapor space concentration of $1,000 \mathrm{ppm}$ and a corresponding DRE of $98 \%$. $\mathrm{PM} / \mathrm{PM}_{10} / \mathrm{PM}_{2.5}$ emissions were based on emission factors from AP-42, Section 3.2-7.

Detalled loading emission calculations are included in Appendix $A$ as Tables A-5 through A-7.

### 5.1.3 Piping Equipment Fugitives

The fugitive emissions from piping components and ancillary equipment were estimated using methods outlined in the TCEQ's guidance web page for Equipment Leak Fugitives ${ }^{1}$. Each fugitive component was classified first by equipment type (valve, pump, relief valve, etc.) and then by material type (gas/vapor, light liquid, heavy líquid). Total emission rates were obtained by multiplying the number of fugitive components of a particular type by the appropriate Petroleum Marketing Terminal emission factor.

Detailed piping fugitive calculations are included in Appendix A as Table A.8.

## 52 Maintenance, Startup and Shutdown Emissions (MSS)

Maintenance, startup, and shutdown (MSS) activities and associated emissions will occur to support terminal operation. The following describes the calculations used to determine the MSS emissions associated with the each emission source included in this permit application. Detailed emission calculations are presented in Appendjx B of this application.

### 5.2.1 Storage Tank Floating Roof Landing Losses

The roof-landing events occur for predictable maintenance events, tank inspections, tank cleaning, periods of inventory control, and routine product changes. Floating roof landing emissions are estimated using the methods in Subsection 7.1.3.2.2 Roof Landings of Section 7.1 Organic Liquid Storage Tanks of AP_42. For a given roof-landing event, total landing loss emissions are therefore
the sum of the filling losses and the daily standing idle losses over the entire period that the roof remained landed. Landing losses are inherently episodic in nature and must be determined each time a tank's floating roof is landed.

Landing losses occur from floating roof tanks whenever the tank is drained to a level where its roof lands on its legs or other supports (including roof suspension cables). When a floating roof lands on its supports or legs while the tank is being drained, the floating roof remains at the same height while the product level continues to lower. This creates a vapor space underneath the roof. Liquid remaining in the bottom of the tank provides a continuous source of vapors to replace those expelled by breathing (in the case of internal floating roof tanks) or wind action (in the case of external floating roof tanks). These emissions, referred to as standing idle losses (LSL), occur daily as long as the floating roof remains landed. Additional emissions occur when incoming stock liquid fills a tank with a landed roof. The incoming volume of liquid not only displaces an equivalent volume of vapors from below the floating roof, but also generates its own set of product vapors that are displaced during the filling process. These two types of emissions are collectively referred to as filling losses (IFL). The calculation methodology used of the standing loss and refilling emissions is discussed in further detail below.

Similar to breathing losses under normal operating conditions, standing idle losses occur during that period a roof is landed with product still in the tank. Emission calculation equations for these losses are from Subsection 7.1.2.2.1 Standing Idle Losses in Section 7.1 of AP-42. The quantity of emissions is dependent upon the number of days idle, tank type, type of product stored, and the time of the year. Maximum hourly VOC emissions for tanks with idle standing losses were determined by calculating the losses for one day and then dividing by twelve hours/day. Twelve hours were used since the tanks breathe out for twelve hours/day and breathe in the other twelve hours.

Similar to loading losses, refiling losses occur while a tank is being filled with product during that period of time a roof is landed. Emission calculation equations for these losses are from Subsection 7.1.3.2.2.2 of AP- 42. The quantity of emissions is dependent upon the tank type, type of product stored, time of year, and fill rate. The maximum refiling loss is based on: (1) the tank re-fill rate; and (2) the month resulting in the highest emission as a function of vapor pressure. Maximum hourly VOC emissions were determined by dividing the filling emissions (LFL) by the maximum pumping rate. The calculation assumes that the product vapors within the vapor space under the tank roof are emitted from the tank at the same rate as the liquid coming into the tank.

Once a tank is drained, tanks storing products with true vapor pressures greater than 0.5 psia are degassed and the vapors removed from the vapor space under the floating roof are routed to vapor combustor until the VOC concentration in the vapor space is less than 5,000 parts per million by volume (ppmv) after which the tank may vent to atmosphere. Blowers are used to ventilate the tank and force out any residual volatile organic compound (VOC) material. Emissions from cleaning, refilling and degassing of VOC concentrations higher than $10,000 \mathrm{ppmv}$ are routed to vapor combustor for control. Emissions from the vapor combustion device have been estimated using the methods outlined in the TCEQ's Air Permit Technical Guidance for Chemical Sources: Flares and Oxidizers, October 2002. VOC, $\mathrm{NO}_{\mathrm{x}}, \mathrm{SO}_{2}, \mathrm{PM} / \mathrm{PM}_{1} \mathrm{o} / \mathrm{PM} 2.5$ and CO emissions were estimated form the vapor combustion due to tank roof landing. VOC emissions are based on vendor guaranteed destruction efficiency of at least $99.8 \% . \mathrm{SO}_{2}$ emissions associated with crude oil and crude condensate vapor control were based on $100 \%$ conversion of any $\mathrm{H}_{2} \mathrm{~S}$ in the waste gas stream while $\mathrm{SO}_{2}$ emissions associated with assist gas usage were based on AP-42, Section 3.2.7 emission factors. $\mathrm{H}_{2} \mathrm{~S}$ emissions were based on a max vapor space concentration of $1,000 \mathrm{ppm}$ and a corresponding DRE of $98 \%$. PM/PM10/PM2.5 emissions were based on emission factors from AP-42, Section 3.2-7.

Detailed floating roof storage tank roof landing MSS emissions are included in Appendix Bas Tables B-2, B-3, and B-5.

### 5.2.2 Equipment Venting

Equipment venting includes, but is not limited to, liquid draining, venting to control, venting to atmosphere post control and refilling emissions during startup. The equipment venting emissions are calculated using the ideal gas law using the volume of the equipment and the material properties of the VOC material contained in the equipment. Short-term and annual emissions are based on the number of simultaneous events and annual events per year, respectively. The equipment venting calculations are included to determine the contribution to the MSS cap purposes only. These emission calculations are not to be considered enforceable representations as to the magnitude, duration, and/or frequency of individual activities.

Equipment with isolated volumes equal to or less than $50.27 \mathrm{ft3}$ will be vented to the atmosphere uncontrolled while equipment with isolated volumes greater than 50.27 ft 3 will first be degassed to a portable vapor control device so to attain a VOC concentration below $10,000 \mathrm{ppmv}$. VOC, NOx, $\mathrm{SO}_{2}, \mathrm{PM} / \mathrm{PM}_{10} / \mathrm{PM}_{2.5}$ and CO emissions were estimated form the vapor combustion. VOC emissions
are based on vendor guaranteed destruction efficiency of at least $99.8 \% . \mathrm{SO}_{2}$ emissions associated with crude oil and crude condensate vapor control were based on $100 \%$ conversion of any $\mathrm{H}_{2} \mathrm{~S}$ in the waste gas stream while $\mathrm{SO}_{2}$ emissions associated with assist gas usage were based on AP-42, Section 3.2.7 emission factors. $\mathrm{H}_{2} \mathrm{~S}$ emissions were based on a max vapor space concentration of 1,000 ppm and a corresponding DRE of $98 \%$. PM/PM10/PM ${ }_{2.5}$ emissions were based on emission factors from AP-42, Section 3.2-7.

Detailed equipment venting emission calculations are included in Appendix Bas Table B-4.

### 5.2.3 Vacuum Truck and Frac Tank Loading

Emissions from the use of air movers and frac tanks are estimated using the loading loss equation from AP-42, Section 5.2.

Detailed vacuum truck and frac tank loading emissions are included in Appendix Bas Table B-6.

### 5.2.4 Pipeline Pigging Emissions

Pigging may be required to clean and maintain the product pipelines. Emission associated with pigging maintenance are calculated by employing the ideal gas equation and multiplying by the maximum number of hourly and annual pigging events anticipated. Emissions resulting from pigging activities will be controlled by carbon canister. Carbon canister emission are estimated based on vapor flow rates and a carbon breakthrough concentration of 100 ppmv .

Detailed pipeline pigging emission calculations are included in Appendix Bas Table B-7.
TEXAS COMMISSION ON ENVIRONMENTAL QUALTY Table 1(a) Emission Point Summary May 2019

| AIR CONTAMINANT DATA |  |  |  |  |  | EMISSION POINT DISCHARGE PARAMEIERS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Emission Point |  |  | 2. Component or Air Contaminant Name | 3. Air Contaminant Emisbion Rate |  | 4. UTM Coordinates of Embssion Point |  |  |  |  |  |  | 7. Fugitives |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 5. Helght <br> Above |  |  | Dlameter | Velocity | Temp | Length Warth |  | Axis |  |  |  |
| $\begin{aligned} & \text { EPN } \\ & (A) \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { FN } \\ & \text { (B) } \end{aligned}$ | $\begin{aligned} & \text { NAME } \\ & \text { (C) } \end{aligned}$ |  |  | Pounds per $\mathrm{HOU}_{\mathrm{T}}$ (A) |  |  |  | $\begin{aligned} & \text { TPY } \\ & \text { (B) } \\ & \hline \end{aligned}$ | Zone | $\begin{gathered} \text { East } \\ \text { (Motera) } \end{gathered}$ | North (Mateprs) | $\begin{aligned} & \text { Ground } \\ & \text { (Feet) } \end{aligned}$ | $\begin{gathered} \text { (Feet) } \\ (A) \\ \hline \end{gathered}$ | $\begin{aligned} & (\mathrm{f} \mathrm{ps}) \\ & (\mathrm{B}) \end{aligned}$ | $\begin{gathered} \left({ }^{\circ} \mathrm{F}\right. \\ (\mathrm{C}) \end{gathered}$ | $\begin{aligned} & (\mathrm{ft}) \\ & (\mathrm{A}) \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { (ft) } \\ & \text { (B) } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Degrees } \\ \text { (C) } \\ \hline \end{gathered}$ |
| BERTH-1 | BERTH-1 | Berth 1 Loading Fugglives | voc | 9,05 | - | 14 | 690,182 | 3,081,415 | 52.5 | - | - | - | 1093 | 197 | 68 |
|  |  |  | H2S | 0.01 | - |  |  |  |  |  |  |  |  |  |  |
| BERTH-2 | BERTH-2 | Berth 2 Loading Fugitives | voc | 9.05 | - | 14 | 690,528 | 3,081,540 | 52.5 | - | $\bullet$ | $\bullet$ | 1093 | 197 | 93 |
|  |  |  | H2S | 0.01 | - |  |  |  |  |  |  |  |  |  |  |
| BERTHCAP | BERTHCAP | Berth Loading Fugltives Emisslons Cap | voc | - | 26.40 | - | - | - | - | - | - | - | - | - | - |
|  |  |  | H2S | - | 0.03 |  |  |  |  |  |  |  |  |  |  |
| MVCu-1 | MVCU-1 | Controlled Marine Loading VOU No. 1 | voc | 12,53 | - | 14 | 690,448 | 3,081,816 | 40 | 12 | 20.47 | 1400 | - | - | - |
|  |  |  | NOX | 12.53 | - |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | 25.05 | - |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.13 | - |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{SO}_{2}$ | 11.79 | - |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM ${ }_{10} / \mathrm{PM}_{2.5}$ | 0.93 | - |  |  |  |  |  |  |  |  |  |  |

