TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 14, 2013

MS MELANIE LITTLE
VICE PRESIDENT OF OPERATIONS
MAGELLAN PIPELINE COMPANY LP
1 WILLIAMS CTR # MD30
TULSA OK 74172-0140

Permit by Rule Registration Number:	107754
Location/City/County:	2100 Mustang Court, Grapevine, Tarrant County
Project Description/Unit:	Magellan Southlake Terminal
Regulated Entity Number:	RN101649317
Customer Reference Number:	CN603167297
Account Number: TA-0102-K	

Dear Ms. Little:

This letter is in response to your Form PI-7-CERT (Registration and Certification for Permits by Rule) concerning the operation of the above-referenced facility.

The submitted Form PI-7-CERT confirms that the planned start-up and shutdown activities and associated emissions have been registered and are included in the emissions authorization. The facility continues to be in compliance with all the requirements of Title 30 Texas Administrative Code (TAC) §§ 106.227, 106.263, and 106.511. Any maintenance activities not associated with the underlying PBR authorization can be claimed under 30 TAC §116.119 or §106.263 which do not need to be registered.

Meeting and complying with these requirements enables the facility to be registered or claimed under a permit by rule. Facility owners or operators must retain records containing sufficient information to demonstrate compliance as required in 30 TAC 106.8. Specifically 30 TAC § 106.263 requires documentation must be separate and distinct from records maintained for any other air authorization. Records must identify all maintenance, start-up, or shutdown activities and temporary maintenance facilities. All emissions covered by 30 TAC § 106.263 are limited to, collectively and cumulatively, less than any applicable emission limit under 30 TAC § 106.4(a)(1) - (3) in any rolling 12-month period. As a reminder, it is the responsibility of the owner/operator of these facilities to demonstrate compliance with all rules and regulations of the Texas Commission on Environmental Quality (TCEQ) and the U.S. Environmental Protection Agency.

If you need further information or have questions, please contact Ms. Amanda Berry at (512) 239-5708 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087. This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

Anne M. Inman, P.E., Manager
Rule Registrations Section
Air Permits Division

cc: Air Section Manager, Region 4 - Fort Worth

Project Number: 187900

01/17/2013 ----------NSR IMS - PROJECT RECORD ----------

PROJECT#: 187900 PERMIT#: 107754 STATUS: PENDING DISP CODE: _____
RECEIVED: 01/07/2013 PROJTYPE: INITIAL AUTHTYPE: PBR ISSUED DT: _____
RENEWAL:
PROJECT ADMIN NAME: MSS ACTIVITIES
PROJECT TECH NAME: MAGELLAN SOUTHLAKE TERMINAL

Assigned Team:RULE REG SECTION

STAFF ASSIGNED TO PROJECT:

YOUNG , SANDRA	- REVIEWR1_2 -	AP INITIAL REVIEW
TEAM LEADER , RR	- REVIEW ENG -	RULE REG SECTION

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)
ISSUED TO: MAGELLAN PIPELINE TERMINALS LP
COMPANY NAME: Magellan Pipeline Terminals, L.P.
CUSTOMER REFERENCE NUMBER: **CN603167297**

REGULATED ENTITY/SITE INFORMATION
REGULATED ENTITY NUMBER: **RN101649317** ACCOUNT: TA0102K
PERMIT NAME: MAGELLAN SOUTHLAKE TERMINAL

PROJECT AI LOCATION
REGION 04 - DFW METROPLEX
APPLIED FOR NEAR CITY NAME: GRAPEVINE APPLIED FOR COUNTY NAME: TARRANT
APPLIED FOR PHYSICAL LOCATION: 2100 MUSTANG COURT

CONTACT DATA

CONTACT NAME: MS MELANIE LITTLE CONTACT ROLE: RESPONSIBLE OFFICIAL
JOB TITLE: VICE PRESIDENT OF OPERATIONS ORGANIZATION: MAGELLAN PIPELINE COMPANY LP
MAILING ADDRESS: 1 WILLIAMS CTR # MD30 , TULSA, OK, 74172-0140
PHONE: (918) 574-7306 Ext: 0
FAX: (918) 573-2003 Ext: 0
EMAIL:melanie.little@magellanlp.com

CONTACT NAME: MR JEFF BLACKMORE CONTACT ROLE: TECHNICAL CONTACT
JOB TITLE: AIR SPECIALIST, CONTRACT ORGANIZATION: ZEPHYR ENVIRONMENTAL CORPORATION
MAILING ADDRESS: 11200 WESTHEIMER RD STE 600 , HOUSTON, TX, 77042-3228
PHONE: (281) 668-7358 Ext: 0

FAX: (713) 977-8797 Ext: 0
EMAIL:jblackmore@zephyrenv.com

PROJECT NOTES:

01/17/2013 DFC 01/17/2013

PERMIT NOTES:

TRACKING ELEMENTS:

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	01/07/2013	
ADMIN DEFICIENCY CYCLE	01/17/2013	01/17/2013
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	01/17/2013	
CENTRAL REGISTRY UPDATED	01/17/2013	01/17/2013
DEFICIENCY CYCLE		
ENGINEER INITIAL REVIEW COMPLETED (DATE)		
PEER / MANAGER REVIEW PERIOD		
PROJECT RECEIVED BY ENGINEER (DATE)		

PROJECT RULES:

Unit Desc	Rule Desc	Request Type	On Application	Approve
SOLDERING, BRAZING, WELDING	106.227 -	ADD	Y	APPROVE
ROUTINE MAINTENANCE, STARTUP AND SHUTDOWN OF FACIL	106.263 -	ADD	Y	APPROVE
ENGINES AND TURBINES	106.511 -	ADD	Y	APPROVE

PERMIT RULES:

Unit Desc	Rule Desc	Start Date	End Date

PROJECT ATTRIBUTES:

Attributes	Value
PROJECT POINT	

Sandra Young

From: Johnny Bowers
Sent: Thursday, January 17, 2013 2:50 PM
To: Sandra Young
Cc: Jeff Blackmore
Subject: RE: MSS ACTIVITIES FOR rn101649317 - MAGELLAN SOUTHLAKE TERMINAL

Sandra,

Please update the AI Location with the address that is being referenced and proceed. When I have a moment, I will follow-up to find out where the request is that I sent to central registry.

Thanks,

Johnny Bowers, Team Leader
Air Permits Initial Review Team
Air Permits Division, MC 161
Office of Air
Texas Commission on Environmental Quality
☎ (512) 239-6770
Fax: (512) 239-7130
:: johnny.bowers@tceq.texas.gov
Web site: www.tceq.texas.gov
Please consider whether it is necessary to print this e-mail

How are we doing? www.tceq.texas.gov/customersurvey

From: Sandra Young
Sent: Thursday, January 17, 2013 2:43 PM
To: Jeff Blackmore
Cc: Johnny Bowers
Subject: RE: MSS ACTIVITIES FOR rn101649317 - MAGELLAN SOUTHLAKE TERMINAL

Jeff,
Does Johnny have a Core Data form with the new address? That's the only way it can get changed. Central Registry has to change it since there are multiple TCEQ departments on the site. They will only take an original or a fax (nothing electronic). You sent a Core Data form (CDF) with this packet, but you didn't change the physical address on the CDF. If you can put the new address in Space 24 of the signed CDF (you can write it in), I can request the change and proceed with this project. Fax it to me at 512-239-7130. Be sure to put my name on the fax. Thanks.
Sandra

From: Jeff Blackmore [mailto:JBlackmore@zephyrenv.com]
Sent: Thursday, January 17, 2013 2:35 PM
To: Sandra Young
Cc: Johnny Bowers
Subject: RE: MSS ACTIVITIES FOR rn101649317 - MAGELLAN SOUTHLAKE TERMINAL

Hi Sandra-

I have been working with Johnny Bo[redacted]s in the Air Permit group to get the addre[redacted]hanged in the Central Registry. I have copied him on your email.

Johnny, any idea on the status of the address change?

The correct address should be 2100 Mustang Court in Grapevine.

Thanks,

Jeff Blackmore

Zephyr Environmental Corporation
11200 Westheimer, Suite 600
Houston, TX 77042
281-668-7358 - Phone
713-907-4264 - Mobile
713-977-8797 - Fax
www.zephyrenv.com

From: Sandra Young [mailto:Sandra.Young@tceq.texas.gov]
Sent: Thursday, January 17, 2013 2:11 PM
To: Jeff Blackmore
Subject: MSS ACTIVITIES FOR rn101649317 - MAGELLAN SOUTHLAKE TERMINAL

Jack
I have your PI-7 CERT for MSS Activities and the address on this application is 2100 Mustang Court in Grapevine. The address in Central Registry is:

Physical Address:	**3100 IRA E WOODS AVE GRAPEVINE, TX 76051-3816**	**Coun**
Physical Location:	**3100 HIGHWAY 26 WEST**	

I either need a corrected page 1 (only) of the PI-7 – or a Core Data Form with the new (Mustang Court) address that will allow me to put the new address in the system.

Also, can you explain the two addresses in the box? The US Post Office recognizes 3100 Ira E Woods Ave, but it doesn't recognize 3100 Hwy 26 W. It also recognizes 2100 Mustang Court. Thanks for your help.

Sandra Young
Air Permits Initial Review Team
Air Permits/Business Program
Mail Code 161

Texas Commission on Environmental Quality
Form PI-7-CERT
Certification and Registration for Permits by Rule

The TCEQ **requires** that a complete Core Data Form bearing an original signature be submitted on all incoming applications unless a Regulated Entity and Customer Reference Number have been issued by the TCEQ and no core data information has changed. For more information regarding the Core Data Form, call (512) 239-5175 or go to the TCEQ Web site at www.tceq.texas.gov/permitting/central_registry/guidance.html.

I. Registrant Information		
A. Company or Other Legal Customer Name: Magellan Pipeline Terminals, L.P.		
Company Official Contact Name: Melanie Little		
Title: Vice President of Operations		
Mailing Address: One Williams Center, MD 30		
City: Tulsa	State: Oklahoma	ZIP Code: 74172
Phone: 918-574-7306	Fax: 918-573-2003	E-mail: melanie.little@magellanlp.com
B. Technical Contact Name: Jeff Blackmore		
Title: Air Specialist, Contract		
Company: Zephyr Environmental Corporation		
Mailing Address: 11200 Westheimer Road, Suite 600		
City: Houston	State: Texas	ZIP Code: 77042
Phone: 281-668-7358	Fax: 713-977-8797	E-mail: jblackmore@zephyrenv.com
C. Facility Location Information - Street Address: 2100 Mustang Court		
If "NO," street address, provide written driving directions to the site: (attach description if additional space is needed)		
City: Grapevine	County: Tarrant	ZIP Code: 76051
D. Is the Core Data Form *(TCEQ Form 10400)* attached?		☒ YES ☐ NO
If "*No*," provide customer reference number and regulated entity number below:		
Customer Reference Number (CN): 603167297		
Regulated Entity Number (RN):101649317		
II. Facility and Site Information		
A. Name and Type of Facility: Southlake Terminal		☒ Permanent ☐ Portable
B. PBR claimed under **30 TAC 106** *(List all)*:		
106.4	106.263	
106.227	106.511	

187900

Texas Commission on Environmental Quality
Form PI-7-CERT
Certification and Registration for Permits by Rule

II. Facility and Site Information (*continued*))			
Are you claiming a **historical standard exemption or PBR?**			☐ YES ☒ NO
"YES," enter effective date(s) and rule number(s) in the spaces provided below.			
Effective Date		**Rule Number**	
C. Is there a previous Standard Exemption or PBR for the facility in this registration?			☐ YES ☒ NO
If "YES," enter registration number(s), rule number(s) and effective dates in the spaces provided below.			
Registration Number	**Effective Date**	**Rule Number**	
D. Are there any other facilities at this site which are authorized by an Air Standard Exemption or PBR?			☒ YES ☐ NO
If "YES," enter registration number(s), rule number(s) and effective dates in the spaces provided below.			
Registration Number	**Effective Date**	**Rule Number**	
PBR No. 102621	*08/21/2012*	*30 TAC 106.261*	
E. Are there any other air preconstruction permits at this site?			☒ YES ☐ NO
If "YES," enter permit number(s) in the spaces provided below.			
NSR Permit No. 9008			
Are there any other air preconstruction permits at this site that would be directly associated with this project?			☒ YES ☐ NO
If "YES," enter permit number(s) in the spaces provided below.			
NSR Permit No. 9008			
F. Is this facility located at a site which is required to obtain a Federal Operating Permit (FOP) pursuant to 30 TAC Chapter 122?			☒ YES ☐ NO ☐ To be determined
If the site currently has an existing federal operating permit, enter the permit number.			O-2743
Check the requirements of 30 TAC Chapter 122 that will be triggered if this certification is accepted.			
☐ Initial Application for an FOP	☐ Significant Revision for an SOP		☐ Minor Revision for an SOP
☒ Operational Flexibility/off Permit Notification for an SOP			☐ Revision for GOP
☐ To be Determined	☐ None		

Texas Commission on Environmental Quality
Form PI-7-CERT
Certification and Registration for Permits by Rule

