

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

June 22, 2011

MR KEITH KELLY
PLANT MANAGER
TOTAL PETROCHEMICALS USA INC
PO BOX 5010
LA PORTE TX 77572-5010

Permit by Rule Registration Number: 95580
Location/City/County: 12212 Port Rd, Pasadena, Harris County
Project Description/Unit: Bayport HDPE Plant
Regulated Entity Number: RN100909373
Customer Reference Number: CN600582399
New or Existing Site: Existing
Affected Permit (if applicable): 5264
Renewal Date (if applicable): None

RECEIVED
JUN 28 2011
TCEQ
CENTRAL FILE ROOM

TOTAL PETROCHEMICALS USA, INC. has registered the emissions associated with the installation of two analyzers to monitor Highly Reactive Volatile Organic Compounds at the Bayport HDPE Plant under Title 30 Texas Administrative Code §§ 106.261. We understand there is no increase in capacity, production, or upstream and downstream emissions. This PBR should be incorporated into NSR Permit No. 5264 when next amended or renewed. For rule information see:

www.tceq.texas.gov/permitting/air/nav/numerical_index.html

No planned MSS emissions have been represented or reviewed for this registration and none will be authorized. The company is also reminded that these facilities may be subject to and must comply with other state and federal air quality requirements.

All analytical data generated by a mobile or stationary laboratory to support the compliance with an air permit must be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory. For additional information regarding the laboratory accreditation program, please see the following Web site which includes the accreditation and exemption information:

www.tceq.texas.gov/compliance/compliance_support/qa/env_lab_accreditation.html

Mr. Keith Kelly
June 22, 2011
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This registration is taken under the authority delegated by the Executive Director of the TCEQ.
If you have questions, please contact Mr. Emmanuel Ukandu, P.E. at (713) 767-3699.

Sincerely,



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

Represented Project Emissions:

VOC	<0.01	tpy
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cc: Chief Health Inspector, Health Department, City of Pasadena, Pasadena
Director, Environmental Public Health Division, Harris County Public Health and
Environmental Services, Pasadena
Air Section Manager, Region 12 - Houston

Project Number: 164631

TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	95580	Company Name:	TOTAL PETROCHEMICALS USA, INC.	APD Reviewer:	Mr. Emmanuel Ukandu, P.E.
Project No.:	164631	Unit Name:	2010 Annual Emissions Summary	PBR No(s).:	106.261

GENERAL INFORMATION

Regulated Entity No.:	RN100909373	Project Type:	Permit by Rule Application
Customer Reference No.:	CN600582399	Date Received by TCEQ:	April 4, 2011
Account No.:	HG-4662-F	Date Received by Reviewer:	May 11, 2011
City/County:	Pasadena, Harris County	Physical Location:	12212 Port Rd

CONTACT INFORMATION

Responsible Official/ Primary Contact Name and Title:	Keith Kelly Plant Manager	Phone No.: Fax No.:	(281) 474-6005 (281) 474-6009	Email:	KEITH.KELLY@TOTAL.COM
Technical Contact/ Consultant Name and Title:	Deanna Strain Environmental Supervisor	Phone No.: Fax No.:	(281) 474-6956 (281) 474-6012	Email:	DEANNA.STRAIN@TOTAL.COM

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?		X	
Are there affected NSR or Title V permits for the project?	X		5264, O1447, and some other NSR Permits and PBRs
Is each PBR > 25/250 tpy?		X	
Are PBR sitewide emissions > 25/250 tpy?	N/A	N/A	Site has been to public notice
Are there permit limits on using PBRs at the site?		X	
Is PSD or Nonattainment netting required?		X	Emissions are below trigger levels
Do NSPS, NESHAP, or MACT standards apply to this registration?		X	NSPS, Subpart DDD; MACT, Subpart FFFF
Does NOx Cap and Trade apply to this registration?		X	
Is the facility in compliance with all other applicable rules and regulations?	X		

DESCRIBE OVERALL PROCESS AT THE SITE

Total Petrochemical owns and operates a petrochemical facility in Pasadena, Harris County.