TEXAS COMMISSION ON ENVIRONMENTAL QUALTY rabie 1(a) Emission Foint Summary Data: $\quad$ May 2019

| AIR CONTAMINANT DATA |  |  |  |  |  | EMISSION POINT DISCHARGE PARAMETERS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Emissalon Point |  |  | 2. Component or Alr Contaminant Name | 3. Air Contaminant Emission Rate |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 4. UTM Coordinates of Emisslon Polint |  |  | 5. Helght <br> Above | 6. Stack Exlt Data |  |  | 7. Fugitives |  |  |
|  |  |  | Dlameter |  |  | Velocity | Temp | Length | Witth | Axis |
| $\begin{aligned} & \text { EPN } \\ & (A) \end{aligned}$ | $\begin{aligned} & \mathrm{FN} \\ & (\mathrm{~B}) \end{aligned}$ | $\begin{gathered} \text { NamE } \\ \text { (C) } \end{gathered}$ |  |  |  |  |  |  | Pounds per Hour (A) | $\begin{aligned} & \text { TPY } \\ & \text { (B) } \end{aligned}$ | Zone | $\begin{gathered} \text { East } \\ \text { (Meters) } \end{gathered}$ | $\begin{aligned} & \text { North } \\ & \text { (Merers) } \end{aligned}$ | $\begin{aligned} & \text { Ground } \\ & \text { (Feet) } \end{aligned}$ | $\begin{gathered} \text { (Feot) } \\ (A) \end{gathered}$ | $\begin{aligned} & (\mathrm{fps}) \\ & (\mathrm{B}) \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { (F) } \\ & \left({ }^{(C)}\right) \\ & \hline \end{aligned}$ | $\begin{aligned} & (f i) \\ & (A) \\ & \hline \end{aligned}$ | $\begin{gathered} (f(\mathrm{f}) \\ (\mathrm{Br}) \\ \hline \end{gathered}$ | Degrees <br> (C) |
| MVCl-2 | MYCU-2 | Controllad Marlne Loading VCU No. 2 | voc | 12.53 | - |  | 14 | 690,458 | 3,D81,819 | 40 | 12 | 20,47 | 1400 | - | - | . |
|  |  |  | NOX | 12.53 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | 25.05 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.13 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{SO}_{2}$ | 11.79 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM ${ }_{16} /$ PM $_{2.6}$ | 0.93 | - |  |  |  |  |  |  |  |  |  |  |  |
| MVCu-3 | MvCu-3 | Controlled Marine Loading VCU No. 3 | voc | 12.53 | - | 14 | 690,468 | 3,081,822 | 40 | 12 | 20.47 | 1400 | - | $\cdot$ | - |  |
|  |  |  | Nox | 12.53 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | 25.05 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.13 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{sO}_{2}$ | 11.79 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM $10 / \mathrm{PM}_{2.5}$ | 0.93 | - |  |  |  |  |  |  |  |  |  |  |  |
| MVCU-4 | MVCU-4 | Controlled Marine Loading vcu No. 4 | voc | 12.53 | - | 14 | 690,478 | 3,081,825 | 40 | 12 | 20.47 | 14D0 | - | - | - |  |
|  |  |  | NOX | 12.53 | . |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | 25.05 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.13 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{SO}_{2}$ | 11.79 | - |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM ${ }_{10} / \mathrm{PM}_{2.5}$ | 0.93 | - |  |  |  |  |  |  |  |  |  |  |  |

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY Table 1(a) Emission Point Summary | Permit Number: | TBD | RN Number: | TBD | Date: | May 2019 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Company Name: | Lone Star Ports, LLC |  |  |  |  |

| AIR CONTAMINANT DATA |  |  |  |  |  | EMISSION POINT DISCHARGE PARAMETERS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Emission Point |  |  | 2. Component or Alr Contaminant Name | 3. Air Contaminant Emission Rate |  | 4. UTM Coordinates of Emlssion Point |  |  | Source |  |  |  |  |  |  |
|  |  |  | 5. Helght Above |  |  | 6. Stack Ext Data | 7. Fugitlves |  |  |
|  |  |  | Dlameter |  |  | Velocity | Temp | Length | Wlath | Axis |
| $\begin{aligned} & \text { EPN } \\ & (A) \end{aligned}$ | $\begin{aligned} & \mathrm{FN} \\ & \text { (B) } \end{aligned}$ | $\begin{gathered} \text { Name } \\ \text { (C) } \end{gathered}$ |  |  | Pounds per Hour (A) |  |  |  | $\begin{aligned} & \text { TPY } \\ & \text { (B) } \end{aligned}$ | Zone | $\begin{gathered} \text { East } \\ \text { (Maters) } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { North } \\ & \text { (Meters) } \end{aligned}$ | $\begin{aligned} & \text { Ground } \\ & \text { (Feot) } \\ & \hline \end{aligned}$ | (Feet) (A) | $\begin{aligned} & (\mathrm{fps}) \\ & (\mathrm{B}) \end{aligned}$ | $\begin{aligned} & \text { ( } \mathrm{F} \\ & \text { (C) } \\ & \hline \end{aligned}$ | $\begin{aligned} & (\mathrm{ft}) \\ & (\mathrm{A}) \end{aligned}$ | $\begin{aligned} & (\mathrm{ft}) \\ & (\mathrm{B}) \end{aligned}$ | Degress <br> (C) |
| MVCU-5 | MVCU-5 | Controiled Marine Loading VCU No. 5 | voc | 12.53 | - |  |  |  | 14 | 690,498 | 3,081,830 | 40 | 12 | 20.47 | 1400 | - | - | . |
|  |  |  | NOX | 12.53 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | 25.05 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.13 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{SO}_{3}$ | 11.79 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM ${ }_{10} /$ PM $_{2.8}$ | 0.93 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MVCu-6 | MVCu-6 | Controlled Marine Loading vcu No. 6 | Voc | 12.53 | - | 14 | 690,508 | 3,081,833 | 40 | 12 | 20.47 | 1400 | - | - | - |  |  |  |
|  |  |  | NOX | 12.53 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | 25.05 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.13 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{SO}_{4}$ | 11.79 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM ${ }_{20} /$ PM $_{2,7}$ | 0.93 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MVCu-7 | MVCU-7 | Controlled Marine Loading VCU No. 7 | voc | 12.53 | - | 14 | 690,518 | 3,081,836 | 40 | 12 | 20.47 | 1400 | - | - | - |  |  |  |
|  |  |  | NOx | 12.53 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | 25.05 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.13 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{SO}_{5}$ | 11.79 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM ${ }_{10} /$ PM $_{2.8}$ | 0.93 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |

TEXAS COMMISSION ON ENVIRONMENTAL QUALTTY Table 1(a) Emission Point Summary | Date: | May 2019 |
| :--- | :--- |

| AIR CONTAMINANT DATA |  |  |  |  |  | EMISSION POINT DISCHARGE PARAMEIERS |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Emlsalon Point |  |  | 2. Component or Alr Contaminant Name | 3. Air Contaminant Embsslon Rate |  | 4. UTM Coordinates of Emisslon Polnt |  |  | Source |  |  |  |  |  |  |
|  |  |  | 5. Holght <br> Above |  |  | 6. Stack Exit Data | 7. Fugtives |  |  |
|  |  |  | Dlameter |  |  | Velocity | Temp | Length | Wlath | Axls |
| $\begin{aligned} & \text { EPN } \\ & (A) \end{aligned}$ | $\begin{aligned} & \text { FN } \\ & \text { (B) } \end{aligned}$ | NAME <br> (C) |  |  | Pounds per Hour (A) |  |  |  | $\begin{aligned} & \text { TPY } \\ & \text { (B) } \end{aligned}$ | Zone | $\begin{aligned} & \text { East } \\ & \text { (Meters) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { North } \\ & \text { (Meters) } \end{aligned}$ | $\begin{aligned} & \text { Ground } \\ & \text { (Feet) } \\ & \hline \end{aligned}$ | (Feet) <br> (A) | (fps) <br> (B) | $\begin{aligned} & \left({ }^{\circ} \mathrm{F}\right. \\ & \text { (C) } \end{aligned}$ | $\begin{aligned} & (\mathrm{t}) \\ & (\mathrm{A}) \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { (f) } \\ & \text { (B) } \end{aligned}$ | Degrees <br> (C) |
| MVCU-8 | MVCL-8 | Controlled Marine Loading VCU No. 8 | voc | 12.53 | - |  |  |  | 14 | 690,528 | 3,081,839 | 40 | 12 | 20.47 | 1400 | - | - | ( |
|  |  |  | NOX | 12.53 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | 25.05 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.13 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{SO}_{6}$ | 11.79 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM ${ }_{10} /$ PM $_{2}, 9$ | 0.93 | - |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MVCUCAP | MVCUCAP | Controlied Loading Annual Emissions Cap | Voc | - | 48.59 | - | - | - | - | - | - | . | - | - | - |  |  |  |
|  |  |  | NOX | - | 59.03 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | co | - | 126.33 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | - | 0.48 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\mathrm{sO}_{2}$ | - | 90.48 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | PM/PM $\mathrm{M}_{10} / \mathrm{PM}_{2.5}$ | - | 4.40 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50-1 | 50-1 | Recycle Tank No. 1 | Voc | 5.14 | 1.60 | 14 | 690,222 | 3,081,787 | 48 | 0.003 | 0.003 | Amb. |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.01 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 50-2 | 50.2 | Recycle Tank No. 2 | voc | 5.14 | 1.60 | 14 | 690,262 | 3,081,820 | 48 | 0.003 | 0.003 | Amb. |  |  |  |  |  |  |
|  |  |  | $\mathrm{H}_{2} \mathrm{~S}$ | 0.01 | 0.01 |  |  |  |  |  |  |  |  |  |  |  |  |  |

# Section 6 Best Available Control Technology 

As stated in Section $\S 116.111(a)(2)(\mathrm{C})$, new or modified facilities must utilize best available control technology (BACT), with consideration given to the technical practicability and economic reasonableness of reducing or eliminating the emissions from the facility. Each facility is evaluated on a case-by-case basis. Engineering principles and agency experience, concerning the practicality and reasonableness of an emission reduction option, are used in this determination.

As described in their guidance document entitled Evaluating Best Available Control Technology (BACT) in Air Permit Applications (April 2001), the TCEQ BACT evaluation is conducted using a "tiered" analysis approach. The evaluation begins at the first tier and continues sequentially through subsequent tiers only if necessary as determined by the evaluation process described in the TCEQ document. In each tier, BACT is evaluated on a case-by-case basis.

In the first tier, controls accepted as BACT in a recent permit review for the same process in the same industry are approved as BACT in a current review if no new technical developments have been made that would justify additional controls as economically or technically reasonable. According to the TCEQ, the second tier takes into account controls that have been accepted as BACT in recent permits for similar facilities in a different process or industry, The third tier of the TCEQ BACT approach consists of a detailed technical and economic analysis of all control options available for the process under review.

The following sections of the application describe the BACT Analysis for the activities covered in this amendment.

### 6.1 Storage Tanks

TCEQ's current BACT guidelines for storage tanks were obtained from its Technical Guidance Package for Chemical Sources: Storage Tanks, June 2015. The TCEQ BACT guidelines for internal floating roof (IFR) tanks storing materials with a vapor pressure greater than 0.5 psia and greater than 25,000 gallon capacity, require a mechanical or liquid mounted primary seal or vapor mounted primary seal with a rim mounted secondary seal. The storage tanks included in this application will be equipped with a primary mechanical shoe and secondary rim-mounted seal. Additionally, IFR
tank landings associated with products with true vapor pressures greater than 0.5 psia will be controlled by a vapor combustion unit with a minimum DRE of $99.8 \%$. This level of control exceeds current BACT guidelines.

### 6.2 Marine Vessel Loading

TCEQ's current BACT guidelines for loading operations were obtained from its Technical Guidance Package for Chemical Sources: Loading Operations, 2017. The TCEQ BACT guidelines for the loading of VOC with a vapor pressure greater than 0.5 psia, require the vapors to be routed to a VOC control device. The TCEQ BACT guidelines for marine loading of VOC with a vapor pressure greater than 0.5 psia, require the vapors to be routed to a VOC control device and an annual vapor tightness test as specified in 40 CFR 63.565 (c) or 40 CFR 61.304(f). Vapors generated during the loading of ships are collected and routed to controls using a vacuum control system with a collection efficiency of 99.89\%.

The collected emissions from marine vessels are routed to one or more of eight VCUs (EPNs: MVCU-1 through MVCU-8) with a minimum DRE of $99.8 \%$. Lone Star will implement the above control system to satisfy the BACT control requirements.

### 6.3 Piping Equipment Fugitives

TCEQ's BACT guidance for fugitive emissions requires implementing a fugitive LDAR Program, the stringency of which varies depending on the amount of uncontrolled fugitive VOC emissions. The uncontrolled fugitive VOC emissions associated with the piping equipment included in this application are greater than 25 tpy. Per TCEQ's guidance, BACT for that emission level is the implementation of TCEQ's 28 VHP LDAR Program. Lone Start proposes to implement the 28VHPLDAR program to satisfy BACT which is consistent with recent TCEQ BACT determinations..