II. Facility and Site Information *(continued)*		
Identify the type(s) issued and/or FOP application(s) submitted/pending for the site. *(Check all that apply)*		
☐ SOP	☐ GOP	☐ GOP application/revision application: Submitted or under APD review.
☒ N/A	☐ SOP application/revision application: submitted or under APD review.	
G. TCEQ Account Identification Number (*if known*):	TA-0102-K	
III. Fee Information		
See Section VIII. for address to send fee or go to www6.tceq.texas.gov/epayto pay online.		
A. Is this certification to solely establish a federally enforceable emission limit and not authorize any new facilities?		☒ YES ☐ NO
If "YES," than no fee is required.		
If "NO," then go to Section III.B.		
B. If "YES," to any of the following three questions, a **$100** fee is required. Otherwise, a **$450** fee is required.		
Does this business have less than 100 employees?		☐ YES ☒ NO
Does this business have less than 6 million dollars in annual gross receipts?		☐ YES ☒ NO
Is this registration submitted by a governmental entity with a population of less than 10,000?		☐ YES ☒ NO
C. Enter the check, money order, or transaction number.		
Enter the individual or company name printed on the check. *(below)*		
Zephyr Environmental Corporation		
Fee amount (*spell out*): Four Hundred Fifty Dollars		$450.00
Was fee **Paid** online?		☐ YES ☒ NO
IV. Selected Facility Reviews *Only*—Technical Information		
Note: If claiming one of the following PBRs, complete this section, then skip to Section VI., "Submitting your registration" below:		
Animal Feeding Operations 30 TAC 106.161, Livestock Auction Facilities 30 TAC 106.162, Saw Mills 30 TAC 106.223, Grain Handling, Storage and Drying 30 TAC 106.283, Auto Body Refinishing Facilities 30 TAC 106.436, and Air Curtain Incinerator 30 TAC 106.496		
A. Is the applicable PBR checklist attached which shows the facility meets all general and specific requirements of the PBR(s) being claimed?		☐YES ☐ NO
B. Distance from this facility's emission release point to the nearest property line:		feet
Distance from this facility's emission release point to the nearest off-property structure:		feet

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Texas Commission on Environmental Quality
Form PI-7-CERT
Certification and Registration for Permits by Rule

V. TECHNICAL INFORMATION - The following information must be submitted with Form PI-7CERT. Place a check next to the appropriate box to verify you have included it in the submittal.	
☒ Process Flow Diagram and Process Description	☒ Emissions data and calculations
☐ Table 1(a) (Form 10153) Emission Point Summary	
☐ Confidential Information (All pages properly marked "CONFIDENTIAL")	
Has the company implemented the project or waiting on a response from TCEQ?	☒ Implemented ☐ Waiting
Projected Start of Construction Date:	
Is this an annual certification under 30 TAC Chapter 106.261 and/or 106.262?	☐ YES ☒ NO
☒ Information on meeting the specific PBR requirements *(PBR checklists maybe used and are optional.)*	☒ Information on meeting the general PBR requirements 30 TAC 106.4. *(PBR checklists maybe used and are optional.)*
*Note: Please be reminded that if the facilities listed in this registration are subject to the Mass Emissions Cap & Trade program under **30 TAC Chapter 101, Subchapter H, Division 3**, the owner/operator of these facilities must possess NO_x allowances equivalent to the actual NO_x, emissions from these facilities.*	
Distance from this facility's emission release point to the nearest property line:	>100 feet
Distance from this facility's emission release point to the nearest off-property structure:	>100 feet
Note: In limited cases, a map or drawing of the site and surrounding land use may be requested during the technical review or at the request of the TCEQ Regional Office or local air pollution control program during an investigation.	
VI. DELINQUENT FEES	
This form **will not be processed** until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ is paid in accordance with the Delinquent Fee and Penalty Protocol. For more information regarding Delinquent Fees and Penalties, go to the TCEQ Web site at: www.tceq.texas.gov/agency/delin/index.html.	

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Texas Commission on Environmental Quality
Form PI-7-CERT
Certification and Registration for Permits by Rule

VII. SIGNATURE FOR CERTIFICATION AND REGISTRATION

The signature below indicates that the Responsible Official has knowledge of the facts herein set forth and that the same are true, accurate, and complete to the best of my knowledge and belief. By this signature, the maximum emission rates listed on this certification reflect the maximum anticipated emissions due to the operation of this facility and all representations in this certification of emissions are conditions upon which the facilities and sources will operate. It is understood that it is unlawful to vary from these representations unless the certification is first revised. The signature certifies that to the best of the Responsible Official's knowledge and belief, the project will satisfy the conditions and limitations of the indicated exemption or permit by rule and the facility will operated in compliance with all regulations of the Texas Commission on Environmental Quality and with Federal U.S. Environmental Protection Agency regulations governing air pollution. The signature below certifies that, based on information and belief formed after reasonable inquiry, the statements and information above and contained in the attached document(s) are true, accurate, and complete. **If you questions on how to fill out this form or about air quality permits. Please call (512) 239-1250.** *Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, call (512) 239-3282.*

SIGNATURE: Melanie A. Dittle 1/3/13
DATE

(ORIGINAL SIGNATURE REQUIRED)

JAN 07 2013
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TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided)*

☒ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Attachments **Describe Any Attachments:** *(ex. Title V Application, Waste Transporter Application, etc.)*

☒Yes ☐No — PI-7 Cert and supporting documents

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN 603167297		RN 101649317

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

6. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check only one of the following:*

☐Owner ☐ Operator ☒ Owner & Operator
☐Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐Other: _____

7. General Customer Information

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐Change in Legal Name (Verifiable with the Texas Secretary of State) ☒ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:	☐ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other:

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)*	*If new Customer, enter previous Customer below*	*End Date:*

10. Mailing Address:

City		**State**		**ZIP**		**ZIP + 4**	

11. Country Mailing Information *(if outside USA)*	12. E-Mail Address *(if applicable)*

13. Telephone Number	14. Extension or Code	15. Fax Number *(if applicable)*
( ) -		( ) -

16. Federal Tax ID *(9 digits)*	17. TX State Franchise Tax ID *(11 digits)*	18. DUNS Number*(if applicable)*	19. TX SOS Filing Number *(if applicable)*

20. Number of Employees

☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?

☐ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☒ No Change** *(See below)*

****If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.**

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

Southlake Terminal

JAN 07 2013
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24. Street Address of the Regulated Entity: *(No P.O. Boxes)*							
	City		**State**		**ZIP**		**ZIP + 4**
25. Mailing Address:							
	City		**State**		**ZIP**		**ZIP + 4**
26. E-Mail Address:							
27. Telephone Number		**28. Extension or Code**		**29. Fax Number** *(if applicable)*			
( ) -				( ) -			
30. Primary SIC Code (4 digits)	**31. Secondary SIC Code** (4 digits)	**32. Primary NAICS Code** (5 or 6 digits)		**33. Secondary NAICS Code** (5 or 6 digits)			
34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*							

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:					
36. Nearest City	**County**	**State**	**Nearest ZIP Code**		
37. Latitude (N) In Decimal:		**38. Longitude (W) In Decimal:**			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Industrial Hazardous Waste	☐ Municipal Solid Waste
☒ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
106.263				
☐ Stormwater	☐ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Jeff Blackmore	**41. Title:**	Air Specialist, Contract
42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(281) 668-7358		(713) 977-8797	jblackmore@zephyrenv.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	Magellan Pipeline Terminals, L.P.	**Job Title:**	Vice President of Operations
Name *(In Print)* :	Melanie Little	**Phone:**	(918) 574-7306
Signature:	Melanie Little	**Date:**	1/3/13

JAN 07 2013
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zephyr

consulting ♦ training ♦ data systems

JAN 07 2013
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January 4, 2013

Texas Commission on Environmental Quality
Office of Air
Air Permits Initial Review Team (MC-161)
P.O. Box 13087
Austin, TX 78711-3087

Re: Permit by Rule Registration for Planned MSS Activities
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Tarrant County, Texas
TCEQ Customer Reference No.: CN603167297
TCEQ Regulated Entity No.: RN101649317

RECEIVED
JAN 04 2013
PERMITS DIVISION

Dear Sir or Ma'am:

On behalf of Magellan Pipeline Terminals, L.P. (Magellan), the owner/operator of the Southlake Terminal, Zephyr Environmental Corporation has prepared the attached Permit by Rule registration and supporting information for the site-wide maintenance, startup, and shutdown (MSS) activities at the Southlake Terminal, including the following:

- PI-7 CERT
- TCEQ Core Data Form
- Project Description/Maps
- Information on meeting the specific PRB Requirements
- PBR Applicability Checklist (106.4)
- Emission Calculations
- Permit Fee Check

If you require any additional information or have any questions, please call me at (281) 668-7358 or email me at jblackmore@zephyrenv.com.

Sincerely,
Zephyr Environmental Corporation

JAN 07 2013
APIRT

Jeff Blackmore
Principal

Attachments

cc: Alyssa Taylor, TCEQ Region 4 VIA USPS Certified R/R: 7012 2210 0002 5846 5074
EPA Region 6 Air Permits Division VIA USPS Certified R/R: 7012 2210 0002 5846 5067
Ms. Terri Stilwell, Magellan

PERMIT BY RULE REGISTRATION FOR PLANNED MSS (MAINTENANCE, STARTUP AND SHUTDOWN)

SITE-WIDE ACTIVITIES

FOR
SOUTHLAKE TERMINAL
MAGELLAN PIPELINE TERMINALS, L.P.
TARRANT COUNTY, TEXAS

SUBMITTED TO:
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
OFFICE OF AIR
P. O. BOX 13087
AUSTIN, TEXAS 78711-3087

SUBMITTED BY:
MAGELLAN PIPELINE TERMINALS, L.P.
1 WILLIAMS CENTER, MD-29
TULSA, OKLAHOMA 74172

PREPARED BY:
ZEPHYR ENVIRONMENTAL CORPORATION
TEXAS REGISTERED ENGINEERING FIRM F-102
11200 WESTHEIMER DRIVE, SUITE 600
HOUSTON, TEXAS 77042

JANUARY 2013

zephyr

TABLE OF CONTENTS

APPENDICES

PI-7 Cert Form / Core Data Form

Project Description and General Information

II. PROJECT DESCRIPTION AND GENERAL INFORMATION

A. PERMIT BACKGROUND INFORMATION

Magellan Pipeline Terminals, L.P. (MPT) owns and operates a bulk petroleum storage and product distribution facility (Southlake Terminal) located near Grapevine, Tarrant County, Texas. The terminal receives stores, blends, and transfers petroleum products. The facility consists of various storage tanks and their associated piping, loading, and control equipment. The terminal operates under NSR Permit 9008 and various PBR authorizations. This Permit by Rule (PBR) registration proposes to authorize the planned Maintenance, Startup, and Shutdown (MSS) activities that may occur at the terminal under 30 TAC §106.263, §106.227, §106.511 and §106.4.

B. PROJECT DESCRIPTION

This PBR registration satisfies the 30 TAC 101.222(h) (1) (F) requirement to authorize planned MSS activities by January 5, 2013. By meeting this deadline, MPT continues to be subject to an affirmative defense for potential exceedance of permit allowables resulting from planned MSS activities at the Southlake Terminal.

C. PUBLIC NOTICE APPLICABILITY

The Southlake Terminal has recently undergone public notice for NSR Permit 9008.