DESCRIBE PROJECT AND INVOLVED PROCESS

This project is to authorize the emissions resulting from the installation of two analyzers to monitor Highly Reactive VOCs in compliance with 30 TAC Chapter 115, Subchapter H. The analyzers will be installed on the Bay 1 and Bay 2 Cooling towers. Emissions from these analyzers are generated when the sample volumes remaining in the chromatographs are purged as the stream is analyzed. As represented, there is no increase in capacity, production, or upstream and downstream emissions from the analyzers. The project emissions were calculated using vendor-supplied



TECHNICAL REVIEW: AIR PERMIT BY RULE



Permit No.:	95580	Company Name:	TOTAL PETROCHEMICALS USA, INC.	APD Reviewer:	Mr. Emmanuel Ukandu, P.E.
Project No.:	164631	Unit Name:	2010 Annual Emissions Summary	PBR No(s).:	106.261

data described by client as the best engineering estimate of emissions to represent the worst case in emissions and not necessarily absolute values for all operating scenarios. The emissions were based on the analyzer's volumetric flowrate (200 cm³/min), stream pressure (5 psig), stream temperature (80 degrees F), stream molecular weight (84 lb/lb-mol), and the Ideal Gas Law Constant (R=10.73). There are no MSS emissions produced by this project.

TECHNICAL SUMMARY - DESCRIBE HOW THE PROJECT MEETS THE RULES

The emissions from this project are being claimed under 106.261. Total emissions from the project were estimated at 0.002 lb/hr and 0.002 tpy of VOCs consisting of Refinery Petroleum Fractions. Company submitted completed forms and satisfactory documentation to show compliance with the stipulations in the claimed rule.

COMMUNICATION LOG

Date	Time	Name/Company	Subject of Communication
None			

PBR Emission Limits

Chemical	PBR Claimed	L, mg/m ³	Emission Limit (E = L/K), lb/hr	Emission Limit tpy	Actual Emissions lb/hr	Actual Emissions tpy
Fugitives (RPF)	106.261(a)(3)	N/A	6.0	10.0	0.002	0.002




ESTIMATED EMISSIONS

EPN / Emission Source	Specific VOC or Other Pollutants	VOC		NO _x		CO		PM ₁₀		PM _{2.5}		SO ₂		Other	
		lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
GT335/Bay 1 Cooling Tower Analyzer		0.001	0.001												
CT8001GT335/Bay 2 Cooling Tower Analyzer		0.001	0.001												
TOTAL EMISSIONS (TPY):		-	0.002												
MAXIMUM OPERATING SCHEDULE:		Hours/Day		Days/Week		Weeks/Year		Hours/Year		8760					

TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	95580	Company Name:	TOTAL PETROCHEMICALS USA, INC.	APD Reviewer:	Mr. Emmanuel Ukandu, P.E.
Project No.:	164631	Unit Name:	2010 Annual Emissions Summary	PBR No(s):	106.261

SITE REVIEW / DISTANCE LIMIT	Yes	No	Description/Outcome	Date	Reviewed by
Site Review Required?		X			
PBR Distance Limits Met?	X		>100ft. to the nearest off property receptors	5/17/2011	Reviewer as represented by client.

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
SIGNATURE:			
PRINTED NAME:	Mr. Emmanuel Ukandu, P.E.	Mr. Howard T. Uhal	Ms. Anne M. Inman, P.E., Manager
DATE:	6/21/2011	6/21/2011	

BASIS OF PROJECT POINTS	POINT S
Base Points:	1.5
Project Complexity Description and Points:	-
Technical Reviewer Project Points Assessment:	1.5
Final Reviewer Project Points Confirmation:	