### 6.4 MSS Activities

The BACT analysis addresses the following MSS activities and sources:

- MSS Vapor Control;
- Storage Tanks;
- Process Equipment and Piping;
- Air Mover, Vacuum Truck, and Frac Tanks; and
- Pipeline pigging.

BACT listings were found in the EPA RBLC search for some of the MSS activities listed above. TCEQ has no published BACT guidelines applicable to the other MSS sources or activities discussed in this application. The BACT candidates for MSS activities are based on the RBLC BACT listings and on past TCEQ permitting actions.

Best Management Practices (BMP) for MSS activities includes the following:

- Minimizing the number and duration of all planned MSS events;
- Beginning tank degassing within 24 hours after the roof has been landed and the tank completely drained;
- Degassing tanks, process equipment, and piping with volumes> 50 ft ${ }^{3}$ to a maximum outlet concentration of $10,000 \mathrm{ppmv}$, measured as VOC, and maintaining that concentration (or less) until maintenance activities are completed or refiling begins;
- Managing residual products with vapor pressures> 0.5 psia that are removed from equipment and piping as a result of an MSS activity in a controlled manner. Specifically, Lone Star will utilize air movers, vacuum trucks, frac tanks, and sumps equipped with vapor controls when handling materials with vapor pressures> 0.5 psia. All frac tanks will be loaded via submerged fill pipes.

Due to the insignificant level of emissions associated with the MSS activities included in this application, Lone Star proposes to implement the above described BMP to satisfy the BACT control requirements.

## Section 7 Federal New Source Review

Non-attainment New Source Review (NNSR) permitting is required for each non-attainment pollutant at a greenfield site that results in an emission increase which exceeds the applicable major source threshold. Prevention of Significant Deterioration (PSD) permitting is required for each attainment pollutant and other regulated pollutants (such as $\mathrm{H}_{2} \mathrm{~S}$ and $\mathrm{H}_{2} \mathrm{SO}_{4}$ ) that exceeds the applicable major source threshold. Nueces County is designated as attainment/unclassified for the eight-hour ozone standard and attainment/unclassified for all other criteria pollutants. The emission increases associated with this permit application are summarized and compared to the PSD applicability thresholds in Table 1-1 at the end of Section 1 Included at the end of this section is a Table 1F which summarizes the Federal NSR applicability analysis.

### 7.1 NNSR Applicability

The Harbor Island Marine Terminal is not located in a nonattainment area for criteria pollutants. As a result, NNSR is not applicable to the proposed project.

### 7.2 PSD Applicability

The Harbor Island Marine Terminal is currently a greenfield site for Federal NSR applicability purposes and the project emission increases of VOC, $\mathrm{NOx}, \mathrm{CO}, \mathrm{SO}_{2}, \mathrm{H}_{2} \mathrm{~S}$, and $\mathrm{PM} / \mathrm{PM}_{10} / \mathrm{PM}_{2.5}$, are less than the applicable major source thresholds; therefore, PSD review does not apply for any of these pollutants. Because PSD review is not required for any other pollutant, PSD also does not apply to greenhouse gas (GHG) emissions.

TABLE $1 F$
AIR QUALITY APPLICATION SUPPLEMENT

| Permit No.: TED | \|Appliuation SubnüLal Date: $\quad 24$ May 2019 |
| :---: | :---: |
| Lone Slar Ports, LiC |  |
| RN:TBD | Facilly Location: Property is adjacent to Higtway 361 and Nort East of Feny Lsonding |
| City. Port Aransas | County: Nueces |
| Pemit Unit lo, TED | Permil Neme: Harbor Island Marine Teminal |
| Permith Activit $\times$, +kw Source modification |  |
| Projecl or Process Description: Marine Terminal |  |


| Coniplete for all Polutants with a Project Enission hcregse. | POUITANTS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ozone |  | - $\boldsymbol{\omega}$ | ${ }^{\text {PN }}$ | $\underset{\sim}{\text { PM }}$ 2及 | $\mathrm{NO}_{\mathrm{x}}$ | $\mathrm{SO}_{2}$ | $\mathrm{H}_{2} \mathrm{~S}$ | $\mathrm{CO}_{2}$ |
|  | VOG | $\mathrm{ND}_{\mathrm{F}}$ |  |  |  |  |  |  |  |
| Monatlainment? | No | N | Nb | Nb | No | No | No | No | No |
| PSO? | No | Yes | Yes | Nb | No | Yes | Yes | Yes | Yes |
| Existing sie PIE (tpy)? | $<250$ | $<250$ | $<250$ | $<250$ | $<250$ | $<250$ | 250 | $<250$ | $<75000$ |
| Proposed projecl emission increases (toy from 2f) ${ }^{2}$ | 82.37 | 65.23 | 126.33 | 5.45 | 5.45 | 65.23 | 90.54 | 0.55 | 91,707 |
| E the existing site a major source? | No | N | Nb | N | No | No | No | No | Nb |
| I mot, is the project a major source by itsell? | N | \% | Nb | No | No | No | N | No | Nb |
| I site is mejor is project increase significanc? | M | M | M | NA | NA | N | N | NA | N |
| Ifeling required estimated start of consluction? |  |  |  |  | Na |  |  |  |  |
| Five years prior to stat of construction |  |  | M |  |  |  | con | raned |  |
| Estimated start of dperation |  |  | M |  |  |  |  |  |  |
| Net contemporaneous change including proposed project from Table 3F. (Tyy) | M | NA | M | N | M | Na | Na | N | N |
| Major NSR Applicable? | No | No | Nb | No | No | No | No | No | No |

1 other PSD pollutants. [Pb, HRS, TRS, H2SO4, Fluoride excluding HF, etc]
2 .Sum of proposed emissions minus.baseline emissionst. increases onty.-

TABLE 2F
PROJECT EMISSION I


[^1]TABLE 2F
PROJECT EMISSION INCREASE

TCEQ - 2047(Revised 04/12) Table $2 F$
These forms are for use by facilities subject to alr quallty permitt requirements and may
TABLE $2 F$
PROJECT EMISSION I


[^2]PROJECT EMISSION INCREASE

| Pollutant ${ }^{\text {a }}$ |  | $\mathrm{SO}_{2}$ |  |  |  |  | Pernit $\mathrm{No}_{+1}$ TED |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eaneline Period; |  | $N / A$ |  |  |  |  |  |  |  |  |  |
| A B |  |  |  |  |  |  |  |  |  |  |  |
|  | Affectad or Modified Facilities ${ }^{2}$FIN FBenlity N |  |  | Permit Ne. | Actual Emissions ${ }^{3}$ ( $\mathrm{t} 0 \mathrm{n} \mathrm{n} / \mathrm{y}$ T) | Baseline Emissions ${ }^{4}$ (tons/yr) | Proposed <br> Emlestions ${ }^{5}$ (tons/yr) | Projected <br> Actual <br> Emissions <br> ( $\mathrm{mR} \mathrm{m} / \mathrm{yr}$ ) | Difference (B) ${ }^{\circ}$ (tons/yl) | Correction ${ }^{7}$ (tons/y) | Project <br> Increase ${ }^{6}$ <br> (thons/yr) |
| 1 | BERTHCAP | BERTHCAP | Berth Loading Fugitives Emissions Cap | NA | - | - | - | - | - | - | - |
| 2 | MVCU-1 -MVCU-8 | MVCU-1 - <br> MVCU-8 | Controlled Loading Annual Emissions Cap | NA | - | - | 90.48 | - | 90.48 | - | 90.48 |
| 3 | 50-1 | 50-1 | Recycle Tank No. 1 | NA | - | - | - | - | - | - | - |
| 4 | 50-2 | 50-2 | Recycle Tank No. 2 | NA | - | - | - | - | - | - | - |
| 5 | TCOMB-1 | T-COMB-1 | Temporary Portabie Combustion Unit | NA | - | - | 0.06 | - | 0.06 | - | 0.06 |
| 6 | MSS | MSS | MSS Emisslons Cap | NA | - | - | 0.001 | - | 0.001 | - | 0.001 |
| 7 | Flug | FUG | Piping Fugitive Components | NA | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | * | - | , | , | - |
| - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | * | - |
| - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | $\cdot$ | $\checkmark$ | - | - | - | - |
| - | - | - | - | - | - | - | * | - | - | $\cdot$ | - |
| - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | * | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | * | $\cdot$ |
| - | - | - | $\square-$ | - | - | - | - | - | - | - | - |
| - | - | - | - | - | $\checkmark$ | $\cdot$ | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  | Fage Subtotal ${ }^{\text {a }}$ |  | 90.54 |
|  |  |  |  |  |  |  |  |  |  | Praject Total: | 90.54 |

[^3]TABLE 2F
PROJECT EMISSION INCREASE


# Section 8 <br> Rule Applicability Analysis 

Pursuant to 30 TAC $\S 116.111$, Lone Star proposes to meet the rules and regulations of the TCEQ and the intent of the Texas Clean Air Act (TCCA). This section addresses each of those requirements.

### 8.1 Protection of Public Health and Welfare - 30 TAC $\$ 116.111(\mathrm{a})(2)(\mathrm{A})$

The emissions from the facilities included in this application will comply with all air quality rules, regulations, and the intent of the Texas Clean Air Act (TCAA); including protection of public health and welfare. Applicable regulations are as follows:

### 8.1.1 Chapter 101 - General Air Quality Rules

The facilities included in this application will be operated in accordance with the General Rules relating to circumvention, nuisance, traffic hazard, notification requirements for emissions events and scheduled maintenance, startup and shutdown activities, sampling, sampling ports, emissions inventory requirements, sampling procedures, compliance with Environmental Protection Agency standard, the National Primary and Secondary Air Quality Standards, inspection fees, emissions fees, and all other applicable General Rules.

### 8.1.2 Chapter 106 - Permits by Rule

Facilities included in this application are currently not subject to the requirements of 30 TAC Chapter 106. In the event 30 TAC Chapter 106 becomes applicable, Lone Star will operate in compliance with the applicable requirements.

### 8.1.3 Chapter 111 - Visible Emissions and Particulate Matter

Facilities included in this application are subject to and will operate in compliance with all requirements of 30 TAC Chapter 111.

### 8.1.4 Chapter 11.2 - Sulfur Compounds

Facilities included in this application are subject to and will operate in compliance with all requirements of 30 TAC Chapter 112.

### 8.1.5 Chapter 113 - Toxic Materials

This chapter references the regulations under 40 CFR Part 63. Applicability for those regulations is addressed in Section 8.5.

### 8.1.6 Chapter 114 - Motor Vehicles

Facilities included in this application are not subject to the requirements of 30 TAC Chapter 114.

### 8.1.7 Chapter 115 - Volatile Organic Compounds (VOC)

Facilities included in this application are subject to and will operate in compliance with the following subchapters of 30 TAC 115:

- 30 TAC $\$ 1.15 .112$ - Control Requirements for Storage of Volatile Organic Compounds;
- 30 TAC $\S 115.212$ - Control Requirements for Loading and Unloading of Volatile Organic Compounds;
- 30 TAC $\S 1.15 .542$ - Control Requirements for Degassing of Storage Tanks, Transfer Vessels, and Marine Vessels.


### 8.1.8 Chapter 116 - New Construction or Modification

Facilities included in this application are subject to and will operate in compliance with the applicable requirements of 30 TAC 116.

### 8.1.9 Chapter 117 - Nitrogen Compounds

Facilities included in this application are subject to and will operate in compliance with the applicable requirements of 30 TAC Chapter 117.

### 8.1.10 Chapter 118 - Air Pollution Episodes

The facilities included in this application are subject to and will operate in compliance with the applicable requirements of 30 TAC Chapter 118.

### 8.1.11 Chapter 122 - Federal Operating Permits

The proposed Harbor Island Marine Terminal is a major source for Title V purposes; therefore, subject to the requirements of 30 TAC Chapter 122.

### 8.1.12 Impact on Schools

There are no schools located within 3,000 feet of the facilities included in this application.

### 8.2 Measurement of Emissions - 30 TAC $\$ 116.111(a)(2)(B)$

Emissions will be sampled upon request of the Executive Director of the TCEQ.

### 8.3 BACT Technology - 30 TAC $\S 116.111(a)(2)(\mathrm{C})$

Section 6 of this application provides a detailed best available control technology analysis for the facilities included in this application.