D. PERMIT FEE INFORMATION

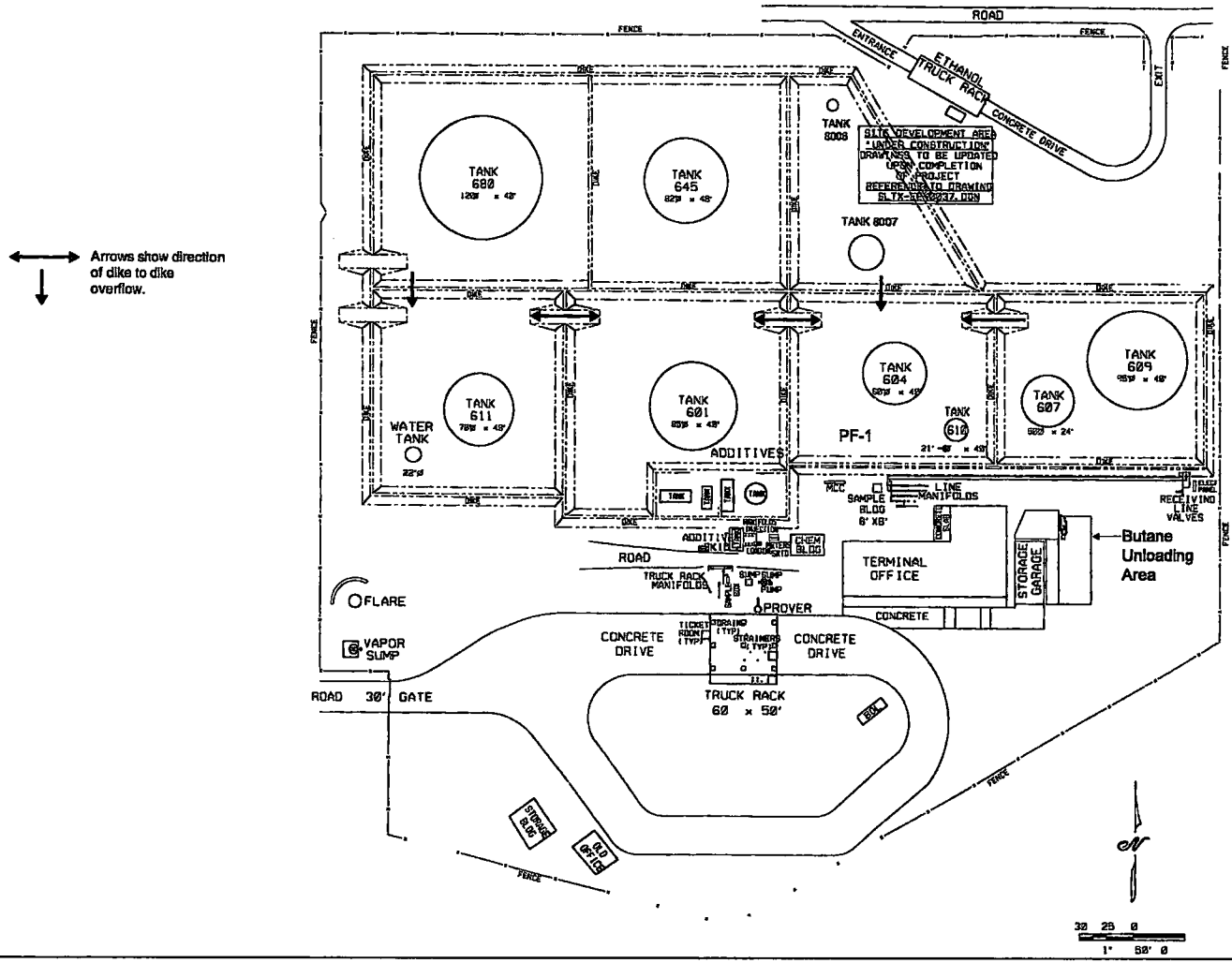
MPT is only certifying emissions of existing facilities to establish a federally enforceable emission limit and is not authorizing any new permanent facilities. Per the instructions of TCEQ's APDG 5245 v4 (April 2008) document regarding fees, a fee of $450.00 is being submitted.

E. SUMMARY

This registration is to authorize emissions from planned maintenance, startup and shutdown activities. Planned MSS activities vary therefore the registration is based on the best estimate of worst case emissions. The emission calculations are provided to support the basis for estimating the total emissions for a given type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table. The emissions due to MSS activities are counted in the emission increases for the purpose of determining NA and PSD applicability, and the project increases of the criteria pollutants are less than their significance levels. Therefore NA and PSD review are not triggered.

Area Maps / Plot Plans

POOR QUALITY ORIGINAL



zephyr

FIGURE A.2 - PLOT PLAN			
Magellan Southlake Terminal			
K:\Magellan\011232 - Southlake Permit Amendment\1 - Initial Application			
Drafted By: J. Knowles	Reviewed by: E. Ward	Project No.: 011232	Date: 01/23/2012

MSS Activity Description

IV. MSS ACTIVITY DESCRIPTION

A. Process Description

Site-wide maintenance activities at the Southlake Terminal generally involve purging, degassing, and cleaning of tanks, piping, and equipment, lubrication of equipment, painting/coating of tanks, piping, vessels, and instrumentation systems clearing. The planned site-wide maintenance emissions associated with this site are represented by the following broad categories, and include activities such as those described below:

- Tanks – tank cleanings, degassing, fitting and seal repairs and/or replacements.
- Process Equipment – piping components, drums, instrumentation, pigging, tubing, loading arms, and pipeline sampling.
- Vacuum Trucks.
- Miscellaneous – painting, blasting, welding, degreasing, grease/lubricants.

There are a number of planned MSS activities that may be performed but require no additional authorization due to one or more of the following reasons:

- Based on a TCEQ memo (09/19/1996) concerning "When should a compound be considered an air contaminant," certain compounds do not require authorization.
- If the activity is authorized under §116.119 De Minimis Facilities or Sources, the activity is authorized with no further analysis per 30 TAC 116.110 (a) (5). The entire De Minimis List referenced in §116.119(a) (1) as well as the De Minimis material usage list of §116.119(a) (2) is included in this application in Appendix B.
- There are no air emissions associated with the maintenance activity.
- An activity is not considered an MSS activity if it is not performed on a facility (such as painting a building, etc.).

Examples of MSS activities performed at the Southlake Terminal that are found on the TCEQ De Minimis list include:

- Aerosol can recycling puncturing and/or crushing equipment limited to 40 aerosol cans per day (24 hours) at the site and only operated with a covered waste storage container.
- Application of lubricants (including greases and oils) without aerosol propellants other than air and/or nitrogen, for maintaining equipment and other facilities.
- Manual application of cleaning or stripping solutions or coatings. Manual application includes application using brushes, cloth, pads, sponges, droppers, tube dispensing equipment, or spray bottles and pump-up sprayers without aerosol propellants.
- Application of aqueous detergents, surfactants, and other cleaning solutions containing not more than one percent of any organic compound by weight or containing not more than five percent of any organic compound with a vapor pressure less than 0.002 pounds per square inch absolute.
- Application of aerosol-propelled organic liquids using hand-held devices for maintaining equipment and other facilities where usage is no more than four aerosol cans or 64 ounces per day on a 12-month rolling average basis.

B. Description of Planned MSS Activities

Floating Roof Tanks – Maintenance activities often require that the roof of the tank be landed and product be withdrawn into either existing tanks or temporary frac tanks. After a tank roof has been landed on its legs, the product is continuously withdrawn until only a partial heel remains. Then the vapor space is degassed to a temporary vapor combustor unit. The annual degassing emissions are conservatively calculated based on a maximum expected number of maintenance episodes per tank. Emissions are based on vapors being degassed down to 10,000 ppmv prior to opening the tank. Sludge at the bottom of the tank is removed by a vacuum truck. Sludge removal operation is calculated to last a maximum of 3 days per tank per year.

Vacuum Trucks – Vacuum trucks are used to remove liquids and sludge from storage tanks, process equipment, and sumps. When vacuuming liquids with vapor pressures above 0.5 psia, the vacuum truck will be equipped with carbon canisters to control emissions. The breakthrough concentration of the carbon canisters is 100 ppm. When vacuuming liquids with vapor pressures below 0.5 psia, the vacuum truck may operate uncontrolled. The vacuum trucks will be submerged fill. Emissions from vacuum trucks are calculated based on the gallons vacuumed for each tank cleaning episode. In addition to the volumes related to tank maintenance, this PBR authorizes emissions from amounts loaded due to other maintenance activities.

Process Equipment – Includes opening tank hatches which may include but not limited to liquid sampling, temperature reading, and level gauging. Since the access hatch is only open for the time necessary to take the samples and the access hatches will remain closed at all other times, per TCEQ guidance, emissions from these activities are negligible relative to normal standing and working losses. Appendix C contains email correspondence from Tony Ionescu.

Process equipment also includes replacement of valves, diaphragms, hose, clean strainers, sump maintenance, piping, pigging, loading arms, sample dumping, etc. Emissions are based on equipment draining, uncontrolled venting, vacuum truck emissions and refill emissions.

Control Device – Vapors from tank degassing and tank sludge removal are routed to temporary mobile control devices with at least a minimum destruction efficiency of 98%. Temporary controls include devices such as flares, engines, vapor combustor units, thermal oxidizers, and non-combustion devices such as vapor recovery units and carbon canisters. Annual emissions for NO_x and CO emissions were based on the worst case factors for diesel internal combustion engines burning natural gas, gasoline, or diesel (AP-42, Chapter 3.2 – Natural Gas – Fired Reciprocating Engines and 3.3 – Gasoline and Diesel Industrial Engines). The internal combustion engine emissions were calculated based on 90 hours per year of operation. The remainder of 30 hours per year was calculated using flare emission factors with the worst case emissions from natural gas (TCEQ's Technical Guidance for Chemical Sources: Flares & Vapor Oxidizers, October 2000) and propane (AP-42, Chapter 1.5-Liquefied Petroleum Gas Combustion).

Emissions Data

V. EMISSIONS DATA

A. Summary of Annual MSS Emissions

The total emissions from planned site wide maintenance activities at this terminal are summarized in the table below.

EPN	MSS Activity Category	Emissions (tpy)						
		VOC	NO_x	CO	SO_2	PM	PM_{10}	$PM_{2.5}$
CTRL-MSS Controlled Emissions	Vacuum Truck	0.0001						
	Tanks	1.06	10.33	2.49	0.67	0.11	0.11	0.11
FUG-MSS Uncontrolled Emissions	Process Equipment	0.41						
	Tanks	2.16						
	Miscellaneous	1.10				1.18	0.20	0.02
	Total	**4.73**	**10.33**	**2.49**	**0.67**	**1.28**	**0.30**	**0.13**

B. Annual Emissions Calculations

Vacuum truck emissions are estimated using the Loading Loss Equation (Eq 1) from EPA's AP-42, 5th Edition, Vol. 1, Ch. 5.2 (January 1995) – Transportation & Marketing of Petroleum Liquids and assuming 2 times the volume per TCEQ guidance – or applying an agitation factor of 2. Vacuum truck emissions are calculated assuming control of emissions by a breakthrough concentration no greater than 100 ppm in a carbon adsorption system for VOC's greater than 0.5 psia.

Combustion emissions were calculated using worst case NO_x, CO, SO_2, PM, PM_{10} and $PM_{2.5}$ factors from TCEQ's Air Permit Technical Guidance for Chemical Sources: Flares and Oxidizers (October 2002), and EPA's AP-42, Ch.1.5 – Liquefied Petroleum Gas Combustion.

Emissions from Process Equipment were estimated from three MSS activity steps as follows:

Equipment venting emissions occur after draining (uncontrolled) and they apply to pumps, filters, meters, valves, and piping. Emissions from venting of equipment are calculated using the ideal gas law. Emissions from venting to atmosphere are calculated based on the assumption of 10,000 ppmv VOC per TCEQ guidance.

Equipment draining emissions occur when product is drained from a pipe, sump, or other piece of equipment at the Terminal. The draining emissions have been estimated using the Forced Ventilation Equation from "Estimate Emissions from Atmospheric Releases of Hazardous Substances," Environmental Engineering World, November-December 1996, pages 20-23.

Emissions generated during refilling of equipment are also estimated using the Loading Loss Equation (Eq 1) from EPA's AP-42, 5th Edition, Vol. 1, Ch. 5.2 (January 1995) – Transportation & Marketing of Petroleum Liquids.

Equipment clingage emissions are not calculated since TCEQ's guidance states that clingage can be ignored if the vapor pressure of the product is greater than 0.1 psi (clingage emissions are considered to be negligible compared to vapor space emissions). Additional clingage emissions have not been accounted for per TCEQ guidance as they would be negligible compared to vapor space emissions (applicable to products with vapor pressures above 0.1 psia) and worst case emissions assume use of a material with a vapor pressure greater than or equal to 0.5 psia.

The annual uncontrolled cleaning emissions from tanks are a summation of the landing, using frac tanks as temporary storage, post degass venting to the atmosphere, and filling. Annual emissions for tanks were calculated based on three tanks being landed, degassed, cleaned, and refilled in a year.

Emissions from frac tanks were estimated using EPA's Tanks 4.09 Program, per TCEQ MSS Guidance document. Annual emissions were based on 18 days of frac tank usage for the total throughput for all three tanks in the month with highest emissions occurring during September.

Emissions summarized under Miscellaneous include emissions from painting, blasting and welding activities. The painting calculations were based on an approximate of 65 gallons of paint usage per day. The HAP speciation was obtained from typical paints used by Magellan. Paints with other chemical compositions may be used without exceeding established RQ limits. Abrasive blasting emissions were based on emission factors obtained from AP-42, Abrasive Blasting Tables 13.2.6-1 with a maximum annual usage of 30,000 pounds of abrasive material. Welding emissions were based on emission factors obtained from AP-42, Electric Arc Welding Tables 12.19-1 & 12.19-2 with a maximum annual usage of 500 pounds of electrodes.

C. Summary of Daily MSS Emissions and Reportable Quantity (RQ) Applicability

A summary of daily emissions from planned site wide maintenance activities at this terminal are summarized in the table below.

EPN	MSS Activity Category	Emissions (lb/day)							
		Benzene	Ethyl Benzene	Hexane	Toluene	2,2,4-trimethylpentane	Xylene	Hexone	Butyl Acetate
CTRL-MSS Controlled Emissions	Vacuum Truck	0.0002	0.0002	0.00002	0.0003	0.0003	0.00010		
	Tanks	3.84	0.43	7.26	5.55	3.41	2.13		
FUG-MSS Uncontrolled Emissions	Process Equipment	0.561	0.06	1.06	0.81	0.50	0.31		
	Tanks	6.13	0.68	11.58	8.85	5.45	3.40		
	Miscellaneous								
	Painting		16.72				86.98	6.73	23.57
	Abrasive Blasting								
	Welding								
	Total	**6.69**	**17.89**	**19.89**	**15.21**	**9.36**	**92.83**	**6.73**	**23.57**
	RQ Limit (lb/day)	10	1,000	5,000	1,000	1,000	100	5,000	5,000

D. Daily MSS Emission Calculations

Emissions at the terminal were calculated using gasoline as the worst case contaminant. The speciation of gasoline was based on the maximum allowable percentage of HAPs in gasoline at the terminal as presented in the 2011 Emissions Inventory. The HAP speciation of gasoline used in the calculations is represented in the Process Equipment calculation page.