06/22/2011 -----NSR IMS - PROJECT RECORD -----

PROJECT#: 164631 **PERMIT#:** 95580 **STATUS:** PENDING **DISP CODE:** C
RECEIVED: 04/04/2011 **PROJTYPE:** INITIAL **AUTHTYPE:** PBR **ISSUED DT:** 6/22/11
RENEWAL:
PROJECT ADMIN NAME: ANALYZER EMISSIONS FROM COOLING TOWER MONITORING OPERATIONS
PROJECT TECH NAME: ANALYZER EMISSIONS FROM COOLING TOWER MONITORING OPERATIONS

Assigned Team: RULE REG SECTION

STAFF ASSIGNED TO PROJECT:

MONROE , SHEILA - REVIEWR1_2 - AP INITIAL REVIEW
UKANDU , EMMANUEL - REVIEW ENG - RR TEAM

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)

ISSUED TO: TOTAL PETROCHEMICALS USA INC
COMPANY NAME: TOTAL PETROCHEMICALS USA, INC.
CUSTOMER REFERENCE NUMBER: CN600582399

REGULATED ENTITY/SITE INFORMATION

REGULATED ENTITY NUMBER: RN100909373 **ACCOUNT:** HG4662F
PERMIT NAME: TOTAL PETROCHEMICALS BAYPORT

REGULATED ENTITY LOCATION: 12212 PORT RD

REGION 12 - HOUSTON **NEAR CITY:** PASADENA **COUNTY:** HARRIS

CONTACT DATA

CONTACT NAME: MR KEITH KELLY **CONTACT ROLE:** RESPONSIBLE OFFICIAL
JOB TITLE: PLANT MANAGER **ORGANIZATION:** TOTAL PETROCHEMICALS USA INC
MAILING ADDRESS: PO BOX 5010 , LA PORTE, TX, 77572-5010
PHONE: (281) 474-6005 Ext: 0
FAX: (281) 474-6009 Ext: 0
EMAIL: KEITH.KELLY@TOTAL.COM

CONTACT NAME: MS DEANNA STRAIN **CONTACT ROLE:** TECHNICAL CONTACT
JOB TITLE: ENVIRONMENTAL SUPERVISOR **ORGANIZATION:** TOTAL PETROCHEMICALS USA INC
MAILING ADDRESS: PO BOX 5010 , LA PORTE, TX, 77572-5010
PHONE: (281) 474-6956 Ext: 0
FAX: (281) 474-6012 Ext: 0
EMAIL: DEANNA.STRAIN@TOTAL.COM

PROJECT NOTES:

06/21/2011 SHOULD BE INCORPORATED INTO NSR PERMIT NO. 5264.

PERMIT NOTES:**FEE:**

Reference	Fee Receipt Number	Amount	Fee Receipt Date	Fee Payment Type
118342		450.00		CHECK

TRACKING ELEMENTS:

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	04/04/2011	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	04/05/2011	
CENTRAL REGISTRY UPDATED	04/05/2011	04/05/2011
PROJECT RECEIVED BY ENGINEER (DATE)	05/09/2011	
ENGINEER INITIAL REVIEW COMPLETED (DATE)	05/17/2011	
PEER / MANAGER REVIEW PERIOD	06/21/2011	06/21/2011

UNIT TYPES:**Project Unit
Type:**

Industry Group	Industry Type	Source Type	Control/BACT Type	Request	Authorization
CHEMICAL	PETROLEUM REFINERY				

PROJECT RULES:

Unit Desc	Rule Desc	Request Type	On Application	Approve
FACILITIES (EMISSION LIMITATIONS)	106.261 -	ADD	Y	APPROVE

PERMIT RULES:

Unit Desc	Rule Desc	Start Date	End Date
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PROJECT ATTRIBUTES:

Attributes	Value
MSS- 101.222(H)(1)	A
PROJECT POINT	
RR DISTRIBUTION	IMPLEMENTED

04/05/2011 -----NSR IMS - PROJECT RECORD-----

PROJECT#: 164631 PERMIT#: 95580 STATUS: PENDING DISP CODE: _____
 RECEIVED: 04/04/2011 PROJTYPE: INITIAL AUTHTYPE: PBR ISSUED DT: _____
 RENEWAL: _____
 PROJECT ADMIN NAME: ANALYZER EMISSIONS FROM COOLING TOWER MONITORING OPERATIONS
 PROJECT TECH NAME: BAYPORT HDPE PLANT