### 8.4 NSPS - 30 TAC §116.111(a)(2)(D)

Facilities included in this application are subject to and will operate in compliance with the applicable requirements of the following New Source Performance Standards:

$$
40 \text { CFR 60, Subpart Kb } \begin{array}{ll}
\text { Standards of Performance for Volatile Organic Liquid } \\
& \text { Storage Vessels for which Construction, Reconstruction, or } \\
& \text { Modification Commenced After July 23, } 1984 .
\end{array}
$$

### 8.5 NESHAP - 30 TAC $\S 116.111(\mathrm{a})(2)(\mathrm{E})$

The faciities included in this application are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants.

### 8.6 NESHAP for Source Categories - 30 TAC \$116.111(a)(2)(F)

Facilities included in this application are subject to and will operate in compliance with the applicable requirements of the following National Emission Standards for Hazardous Air Pollutants for Source Categories:

$$
40 \text { CFR Part 63, Subpart Y } \quad \begin{aligned}
& \text { National Emission Standards for Marine Tank Vessel } \\
& \text { Loading Operations }
\end{aligned}
$$

### 8.7 Performance Demonstration - 30 TAC $\$ 116.111(a)(2)(G)$

This facilities included in this application will perform as represented in the application and as required by the permit.

### 8.8 Nonattainment Review - 30 TAC $\$ 116.111(a)(2)(H)$

Nueces County has been designated attainment or unclassified with regard to criteria pollutant National Ambient Air Quality Standards. Therefore, nonattainment New Source Review requirements are not applicable to this project.

### 8.9 Prevention of Significant Deterioration - 30 TAC $\$ 116.111(\mathrm{a})(2)(1)$

See Section 7 for a detailed PSD applicability analysis.

### 8.10 Air Dispersion Modeling - 30 TAC $\$ 116.111$ (a)(2)(J)

See Appendix C for the Air Quality Analysis associated with facilities included in this application.

### 8.11 Hazardous Air Pollutants - 30 TAC $\$ 116.111(\mathrm{a})(2)(\mathrm{K})$

The Harbor Island Marine Terminal is a minor source of Hazardous Air Pollutants (HAPs); therefore, it is not an affected source subject to the requirements of FCAA 112(g).

### 8.12 Mass Cap and Trade Allowances - 30 TAC $\$ 116.111(\mathrm{a})(2)(\mathrm{L})$

The Harbor Island Marine Terminal is not located in a county that is covered by the Mass Emissions Cap and Trade (MECT) program; therefore, this rule does not apply.

### 8.13 Public Notice - 30 TAC $\$ 116.111$ (b)

This project will result in increases in allowable emissions which exceed the applicable public notice threshold; therefore, public notice is required for this application.

## Appendix C Air Quality Analysis



Company Name: $\qquad$
$\qquad$

| Acknowledgement: |  |  | Select from the crop downt |
| :---: | :---: | :---: | :---: |
| I acknowledge that I am submitting an authorized TCEQ Electronic Modeling Evaluation Workbook and any necessary attachments. Except for inputting the requested data, I have not changed the TCEQ Electronic Modeling Evaluation Workbook n any way, including but not limited to changing formulas, formatting, content, or protections. |  |  | 1 agree |
| Administrative Information: |  |  |  |
| Data Type: |  | Facility Information: |  |
| Project Number ( 6 digits): |  |  |  |
| Permit Number: |  |  |  |
| Regulated Entity D (9 digits): |  |  |  |
| Facility Name. |  | Harbor Island Marine Terminal |  |
| Facility Addess: |  | Property s adjacent o Highway 367 and North East of Ferry Lan |  |
| Facility County (select one): |  | Nueces |  |
| Company Name: |  | Lone Star Ports, LLC |  |
| Company Contact Name: |  | Matt Marra |  |
| Company Contact Number: |  | 713-253-6948 |  |
| Company Contact Email: |  | Matt.Marraf, |  |
| Modeling Company Name, as | applicable: | DiSorbo Consuling |  |
| Modeling Contact Name: |  | Joe Kupper, P.E. |  |
| Hodeling Contact Number: |  | 512-693-4186 |  |
| Modeling Contact Emai: |  | jkupper@DiSorboconsult.com |  |
| New/Existrng Site (select one), |  | New Site |  |
| Modeling Date (MM/DD/MYY |  | 5/30/2019 |  |
| Datum Used (select one): |  | NAD83 |  |
| UTM Zone (select one): |  | 14 |  |
| Sheet instructions: findicate in the Table of Contents which sections are applicable and included for this modeling demonstration. Select "X" from the drop clown if the item below is included in the workboak. Note: This workbook is only for the following air dispersion models: AERSCREEN, ISC/ISCPrime, and/or AERMOD. If SCREEN3 is used, please use the separate Electronic Modeling Evaluation Workbook (EMEW) for SCREEN3 workbook. |  |  |  |
| Table of Contents: |  |  |  |
| Section: | Sheet Titie | ck to jump D specific sheet): | Select an $X$ from the dropdown menu if included: |
| 1 | General |  |  |
| 2 | Model ${ }^{\text {aptions: }}$ |  | X |
| 3 | Bul ting Downwash |  | X |
| 4 | Flare Source Parameters |  |  |
| 5 | Pont Source Parameters |  | X |
| 6 | Area Source Parameters. |  |  |
| 7 | Volume Source Calculations, |  | X |
| 8 | Volume Source Parameters. |  | X |
| 9 | Pont and Fare Source Emissions |  | X |
| 10 | Args Source Emissions |  |  |
| 11 | Volume scarce Emissions |  | X |
| 12 | Speclated Emissions |  | X |
| 13 | Intermitent Sources |  |  |
| 14 | Modelinq Scenarios |  |  |
| 15 | Monitor Calculations |  | X |
| 16 | Backoround Justiforation |  | X |
| 17 | Secondary Formation of PM2 5 |  | X |
| 18 | MAAGS/State Propety Line_(SPL) Modeling_Results. |  | X |
| 19 | Unit Impact Mutipliers |  |  |
| $2]$ | Heath Effects Modelimg Results. |  | $\bar{x}$ |
| 21 | Modeling File Names. |  | X |
| 22 | Speciated Chemicals |  |  |

Texas Commission on Environmental Quality
Electronic Modeling Evaluation Workbook (EMEW) General

| Included Attachments <br> Instructions: The following are attachments that must be included with any modeling analysis. If providing the plot plan and area map with the permit application, ensure there is also a copy with the EMEW. The copy can be electronic. | Select an X from the dropdown menu ff included: |
| :---: | :---: |
| Plot Plan: |  |
| Instructions: Mark al that apply in the attached plot plan. For larger properties or dense source areas, provide multiple zoomed in plot pians that are legible. |  |
| PropertyiFence Lines all visible and marked. | X |
| North arrow included. | X |
| Clearly marked scale. | X |
| Al sources and buildings are cleaty kabeled. | X |
| Area Map: |  |
| Instructions: Mark all that apply in the attached area map. |  |
| Annotate schools within 3,000ft of source's nearest property fine. |  |
| AI property lines are included. | X |
| Non-industrial receptors are identified. | X |
| Additional Attachments (as applicable): Note: These are just a few examples of atfachments that may need bo be included. There may be others depending on the scope of the modeling analysis. | Select an $X$ from the dropdown menu if included: |
| Processed Met Data Information |  |
| Excel spreadsheet of processed meteorology data. |  |
| Meteorologlcal Files (al input and outputs). |  |
| Source Group Descriptions |  |
| Descri dition of modeling source groups (could be in a tabulated formet), |  |
| Modeling Tectwiques and Scenarios <br> Provide al justification and discussion on modeling scenarios used for the modeling analyses. The following boxes are examples of approaches that should be provided but is not all inclusive. |  |
| Discussion on modeling techniques not discussed in workbook. |  |
| Justification for exceedance refinements, as applicable. |  |
| Discussion and images for worst-case determination, as applicable. |  |
| Slagle Property Line Desigoation, as applicable |  |
| Include Apreement, Order, and map defining each petitioner. |  |
| Post Processing using Unit tm pact Mulitipliers (UIMS) |  |
| Include documentation on any calculations used with the UIMs (i.e., Step 3 of the MERA). |  |
| Tier $3 \mathrm{NO}_{2}$ anzysis IF OLM or PVMRM are used, provide all justification and documentation on using this approach |  |
| Description of model setup. |  |
| Description and justification of model options selected (i.e., $\mathrm{NO}_{2}$ to $\mathrm{NO}_{x}$ in-stack ratios) |  |
| Other Altachments Provide a list in the box below of additional attachments being prowided that are not listed above: |  |

Date: $\quad$ /30/2019
Permit\#: , TB $\qquad$
$\qquad$
I. Project Information
A. Project Overview: In the box below, give a brief Project Overview. To type or insert text in box, double click in the box below. Please limit your response to 2000 characters.

Lone Star Ports proposes to construct and operate a marine terminal capable of loading crude oil and/or crude oil condensates onto ocean going ships/barges and inland barges via two loading berths. Vapors associated with the loading of crude oil and/or crude oil condensates will be collected and routed to a vapor control system which consists of eight vapor combustion units (VCUs). In addition, Lone Star proposes to construct two storage tanks to be utilized for pipeline relief and/or the storage of residual crude and/or crude oil condensate associated with loading operations. Also included in this application are piping components and maintenance, startup, and shutdown activities associated with the storage tanks and marine loading operations.

The modeling results show that the concentrations are all below the applicable standards and health effects guidelines. It should be noted that the modeling has been performed in a very conservative manner, in that all sources were modeled to be operating at their maximum emission rate at the same time. During actual operations the emission rates will be less than the permitted limits and not all of the sources will be operating at the same time. For example not all MSS activities will occur during the same hour.

For the Health Effects modeling results, please note that the maximum concentration occurs over water. However, because the EMEW workbook does not have a place to report receptors over water, the maximum results and ESL exceedances are conservatively reported in the industrial land category.
II. Air Dispersion Modeling Preliminary Information

Instructions: Fill in the information below based on your modeling setup. The selections chosen in this sheet will carry throughout the sheet and workbook. Based on selections below, only portions of the sheet and workbook will be available. Therefore, it is vital the sheet and workbook are filled out in order, do NOT skip around.

For larger text boxes, double click to type or insert text.
A. Type of Model Used: Select " $X$ " in all that apply


Texas Commission on Environmental Quality
Electronic Modeling Evaluation Workbook (EMEW)
Model Options
D. Constituents Evaluating: (Select "X" in all that apply)

Date: $\qquad$
Permit\#: TPD $\qquad$
$\qquad$ Lone Star Ports, LLC NAAQS: List all pollutants that require an modeling review. (Select " $X$ " in all that apply)

| X | $\mathrm{SO}_{2}$ | X | $\mathrm{PM}_{10}$ |
| :--- | :--- | :--- | :--- |
| X | CO | X | $\mathrm{PM}_{2.5}$ |
|  | Pb | $\mathrm{NO}_{2}$ |  |
|  |  | X |  |


| Both | Identify which averaging periods are being evaluated for $\mathrm{NO}_{2}$. |
| :--- | :--- |
| Tier 2: ARM 2 | Identify the 1-hr $\mathrm{NO}_{2}$ tier used for the AERMOD or AERSCREEN <br> analyses. |
| Tier 2: ARM 2 | Identify the annual $\mathrm{NO}_{2}$ tier used for the AERMOD or <br> AERSCREEN analyses. |

State Property Line: List all pollutants that require an modeling review. (Select "X" in all that apply)

| X | $\mathrm{H}_{2} \mathrm{~S}$ |
| :--- | :--- |
| $\mathrm{H}_{2} \mathrm{SO}_{4}$ |  |$\quad \mathrm{SO}_{2}$

Texas Commission on Environmental Quality
Electronic Modeling Evaluation Workbook (EMEW)
Model Options
Company Name:

Date: $\quad 5 / 30 / 2019$
Permit\#: TBD___
$\qquad$

| E. Dispersion Options: If "Urban" has been selected and this project is using AERMOD or |
| :--- |
| AERSCREEN, include the population used. Select "X" in the box to select an option. |
| X Urban |
| Rural |
| It is abundantly obvious that the area surrounding the site is a rural nature. |
|  |

Texas Commission on Environmental Quality
Electronic Modeling Evaluation Workbook (EMEW)
Model Options
G. Meteorological Data:

If AERMOD and/or ISC/ISCPrime are selected, please complete the following section:

| 12924 | Surface Station |
| :--- | :--- |
| 12924 | Upper Air Station |
| 13.4 | Meters $(\mathrm{m})$ |
| 16216 | Profile Base Elevation (AERMOD only) |
|  | AERMET Version Number |

Yes Was TCEQ pre-processed Years used
Please enter the year(s) selected for this meteorological data:

| 20121 Year | $2011-20155$ Years |
| :--- | :--- |
| CO, PM10, H2S, Crude | Which analysis(es) relied on 1 year? |
| NO2, PM2.5, SO2 | Which analysis(es) relied on 5 years? |

Provide any other justification for Meteorological Data, as applicable.
Used low roughness met data set because surface roughness for the site is less than 0.1
$\qquad$ Model Options

Company Name: $\qquad$
H. Receptor Grid:

For AERMOD or ISC/ISCPrime, fill in the following information on your modeled receptor grid. Note: Receptor grid resolution (tight, fine, medium, coarse) are based on recommended receptor grid spacing per the $A Q M G$, if something outside of this is used, fully describe it below.