For the purposes of planned MSS calculations it was assumed that only one tank landing and cleaning, or filling event will occur in a 24 hour period at the site. The highest maximum daily emissions occur during the tank landing portion of the planned MSS. Emissions from Tank 609 were used as the representative worst case.

Worst case daily emissions for process equipment were based on equipment draining, degassing to atmosphere, and equipment refill. These three categories are further subdivided into six activities (sampling/sample dumping, piping components, instrumentation, tubing, pigging, and loading arms) calculated using RVP 11 Gasoline.

Vacuum trucks were estimated with gasoline as the surrogate liquid. The calculations were based on 10 vacuum trucks per year, with a maximum capacity of 4,500 gallons per truck. The emissions from vacuum truck operations are controlled by carbon canisters with the break through concentration at 100 ppm.

State Regulatory Requirements

VI. State Regulatory Requirements

Compliance with Requirements of 30 TAC 106.263 - Routine Maintenance, Startup & Shutdown of Facilities, and Temporary Maintenance Facilities.

(a) This section authorizes routine maintenance, startup and shutdown of facilities, and specific temporary maintenance facilities except as specified in subsection (b) of this section.

Magellan Pipeline Terminals, L.P. (MPT) is submitting this application to authorize routine maintenance, startup and shutdown of facilities, and specific temporary maintenance facilities at the Southlake Terminal under 30 TAC 106.263.

(b) The following are not authorized under this section:

MPT is not requesting authorizations for any of the items listed in 1-6 of this section.

(c) The following activities and facilities are authorized under this section:

MPT is registering authorizations for

- Routine maintenance activities that are planned to ensure continuous normal operation of a facility and/or return a facility to normal operating condition.
- Temporary maintenance facilities used for abrasive blasting surface preparation, and surface coating on immovable fixed structures.
- Vapor combustors and other control devices used to control vent gases released during the degassing of immovable, fixed storage vessels and associated piping to atmospheric pressure, plus cleaning apparatus that will have or cause emissions.
- Temporary piping required to bypass a unit or pipeline section undergoing maintenance

(d) Emissions from routine maintenance (excluding temporary maintenance facilities), startup and shutdown are:

- MPT will not exceed the 24 hour emission totals reportable quantity for hazardous air pollutants as defined in § 101.1 (82) for individual occurrences.
- MPT will comply with subsection *(f)* of this section, which requires that the emission limits under § 106.4 be met.

(e) In addition to the emission limits in subsection (f) of this section, specific temporary maintenance facilities as listed in subsection (c) (3) of this section must meet the following additional requirements:

- The vapor combustors will meet the requirements of §106.492 (1) and (2)(C) of this title (relating to Flares).
- The carbon adsorption systems will meet the requirements of § 106.533 (5)(D) of this title.
- Control devices used to control vents caused by the degassing of storage vessels and associated piping will have a minimum 90% vapor control/destruction/removal efficiency.
- If any temporary maintenance facility cannot meet all applicable requirements of this section, MPT will obtain authorization under 30 TAC 116.
- MPT does not intend to operate temporary maintenance facilities at the Southlake Terminal for longer than 180 consecutive days.

(f) All emissions covered by this section are limited to, collectively and cumulatively, less than any applicable emission limit under §106.4 (a)(1)-(3) of this title (relating to Requirements for Permitting by Rule) in any rolling 12-month period.

The total actual emissions authorized by this PBR will not exceed 250 tpy of CO or NO_x; or 25 tpy of VOC or SO_2; or inhalable PM; or 15 tpy of PM_{10}; or 10 tpy of $PM_{2.5}$ or less; or 25 tpy of any other air contaminant except carbon dioxide, water, nitrogen, methane, ethane, hydrogen, and oxygen.

(g) Facility owners or operators must retain records containing sufficient information to demonstrate compliance with this section and must include information listed in paragraphs (1) - (4) of this subsection. Documentation must be separate and distinct from records maintained for any other air authorization. Records must identify the following for all maintenance, start-up, or shutdown activities and temporary maintenance facilities:

MPT will maintain records relating to all planned maintenance, startup and shutdown activities and temporary maintenance facilities. The records will contain the type and reason for the activity, process and equipment involved, date, time, duration of activity, and the air contaminant and amounts which are emitted as a result of the activity.

Compliance with Requirements of 30 TAC 106.227 – Soldering, Brazing, Welding

Brazing, soldering, or welding equipment, except those which emit 0.6 ton per year or more of lead, are permitted by rule.

MPT will not exceed the 0.6 ton per year or more of lead when brazing, soldering, or welding.

Compliance with Requirements of 30 TAC 106.511 – Portable and Emergency Engines and Turbines

Internal combustion engine and gas turbine driven compressors, electric generator sets, and water pumps, used only for portable, emergency, and/or standby services are permitted by rule, provided that the maximum annual operating hours shall not exceed 10% of the normal annual operating schedule of the primary equipment; and all electric motors. For purposes of this section, "standby" means to be used as a "substitute for" and not "in addition to" other equipment.

Portable engines used for temporary control of tank emissions will not exceed 10% of the normal annual operating schedule of the primary equipment and will be authorized under this PBR.

Texas Commission on Environmental Quality
Permit by Rule Applicabilty Checklist
Title 30 Texas Administrative Code § 106.4

1. 30 TAC § 106.4(a)(1) & (4): Emission limits

List emissions in tpy for **each** facility (add additional pages or tables if needed):

SO_2 =	0.67	PM_{10} =	0.11	VOC=	0.0001	NO_x =	10.33	CO=	2.49	Other		=
SO_2 =		PM_{10} =	0.20	VOC=	1.06	NO_x =		CO=		Other		=
SO_2 =		PM_{10} =		VOC=	0.41	NO_x =		CO=		Other		=
SO_2 =		PM_{10} =		VOC=	2.16	NO_x =		CO=		Other		=
SO_2 =		PM_{10} =		VOC=	1.10	NO_x =		CO=		Other		=
Total	0.67		0.30		4.73		10.33		2.49			

• Are the SO_2, PM_{10}, VOC, or other air contaminant emissions claimed for **each** facility in this PBR submittal less than 25 tpy?	☒	YES	☐	NO
• Are the NO_x and CO emissions claimed for each facility in this PBR submittal less than 250 tpy?	☒	YES	☐	NO
*If the answer to both is "Yes," continue to the question below. If the answer to either question is "No," a **PBR cannot be claimed.***				
Has any facility at the property had public notice and opportunity for comment under 30 TAC Section 116 for a regular permit or permit renewal? (This does not include public notice for voluntary emission reduction permits, grandfathered existing facility permits, or federal operating permits.)	☒	YES	☐	NO
If "Yes," skip to Section 2. If "No," continue to the questions below.				
If the site has had no public notive, please answer the following:				
• Are the SO_2, PM_{10}, VOC, or other emissions claimed for **all** facilities in this PBR submittal less than 25 tpy?	☐	YES	☐	NO
• Are the NO_x and CO emissions claimed for all facilities in this PBR submittal less than 250 tpy?	☐	YES	☐	NO
If the answer to both questions is "Yes," continue to Section 2.				
*If the answer to either question is "No," **a PBR cannot be claimed.** A permit will be required under Chapter 116.*				

2. 30 TAC § 106.4(a)(2): Nonattainment check

Are the facilities to be claimed under this PBR located in a designated ozone nonattainment county?	☒	YES	☐	NO
If "Yes," please indicate which county by checking the appropriate box to the right.				
(Marginal)- Hardin, Jefferson, and Orage counties (BPA)	☐	BPA		
(Moderate)- Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties (HGA)	☐	HGA		
(Moderate)- Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant counties (DFW)	☒	DFW		
If "Yes," to any of the above, continue to the next question. If "No," contine to Section 3.				
Does this project trigger a nonattainment review? To determine the answer, review the information below:				
• Is the project's potenital to emit (PTE) for emissions of VOC or Nox increasing by 100 tpy or more?	☐	YES	☒	NO
PTE is the maximum capacity of a stationary source to emit any air pollutant under its worst-case physical and operational design unless limited by a permit, rule, or made federally enforceable by a certification.				
• Is the site an existing major nonattainment site and are the emissions of VOC or Nox increasing by 40 tpy or more?	☐	YES	☒	NO
If needed, attach contemporaneous netting calculations per nonattainment guidance.				
Additional information can be found at:				
www.tceq.state.tx.us/permitting/air/forms/newsourcereview/tables/nsr_table8.html				
www.tceq.state.tx.us/permitting/air/nav/air_docs_newsource.html				
*If "Yes," to any of the above, **a PBR may not be used.** A PSD Permit review must be completed to authorize the project.*				
If "No," continue to Section 4.				

3. 30 TAC § 106.4(a)(3): Prevention of Significant Deterioration (PSD) check

Does this project trigger a review under PSD rules? To determine the answer, review the information below:

- Are emissions of any regulated criteria pollutant increasing by 100 tpy of any criteria pollutant at a named source? ☐ YES ☒ NO
- Are emissions of any criteria pollutant increasing by 250 tpy of any criteria pollutanat at an unnamed source? ☐ YES ☒ NO
- Are emissions increasing above significance levels at an existing major site? ☐ YES ☒ NO

PSD information can be found at:

www.tceq.state.tx.us/permitting/air/forms/newsourcereview/tables/nsr_table9.html

www.tceq.state.tx.us/permitting/air/nav/air_docs_newsource.html

*If "Yes," to any of the above, **a PBR may not be used.** A PSD Permit review must be completed to authorize the project.*

If "No," continue to Section 4.

4. 30 TAC § 106.4(a)(6): Federal Requirements

- Will all facilities under this PBR meet applicable requirements of Title 40 Code of Federal Regulations (40 CFR) Part 60, New Source Performance Standards (NSPS)? If "Yes," which Subparts are applicable? ☒ YES ☐ NO

  NSPS Kb (Tank 645, and Tank 8007); NSPS K (Tank 611). ☐ N/A
- Will all facilities under this PBR meet applicable requirements of 40 CFR Part 63, Hazardous Air Pollutants Maximum Achievable Control Technology (MACT) standards? If "Yes," which Subparts are applicable? ☒ YES ☐ NO

  Subpart BBBBBB (Tanks 609, 601, 610, and 645). ☐ N/A
- Will all facilities under this PBR meet applicable requirements of 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAPs)? If "Yes," which Subparts are applicable?: ☐ YES ☐ NO

  ☒ N/A

If "Yes" to any of the above, please attach a discussion of how the facilities will meet any applicable standards.

5. 30 TAC § 106.4(a)(7): PBR prohibition check

Are there any air permits at the site containing conditions which prohibit or restrict the use of PBRs? ☐ YES ☒ NO

If "Yes," PBRs may not be used or their use must meet the restrictions of the permit. A new permit or permit amendment may be required.

List permit numbers(s): _____

If "No," continue to Section 6.

6. 30 TAC § 106.4(a)(8): Nox Cap and Trade

- Is the facility located in Harris, Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County? ☐ YES ☒ NO

If "Yes," answer the question below. If "No." continue to Section 7.

- Will the proposed facility or group of facilities obtain required allowances for Nox if they are subject to 30 TAC Chapter 101, Subchapter H, Division 3 (relating to the Mass Emissions Cap and Trade Program)? ☐ YES ☐ NO

7. Highly Reactive Volatile Organic Compounds (HRVOC) check

- Is the facility located in Harris County? *If "Yes," answer the next question. If "No," skip to the box below.* ☐ YES ☒ NO
- Will the project be constructed after June 1, 2006? *If "Yes," answer the next question. If "No," skip to the box below.* ☐ YES ☐ NO
- Will one or more of the following HRVOC be emitted as a a part of this project?

If "Yes" complete the information below:

	lb/hr	tpy
▶ 1,3-butadiene		
▶ all isomers of butene (e.g., isobutene [2-methylpropene or isobutylene])		
▶ alpha-butylene (ethylethylene)		
▶ beta-butylene (dimethylethylene, including both cis- and trans-isomers)		
▶ ethylene		
▶ propylene		

- Is the facility located in Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, or Waller County? ☐ YES ☒ NO

If "Yes," answer the next question. If "No," the checklist is complete.

- Will the project be constructer after June 1, 2006? ☐ YES ☐ NO

If "Yes," answer the next question. If "No," the checklist is complete.