Assigned Team: RULE REG SECTION

STAFF ASSIGNED TO PROJECT:

MONROE , SHEILA - REVIEWR1_2 - AP INITIAL REVIEW
 TEAM LEADER , RR - REVIEW ENG - RULE REG SECTION

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)

ISSUED TO: TOTAL PETROCHEMICALS USA INC
 COMPANY NAME: TOTAL PETROCHEMICALS USA, INC.
 CUSTOMER REFERENCE NUMBER: CN600582399

REGULATED ENTITY/SITE INFORMATION

REGULATED ENTITY NUMBER: RN100909373 ACCOUNT: HG4662F
 PERMIT NAME: TOTAL PETROCHEMICALS BAYPORT

REGULATED ENTITY LOCATION: 12212 PORT RD
 REGION 12 - HOUSTON NEAR CITY: PASADENA COUNTY: HARRIS

CONTACT DATA

CONTACT NAME: MR KEITH KELLY CONTACT ROLE: RESPONSIBLE OFFICIAL
 JOB TITLE: PLANT MANAGER ORGANIZATION: TOTAL PETROCHEMICALS USA INC
 MAILING ADDRESS: PO BOX 5010 , LA PORTE, TX, 77572-5010
 PHONE: (281) 474-6005 Ext: 0
 FAX: (281) 474-6009 Ext: 0
 EMAIL: KEITH.KELLY@TOTAL.COM

CONTACT NAME: MS DEANNA STRAIN CONTACT ROLE: TECHNICAL CONTACT
 JOB TITLE: ENVIRONMENTAL SUPERVISOR ORGANIZATION: TOTAL PETROCHEMICALS USA INC
 MAILING ADDRESS: PO BOX 5010 , LA PORTE, TX, 77572-5010
 PHONE: (281) 474-6956 Ext: 0
 FAX: (281) 474-6012 Ext: 0
 EMAIL: DEANNA.STRAIN@TOTAL.COM

FEE:

Reference	Fee Receipt Number	Amount	Fee Receipt Date	Fee Payment Type
118342		450.00		CHECK <i>epay</i>

TRACKING ELEMENTS:

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	04/04/2011	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	04/05/2011	
CENTRAL REGISTRY UPDATED	04/05/2011	04/05/2011
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
FACILITIES (EMISSION LIMITATIONS)	106.261 -	ADD	Y	APPROVE

PERMIT RULES:

Unit Desc	Rule Desc	Start Date	End Date
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PROJECT ATTRIBUTES:

Attributes	Value
PROJECT POINT	

not waiting



The voucher status has been updated.

Transaction Information

Voucher Number: 118342
Trace Number: 582EA000090323
Date: 03/24/2011 09:17 PM
Payment Method: CC - Authorization 0000025132
Amount: \$450.00
Fee Code: PBR
Fee Type: PERMIT BY RULE - NOT SMALL BUSINESS, CITY OR ISD
ePay Actor: TRISHA FROEMMING
Actor Email: TFROEMMING@VERIZON.NET
IP: 68.238.110.220

Payment Contact Information

Name: TRISHA FROEMMING
Company: BUELL CONSULTING SERVICES LLC
Address: 2005 PEMBROKE BAY DRIVE, LEAGUE CITY, TX 77573
Phone: 832-202-4211

Site Information

RN: RN100909373
Site Name: TOTAL BAYPORT HDPE
Site Address: 12212 PORT ROAD, PASADENA, TX 77057
Site Location: 12212 PORT ROAD PASADENA TX 77057

Customer Information

CN: CN600582399
Customer Name: TOTAL PETROCHEMICALS USA INC
Customer Address: PO BOX 674411, HOUSTON, TX 77267

Other Information

Comments: Permit by Rule registration for 30 TAC 106.261 for Cooling Tower Analyzer Emissions - HG-4662-F