Texas Commission on Environmental Quality
Electronic Modeling Evaluation Workbook (EMEW)

Company Name:

Date: $\quad$ 5/30/2019
Permit\#: _r증 $\qquad$

Facility:

| Downwash Type | Modeled Building $\mathbb{D}$ | $\begin{array}{\|c\|} \text { Tank } \\ \text { Diameter (m) } \\ \hline \end{array}$ | Number of Tiers | Maximum Height (m) | Tier 1 Height (m) | Tier 2 Height (m) | Tier 3 Height (m) | Tier 4 Height (m) | Tier 5 Height (m) | Tier 6 Height (m) | Tier 7 Height (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tank | Tank1 | 26.2128 | 1 | 14.6304 | 14.6304 |  |  |  |  |  |  |
| Tank | Tank2 | 26.2128 | 1 | 14.6304 | 14.6304 |  |  |  |  |  |  |
| Builling | Office |  | 1 | 4.572 | 4.572 |  |  |  |  |  |  |
| Building | MCC |  | 1 | 3.6576 | 3.6576 |  |  |  |  |  |  |
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| EPN | Mocele ID | Modeling Scenario | Source Description | Point Source Type | Point Source Justification | $\begin{gathered} \text { Easting: } \\ X[\mathrm{~m}] \end{gathered}$ | Northing: | Base Elevation [m] | Helght [m] | Exit Temperature $[\mathrm{K}]$ | Exit Velocity $[\mathrm{m} / \mathrm{s}]$ | Diameter [m] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MVCU-1 | MVYCu1 |  | Controlled Manine Loading VCU No. 1 | POINT | Vertical Stack | 690,448 | 3:081,816 | 2.33 | 40 | 1400 | 20.47 | 12 |
| MVCU-2 | MVCU2 |  | Controlied Marine Loading <br> VCU No. 2 | POINT | Vertical Stack | 690,458 | 3,081,819 | 2.36 | 40 | 1400 | 20.47 | 12 |
| MVCU-3 | MVCU3 |  | Controlled Marine Loading VCU No. 3 | POINT | Vertical Stack | 690,468 | 3,081,822 | 2.39 | 40 | 1400 | 20.47 | 12 |
| M $\mathrm{CLS}^{\text {-4 }}$ | MVCU4 |  | Controlled Marine Loading vCU No. 4 | POINT | Vertical Stack | 690,478 | 3,081,825 | 2.41 | 40 | 1400 | 20.47 | 12 |
| MVCU-5 | MVCUS |  | Controlled Manne Loading VCUNo. 5 | POINT | Vertical Stack | 690,498 | 3,081,830 | 2.45 | 40 | 1400 | 20.47 | 12 |
| MVCU-6 | M ${ }^{\prime}$ cu6 |  | Controlled Marine Loading Y'CU No. 6 | POINT | Vertical Stack | 690,508 | 3,081,833 | 2.48 | 40 | 1400 | 20.47 | 12 |
| MVCU-7 | MVCU7 |  | Controlled Marine Loading VCU No. 7 | POINT | Vertical Stack | 690,518 | 3,081,836 | 2.5 | 40 | 1400 | 20.47 | 12 |
| MvCU-8 | MVCU8 |  | Controlied Marine Loading VCU No. 8 | POINT | Vertical Stack | 690.528 | 3,081.839 | 2.53 | 40 | 1400 | 20.47 | 12 |
| T-COMB-I | T_COMB_1 |  | Temporary Portable Combustion Unit | POINT | Vertical Stack | 690,257 | 3,081,786 | 2.17 | 11 | 1400 | 33 | 3 |
| MSS | MSS_CONT |  | MSS Control Device (non- $\operatorname{tank}$ ) | POINT | Vertical Stack | 690,474 | 3,081,634 | 1.77 | 11 | 1400 | 33 | 3 |
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Date: _ $5 / 30 / 2019$
Permit \#: _fBE
Company Name: __Lone Star Ports, LLC

| EPN | Model ID | Footprint of Source Length (m) | Footprint of Source Width (m) | Length of Side (making it a square) SQRT(L*W) | Type of Volume Source (sigma y) <br> Pick from drop-down | Sigma $Y$ <br> (m) | Vertical Span <br> Min Release <br> (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BERTH-1 | B01_0001 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-1 | B01. 0002 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-1 | B01_0003 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-1 | B01_0004 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-1 | B01_0005 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-1 | B01_0006 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-1 | B01_0007 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-1 | B01_0008 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-1 | B01_0009 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02_0001 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02_0002 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02_0003 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02_0004 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02_0005 | 30 | 30 | 30.48 | Mutiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02_0006 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02,0007 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02_0008 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| BERTH-2 | B02_0009 | 30 | 30 | 30.48 | Multiple Volumes: Adjacent Volume Sources | 14.18 | 15.24 |
| 50-1 | TK50_1 | 0 | 0 | 0.30 | Single Volume Source | 0.07 | 14.478 |
| 50-2 | TK50_2 | 0 | 0 | 0.30 | Single Volume Source | 0.07 | 14.478 |
| FUG | FUG | 122 | 122 | 121.92 | Single Volume Source | 28.35 | 0 |
| MSS | MSS_FUG | 6 | 6 | 6.10 | Single Volume Source | 1.42 | 0 |
| MSS | Pigging | 2 | 2 | 1.52 | Single Volume Source | 0.35 | 0 |
|  |  |  |  | 0.00 |  | Incomplete |  |
|  |  |  |  | 0.00 |  | Incomplete |  |
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| EPN | Model ID | Vertical Span <br> Max Release (m) | Vertical Dimension (m) | Type of Volume Source (sigma z) <br> Pick from drop-down | Release Height (middle point of vertical span) (m) | Building Name (if on/adjacent to a building) <br> Pick from drop-down | Adjacent Building Height, if applicable (m) | Sigma Z <br> (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BERTH-1 | B01_0001 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-1 | B01_0002 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-1 | B01_0003 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-1 | B01_0004 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-1 | 801_0005 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-1 | B01_0006 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-1 | B01_0007 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| \|lBERTH-1 | B01_0008 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-1 | B01_0009 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0001 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0002 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0003 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0004 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0005 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0006 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0007 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0008 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| BERTH-2 | B02_0009 | 16.764 | 1.52 | Elevated Source: Not on or adjacent to Building | 16.00 |  |  | 0.35 |
| 50-1 | TK50_1 | 14.7828 | 0.30 | Elevated Source: On or adjacent to Building | 14.63 | Tank1 | 14.63 | 6.80 |
| 50-2 | TK50_2 | 14.7828 | 0.30 | Elevated Source: On or adjacent to Building | 14.63 | Tank2 | 14.63 | 6.80 |
| FUG | FUG | 1.83 | 1.83 | Surface-Based Source | 0.91 |  |  | 0.85 |
| MSS | MSS_FUG | 1.83 | 1.83 | Surface-Based Source | 0.91 |  |  | 0.85 |
| MSS | Pigging | 1.83 | 1.83 | Surface-Based Source | 0.91 |  |  | 0.85 |
|  |  |  | 0.00 |  | 0.00 |  |  | Incomplete |
|  |  |  | 0.00 |  | 0.00 |  |  | Incomplete |
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Date: $\quad 5 / 30 / 2019$ Permit \#: _TBD______ 377 spod dens auo7 :auren Kueduron

| EPN | Model ID | Modeled Release Height [m] | Modeled Length $X$ [ m ] | Lateral Dimension Sigmay $[m$ ] | $\begin{gathered} \text { Vertical } \\ \text { Dimension } \\ \text { Sisma } \end{gathered}$ $\text { SigmaZ }[\mathrm{m}]$ | Modeling Scenario | Easting: $X[m]$ | Northing: $\mathrm{Y}[\mathrm{m}]$ | Base Elevation [m] | Source Description | Volume Source Size Justification |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BERTH-1 | B01_0001 | 16,00 | 30.48 | 14.18 | 0.35 |  | 690,209 | 3,081,462 | 0 | Berth 1 Loading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-1 | B01_0002 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,237 | 3,081,473 | 0 | Berth 1 Loading Fugtives (Ships) | Emissions released from muditiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-1 | B01_0003 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,265 | 3,081,484 | 0 | Berth 1 Loading Fugtives (Ships) | Emissions released from mutiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-1 | B01_0004 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,293 | 3,081,496 | 0 | Berth 1 L.oading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-1 | B01_0005 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,322 | 3,081,507 | 0 | Berth 1 Loading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-1 | B01_0006 | 18.00 | 30.48 | 14.18 | 0.35 |  | 690,350 | 3,081.518 | 0 | Berth 1 Loading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-1 | 801_0007 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,378 | 3,081,530 | 0 | Berth 1 Loading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-1 | B01_0008 | 16.00 | 30.48 | 14.18 | 0,35 |  | 690,407 | 3,081,541 | 0 | Berth 1 Loading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-1 | B01_0008 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,435 | 3,081,553 | $\bigcirc$ | Berth 1 Loading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-2 | B02_0001 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,575 | 3,081,572 | 0 | Serth 2 Loading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-2 | B02_0002 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,605 | 3,081,571 | 0 | Berth 2 Loading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |
| BERTH-2 | B02_0003 | 16.00 | 30.48 | 14.18 | 0.35 |  | 690,636 | 3,081,569 | 0 | Berth 2 L.oading Fugtives (Ships) | Emissions released from multiple vents at the top of the ship. Per TCEQ guidance the ships are not downwash structures. |

## Texas Commission on Environmental Quality Electronic Modeling Evaluation Workbook (EMEW) Volume Source Parameters


Texas Commission on Environmental Quality
Date: $5 / 30 / 2019$
Lone Star Ports, LLC


| Standard Type | Review Context | Intermittent Source? | Modeled Emilssion Rate [ $\mathrm{lb} / \mathrm{hr}]$ |
| :---: | :---: | :---: | :---: |
| State Property Line | Site Wide | No | 11.79 |
| State Property Line | Site Wide | No | 11.79 |
| State Property Line | Site Wide | No | 1.88 |
| State Property Line | Site Wide | No | 0.250 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 4.00 |
| NAAQS | SIL analysis | No | 2.66 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SLL analysis | $\mathrm{N}_{0}$ | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
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| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 25.05 |
| NAAQS | SLL analysis | No | 25.05 |
| NAAQS | SIL analysis | No | 4.00 |
| NAAQS | SIL analysis | No | 2.66 |
| NAAQS | SIL analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0.930 |
| NAAQS | SLI analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0,930 |
| NAAQS | SIL analysis | No | 0.150 |
| NAAQS | SIL analysis | No | 0.100 |
| NAAQS | SIL analysis | $\mathrm{N}_{0}$ | 0.930 |
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| NAAQS | SLL analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0.930 |
| NAAQS | SIL analysis | No | 0.150 |
| NAAQS | SIL analysis | No | 0.100 |
| Health Effects | Site Wide | No |  |
| Health Effects | Site Wide | $\mathrm{N}_{0}$ |  |
| Health Effecls | Site Wide | No |  |
| Health Effects | Site Wide | No |  |
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| Health \#e cts | Site Wide | No |  |
| Health Effects | Site Wide | No |  |
| Health Errects | Site Wide | No |  |