- Will one or more of the following HRVOC be emitted as a part of this project? ☐ YES ☐ NO

If "Yes," complete the information below:

	lb/hr	tpy
▶ ethylene		
▶ propylene		

Appendices

Appendix A: Emissions Calculations

Table 1
Magellan Pipeline Terminals, L.P.
Southlake Terminal
MSS Emissions Summary

EPN	MSS Activity Category	Emissions (tpy)						
		VOC	NO_x	CO	SO_2	PM	PM_{10}	$PM_{2.5}$
CTRL-MSS Controlled Emissions	Vacuum Truck	0.0001						
	Tanks	1.06	10.33	2.49	0.67	0.11	0.11	0.11
FUG-MSS Uncontrolled Emissions	Process Equipment	0.41						
	Tanks	2.16						
	Miscellaneous	1.10				1.18	0.20	0.02
	Total	**4.73**	**10.33**	**2.49**	**0.67**	**1.28**	**0.30**	**0.13**

EPN	MSS Activity Category	Emissions (lb/day)							
		Benzene	Ethyl Benzene	Hexane	Toluene	2,2,4-trimethylpentane	Xylene	Hexone	Butyl Acetate
CTRL-MSS Controlled Emissions	Vacuum Truck	0.0002	0.0002	0.00002	0.0003	0.0003	0.00010		
	Tanks	3.84	0.43	7.26	5.55	3.41	2.13		
FUG-MSS Uncontrolled Emissions	Process Equipment	0.561	0.06	1.06	0.81	0.50	0.31		
	Tanks	6.13	0.68	11.58	8.85	5.45	3.40		
	Miscellaneous								
	Painting		16.72				86.98	6.73	23.57
	Abrasive Blasting								
	Welding								
	Total	**6.69**	**17.89**	**19.89**	**15.21**	**9.36**	**92.83**	**6.73**	**23.57**
	RQ Limit (lb/day)	10	1,000	5,000	1,000	1,000	100	5,000	5,000

Table 2
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Uncontrolled Process Equipment MSS Activities

Step 1: Equipment Draining
Liquid from equipment is drained to a storage tank, pipe, or temporary storage
Sampling in this list refers to dumping of samples into an enclosed receptable upon completion of testing.

Reference: AP-42, Fifth Edition, Volume 1, Chapter 5.2 Transportation and Marketing of Petroleum Liquids - July 2008

$$L_L = 12.46\ S\ P\ M / T$$

where:

L_L = loading loss, pounds per 1000 gallons ($lb/10^3$ gal) of liquid loaded
S = saturation factor
P = true vapor pressure of liquid loaded, pounds per square inch absolute (psia)
M = molecular weight of vapors, pounds per pound-mole (lb/lb-mole)
T = temperature of bulk liquid loaded, °R (°F+460)

Activity Subcategory	Product	Saturation Factor	P_{max}	P_{avg}	M	T_{max}	T_{avg}	Volume Drained	Total Draining Emissions per Activity		Activities per Day	Activities per Year	Total Draining Emissions	
			(psia)	(psia)	(lb/lb-mol)	(°R)	(°R)	(gal/activity)	(lb/activity)	(ton/activity)	(#/day)	(#/yr)	(lb/day)	(tpy)
Sampling/Sample Dumping [1]	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	500	8.677	0.004	2	30	17.35	0.11
Piping Components	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	100	1.735	0.001	4	125	6.94	0.09
Instrumentation	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	25	0.434	0.000	4	35	1.74	0.01
Tubing	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	50	0.868	0.000	3	35	2.60	0.01
Pigging	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	250	4.339	0.002	2	15	8.68	0.03
Loading Arms	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	75	1.302	0.001	3	50	3.90	0.03

[1] - Sampling Volume Drained is compiled over an entire calender month. A typical samping activity consist of a one gallon sample being pulled from the pipeline.

Step 2: Degassing to Atmosphere
The equipment is purged to the atmosphere to remove vapors.
Note: If product vp>0.1 psia, emissions from clingage are negligible compared to degassing and do not need to be accounted for, per TCEQ guidance.

$$E_V = (PV/RT)(M)$$

where:

E_V = venting emissions, pounds per activity
P = vapor pressure at max storage temperature (psia)
V = volume of equipment being vented, ft^3
R = (10.73 psi-ft^3/lb mole-°R)
T = daily average liquid surface temperature, °R (°F + 460)
M = molecular weight of vapors, pounds per pound mole (lb/lb-mole)

Activity Subcategory	Product	P_{max}	P_{avg}	Equipment Volume	T_{max}	T_{avg}	M	Degassing Emissions per Activity		Activities per Day	Activities per Year	Total Degassing Emissions	
		(psia)	(psia)	(ft^3/activity)	(°R)	(°R)	(lb/lb-mol)	(lb/activity)	(ton/activity)	(#/day)	(#/yr)	(lb/day)	(tpy)
Sampling/Sample Dumping [1]	Gasoline RVP 11	7.80	6.39	1	555	528	66	0.09	0.00	2	30	0.17	0.001
Piping Components	Gasoline RVP 11	7.80	6.39	6	555	528	66	0.52	0.00	4	125	2.08	0.03
Instrumentation	Gasoline RVP 11	7.80	6.39	4	555	528	66	0.35	0.00	4	35	1.38	0.01
Tubing	Gasoline RVP 11	7.80	6.39	2	555	528	66	0.17	0.00	3	35	0.52	0.003
Pigging	Gasoline RVP 11	7.80	6.39	50	555	528	66	4.32	0.00	2	15	8.65	0.03
Loading Arms	Gasoline RVP 11	7.80	6.39	2	555	528	66	0.17	0.00	3	50	0.52	0.004

Step 3: Equipment Refill

Equipment is refilled with product. Since the equipment was not degassed, it is assumed the vapor space is saturated upon refill and the vapors are emitted to the atmosphere.
Sampling in this list refers to filling of sample containers with product to test.

Reference: AP-42, Fifth Edition, Volume 1, Chapter 5.2 Transportation and Marketing of Petroleum Liquids - July 2008

$$L_L = 12.46\ S\ P\ M / T$$

where:

L_L = loading loss, pounds per 1000 gallons ($lb/10^3$ gal) of liquid loaded
S = saturation factor
P = true vapor pressure of liquid loaded, pounds per square inch absolute (psia)
M = molecular weight of vapors, pounds per pound-mole (lb/lb-mole)
T = temperature of bulk liquid loaded, °R (°F+460)

Activity Subcategory	Product	Saturation Factor	P_{max}	P_{avg}	M	T_{max}	T_{avg}	Refill Volume	Total Refill Emissions per Activity		Activities per Day	Activities per Year	Total Refill Emissions	
			(psia)	(psia)	(lb/lb-mol)	(°R)	(°R)	(gal/activity)	(lb/activity)	(ton/activity)	(#/day)	(#/yr)	(lb/day)	(tpy)
Sampling/Sample Dumping [1]	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	1	0.02	0.00	2	30	0.03	0.0002
Piping Components	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	50	0.87	0.00	4	125	3.47	0.05
Instrumentation	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	10	0.17	0.00	4	35	0.69	0.00
Tubing	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	35	0.61	0.00	3	35	1.82	0.01
Pigging	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	0	0.00	0.00	2	15	0.00	0.00
Loading Arms	Gasoline RVP 11	1.45	7.80	6.39	66	536	525	35	0.61	0.00	3	50	1.82	0.01

Total Emissions

Total Process Equipment w/ No Degas VOC Emissions			
EPN	FIN	(lb/day)	(tpy)
FUG-MSS	PROC-MSS	62.38	0.41

Hourly emissions for each step are based on each activity occur occuring simultaneously. The step with the maximum total hourly emissions defines the hourly emission rate for the EPN.

Reportable Quantity Table

Total Process Equipment w/ No Degas RQ Emissions							
EPN	FIN	Benzene (lb/day)	Ethyl-Benzene (lb/day)	Hexane (lb/day)	Toluene (lb/day)	2,2,4-trimethylpentane (lb/day)	Xylenes (lb/day)
FUG-MSS	PROC-MSS	0.56	0.06	1.06	0.81	0.50	0.31

Speciation is based on the percentage of HAPs in VOC emissions and was provided by Magellan Pipeline Company, L.P.
Speciation used for tanks and fugitives:

Benzene	Ethyl Benzene	Hexane (n-)	Toluene	2,2,4-trimethylpentane	Xylenes
0.90%	0.10%	1.70%	1.30%	0.80%	0.50%

Speciation provided by Magellan Pipeline Company, L.P (per 2011 EI)

NOTE:
The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 3
Magellan Pipeline Terminals, L.P.
Smithfield Terminal
Emissions from Floating Roof Landings

Reference: AP-42, Fifth Edition, Volume 1, Chapter 7: Liquid Storage Tanks - November 2006

Standing Idle Loss Equations for IFR Tanks with Liquid Heel (Equation 2-16):
$L_S = n_S K_E (P V_V / R T) M_V K_S$
where: L_S = standing idle loss
n_S = number of days idle with product below roof
K_E = vapor space expansion factor = $(DT_V / T_{LA}) + ((DP_V / (P_A - P)) + 1$
DT_V = daily vapor temperature range = $0.73 * (T_{AX} - T_{AN}) + 0.028 * \alpha * I$
T_{LA} = daily average liquid surface temperature
DP_V = daily vapor pressure range = $P_{VX} - P_{VN}$
P_A = atmospheric pressure at the tank location
P = true vapor pressure of stock liquid
V_V = volume of the vapor space = $(\pi/4) D^2 h_V / 4$
R = ideal gas constant
T = temperature
M_V = stock vapor molecular weight
K_S = standing idle saturation factor = $1 / (1 + (0.053 P h_V))$ but must be <= 1

Standing Idle Loss Equation for EFR Tanks with Liquid Heel (Equation 2-19):
$L_S = 0.57 n_S D P^* M_V$
where: L_S = standing idle loss
n_S = number of days idle with product below roof
D = tank diameter
P^* = vapor pressure function = $(P / P_A) / (\{ [1 + [1 - (P/P_A)]^{0.5}] \}^2)$
P = true vapor pressure of stock liquid
P_A = atmospheric pressure at the tank location
M_V = stock vapor molecular weight

Standing Idle Loss Leg for Tanks with Liquid Heel (Equation 2-13):
$L_S <= 5.9 D^2 h_E W_L$
where: L_S = standing idle loss leg
D = tank diameter
h_E = effective height of stock liquid and shrimp
W_L = stock liquid density

Standing Idle Loss Equation for All Open Dry Tanks (Equation 2-22):
$L_S = 0.0365 W_L (\pi D^2 / 4)$
where L_S = standing idle loss
W_L = stock liquid density
D = tank diameter

Standing Idle Loss Leg for Open Dry Tanks (Equation 2-25):
$L_S <= 0.60 (P V_V / R T) M_V$
where L_S = standing idle loss leg
P = true vapor pressure of stock liquid
V_V = volume of the vapor space = $(\pi/4) D^2 h_V / 4$
R = ideal gas constant
T = temperature
M_V = stock vapor molecular weight

Standing Idle Loss Leg for Fixed Roof Tanks
$L_S = 0$
where L_S = standing idle loss

Tank ID	Date	Product	Roof Type	h_{RS} (ft)	Deck Leg Height h_R (ft)	Number of Days Landed nd (days)	Tank Type	Tank Diameter D (ft)	α (unitless)	Slope of Cone Bottom (ft/ft)	M_V (lb/lb-mol)	Product Type	W_L (lb/gal)	Remove Control (%)	Antoine A	Antoine B	Antoine C	Month for Mid Date	P_A (psia)	T_{AX} (°F)	T_{AN} (°F)	I (Btu/ft²)	h_V (ft)	V_V (ft³)	T_{AA} (°F)	T_{AA} (°R)	DTV (°R)	T_{LA} (°R)	T_{LX} (°R)	T_{LN} (°R)	P_{VA} (psia)	P_{VX} (psia)	P_{VN} (psia)	P*	K_E (unitless)	K_S Full Heel (unitless)	K_S Partial Heel (unitless)	K_S Selected (unitless)	L_{SL} nest (lb/month)	L_{SL} EFR (lb/month)	L_{SL} EFR (lb/episode)	L_{SL} Deata Day (lb/episode)	L_{SL} Selected (lb/episode)	L_{SL} Bz (lb/episode)	L_{SL} ETHBz (lb/episode)	L_{SL} Hexane (lb/episode)	L_{SL} Toluene (lb/episode)	L_{SL} 2,2,4-trimethylpentane (lb/episode)	L_{SL} Xylenes (lb/episode)
Tank 603	9/1/2013	Gasoline (RVP10)	IFR	0.01	6.00	1.00	IFR	85	0.17	0	66.00	Refined	5.60	0.90	11.7	5257.3	0.0	9	14.44	89.7	67.5	1587	5.99	33,990	78.60	538.3	23.5	560.4	551.5	529.3	7.635	9.259	6.231	0.186	0.49	0.29	0.29	0.29	2,587	425.54	594.33	260.29	425.58	5.83	0.43	7.23	5.53	3.49	2.13
Tank 603	9/1/2013	Gasoline (RVP10)	Partial Heel	0.01	6.00	1.00	IFR	85	0.17	0	66.00	Refined	5.60	0.90	11.7	5257.3	0.0	9	14.44	89.7	67.5	1587	5.99	33,990	78.60	538.3	23.5	560.4	551.5	529.3	7.635	9.259	6.231	0.186	0.49	0.29	0.29	0.29	2,587	425.54	594.33	260.29	425.58	5.83	0.43	7.23	5.53	3.49	2.13
																																						MAX	5.83	0.43	7.23	5.53	3.49	2.13
Tank 609	9/1/2013	Gasoline (RVP10)	Full Heel	0.01	6.00	1.00	IFR	95	0.17	0	66.00	Refined	5.60	0.90	11.7	5257.3	0.0	9	14.44	89.7	67.5	1587	5.99	42,458	78.60	538.3	23.5	560.4	551.5	529.3	7.635	9.259	6.231	0.186	0.49	0.29	0.29	0.29	2,982	531.61	664.24	260.97	664.28	5.84	0.66	11.29	8.64	5.31	[redacted]
Tank 609	9/1/2013	Gasoline (RVP10)	Partial Heel	0.01	6.00	1.00	IFR	95	0.17	0	66.00	Refined	5.60	0.90	11.7	5257.3	0.0	9	14.44	89.7	67.5	1587	5.99	42,458	78.60	538.3	23.5	560.4	551.5	529.3	7.635	9.259	6.231	0.186	0.49	0.29	0.29	0.29	2,982	531.61	664.24	260.97	664.28	5.84	0.66	11.29	8.64	5.31	[redacted]
																																						MAX	5.84	0.66	11.29	8.64	5.31	[redacted]
Tank 615	9/1/2013	Gasoline (RVP10)	IFR Heel	0.01	6.00	1.00	IFR	82	0.17	0	66.00	Refined	5.60	0.90	11.7	5257.3	0.0	9	14.44	89.7	67.5	1587	5.99	31,633	78.60	538.3	23.5	560.4	551.5	529.3	7.635	9.259	6.231	0.186	0.49	0.29	0.29	0.29	2,722	398.07	573.35	248.31	398.67	3.56	0.46	6.73	5.15	3.17	1.98
Tank 615	9/1/2013	Gasoline (RVP10)	Partial Heel	0.01	6.00	1.00	IFR	82	0.17	0	66.00	Refined	5.60	0.90	11.7	5257.3	0.0	9	14.44	89.7	67.5	1587	5.99	31,633	78.60	538.3	23.5	560.4	551.5	529.3	7.635	9.259	6.231	0.186	0.49	0.29	0.29	0.29	2,722	398.07	573.35	248.31	398.67	3.56	0.46	6.73	5.15	3.17	1.98
																																						MAX	3.56	0.46	6.73	5.15	3.17	1.98