USAS Status

USAS Status: RECEIVED
USAS Date: 03/28/2011

Voucher Status

Status	Staff	Comment	Start	End
APPLIED	SMONROE	164631 - 95580	04/05/2011	

Change Status Cancel



**Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form**

I. REGISTRANT INFORMATION			
A. TCEQ Customer Reference Number: CN-600582399		TCEQ Regulated Entity Number: RN-100909373	
<i><u>New Core Data Form Information: If there is no CN or RN number, a Core Data Form must be completed and submitted with an original signature.</u></i>			
B. Company or Other Legal Customer Name: TOTAL Petrochemicals USA, Inc			
Company Official Contact Name: Keith Kelly		Title: Plant Manager	
Mailing Address: PO Box 5010			
City: La Porte		State: TX	Zip Code: 77572
Phone No.: 281-474-6005	Fax No.: 281-474-6009	E-mail Address: keith.kelly@total.com	
C. Technical Contact Name: Deanna Strain		Title: Environmental Supervisor	
Company: TOTAL Petrochemicals USA, Inc			
Mailing Address: PO Box 5010			
City: La Porte		State: TX	Zip Code: 77572
Phone No. : 281-474-6956	Fax No.: 281-474-6012	E-mail Address: deanna.strain@total.com	
D. Facility Location Information - Street Address: 12212 Port Road			
<i>If "NO," street address, provide written driving directions to the site: (attach description if additional space is needed)</i>			
City: Pasadena		County: Harris	Zip Code: 77507
II. FACILITY AND SITE INFORMATION			
A. Name and Type of Facility: Analyzer Emissions			<input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Portable
B. PBR claimed under 30 TAC § 106 (List all that apply in hard copy, or choose all that apply from the drop down menus in electronic version):			
§ 106.261		§ 106.	
§ 106.		§ 106.	
§ 106.		§ 106.	
Are you claiming a historical standard exemption or PBR?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter effective date and Rule Number:			

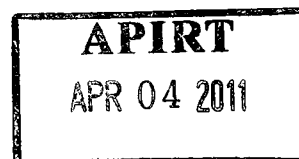
95580





**Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form**

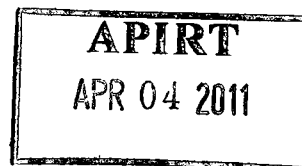
II. FACILITY AND SITE INFORMATION		
C. Is there a previous Standard Exemption or PBR for the facility in this registration? (Attach details regarding changes)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If "YES," enter Registration Number and Rule Number:		
D. Are there any other facilities at this site which are authorized by an Air Standard Exemption or PBR?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If "YES," enter Registration Number and Rule Number:		Several PBRs are utilized at the site.
E. Are there any other air preconstruction permits at this site?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
If "YES," enter Permit Numbers: 5264		
Are there any other air preconstruction permits at this site that would be directly associated with this project?		<input type="checkbox"/> YES <input type="checkbox"/> NO
If "YES," enter Permit Numbers:		
F. Is this facility located at a site which is required to obtain a federal operating permit pursuant to 30 TAC Chapter 122?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> To be Determined
If the site currently has an existing federal operating permit, enter the permit number:		O1447
Identify the requirements of 30 TAC Chapter 122 that will be triggered if this claim is accepted: (check all that apply)		
<input type="checkbox"/> Initial Application for an FOP <input type="checkbox"/> Significant Revision for SOP <input type="checkbox"/> Minor Revision for SOP		
<input type="checkbox"/> Operational Flexibility/Off Permit Notification for an SOP <input type="checkbox"/> Revision for GOP <input type="checkbox"/> To be Determined <input checked="" type="checkbox"/> None		
Identify the type(s) issued and/or FOP application(s) submitted/pending for the site: (check all that apply)		
<input checked="" type="checkbox"/> SOP <input type="checkbox"/> GOP <input type="checkbox"/> GOP application/revision application: (submitted or under APD review)		
<input type="checkbox"/> SOP application/revision application: (submitted or under APD review) <input type="checkbox"/> N/A		
G. TCEQ Account Identification Number: (if known)		HG-4662-F
III. FEE INFORMATION		
See Section VI. for an address to send fee or go to www.tceq.state.tx.us/epay/ to pay online.		
A. Is this registration an update to a previously registered facility and accompanied by a Form APD-CERT solely to establish a federally enforceable emission limit and will not authorize new facilities? (If "YES," a fee is not required. If "NO," then go to Section III.B.)		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
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 and have less than 1 million dollars in annual gross receipts?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Is this registration submitted by a governmental entity with a population of less than 10,000?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO





**Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form**

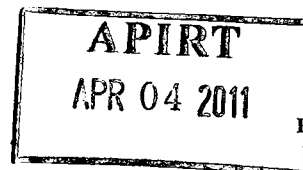
III. FEE INFORMATION (continued)			
C. Check/Money Order or Transaction Number (Payable to TCEQ):	Voucher No: 118342 Trace No: 582EA000090323	Was fee Paid online?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Company name of check:		Fee amount:	\$450
IV. SELECTED FACILITY REVIEWS ONLY-TECHNICAL INFORMATION			
<p><i>Note: If claiming one of the following PBRs, complete this section, then skip to Section VI, "Submitting your registration" below:</i></p> <p><i>Animal Feeding Operations § 106.161, Livestock Auction Facilities § 106.162, Saw Mills § 106.223, Grain Handling, Storage and Drying § 106.283, Auto Body Refinishing Facilities § 106.436, Air Curtain Incinerator § 106.496</i></p>			
A. Is the applicable PBR checklist attached which shows the facility meets all general and specific requirements of the PBR(s) being claimed?			<input type="checkbox"/> YES <input type="checkbox"/> 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
V. TECHNICAL INFORMATION INCLUDING STATE AND FEDERAL REGULATORY REQUIREMENTS			
<i>Registrants must be in compliance with all applicable state and federal regulations and standards to claim a PBR.</i>			
A. Is Confidential information submitted and properly marked "CONFIDENTIAL" with this registration?			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
B. Is a process flow diagram or a process description attached?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
C. Are emissions data and calculations for this claim attached?			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
D. Is information attached showing how the general requirements (30 TAC § 106.4) of the PBR is met for this Registration? (PBR checklists may be used, but are optional)			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
<p><i>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.</i></p>			
E. Is information attached showing how the specific PBR requirements are met for this registration? (PBR checklist may be used, but are optional)			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
F. 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
<p><i>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.</i></p>			





**Texas Commission on Environmental Quality
Registration for Permits by Rule (PBR)
Form PI-7 Submission Form**

VI. SUBMITTING YOUR REGISTRATION		
A. FEES – Pick one of the two options below for payment:		
<i>Who</i>	<i>Where</i>	<i>What</i>
1. Fee Paid Online	Go to Website www.tceq.state.tx.us/epay/	No Additional Action Needed
2. Fee Mailed to Revenue Section, TCEQ	Regular, Certified, Priority Mail MC 214, P.O. Box 13088 Austin, Texas 78711-3088 Hand Delivery, Overnight Mail MC 214, 12100 Park 35 Circle, Building A, Third Floor, Austin, Texas 78753	Original Money Order or Check Copy of Form PI-7 and Core Data Form
B. COPIES OF THE REGISTRATION – Copies must be sent as listed below: Processing delays may occur if copies are not sent as noted.		
1. Hard Copy Only Air Permits Initial Review Team (APIRT)	Regular, Certified, Priority Mail MC161, P.O. Box 13087 Austin, Texas 78711-3087 Hand Delivery, Overnight Mail MC 161, 12100 Park 35 Circle, Building C, Third Floor, Austin, Texas 78753 Fax No.: (512) 239-2123 (do <u>not</u> follow fax with paper copies)	Originals Form PI-7, Core Data Form, and all attachments
2. Appropriate local and TCEQ Regional Office Programs	To Find your local or Regional Air Pollution Control Programs go to the TCEQ, APD Website at www.tceq.state.tx.us/nav/permits/air_permits.html or call (512) 239-1250	Copy of Form PI-7, Core Data Form, and all attachments to each office.
3. Print	(Blank for Print Button)	Prints a Hard Copy of the Form PI-7