Page 3

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| EPN | Model ID | Modeling Scenario | Pollutant | Modeled Averaging Time | Standard Type | Review Context | Intermittent Source? | Modeled Emisslon Rate [ $\mathrm{B} / \mathrm{hr}$ ] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MSS | MSS_CONT | 0 | Health Effects Pollutant | 1-hr | Health Effects | Site Wide | No |  |
| MVCU-1 | MVCU1 | 0 | H2S | 1-hr | State Property Line | Site Wide | No | 0.130 |
| MVCU-2 | MVCU2 | 0 | H2S | 1-hr | State Property Line | Site Wide | No | 0.130 |
| MVCU-3 | MVCU3 | U | H2S | $1-\mathrm{hr}$ | State Property Line | Site Wide | No | 0.130 |
| MVCU-4 | MVCU4 | 0 | H2S | 1-hr | State Property Line | Site Wide | No | 0.130 |
| MVCU-5 | MVCU5 | 0 | H2S | 1-hr | State Property Line | Site Wide | No | 0.130 |
| MVCU-6 | MVCU6 |  | H2S | 1-hr | State Property Line | Site Wide | No | 0.130 |
| MVCU-7 | MVCU7 | 0 | H2S | 1-hr | State Properly Line | Site Wide | No | 0.130 |
| MVCU-8 | MVCU8 | 0 | H2S | 1-hr | State Property Line | Site Wide | No | 0.130 |
| T-COMB-1 | T_COMB_1 | U | H2S | 1-hr | State Property Line | Site Wide | No | 0.0200 |
| MSS | MSS_CONT | U | H2S | 1-hr | State Property Line | Site Wide | No | 3,00E-04 |
| MVCU-1 | MVCU1 | 0 | NOX | 1-hr | NAAQS | Minor Full NAAQS | No | 12.53 |
| MVCU-2 | MVCU2 | U | NOx | 1-hr | NAAQS | Minor Full NAAQS | No | 12.53 |
| MVCU-3 | MVCU3 | 0 | NOx | 1-hr | NAAQS | Minor Full NAAQS | No | 12.53 |
| MVCU-4 | MVCU4 | 0 | NOX | 1-hr | NAAQS | Minor Full NAAQS | No | 12.53 |
| MVCU-5 | MVCU5 | 0 | NOX | 1-hr | NAAQS | Minor Full NAAQS | No | 12.53 |
| MVCU-6 | MVCU6 | 0 | NOX | 1-hr | NAAQS | Minor Full NAAQS | No | 12.53 |
| MVCU-7 | MVCU7 | 0 | NOx | 1-hr | NAAQS | Minor Full NAAQS | No | 12.53 |
| MVCU-8 | MVCU8 | 0 | NOx | 1-hr | NAAQS | Minor Fulli NAAQS | No | 12.53 |
| T-COMB-1 | T_COMB_, 1 | 0 | NOx | 1-hr | NAAQS | Minor Full NAAQS | No | 3.00 |
| MSS | MSS_CONT | 0 | NOX | 1-hr | NAAQS | Minor Full NAAQS | No | 1.99 |
| MVCU-1 | MVCU1 | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-2 | MVCU2 | 0 | 502 | 1-hr | NAAQS | Minor Full | No | 11.79 |
| MVCU-3 | MVCU3 | 0 | SO2 | $1-h r$ | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-4 | MVCU4 | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-5 | MVCU5 | 0 | SO2 | 1-hr | NAAQS | Minor Fulil NAAQS | No | 11.79 |
| MVCU-6 | MVCU6 | 0 | SO2 | 1.hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-7 | MVCU7 | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-8 | MVCU8 | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| T-COMB-1 | T_COMB_1 | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | 1.88 |
| MSS | MSS_CONT | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | 0.250 |
| MVCU-1 | MVCU1 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full | No | 0.930 |
| MVCU-2 | MVCU2 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | 0.930 |
| MVCU-3 | MVCU3 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | 0.930 |
| MVCU-4 | MVCU4 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | 0.930 |
| MVCU-5 | MVCU5 | 0 | PM. 2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | 0.930 |
| MVCU-6 | MVCU6 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | 0.930 |
| MVCU-7 | MVCU7 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | 0.930 |
| MVCU-8 | MVCU8 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | 0.930 |
| T-COMB-1 MSS | T_COMB_1 | 0 | PM2.5 | $24-\mathrm{hr}$ | NAAQS | Minor Full NAAQS | No | 0.150 |
| MSS | MSS_CONT | 0 | PM 2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | 0.100 |
| MVCU-1 | MVCU1 | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-2 | MVCU2 | 0 | SO2 | $3-\mathrm{hr}$ | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-3 | MVCU3 | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCL-4 | MVCU4 | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-5 | MVCU5 | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-6 | MVCU6 | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-7 | MVCU7 | 0 | SO2 | 3 -hr | NAAQS | Minor Full NAAQS | No | 11.79 |
| MVCU-8 | MVCu8 | 0 | SO2 | $3-\mathrm{hr}$ | NAAQS | Minor Full NAAQS | No | 11.79 |
| T-COMB-1 | T_COMB_1 | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | 1.88 |
| MSS | MSS_CONT | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | 0.250 |
| MVCU-1 | MVCU1 | 0 | SO2 | 24-hr | NAAQS | Minor Full NAAQS | No | 11.79 |



Lone Star Ports, LLC | Scalars or |
| :---: | :---: |
| Factors Used? | 302


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## Point + Flare Emlssions




| Intermittent Source? | Modeled Emission Rate $[\mathrm{B} / \mathrm{hr}]$ | Basis of Emission Rate | Scalars or Factors Used? |
| :---: | :---: | :---: | :---: |
| No |  | Maximum Allowable | No |
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| Nu |  | Maximum Allowable | No |
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| $\mathrm{N}_{0}$ | 0.00100 | Maximum Allowable | No |
| No | 0.00100 | Maximum Allowable | No |

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## Texas Commission on Environmental Quality

 c Modellng Evaluation Workbook (EMEW)Volume Source Emisslons | $\begin{array}{c}\text { Intermittent } \\ \text { Source? }\end{array}$ | $\begin{array}{c}\text { Modeled Emission } \\ \text { Rate [lb/hr] }\end{array}$ |
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Review Context


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Page 1
Texas CommIssion on Environmental Quality Electronic Modeling Evaluation Workbook (EMEW) Speciated Emissions




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Texas Commission on Environmental Quality





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 Texas Commission on Environmental Quality Electronic Modeling Evaluation Workbook（EMEW）

 Combined Emissions


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EPN | Model ID | Modeling Scenarlo | Pollı nt | Modeled Averaging time | Standard Type | Review Context | Intermittent | Source Type | $\begin{gathered} \text { Modeled Emission } \\ \text { Rate [lb/hr] } \\ \hline \end{gathered}$ |
| MVCU-2 | MVCU2 | 0 | Ste | 1-hr | State Property Line | Site Wide | No | Point | 11.79 |
| MVCU-3 | MVCU3 | 0 | $9]$ | 1-hr | State Property Line | Site Wide | No | Polnt | 11.79 |
| MVCU-4 | MVCU4 | 0 | 38 | 1-hr | State Property Line | Site Wide | No | Point | 11.79 |
| MVCU-5 | MVCU5 | 0 | $3{ }^{3}$ | 1-hr | State Property Line | Site Wide | No | Point | 11.79 |
| MVCU-6 | MVCU6 | 0 | SE | 1-hr | State Property Line | Site Wide | No | Point | 11.79 |
| MVCU-7 | MVCU7 | 0 | St | 1-hr | State Property Line | Site Wide | No | Point | 11.79 |
| MVCU-8 | MVCU8 | 0 | St | 1-hr | State Property Line | Site Wide | No | Point | 11.79 |
| T-COMB-1 | T_COMB_1 | 0 | St | 1-hr | State Property Line | Site Wide | No | Point | 1.88 |
| MSS | MSS_CONT | 0 | St | 1-hr | State Property Line | Site Wide | No | Point | 0.25 |
| MVCU-1 | MVCU1 | 0 | 8 | 1-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-2 | MVCU2 | 0 | 8 | 1-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-3 | MVCU3 | 0 | 6 | 1-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-4 | MVCU4 | 0 | 8 | 1-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-5 | MVCU5 | 0 | 8 | 1-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-6 | MVCU6 | 0 | 8 | 1-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-7 | MVCU7 | 0 | 6 | 1-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-8 | MVCU8 | 0 | 6 | 1-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| T-COMB-1 | T_COMB_1 | 0 | 6 | 1-hr | NAAQS | SIL analysis | No | Point | 4.00 |
| MSS | MSS_CONT | 0 | 6 | 1-hr | NAAQS | SIL analysis | No | Point | 2.66 |
| MVCU-1 | MVCU1 | 0 | 6 | $8-\mathrm{hr}$ | NAAQS | SIL analysis | No | Polnt | 25.05 |
| MVCU-2 | MVCU2 | 0 | 6 | 8-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-3 | MVCU3 | 0 | 6 | 8-hr | NAAQS | SIL analysis | No | Polnt | 25.05 |
| MVCU-4 | MVCU4 | 0 | 6 | 8-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-5 | MVCU5 | 0 | 6 | 8-hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-6 | MVCU6 | 0 | 0 | 8 -hr | NAAQS | SIL analysis | No | Point | 25.05 |
| MVCU-7 | MVCU7 | 0 | 0 | 8 -hr | NAAQS | SIL analySis | No | Point | 25.05 |
| MVCU-8 | MVCU8 | 0 | 0 | $8-\mathrm{hr}$ | NAAQS | SIL analy ${ }^{\text {S } 1 \mathrm{~S}}$ | No | Point | 25.05 |
| T-COMB-1 | T_COMB_1 | 0 | 0 | 8-hr | NAAQS | SIL analySIS | No | Point | 4.00 |
| MSS | MSS_CONT | 0 | 0 | 8-hr | NAAQS | SIL analysis | No | Point | 2.66 |
| MVCU-1 | MVCU1 | 0 | PMO | 24-hr | NAAQS | SIL analysis | No | Point | 0.93 |
| MVCU-2 | MVCU2 | 0 | PM10 | 24-hr | NAAQS | SIL analysis | No | Point | 0.93 |
| MVCU-3 | MVCU3 | 0 | PM10 | 24-hr | NAAQS | SIL analysis | No | Point | 0.93 |
| MVCU-4 | MVCU4 | 0 | PM10 | 24-hr | NAAQS | SIL analysis | No | Point | 0.93 |
| MVCU-5 | MVCU5 | 0 | PM10 | 24-hr | NAAQS | SIL analysis | No | Polnt | 0.93 |
| MVCU-6 | MVCU6 | 0 | PM10 | 24-hr | NAAQS | SIL analysis | No | Point | 0.93 |
| MVCU-7 | MVCCU7 | 0 | PM10 | 24-hr | NAAQS | SIL analysis | No | Point | 0.93 |
| T-COMB-1 | T COMB 1 | 0 | PM10 | 24-hr | NAAQS | SIL analysis | No | Point | 0.93 |
| MSS | MSS_CONT | 0 | PM10 | 24-hr | NAAOS |  | No | Point | 0.15 |
| MVCU-2 | MVCU2 | 0 | PM2.5 | 24-hr | NAAQS | SIL analysis | No | Point | 0.93 |