NOTE:
September represents the month with highest emissions due to Meteorological Data and RVP schedule outlined in the MSS Permit No. 9008.
The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table

POOR QUALITY ORIGINAL

Table 4
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Emissions from Floating Roof Tank Refilling

Reference: AP-42, Fifth Edition, Volume 1, Chapter 7 Liquid Storage Tanks - November 2006

Filling Loss Equation (Equation 2-26).

$L_{FL} = (P\ V_V / R\ T)\ M_V\ S$

where L_{FL} = filling loss = 0 for fixed roof tanks
P = true vapor pressure of stock liquid
V_V = volume of the vapor space = (pi) D^2 h_v / 4
R = ideal gas constant
T = temperature
M_V = stock vapor molecular weight
S = filling saturation factor
if IFR = 0.60 (full heel) or 0.50 (partial heel)
if EFR = Csf * S with S = 0.60 (full heel) or 0.50 (partial heel)
if Drain Dry = 0.15

Tank ID	Date	Product	Heel Type	h_{le} (ft)	Deck Leg Height h_d (ft)	Number of Days Landed nd (days)	Tank Type	Tank Diameter D (ft)	s (unitless)	Slope of Cone Bottom (in/ft)	Filling rate (gal/hr)	M_v (lb/lb-mol)	Product Type	W_L (lb/gal)	Benzene Content (%)	Antoine A	Antoine B	Antoine C	Month for Met Data	Pa (psia)	T_{AX} (°F)	T_{AN} (°F)	I (Btu/ft²)	h_v (ft)	V_v (ft³)	T_{AA} (°F)	T_{AA} (°R)	DTv (°R)	T_{LA} (°R)	P_{VA} (psia)	P*	K_E (unitless)	K_s Full Heel (unitless)	K_s Partial Heel (unitless)	K_s Selected (unitless)	L_{SL} max (lbs/episode)	L_{SL} IFR (lbs/episode)	L_{SL} EFR (lbs/episode)	L_{FL} IFR (lbs/episode)	L_{FL} EFR (lbs/episode)	L_{FL} Drain Dry (lbs/episode)	L_{FL} Selected (lbs/episode)	L_{FL} Bz (lbs/episode)	L_{FL} MTBE (lbs/episode)	L_{FL} Hexane (lbs/episode)	L_{FL} Toluene (lbs/episode)	L_{FL} 2,2,4-trimethylpentane (lbs/episode)	L_{FL} Xylene (lbs/episode)
Tank 601	9/1/2012	Gasoline (RVP10)	Drain Dry	0.00	6.00	1.00	IFR	85	0.17	0	218,400	66.00	Refined	5.60	0.90	11.7	5237.3	0.0	9	14.44	89.7	67.5	1587	6.00	34,047	78.60	538.3	23.5	540.4	7.63	0.186	0.28	0.29	0.29	0.00	0	0.00	0.00	0.00	0.00	445.53	445.53	4.01	0.45	7.57	5.79	3.56	2.23
																																										MAX	4.01	0.45	7.57	5.79	3.56	2.23
Tank 609	9/1/2012	Gasoline (RVP10)	Drain Dry	0.00	6.00	1.00	EFR	95	0.17	0	218,400	66.00	Refined	5.60	0.90	11.7	5237.3	0.0	9	14.44	89.7	67.5	1587	6.00	42,529	78.60	538.3	23.5	540.4	7.63	0.186	0.28	0.29	0.29	0.00	0	0.00	0.00	0.00	0.00	556.53	556.53	5.01	0.56	9.46	7.23	4.45	[illegible]
																																										MAX	5.01	0.56	9.46	7.23	4.45	[illegible]
Tank 645	9/1/2012	Gasoline (RVP10)	Drain Dry	0.00	6.00	1.00	IFR	83	0.17	0	218,400	66.00	Refined	5.60	0.90	11.7	5237.3	0.0	9	14.44	89.7	67.5	1587	6.00	31,686	78.60	538.3	23.5	540.4	7.63	0.186	0.28	0.29	0.29	0.00	0	0.00	0.00	0.00	0.00	414.64	414.64	3.73	0.41	7.05	5.39	3.32	[illegible]
																																										MAX	3.73	0.41	7.05	5.39	3.32	[illegible]

NOTE
September represents the month with higher emissions due to Meteorological Data and RVP schedule outlined in the NSR Permit No. 9008
The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 5
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Emissions from Vapor Degassing

Reference: Evaporative Loss from the Cleaning of Storage Tanks - API Draft Report - August 11, 2006

Vapor Space Purge Emission Equation for All Tank Types (Equation 14)

Note: This calculation accounts for the first air change with forced ventilation. Subsequent air changes are accounted for in the "Sludge Removal" calculation, even if no actual sludge removal occurs.

$L_P = (P V_v / R T) M_V S$

where P = true vapor pressure of stock liquid
V_V = volume of the vapor space = p $D^2 h_v / 4$
R = ideal gas constant
T = temperature
M_v = stock vapor molecular weight
S = filling saturation factor

Tank ID	Date	Product	Heel Type	h_b (ft)	Deck Leg Height h_d (ft)	Control Efficiency (%)	Tank Type	Tank Diameter D (ft)	n (unitless)	Slope of Cone Bottom (in/ft)	Product Type	M_v (lb/lb-mol)	Benzene Content (%)	Antoine A	Antoine B	Antoine C
Tank 601	9/1/2012	Gasoline (RVP10)	Partial Heel	0.01	6.00	98	IFR	85	0.17	0	Refined	66.00	0.90	11.7	5237.3	0.0
Tank 609	9/1/2012	Gasoline (RVP10)	Partial Heel	0.01	6.00	98	EFR	95	0.17	0	Refined	66.00	0.90	11.7	5237.3	0.0
Tank 645	9/1/2012	Gasoline (RVP10)	Partial Heel	0.01	6.00	98	IFR	82	0.17	0	Refined	66.00	0.90	11.7	5237.3	0.0

Tank ID	Month for Met Data	Pa (psia)	T (°R)	I (Btu/ft²)	h_v (ft)	V_v (ft³)	DTv (°R)	P_{VA} (psia)	P_{VX} (psia)	P_{VN} (psia)	P*	K_E (unitless)	K_S (unitless)	C_S	S
Tank 601	9	14.442	538.3	1587	5.99	33,990	23.5	7.350	8.947	5.989	0.176	0.46	0.30	0.454	0.5
Tank 609	9	14.442	538.3	1587	5.99	42,458	23.5	7.350	8.947	5.989	0.176	0.46	0.30	0.470	0.235
Tank 645	9	14.442	538.3	1587	5.99	31,633	23.5	7.350	8.947	5.989	0.176	0.46	0.30	0.448	0.500

Tank ID	to control L_P Uncontrolled flow into Control (lb/episode)	VOC Concentration Post Control	EFN to atm Post Control Degassing Emissions (to Atmosphere) (lb/activity)	Post Control Degassing Emissions (to Atmosphere) (ton/activity)	After Control and Vent to ATM L_P Total Emissions (lb/episode)	L_P Bz (lb/episode)	L_P ETHBz (lb/episode)	L_P Hexane (lb/episode)	L_P Toluene (lb/episode)	L_P 2,2,4 Trimethylpentane (lb/episode)	L_P Xylene (lb/episode)
Tank 601	1417.22	10000	34.74	0.017	63.29	0.57	0.063	1.03	0.82	0.51	0.32
		MAX	34.743	0.017	63.29	0.57	0.06	1.03	0.82	0.51	0.32
Tank 609	838.17	10000	17.38	0.009	34.14	0.31	0.034	0.58	0.44	0.27	0.17
		MAX	17.607	0.009	34.18	0.31	0.03	0.58	0.44	0.27	0.17
Tank 645	1328.26	10000	27.54	0.014	54.11	0.49	0.054	0.92	0.70	0.43	0.27
		MAX	27.544	0.014	54.11	0.49	0.05	0.92	0.70	0.43	0.27

NOTE:
September represents the month with higher emissions due to Meterological Data and RVP schedule outlined in the NSR Permit No. 9008
The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table

Table 6
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Sludge Removal Emissions

After vapors have been removed from floating roof tanks, water and/or surfactant is sprayed into the storage tanks to break up any solids. The remaining slurry of water and sludge is removed with a vacuum truck.

Reference: Ajay Kumar, N.S. Vatcha, and John Schmelzle, "Estimate Emissions From Atmospheric Releases of Hazardous Substances," Environmental Engineering World, November-December 1996, pages 20-23.

$$ER = 4.14 \times 10^{-3}(U_S^{0.78})(P_V)(M_W^{0.67})(A_P^{0.91})$$

where:
ER = emission rate, lb/hr
U_S = forced ventilation rate, m/s
P_V = VOC vapor pressure, Pa
M_W = VOC vapor molecular weight
A_P = liquid surface area, m^2

Tank EPN	Tank Type	Product	D	H_S	U_S	U_S	P_{max}	P_{avg}	M_W	A_P	Uncontrolled Cleaning Emissions		Activity Duration	Activities per Hour	Activities per Year	Total Uncontrolled Cleaning Emissions Routed to Control Device	
			(ft)	(ft)	(ft^3/min)	(m/s)	(Pa)	(Pa)	(kg/kg-mol)	(m^2)	(lb/hr_{max})	(lb/hr_{avg})	(hrs)	(#/hr)	(#/yr)	(lb/hr)	(lb/yr)
Tank 645	IFR	Gasoline (RVP10)	82	6	2500	0.022	63978.52	52641.08	66	490.6226	756.40571	622.36531	24	1	1	756.41	14936.8
															MAX	756.4	14936.8

Tank EPN	Tank Type	Product	D	H_S	U_S	U_S	P_{max}	P_{avg}	M_W	A_P	Uncontrolled Cleaning Emissions		Activity Duration	Activities per Hour	Activities per Year	Total Uncontrolled Cleaning Emissions Routed to Control Device	
			(ft)	(ft)	(ft^3/min)	(m/s)	(Pa)	(Pa)	(kg/kg-mol)	(m^2)	(lb/hr_{max})	(lb/hr_{avg})	(hrs)	(#/hr)	(#/yr)	(lb/hr)	(lb/yr)
Tank 609	EFR	Gasoline (RVP10)	95	6	2500	0.022	63978.52	52641.08	66	658.517	997.48215	820.72131	24	1	1	997.48	19697.3
															MAX	997.5	19697.3

Tank EPN	Tank Type	Product	D	H_S	U_S	U_S	P_{max}	P_{avg}	M_W	A_P	Uncontrolled Cleaning Emissions		Activity Duration	Activities per Hour	Activities per Year	Total Uncontrolled Cleaning Emissions Routed to Control Device	
			(ft)	(ft)	(ft^3/min)	(m/s)	(Pa)	(Pa)	(kg/kg-mol)	(m^2)	(lb/hr_{max})	(lb/hr_{avg})	(hrs)	(#/hr)	(#/yr)	(lb/hr)	(lb/yr)
Tank 601	IFR	Gasoline (RVP10)	85	6	2500	0.022	63978.52	52641.08	66	527.1785	809.26794	665.85998	24	1	1	809.27	15980.6
															MAX	809.3	15980.6

NOTE:
The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 7a
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Emissions from Combustion Sources

Combustion Emissions - Controlled Degassing

EPN:	CTRL-MSS	
Identifier:	Control Device with DRE 98%	
Control Hours Per Year	90	hr/yr

Description	FIN	Routed to Control Device?	VOC Uncontrolled			VOC Controlled		Heating Value		
			lb/event	Events/year	tpy	lb/event	tpy	HP	BTU/lb	MMBTU/hr
Natural Gas	CONTROL						0.002			3.77
Gasoline Flow	CONTROL						0.27	400		
Diesel Flow	CONTROL						0.04	400		
Tank Degassing	TANK-MSS	Yes	1427.22	12	8.56	34.27	0.15		20400	3.24
Tank Sludge	TANK-MSS	Yes	19,697.31	3	29.55	393.95	0.44		20400	44.65
						TOTAL	**0.87**			**47.88**

AP-42 Emission Factors

	NO_x (lb/MMBtu)	CO (lb/MMBtu)	SO_2 (lb/MMBtu)	PM (lb/MMBtu)	VOC (lb/MMBtu)
Natural Gas Emission Factors [1]	4.080	0.386	0.0006	0.004	98 % DRE
	4.080	0.386	0.0006	0.004	0.012
Gasoline Emission Factors [2]	1.630	0.990	0.0840	0.100	98 % DRE
	0.011 lb/hp-hr	0.007 lb/hp-hr	0.0006 lb/hp-hr	0.0007 lb/hp-hr	0.015 lb/hp-hr
Diesel Emission Factors [2]	4.410	0.950	0.2900	0.310	98% DRE
	0.031 lb/hp-hr	0.007 lb/hp-hr	0.002 lb/hp-hr	0.002 lb/hp-hr	0.002 lb/hp-hr

[1] - Reference: Compilation of Air Pollution Emission Factors (AP-42) 5th Edition, Section 3.2 - Natural Gas-fired Reciprocating Engines.