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)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
2. Attachments Describe Any Attachments: (ex. Title V Application, Waste Transporter Application, etc.)		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permit by Rule Registration 106.261		
3. Customer Reference Number (if issued)		4. Regulated Entity Reference Number (if issued)
CN 600582399		RN 100909373

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 <u>Regulated Entity</u> listed on this form. Please check only <u>one</u> of the following:			
<input type="checkbox"/> Owner	<input type="checkbox"/> Operator	<input type="checkbox"/> Owner & Operator	
<input type="checkbox"/> Occupational Licensee	<input type="checkbox"/> Responsible Party	<input type="checkbox"/> Voluntary Cleanup Applicant	<input type="checkbox"/> Other: _____
7. General Customer Information			
<input type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	<input type="checkbox"/> Change in Regulated Entity Ownership
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State)		<input checked="" type="checkbox"/> No Change**	
**If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.			
8. Type of Customer:	<input type="checkbox"/> Corporation	<input type="checkbox"/> Individual	<input type="checkbox"/> Sole Proprietorship- D.B.A
<input type="checkbox"/> City Government	<input type="checkbox"/> County Government	<input type="checkbox"/> Federal Government	<input type="checkbox"/> State Government
<input type="checkbox"/> Other Government	<input type="checkbox"/> General Partnership	<input type="checkbox"/> Limited Partnership	<input type="checkbox"/> 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			21. Independently Owned and Operated?
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher			<input type="checkbox"/> Yes <input type="checkbox"/> 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)	
<input type="checkbox"/> New Regulated Entity	<input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information <input checked="" type="checkbox"/> 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)	

APIRT

APR 04 2011

24. Street Address of the Regulated Entity: <i>(No P.O. Boxes)</i>							
	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 <i>(if applicable)</i>				
() -			() -				
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? <i>(Please do not repeat the SIC or NAICS description.)</i>							

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.

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Industrial Hazardous Waste	<input type="checkbox"/> Municipal Solid Waste
<input type="checkbox"/> New Source Review – Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS	<input type="checkbox"/> Sludge
<input type="checkbox"/> Stormwater	<input type="checkbox"/> Title V – Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil	<input type="checkbox"/> Utilities
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:


SECTION IV: Preparer Information

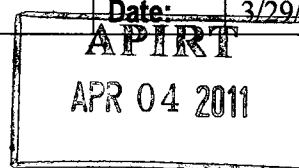
40. Name:	Deanna Strain	41. Title:	Environmental Supervisor
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(281) 474-6956		(281) 474-6012	Deanna.Strain@total.com

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:	Total Petrochemicals USA, Inc.	Job Title:	Plant Manager
Name (In Print):	Keith Kelly	Phone:	(281) 474-6005
Signature:			Date: 3/29/2011





Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 118342
Trace Number: 582EA000090323
Date: 03/24/2011 09:17 PM
Payment Method: CC - Authorization 0000025132
Amount: \$450.00
Fee Type: Permit by Rule (PBR) Fee
ePay Actor: Trisha Froemming
Actor Email: tfroemming@verizon.net
IP: 68.238.110.220

Payment Contact Information

Name: Trisha Froemming
Company: Buell Consulting Services Llc
Address: 2005 Pembroke Bay Drive, League City, TX 77573
Phone: 832-202-4211

Site Information

RN: RN100909373
Site Name: TOTAL BAYPORT HDPE
Site Address: 12212 PORT ROAD, PASADENA, TX 77057
Site Location: 12212 PORT ROAD PASADENA TX 77057

Customer Information

CN: CN600582399
Customer Name: TOTAL PETROCHEMICALS USA INC
Customer Address: PO BOX 674411, HOUSTON, TX 77267