## Texas Commission on Environmental Quality

 Eiectronic Modeling Evaluation Workbook（EMEW） Combined Emissions|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{array}{ll} \infty \\ \\ \\ \hline \end{array}$ |  | $\stackrel{\text { ¢ }}{2}$ |  | ${ }_{2}^{\text {¢ }}$ | ${ }_{2} \times$ | $2 \times$ |  | $\underset{\sim}{\bigcirc}$ | O |
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| $\frac{\square}{2}$ |  | $3$ |  |  |  |  |  |  |  |  | $0$ |  | 令 |  |  | $\begin{array}{\|c\|c\|} \hline 2 & 4 \\ 0 & 0 \\ 2 & 2 \\ 2 & 2 \\ 2 \end{array}$ |  |  |  |  |  | 2 | 2 | 2 |  |  | 2 |
| 글 |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & 0 \\ & 0 \\ & \sum \\ & i \end{aligned}$ |  |  |  |  |  |  |  |  |  | $\begin{gathered} 9 \\ 3 \\ 3 \\ 3 \\ 3 \end{gathered}$ |  |  |  | 䢒䢒 |


| EPN | Model ID | Modeling Scenario | Pollutant | Modeled Averaging time | Standard Type | Review Context | Intermittent | Source Type | Modeled Emission Rate [ $\mathrm{lb} / \mathrm{hr}$ ] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MVCU-4 | MVCU4 | 0 | SO2 | $1-\mathrm{hr}$ | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-5 | MVCU5 | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-6 | MVCU6 | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-7 | MVCU7 | 0 | SO 2 | 1-hr | NAAQS | Minor Full NAAQS | $\mathrm{N}_{0}$ | Point | 11.79 |
| MVCU-8 | MVCU8 | 0 | SO2 | $1-\mathrm{hr}$ | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| T-COMB-1 | T_COMB_1 | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | Point | 1.88 |
| MSS | MSS CONT | 0 | SO2 | 1-hr | NAAQS | Minor Full NAAQS | No | Point | 0.25 |
| MVCU-1 | MVCU1 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 0.93 |
| MVCU-2 | MVCU2 | 0 | PM2. 5 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 0.93 |
| MVCU-3 | MVCU3 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 0.93 |
| MVCU-4 | MVCU4 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | Polnt | 0.93 |
| MVCU-5 | MVCU5 | 0 | PM2.5 | $24-\mathrm{hr}$ | NAAQS | Minor Full NAAQS | No | Point | 0.93 |
| MVCU-6 | MVCU6 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | Posint | 0.93 |
| MVCU-7 | MVCU7 | 0 | PM2.5 | 24-hr | NAAQS | Minor Fuil NAAQS | No | Point | 0.93 |
| MVCU-8 | MVCU8 | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 0.93 |
| T-COMB-1 | T_COMB_1 | 0 | PM2. 5 | 24-hr | NAAQS | Minor Full | No | Polnt | 0.15 |
| MSS | MSS_CONT | 0 | PM2.5 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 0.10 |
| MVCU-1 | MVCU1 | 0 | SO 2 | 3-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-2 | MVCU2 | 0 | SO2 | 3-in | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-3 | MVCU3 | 0 | SO 2 | 3-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-4 | MVCU4 | 0 | SO2 | 3-nr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-5 | MVCU5 | 0 | SO 2 | 3-ht | NAAQS | Min or Full NAAQS | No | Point | 11.79 |
| MVCU-6 | MVCU6 | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | $\mathrm{N}_{0}$ | Point | 11.79 |
| MVCU-7 | MVCU7 | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-8 | MVCU8 | 0 | SO 2 | 3-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| T-COMB-1 | T COMB ${ }^{\text {a }}$ | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | Point | 1.88 |
| MSS | MISS_CONT | 0 | SO2 | 3-hr | NAAQS | Minor Full NAAQS | No | Point | 0.25 |
| MVCU-1 | MVCU1 | 0 | SO2 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-2 | MVCU2 | 0 | SO2 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-3 | MVCU3 | 0 | SO2 | 24-hr | NAAQS | Minor Fulil NAAQS | No | Point | 11.79 |
| MVCU-4 | MVCU4 | 0 | SO2 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-5 | MVCU5 | 0 | SO2 | 24-hr | NAAQS | Minor Fuil NAAQS | $\mathrm{N}_{0}$ | Point | 11.79 |
| MVCU-6 | MVCU6 | 0 | SO2 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-7 | MVCU7 | 0 | SO2 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| MVCU-8 | MVCUB | 0 | SO2 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 11.79 |
| T-COMB-1 | T_COMB 1 | 0 | SO 2 | 24-hr | NAAQQS | Minor Full NAAQS | No | Point | 1.88 |
| MSS | MSS_CONT | 0 | SO2 | 24-hr | NAAQS | Minor Full NAAQS | No | Point | 0.25 |
| MVCU-1 | MVCU1 | 0 | NOX | Annual | NAAQS | SIL analysis | No | Point | 1.68 |
| MVCU-2 | MVCU2 | 0 | NOX | Annual | NAAQS | SIL analysis | No | Point | 1.68 |
| MVCU-3 | MVCU3 | 0 | NOX | Annual | NAAQS | SLL analysis | No | Point | 1.68 |
| MVCU-4 | MVCU4 | 0 | $\mathrm{NO}_{\mathrm{X}}$ | Annual | NAAQS | SIL analysis | No | Point | 1.68 |


| EPN | Model ID | Modeling Scenario | Pollutant | Modeled Averaging time | Standard Type | Review Context | Intermittent | Source <br> Type | Modeled Emission Rate [ $\mathrm{lb} / \mathrm{hr}$ ] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MVCU-5 | MVCU5 | 0 | NOx | Annual | NAAQS | SIL analysis | No | Point | 1.68 |
| MVCU-6 | MVCU6 | 0 | NOX | Annual | NAAQS | SIL analysis | $\mathrm{N}_{0}$ | Point | 1.68 |
| MVCU-7 | MVCU7 | U | NOX | Annual | NAAQS | SIL analysis | No | Point | 1.68 |
| MVCUm | MVCU8 | 0 | NOX | Annual | NAAQS | SIL analysis | $\mathrm{N}_{0}$ | Point | 1.68 |
| T-COMB-1 | T_COMB_1 | 0 | NOX | Annual | NAAQS | SIL analysis | No | Point | 1.27 |
| MSS | MSS_CONT | U | NOX | Annual | NAAQS | SIL analysis | No | Point | 0.14 |
| MVCU-1 | MVCU1 | 0 | SO 2 | Annual | NAAQS | SIL analysis | No | Point | 2.58 |
| MVCU-2 | MVCU2 | 0 | SO 2 | Annual | NAAQS | SIL analysis | $N_{0}$ | Point | 2.58 |
| MVCU-3 | MVCU3 | 0 | SO 2 | Annual | NAAQS | SIL analysis | $N_{0}$ | Point | 2.58 |
| MVCU-4 | MVCU4 | U | SO 2 | Annual | NAAQS | SIL analysis | $N_{0}$ | Point | 2.58 |
| MVCU-5 | MVCU5 | (1) | SO2 | Annual | NAAQS | SIL analysis | No | Point | 2.58 |
| MVCU-6 | MVCU6 | 0 | SO2 | Annual | NAAQS | SIL analysis | No | Point | 2.58 |
| MVCU-7 | MVCU7 | 0 | SO 2 | Annual | NAAQS | SIL analysis | No | Point | 2.58 |
| MVCU-8 | MVCU8 | 0 | SO2 | Annual | NAAQS | SIL analysis | No | Point | 2.58 |
| T-COMB-1 | T_COMB_1 | 0 | SO 2 | Annual | NAAQS | SIL analysis | $\mathrm{N}_{0}$ | Point | 0.01 |
| MSS | MSS_CONT | 0 | SO 2 | Annual | NAAQS | SIL analysis | $\mathrm{N}_{0}$ | Point | 0.18 |
| MVCU-1 | MVCU1 | 0 | SO2 | Annual | NAAQS | Minor Full NAAQS | $\mathrm{N}_{0}$ | Point | 2.58 |
| MVCU-2 | MVCU2 | 0 | SO2 | Annual | NAAQS | Minor Full NAAQS | $\mathrm{N}_{0}$ | Point | 2.58 |
| MVCU-3 | MVCU3 | 0 | SO2 | Annual | NAAQS | Minor Full NAAQS | $N_{0}$ | Point | 2.58 |
| MVCU-4 | MVCU4 | 0 | SO 2 | Annual | NAAQS | Minor Full NAAQS | No | Point | 2.58 |
| MVCU-5 | MVCU5 | 0 | SO2 | Annual | NAAQS | Minor Full NAAQS | No | Point | 2.58 |
| MVCU-6 | MVCU6 | 0 | SO 2 | Annual | NAAQS | Minor Full NAAQS | $N_{0}$ | Point | 2.58 |
| MVCU-7 | MVCU7 | 0 | SO 2 | Annual | NAAQS | Minor Full NAAQS | $\mathrm{N}_{0}$ | Point | 2.58 |
| MVCU-8 | MVCU8 | 0 | SO 2 | Annual | NAAQS | Minor Full NAAQS | $\mathrm{N}_{0}$ | Point | 2.58 |
| T-COMB-1 | T_COMB_1 | 0 | SO 2 | Annual | NAAQS | Minor Full NAAQS | $\mathrm{N}_{0}$ | Point | 0.01 |
| MSS | MSS_CONT | 0 | SO 2 | Annual | NAAQS | Minor Full NAAQS | No | Point | 0.18 |
| MVCU-1 | MVCU1 | 0 | PM2.5 | Annual | NAAQS | SIL analysis | No | Point | 0.13 |
| MVCU-2 | MVCU2 | 0 | PM2.5 | Annual | NAAQS | SIL analysis | No | Point | 0.13 |
| MVCU-3 | MVCU3 | 0 | PM2.5 | Annual | NAAQS | SIL analysis | No | Point | 0.13 |
| MVCU-4 | MVCU4 | 0 | PM2.5 | Annual | NAAQS | SIL analysis | No | Point | 0.13 |
| MVCU-5 | MVCU5 | 0 | PM2.5 | Annual | NAAQS | SIL analysis | No | Point | 0.13 |
| MVCU-6 | MVCU6 | 0 | PM2,5 | Annual | NAAQS | SIL analysis | $\mathrm{N}_{0}$ | Point | 0.13 |
| MVCU-7 | MVCU7 | 0 | PM2.5 | Annual | NAAQS | SIL. analysis | $\mathrm{N}_{0}$ | Point | 0.13 |
| MVCU-8 | MVCU8 | 0 | PM2. 5 | Annual | NAAQS | SIL analysis | No | Point | 0.13 |
| T-COMB-1 | T_COMB_1 | 0 | PM2.5 | Annual | NAAQS | SIL analysis | $\mathrm{N}_{0}$ | Point | 0.06 |
| MSS | MSS_CONT | 0 | PM2.5 | Annual | NAAQS | SIL analysis | No | Point | 0.01 |
| MVCU-1 | MVCU1 | 0 | Health Effects Pollutant | Annual | Health Effects | Site Wide | No | Point | -- |
| MVCU-3 | MVCU2 | 0 | Health Effects Pollutant | Annual | Health Effects | Site Wide | No | Point | -- |
| MVCU-3 | MVCU3 | 0 | Health Effects Pollutant | Annual | Health Effects | Site Wide | No | Point | - |
| MVCU-4 | MVCU4 | 0 | Health Effects Pollutant | Annual | Health Effects | Site Wide | No | Point | - |
| MVCU-5 | MVCU5 | 0 | Health Effects Pollutant | Annual | Health Effects | Site Wide | No | Point | -- |


$\stackrel{1}{2}$

## Texas Commission on Environmental Quality

Review Context
$\qquad$ Site Wide
Site Wide Site Wide
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Site Wide $\begin{array}{ll}0 & 0 \\ 3 & \frac{0}{3} \\ \vdots & \\ \vdots & 0 \\ \vdots & 0 \\ \vdots\end{array}$
 $\begin{array}{cc}0 & 0 \\ \frac{0}{3} & 0 \\ 0 & 3 \\ 0 & 3 \\ \vdots 0 & 0\end{array}$

 Site Wide
Site Wide灾


Lone Star Ports, LLC



Texas Commission on Environmental Quality
Electronic Modeling Evaluation Workbook (EMEW) Monitor Calculations


| Pollutant: | $\mathrm{MO}_{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| AQSEP | 480391016 |  | Street Address and Gly: | 109b Brazorla Hwy 332 West |
| Link to Data Source: | uww epa gow/outdoor-air qualty-data/monitor-values |  | County: | Вгаzoria |
| Select metric for shart term averaging time below: | ist Year Concentration ( $\mathrm{\mu g} / \mathrm{m}^{3}$ ) | 2nd Year Concentration $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)^{3}$ | 3rd Year (most recent) Concentration ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | Calculated Background Concentration ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) |
| 1-hr 98 percentile | 35.72000 | 35,72000 | 33.84000 | 35 |
| Anrual Average |  |  |  | 0 |


| Pollutant: | $\mathrm{SO}_{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| AQSID: | 483550025 |  | Address: | prpus Christi State School (Alport R |
| Link to Data Source: | unw.epagow/outdoor-ais quality-data/monitor-values |  | County: | Nueces |
| Select metric for short tem averaging time below: | 1st Year Concentration $\left(1 \mathrm{~kg} / \mathrm{m}^{3}\right)$ | 2nd Year Concentration $\left(\mathrm{ug}_{\mathrm{g}}{ }^{3}\right)^{3}$ | 3rd Year (most recent) Concentration ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | Calculated Background Concentration $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)$ |
| 1-hr 99 percentile | 7.80000 | 10.50000 | 13.10000 | 10 |
| H2H 3-hr Avg |  |  | 10.30000 | 10 |
| H2H 24-hr Avg |  |  | 3.90000 | 4 |
| Annual Average |  |  | 1.10000 | 1 |