[2] - Reference: Compilation of Air Pollution Emission Factors (AP-42) 5th Edition, Section 3.3 - Gasoline and Diesel Industrial Engines.

Calculation Method:

- $NO_x/CO/SO_2/VOC/PM/PM_{10}/PM_{2.5}$ (lb/hr) = (scf/hr)*EF (lb/MMBTU)*(1 MMBTU/1,000,000 BTU)* Heating Value (BTU/scf)
- Heating Value (MMBtu/hr) - (lb/hr)*(Btu/lb)/1000000
- Pilot Gas Emissions for Combustion Event were calculated based on Maximum Flow Rate for Natural Gas and Propane.

NOTE: Benzene Emissions from Natural Gas are Negligible

We assumed two 200 hp engines for Engine Control Devices.

Constants

528 T (absolute temperature - Rankin)

10.73 R (universal gas constant) - (psia*ft^3)/(lbmolR)

14.7 P (Pressure (psia))

Emission Calculations

Description	FIN	NO_x Emissions	CO Emissions	SO_2 Emissions	PM Emissions	PM_{10} Emissions	$PM_{2.5}$ Emissions
		tpy	tpy	tpy	tpy	tpy	tpy
Natural Gas	CONTROL	0.69	0.07	0.00	0.001	0.001	0.001
Gasoline Flow	CONTROL	0.20	0.13	0.01	0.01	0.01	0.01
Diesel Flow	CONTROL	0.56	0.12	0.04	0.04	0.04	0.04
Tank Degassing	TANK-MSS	0.64	0.14	0.04	0.05	0.05	0.05
Tank Sludge	TANK-MSS	8.86	1.99	0.58	0.00	0.00	0.00
TOTAL		**10.19**	**2.26**	**0.67**	**0.10**	**0.10**	**0.10**

Heat Content Requirement per 30 TAC §106.492(1)(D)

Calculation Method: For SO_2, Q = (0.53)*(10^5)*(lb/hr SO_2)

SO_2 Emission Rate (lb/hr):	14.94
Heat Release of VCU (BTU/hr):	47,882,279
Q (BTU/hr):	792,057
Is §106.492(1)(D) requirement met?	YES

NOTE:

The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 7b
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Emissions from Combustion Sources

Combustion Emissions - Controlled Degassing

EPN:	CTRL-MSS	
Identifier:	Control Device with DRE >98%	
Control Hours Per Year	30	hr/yr

Description	FIN	Routed to Control Device?	VOC Uncontrolled			VOC Controlled		Max Flow Fuel Rate (lb/hr)		Annual Flow Fuel Rate (lb/yr)		Heating Value		
			lb/event	Events/year	tpy	lb/event	tpy					Btu/scf	BTU/lb	MMBTU /hr
Pilot Gas (Natural Gas)	CONTROL						0.001	300 scf/hr		0.01 MMscf/yr		1020		9.18
Pilot Gas (Propane)	CONTROL						0.002	0.30		8.91			19807	15.00
Tank Degassing	TANK-MSS	Yes	1427.22	12	8.56	28.54	0.04						20400	3.24
Tank Sludge	TANK-MSS	Yes	19,697.31	3	29.55	393.95	0.15						20400	44.65
						TOTAL	0.19							62.88

AP-42, Chapter 1.5 - Table 1.5-1 - Liquified Petroleum Gas Combustion.

Propane Emission Factors	NO_x (lb/MMBtu)	CO (lb/MMBtu)	VOC (lb/MMBtu)	SO_2 (lb/MMBtu)	PM (lb/MMBtu)
	0.142	0.082	0.011	0.001	0.008

TCEQ Flare Emission Factors - Technical Guidance for Chemical Sources: Flares & Vapor Oxidizers, October 2000.

Flare Type	Waste Gas	NO_x (lb/MMBtu)	CO (lb/MMBtu)	SO_2 (lb/MMBtu)
steam-assist	high Btu (>1000 BTU/scf)	0.0485	0.3503	0.0006
	low Btu (192-1000 BTU/scf)	0.068	0.3465	
other	high Btu (>1000 BTU/scf)	0.138	0.2755	0.0006
	low Btu (192-1000 BTU/scf)	0.0641	0.5496	

Calculation Method:

- $NO_x/CO/SO_2/VOC/PM/PM_{10}/PM_{2.5}$ (lb/hr) = (scf/hr)*EF (lb/MMBTU)*(1 MMBTU/1,000,000 BTU)* Heating Value (BTU/scf)
- Heating Value (MMBtu/hr) = (lb/hr)*(Btu/lb)/1000000
- Pilot Gas Emissions for Combustion Event were calculated based on Maximum Flow Rate for Natural Gas and Propane.

NOTE: Benzene Emissions from Natural Gas are Negligible

Constants

528 T (absolute temperature - Rankin)
10.73 R (universal gas constant) - (psia*ft^3)/(lbmolR)
14.7 P (Pressure (psia))

Emission Calculations

Description	FIN	NO_x Emissions	CO Emissions	SO_2 Emissions	PM Emissions	PM_{10} Emissions	$PM_{2.5}$ Emissions
		tpy	tpy	tpy	tpy	tpy	tpy
Pilot Gas (NG & Propane)	CONTROL	0.032	0.04	0.000	0.002	0.002	0.002
Tank Degassing	TANK-MSS	0.01	0.01	0.000	0.000	0.000	0.000
Tank Sludge	TANK-MSS	0.09	0.18	0.00	0.005	0.005	0.005
TOTAL		0.13	0.24	0.00	0.01	0.01	0.01

Heat Content Requirement per 30 TAC §106.492(1)(D)

Calculation Method: For SO_2, Q = (0.53)*(10^5)*(lb/hr SO_2)

SO_2 Emission Rate (lb/hr):	0.07
Heat Release of VCU (BTU/hr):	62,882,279
Q (BTU/hr):	3,642
Is §106.492(1)(D) requirement met?	YES

NOTE:

The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 8
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Vacuum Truck Emissions

Vacuum trucks are used to remove liquid from storage tanks, process equipment, sumps, etc.
When vacuuming liquids with vapor pressures above 0.5 psia, the vacuum truck will be equipped with carbon canisters to control emissions.
The breakthrough concentration of the carbon canisters is 100 ppm.
When vacuuming liquids with vapor pressures below 0.5 psia, the vacuum truck may operate uncontrolled and that it may be operated with air blowers.
The vacuum trucks will be submerged fill and operated with air blowers (volume of vapors displaced will be 2 times the liquid volume loaded).

Vacuum Trucks with Carbon Canisters

lb/activity = 2 x V / 7.48 gal/scf / 379 scf/lb mol x MW x C

where:

V = vacuum tuck volume, gal
MW = molecular weight of vapors, pounds per pound-mole (lb/lb-mol)
C = breakthrough concentration, ppm

EPN	FIN	Product	M	Truck Volume	# Trucks/yr	Control?	Breakthrough Concentration	Vacuum Truck Emissions	
		Name	lb/lbmol	gal			ppm	lb/truck	ton/yr
CTRL-MSS	VAC TRK	High Vapor Pressure Products	62	4500	10	Y	100	0.02	0.00010

Note: Hourly emissions conservatively assumes entire truck filled in one hour.

NOTE:
The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 9
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Painting Emissions

Coating Emissions	VOC[3]	PM[3]
Average Thinned Coating[1], lb/gal	2.94	10.32
Overspray[2], %	-	55%
Transfer Efficiency	-	45%
Fall Out Factor[4]	-	90%

Notes:

1 - Mix Ratio is 90% Coating; 10% Thinner

2 - Estimate based on paint application via a HVLP spray gun

3 - Calculated per TCEQ Guidance Document for Surface Coating Operations dated April 2001 and guidance from Louis Ngo of the TCEQ Coatings Section

4 - Fall out factor provided by Louis Ngo of the TCEQ Coatings Section

EPN	FIN	Pollutant	Paint Usage	Emissions from Painting	
			gal/yr	lb/day[1]	tpy
FUG-MSS	Miscellaneous	VOC	750	190.89	1.10
		PM		13.62	0.21

[1] - This equates to roughly 65 gallons of paint per day.

Reportable Quantity Table

EPN	FIN	Usage (lb/day)	Ethyl Benzene (lb)	Xylene (lb)	Hexone (lb)	Butyl Acetate (lb)
FUG-MSS	Miscellaneous	781.9	16.7	87.0	6.7	23.6

NOTE:

The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 10
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Abrasive Blasting Emissions

Reference: Compilation of Air Pollutant Emission Factors (AP-42)
5th Edition, January 1995, Section 13.2.6 Abrasive Blasting, Tables 13.2.6-1
Volume I: Stationary Point and Area Sources
U.S. Environmental Protection Agency
Office of Air and Radiation, Office of Air Quality Planning and Standards

EPN	FIN	Pollutant	Media Usage	Emission Factor	Emissions from Abrasive Blasting	
			lb/yr	lb/1000 lb abrasive	lb/yr	tpy
FUG-MSS	Miscellaneous	PM	30,000	58	1740	0.87
		PM_{10}		13	390	0.20
		$PM_{2.5}$		1.3	39	0.02

NOTE:
The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 11
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Welding Emissions

Reference: Compilation of Air Pollutant Emission Factors (AP-42)
5th Edition, January 1995, Section 12.19 Electric Arc Welding, Tables 12.19-1 and 12.19-2
Volume I: Stationary Point and Area Sources
U.S. Environmental Protection Agency
Office of Air and Radiation, Office of Air Quality Planning and Standards

Calculation of estimated emissions using actual electrode usage and maximum emission factors

EPN	FIN	Facility	Pollutant	Emission Factor (lb/10^3 lb electrodes) [2]	Emission Factor Basis (Electrode/Wire Type)	Usage/Activity (lb electrodes)	Maximum Annual Usage (lb/yr)	Maximum Annual Usage (tpy)
FUG-MSS	Miscellaneous	Welding	$PM_{10}/PM_{2.5}$ [1]	81.6	14Mn-4Cr	500	40.8	0.02
			Cr	25.3	E310		12.7	0.01
			Cr(VI)	18.8	E310		9.4	0.005
			Co	0.0	E308		0.01	0.000003
			Mn	232.0	14Mn-4Cr		116.0	0.06
			Ni	17.1	14Mn-4Cr		8.6	0.004
			Pb	1.6	E7028		0.8	0.0004
			Total PM				**188.22**	**0.09**

Notes:
[1] Sum of all electrodes used for all welding processes, regardless of electrode type
[2] PM emissions include all other metal species
[3] Process and electrode type with highest emission factor selected from AP-42 Tables 12.19-1 and 12.19-2.
Worst case welding process is Shield Metal Arc Welding (SMAW).

NOTE:
The emission calculations included above are provided in support of the basis for estimating the total emissions for this type of activity and are not representations of specific limits for each source. These emission calculations are not to be considered enforceable representations as to the specific equipment or parameters including but not limited to volume, concentration, duration, and frequency of individual activities. The compliance basis for these activities is based on the total emissions as shown on the MSS Emission Summary Table.

Table 12
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Product Properties for Site

Data to be entered for use in calculations:										Values calculated for use in calculations:				
Product Code (to be used on calculation sheets)	Product Type	RVP	S-Value	Antoine's Constants			M_V	W_L	% Benzene	Antoine's Constants as Calculated or Entered			K_C	K_P
				A	B	C				A	B	C		
Gasoline (RVP7.8)	Refined	7.8	3.0	0.0	0.0	0.0	66	5.60	0.90	11.8	5,420.7	0.0	1.00	1.00
Gasoline (RVP9)	Refined	9	3.0	0.0	0.0	0.0	66	5.60	0.90	11.8	5,315.1	0.0	1.00	1.00
Gasoline (RVP10)	Refined	10	3.0	0.0	0.0	0.0	66	5.60	0.90	11.7	5,237.3	0.0	1.00	1.00
Gasoline (RVP11.5)	Refined	11.5	3.0	0.0	0.0	0.0	66	5.60	0.90	11.7	5,134.1	0.0	1.00	1.00
Gasoline (RVP13.5)	Refined	13.58	3.0	0.0	0.0	0.0	66	5.60	0.90	11.6	5,011.4	0.0	1.00	1.00

Table 13
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Meteorological Data

Select Location:	Dallas

Location	Month Code	Daily Ambient Minimum Temperature (T_{AN}) (°F)	Daily Ambient Maximum Temperature (T_{AX}) (°F)	Solar Insolation Factor (I) (BTU/ ft^2 day)	Average Wind Speed (v) (mph)	Month	Days / Month	Atmospheric Pressure (psia)
Dallas	1	33.9	54.0	822	10.8	JAN	31	14.442
Dallas	2	37.8	59.1	1,071	10.8	FEB	29	
Dallas	3	44.9	67.2	1,422	10.8	MAR	31	
Dallas	4	55.0	76.8	1,627	10.8	APR	30	
Dallas	5	62.9	84.4	1,889	10.8	MAY	31	
Dallas	6	70.8	93.2	2,135	10.8	JUN	30	
Dallas	7	74.7	97.8	2,122	10.8	JUL	31	
Dallas	8	73.7	97.3	1,950	10.8	AUG	31	
Dallas	9	67.5	89.7	1,587	10.8	SEP	30	
Dallas	10	56.3	79.5	1,276	10.8	OCT	31	
Dallas	11	44.9	66.2	936	10.8	NOV	30	
Dallas	12	37.4	58.1	780	10.8	DEC	31	
Dallas	365	55.0	76.9	1,468	10.8	YEAR	365	

Table 14
Magellan Pipeline Terminals, L.P.
Southlake Terminal
Tank Data

Data to be entered for all tanks:						Data to be entered for fixed roof tanks:					Calculated for Fixed Roof Tanks:		Data to be entered for floating roof tanks:				
Tank ID	Roof Type	D / D_{eff} (ft)	Capacity (bbl)	a (unitless)	Maximum Filling Rate (F_{RM}) (gal/hr)	Shell Height or Length (H_S) (ft)	Liquid Height (H_L) (ft)	P_{BP} (psig)	P_{BV} (psig)	Roof Type	Roof Outage (H_{RO}) (ft)	Vapor Space Outage (H_{VO}) (ft)	Deck Construction	Primary Seal	Secondary Seal	C	F_C
Tank 601	IFR	85.0	40,000	0.17	218,400	39.3					0.00	39.25	W	Vapor Mounted	Rim mounted	0.0015	1.0
Tank 604	VFR	60.0	20,000	0.17	218,400	40.0	20.00	0.00	0.00	Cone	0.63	20.63					
Tank 609	EFR	95.0	50,000	0.17	218,400	39.8					0.00	39.75	W	Mechanical Shoe	Rim mounted	0.0015	1.0
Tank 610	IFR	22.0	1,000	0.17	39,018	16.0					0.00	16.00	W	Mechanical Shoe	Primary only	0.0015	1.0
Tank 611	IFR	70.0	30,000	0.17	218,400	48.0					0.00	48.00	W	Vapor Mounted	Primary only	0.0015	1.0
Tank 645	IFR	82.0	45,000	0.17	218,400	46.0					0.00	46.00	W	Vapor Mounted	Rim mounted	0.0015	1.0
Tank 680	VFR	120.0	80,000	0.17	218,400	40.1	20.04	0.00	0.00	Cone	1.25	21.29					

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Frac Tank
City:	Southlake
State:	Texas
Company:	Magellan Pipeline Teminals, L.P.
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	16.00
Diameter (ft):	15.00
Liquid Height (ft) :	16.00
Avg. Liquid Height (ft):	8.00
Volume (gallons):	21,000.00
Turnovers:	0.48
Net Throughput(gal/yr):	10,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	Gray/Light
Shell Condition	Good
Roof Color/Shade:	Gray/Light
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.00

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meterological Data used in Emissions Calculations: Dallas-Fort Worth, Texas (Avg Atmospheric Pressure = 14.44 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Frac Tank - Vertical Fixed Roof Tank
Southlake, Texas

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 10)	Sep	78.95	68.96	88.95	67.65	7.3929	6.1513	8.8259	66.0000			92.00	Option 4: RVP=10, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: September

Frac Tank - Vertical Fixed Roof Tank
Southlake, Texas

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Gasoline (RVP 10)	116.17	385.47	501.64

Appendix B: De Minimis List

De Minimis List - Facilities or Sources (30 TAC 116.119(a) (1))

The following list contains facilities or sources that are de minimis for air emissions, which means that registration or authorization prior to construction is not required per Title 30, Texas Administrative Code, Section 116.119 (a) (1). Even though New Source Review preconstruction authorizations are not required for the following facilities or sources, other TCEQ environmental authorizations may be applicable.

Unconditional Facilities/Sources

- Music and Film Studios
- Farm and Ranch Refueling Operations
- Office Equipment
- Modular, Self-contained Abrasive Blasting Cabinets (Parts Cleaning)
- Deer Block Manufacturing
- Laundromats (Excluding Dry Cleaning)
- Warehouses (Storage of Closed Containers Only)
- Educational Laboratories/Training
- Equipment used for hydraulic or hydrostatic testing
- Platen presses used for laminating
- Vacuum-producing devices used in laboratory operations

Facilities/Sources for Personal Use

- Repair of Personal Recreational Equipment
- Ammunition Reloading (Bullet Making)
- Still Photo Film Processing
- Gardening, Composting, and Mulching
- Hot Tub Cleaning and Maintenance
- Water Treatment System Maintenance
- Heating and Cooling Equipment
- Fireplaces and Barbecues
- Water Heaters
- Water Softeners
- Dish and Clothes Washers and Dryers
- Water Treatment Equipment (Well Water)
- Food Preparation
- Non-industrial and non-commercial ovens, mixers, blenders, barbecue pits, and cookers if the products are edible and intended for human consumption.
- Vacuum cleaning systems used exclusively for non-industrial, non-commercial, or residential housekeeping purposes.

Retail/Service Facilities/Sources

- Beauty Shops
- Barber Shops
- Massage Parlors
- Pet Shops
- Pet Groomers

Retail/Service Facilities/Sources (Continued)

- Swimming Pool Maintenance
- Car Washes
- Food Supermarkets (Excluding Incineration)
- Equipment used in eating establishments (in-store bakeries and restaurants) for the purpose of preparing food for human consumption.
- Dispensing Pharmacies
- Medical/Dental/Veterinary Facilities Performing Only Out-patient Care
- Mortuary/Cemetery/Funeral Home (Excluding Crematoriums)
- Janitorial and Maid Services
- Landscaping
- Reupholstery Shops
- *in situ* Carpet Cleaning
- *in situ* Computer and Office Maintenance and Cleaning Services
- Food Preparation Activities of Products Intended Exclusively for Direct, Immediate Retail Sale, for Human or Domestic Animal Consumption.
- Retail Activities Not Involving Manufacture or Production of Products
- Taxidermy
- Auto Detailing

Conditional Facilities/Sources

- Pipeline isolation valve sites which meet the following four criteria and are one of the liquids or gases listed as follows are de minimis. The criteria are: 1) the sites may have a maximum of three valves; 2) the site is not otherwise authorized for air emissions; 3) the site is located more than 50 feet from any other stationary volatile organic compound source of the de minimis pollutant; and 4) the pipeline does not contain a pollutant specified in an area on the TCEQ air pollutant watch list on the web. The liquids or gasses are: gasoline $\leq$ 10% by weight benzene and $\leq$ 15% by weight MTBE; diesel; fuel oil; liquid petroleum gas; sweet crude oils; lubricating oils; weathered/processed crude; water/light oil; sweet natural gas; sour natural gas $\leq$ 23,100 parts per million by volume hydrogen sulfide; natural gas liquids (condensate) $\leq$ 10% by weight benzene and $\leq$ 39,300 parts per million by weight hydrogen sulfide; jet fuel (kerosene-based, such as JP-8 and Jet A); kerosene; and mixtures of only the previously listed items.
- Fuel cell systems not exceeding one megawatt that have a hydrogen reformer which uses only natural gas, propane, or liquid petroleum gas to produce the hydrogen for the fuel cell.
- Aerosol can recycling puncturing and/or crushing equipment limited to 40 aerosol can per day (24 hours) at the site and only operated with a covered waste storage container.
- Fumigation facility complying with all U.S. Environmental Protection Agency (EPA) Federal Insecticide, Fungicide, and Rodenticide Act requirements including but not limited to the labeling requirements for each specific fumigant used at the site. Any fumigant used at the facility must be registered by the EPA and the Texas Department of Agriculture, Texas Structural Pest Control Board, or Texas Department of State Health Services, as appropriate, prior to use.
- Equipment used exclusively for bonding lining to brake shoes.
- Equipment used exclusively to store or hold dry sweet natural gas.
- Application of lubricants (including greases and oils) without aerosol propellants other than air and/or nitrogen, for maintaining equipment and other facilities.

Conditional Facilities/Sources (Continued)

- Manual application of cleaning or stripping solutions or coatings. Manual application includes application using brushes, cloth, pads, droppers, tube dispensing equipment, or spray bottles and pump-up sprayers without aerosol propellants.
- Application of aqueous detergents, surfactants, and other cleaning solutions containing not more than one percent of any organic compound by weight or containing not more than five percent of any organic compound with a vapor pressure less than 0.002 pounds per square inch absolute.
- Application of aerosol-propelled organic liquids using hand-held devices for maintaining equipment and other facilities where usage is no more than four aerosol cans or 64 ounces per day on a 12-month rolling average basis.
- Any feed grinding operation which is used only for non-commercial purposes.
- Replacement or addition of cotton gin stands where no other equipment change or additions are involved.
- All agricultural aqueous fertilizer storage tanks (excluding aqueous fertilizer manufacturing).
- Equipment used for compression molding and injection molding of thermo-plastics (excluding chemical reaction processes).
- Laundry dryers, extractors, or tumblers used for fabrics cleaned with water solutions of bleach or detergents (excluding dry cleaning).
- Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analyses (excluding pilot plants).
- All animal racing facilities, domestic animal shelters, zoos, and their associated confinement areas, stables, feeding areas, and waste collection and treatment facilities (excluding incineration and/or concentrated animal feeding operations).
- Blast cleaning equipment using only water as the cleaning media.
- Equipment used for inspection of metal products (excluding inspection procedures that use metals or non-aqueous solvents).
- Equipment used exclusively for the melting or application of wax.
- Equipment used exclusively for the packaging of lube oils or greases.
- Equipment used exclusively for steam cleaning of fabrics, plastics, rubber, wood, or vehicle engines or drive trains.
- Equipment used exclusively for pressing either hot or cold metals by some mechanical means.
- Equipment used exclusively for dyeing or stripping of textiles (using only aqueous solutions).
- Comfort air conditioning systems or comfort ventilating systems which are not used to remove air contaminants generated by or released from specific units of equipment.
- Application of argon, ethane, helium, hydrogen, methane, neon, nitrogen, and propane for testing, purging, and leak checking of equipment.

De Minimis List (30 TAC 116.119(a)(2))

The following activities from the current De Minimis List are expected to be conducted at the Terminal.

- Cleaning and stripping solvents, 50 gallons per year;
- Coatings (excluding plating materials), 100 gallons per year;
- Dyes, 1,000 pounds per year;
- Bleaches, 1,000 gallons per year;
- Fragrances (excluding odorants), 250 gallons per year;
- Water-based surfactants/detergents, 2,500 gallons per year;
- Facilities or sources located inside a building at a site which meet the following site-wide emission rate caps based on the July 19, 2000 Effects Screening Levels (ESL) list without the addition of control devices, as defined in §101.1 of this title (relating to Definitions).

Appendix C: TCEQ Sampling Guidance

TCEQ SAMPLING GUIDANCE

Email Correspondence Regarding Tank Hatch Openings for Sampling

From: Tony Ionescu [mailto:Tony.Ionescu@tceq.texas.gov]
Sent: Friday, September 16, 2011 4:58 PM
To: Anna de la Garza
Subject: Re: Tank opening for sampling

Anna,

With regard to tank sampling, TCEQ does not expect permit holders to either estimate emissions or obtain an authorization for the emissions that may occur when sampling is done on either floating or fixed roof tanks. As long as the access hatch is only open for the time necessary to take the samples, we wouldn't anticipate that there would be any significant emissions compared to the normal standing and working losses. The access hatches should remain closed at all other times.

Let me know if you need additional clarification.

Regards,
Tony

>>> "Anna de la Garza" <adelagarza@zephyrenv.com> 9/16/2011 1:06 PM >>>
Tony,

As we discussed earlier this week. I was wondering if you could provide for me the TCEQ's position on emissions due to tank sampling where a small hatch is opened to allow the sample tube in. We wanted your take on both sampling from a floating roof tank (opening in the actual floating roof) and sampling from a fixed roof atmospheric tank.

Thank you so much for your help and clarification on this issue.

Anna

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