Texas Commission on Environmental Quality
Electronic Modeling Evaluation Workbook (EMEW)
Monitor Calculations


| Pollutant: | co |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| AQSID: |  |  | Address: |  |
| Link to Data Source: |  |  | County: |  |
| Sefect metric for short ferm averaging time below: | 1st Year Concentration ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | 2nd Year Concentration $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)$ | 3rd Year (most recent) Concentration ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | Calculated Background Concentration ( $\mu \mathrm{g} / \mathrm{m}^{\mathrm{s}}$ ) |
| Choose an item |  |  |  | 0 |
| Choose an ffem |  |  |  | 0 |


| Pollutant: | P6 |  |  |
| :---: | :---: | :---: | :---: |
| AQSID: |  | Address: |  |
| Link to Data Source: |  | County: |  |
| Seiect metric for short term averaging time below: | Concentration ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) from 38 Month Sample Period | Calculated Background Concentration ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) |  |
| Choose an tem |  |  | 0 |

Date: _ 5/30/2019
Company Name: _Lone Star Ports, LLC

Date: $5 / 30 / 2019$ Permit \#: _ FB Company Name: _Lone Star Ports, LLC_

## -

Date: 5/30/2019 Pernit \#: _
Company Name: _Lone Star Ports, LLC,

Date: $=5 / 30 / 2019$
Company Name: Lone Star Ports, LL_C

## Texas Commission on Environmental Quality Modeling Evaluation Workbook (EMEW) Background Justification <br> Background Justification



| Monitor Justification Data |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Category: | 10 Kilometer $\mathrm{PM}_{10}$ Emisslons Comparison | Types of Nearby Sources | County PM ${ }_{10}$ Emissions Comparison | County Population Comparison | Land Use Comparison | Regional Considerations |
| Project: |  |  |  |  |  |  |
| Monitor: |  |  |  |  |  |  |
| Data Source: |  |  |  |  |  |  |
| Additional Information |  |  |  |  |  |  |
| How are off-property sources accounted for? |  |  |  |  |  |  |
| Monitaring data set year(s)/Additional Justification: |  |  |  |  |  |  |




Texas Commission on Environmental Quality
Electronic Modeling Evaluation Workbook (EMEW)
Background Justification

Date: _ 5/30/2019 Permit \#: _FBD___ Lone Star Ports, LLC
Company Name: _Lone Star Ports, LLC

$\begin{aligned} \text { Date: } & \frac{5 / 30 / 2019}{\text { Permit \#: }} \text { TBD }\end{aligned}$



| Pollutant | Averaging Time | GLCmax $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)$ | De Minimis $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)$ |
| :---: | :---: | :---: | :---: |
| $\mathrm{SO}_{2}$ | 253.10000 | 20.42 |  |
| $\mathrm{H}_{2} \mathrm{SO}_{4}$ | $1-\mathrm{hr}$ |  | 1 |
| $\mathrm{H}_{2} \mathrm{SO}_{4}$ | $1-\mathrm{hr}$ |  | 0.3 |
| 24 hr | 14.90000 | 2.16 <br> $\mathrm{H}_{2} \mathrm{~S}$ <br> 1-hr <br> $\mathrm{H}_{2} \mathrm{~S}$ <br> (If property is residential, <br> recreational, business, or <br> commercial) |  |
| 1-hr | 14.90000 | 3.24 <br> (If property is not residential, <br> recreational, business, or <br> commercial) |  |


| Table 2. Site-wide Modeling Results for State Property Line |  |  |  |
| :---: | :---: | :---: | :---: |
| Pollutant | Averaging Time | GLCmax $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)$ | Standard $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)$ |
| $\mathrm{SO}_{2}$ | $1-\mathrm{hr}$ | 253.10000 | 1021 |
| $\mathrm{H}_{2} \mathrm{SO}_{4}$ | 1-hr |  | 50 |
| $\mathrm{H}_{2} \mathrm{SO}_{4}$ | $24-\mathrm{hr}$ |  | 15 |
| $\mathrm{H}_{2} \mathrm{~S}$ | $1-\mathrm{hr}$ | 14.90000 | 108 <br> $\mathrm{H}_{2} \mathrm{~S}$ <br> (If property is residential, <br> recreational, business, or <br> commercial) |
|  | 14.90000 | (If property is not residential, <br> recreational, business, or <br> commercial) |  |

Table 3. Modeling Results for Minor NSR De Minimis

| Table 3. Modeling Resuits for Minor NSR De Minimis |  |  |  |
| :---: | :---: | :---: | :---: |
| Pollutant | Averaging Time | GLCmax $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)$ | De Minimis $\left(\mu \mathrm{g} / \mathrm{m}^{\mathbf{3}}\right)$ |
| $\mathrm{SO}_{2}$ | $1-\mathrm{hr}$ | 138.26000 | $7.8^{\star}$ |
| $\mathrm{SO}_{2}$ | $3-\mathrm{hr}$ | 179.70000 | 25 |
| $\mathrm{SO}_{2}$ | $24-\mathrm{hr}$ | 73.10000 | 5 |
| $\mathrm{SO}_{2}$ | Annual | 1.07000 | 1 |
| $\mathrm{PM}_{10}$ | $24-\mathrm{hr}$ | 4.60000 | 5 |
| $\mathrm{NO}_{2}$ | $1-\mathrm{hr}$ | 122.96000 | $7.5^{\text {** }}$ |
| $\mathrm{NO}_{2}$ | Annual | 0.780 | 1 |
| CO | $1-\mathrm{hr}$ | 356.40000 | 2000 |
| CO | $8-\mathrm{hr}$ | 211.20000 | 500 |
| Additional information for the De Minimis values listed above can be found at: |  |  |  |



Page 2
Date: $\frac{5 / 30 / 2019}{\text { Permit \#: }}$
Lone Star Ports, LLC Company Name:
Texas Commission on Environmental Quality Electronic Modeling Evaluation Workbook (EMEW)
NAAQS-SPL Modeling Results

| Pollutant | Averaging Time | GLCmax ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | Secondary PM ${ }_{2.5}$ <br> Contribution ( $\mathrm{\mu g} / \mathrm{m}^{3}$ ) | Total Conc. = Secondary $\mathrm{PM}_{2.5}$ + GLCmax $\left(\mu \mathrm{g} / \mathrm{mi}^{-3}\right)$ | De Minlmis ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{PM}_{2.5}$ | 24-hr | 3.8 | 0.35079728 | 4.15080 | 1.2* |
| PM 2.5 | Annual | 0.0600 | 0.011445633 | 0.07145 | 0.2* |
| Additional information for the De Minimis values listed above can be found at: * wuw.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance,html |  |  |  |  |  |

Date: $\frac{5 / 30 / 2019}{\text { Permit \#: }} \frac{\text { TBD }}{}$
Company Name: Lone Star Ports, LLC

| Pollutant | Averaging Time | GLCmax ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | Background ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | Total Conc. - [Background + GLCmax] ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) | Standard ( $\mu \mathrm{g} / \mathrm{m}^{3}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{SO}_{2}$ | 1-hr | 100.96000 | 10.00 | 110.96 | 196 |
| $\mathrm{SO}_{2}$ | $3-\mathrm{hr}$ | 179.70000 | 10.00 | 189.70 | 1300 |
| $\mathrm{SO}_{2}$ | 24-hr | 73.10000 | 4.00 | 77.10 | 365 |
| $\mathrm{SO}_{2}$ | Annual | 1.07000 | 1.00 | 2.07 | 80 |
| $\mathrm{PM}_{10}$ | 24-hr |  | 79.00 | 79.00 | 150 |
| Pb | 3-mo |  | 0 | 0 | 0.15 |
| $\mathrm{NO}_{2}$ | 1-hr | 77.41000 | 35.00 | 112.41 | 188 |
| $\mathrm{NO}_{2}$ | Annual |  | 0 | 0 | 100 |
| CO | 1-hr |  | 0 | 0 | 40000 |
| CO | 8-hr |  | 0 | 0 | 10000 |

Facility:

| Modeled Heath Effect Results (MERA Guidance): |  |  |  |  | Step 4: Production |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chemical Species | CAS Number | Averaging Time | ESLL [ $\mu \mathrm{g} / \mathrm{m}^{3}$ ] |  | $25 \%$ ESL <br> Step 4 Production GLCmax since most recent ste wide modeling $\left[\mu \mathrm{g} \mathrm{m}^{3}\right.$ ] | 10\% ESL <br> Step 4 Production Project Only GLCmax $\left[\mu \mathrm{g} / \mathrm{m}^{3}\right]$ |
| crude oil, < $1 \%$ benzene | N/ | 1-hr | 3500 |  |  |  |
| cude oil, < $1 \%$ benzene | N/A | Annual | 350 | 5.31 |  |  |
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Facility:

| Modeled Health | Step 4: MSS |  | Step 5: MSS Only | Step 5: Hours of Exceedance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chemical Species | 50\% ESL <br> Step 4 MSS GLCmax since most recent site wide modeling $\left[\mathrm{\mu g} / \mathrm{m}^{3}\right]$ | $25 \%$ ESL <br> Step 4 MSS Project Only GLCmax [ $\mu \mathrm{g} / \mathrm{m}^{3}$ ] | Full ESL Step 5 GLCmax [ $\left.\mu \mathrm{g} / \mathrm{m}^{3}\right]$ | 1X ESL GLCmax Step 5 MSS Hours of Exceedance | $2 \times$ ESL. GLCmax Step 5 MSS Hours of Exceedance | $4 \times$ ESL GLCmax Step 5 MSS Hours of Exceedance |
| crude oil, < $\%$ \% benzene |  |  |  |  |  |  |
| crude oil, < $1 \%$ benzene |  |  |  |  |  |  |
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Texas Commission on Environmental Quality Electronic Modeling Evaluation Workbook (EMEW)

Health Effect Modeling Results
Company Name: Lone Star Ports, LLC

Faclity:

| Modeled Health ! |  | StepsWas Step \& relied on of fall out of the MERA? | Step 7. Site Wide |  | Step 7: Hours of Exceedance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chemical Species | 10X ESL GLCmax Step 5 MSS Hours of Exceedance |  | Ste Wide GlCmax [ $\mu \mathrm{g} / \mathrm{m}^{3}$ ] | Ste Wide GLCni $\left[\mu \mathrm{g} / \mathrm{m}^{3}\right.$ ] | 1XESL GLCni Hours of Exceedance | 2XESL GLCmax Hours of Exceedance |
| crude oll, $<1 \%$ benzene |  |  | 14929.00 | 2589.00 | 0 | 28 |
| crude oll, $<1 \%$ benzene |  |  |  |  |  |  |
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| crude oil < $1 \%$ benzene | 1 | 0 |
| crude oil < $1 \%$ benzene |  |  |
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Date: 5/30/2019 Texas Commission on Environmental Quality Electronic Modeling Evaluation Workbook (EMEW) Modeling File Names






After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed ariginal label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $\$ 100$ per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $\$ 100$ or the authorized declared value. Recovery camot exceed actual documented loss. Maximum for items of extraordinary value is $\$ 1,000$, e.g. jewely, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.


[^0]:    - Libraries located in C Christi (Texas)
    - Libraries located in $\mathbf{N}$ (Texas)
    - View map of libra Nueces County
    - all Public libs in 1
    - United States
    - Automation system:

[^1]:    TCEQ - 20470(Revised 04/12) Table 2F
    These forms are for use by facillites subject to air quality permit requirements and may

[^2]:    TCEQ - 20470(Revised 04/12) Table 2F
    These forms are for use by facilities subject to air quality permit requirements and may
    be revised periodically. (APDG 5915 v 2 )

[^3]:    TCEQ-20470(Revised 04/12) Table $2 F$
    These forms are for use by facilities subject to air quality permit requirements and may

    ## be revised periodically. (APDG 5915v2)