Other Information

Comments: Permit by Rule registration for 30 TAC 106.261 for Cooling Tower Analyzer Emissions - HG-4662-F

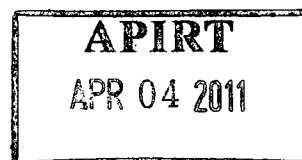
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Last Modified 12/4/08

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TOTAL PETROCHEMICALS

March 29, 2011

Certified Mail No. 7003.2260.0002.7527.8289
Return Receipt Requested

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

Re: Permit by Rule Registration
30 TAC §106.261
TOTAL PETROCHEMICALS USA, INC.
Bayport HDPE Plant
TCEQ Air Account No: HG-4662-F
Customer Reference No: CN600582399
Regulated Entity No: RN100909373

RECEIVED

APR 04 2011

AIR PERMITS DIVISION



To Whom It May Concern:

TOTAL PETROCHEMICALS USA, INC. (TOTAL) is submitting the attached Permit by Rule Registration package for the analyzer emissions resulting from cooling tower monitoring operations. The facilities meet the requirements of 30 TAC §106.261, as demonstrated in the documentation herein.

A copy of the PBR fee correspondence is included with this submittal.

If you have any questions or require additional information, please contact me at (281) 474-6956 or via e-mail at Deanna.Strain@total.com.

Sincerely,

A handwritten signature in cursive script that reads "Deanna K Strain".

Deanna K. Strain
Environmental Supervisor
Bayport HDPE Plant

Attachments

cc:

Ms. Linda Vasse
Regional Director, TCEQ Region 12
5425 Polk Ave., Ste. H
Houston, TX 77023-1452

Mr. Michael Schaffer
Director, Environmental Public Health Division
Harris County Public Health and Environmental Services
101 S. Richey, Suite G
Pasadena, TX 77506



TOTAL PETROCHEMICALS USA, INC.
Bayport HDPE Plant
P.O. Box 5010 LaPorte, TX 77572-5010
12212 Port Road Pasadena, TX 77507

RECEIVED

APR 04 2011

AIR PERMITS DIVISION

TOTAL PETROCHEMICALS

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Permit By Rule Registration

30 TAC §106.261

for

TOTAL Petrochemicals USA, Inc.

Bayport HDPE Plant

AIR QUALITY ACCOUNT ID NO. HG-4662-F

REGULATED ENTITY NO. RN100909373

CUSTOMER NO. CN600582399

March 2011



TOTAL

**TOTAL – Bayport HDPE Plant
Permit By Rule Registration**

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**TOTAL -- Bayport HDPE Plant
Permit By Rule Registration**

Description

This project authorizes the emissions resulting from installation of two analyzers which are being installed in accordance with 30 TAC Chapter 115 Subchapter H (HRVOC regulations). The analyzers will be installed on the Bay 1 and Bay 2 Cooling towers. Emissions from these analyzers are generated when the sample volumes remaining in the chromatographs are purged as the stream is analyzed.

All compositions utilized in the calculations are assumed to represent typical operations. The emissions are provided as a best engineering estimate and should not be considered absolute values for all operating scenarios. Per 30 TAC §101.1(108) relating to definition of unauthorized emissions, emissions of ethane, methane, hydrogen, carbon dioxide, water, nitrogen, oxygen, and noble gases (including argon) exist from this unit, and are not represented.

This submittal documents the authorization of these emissions under Permit By Rules 30 TAC §106.261.

Upstream & Downstream Impacts

There are no impacts to upstream or downstream process units anticipated by implementation of this project.

Emissions Impacts

The increase in emissions will meet the requirements of §106.261, as demonstrated in the documentation herein. The proposed emission increase authorized by this PBR registration is as follows:

Contaminant	lb/hr	tpy
VOC	0.002	0.002

Emissions Basis

The emissions associated with this project are based upon best engineering judgment utilizing vendor supplied data. The emissions are provided as a best engineering estimate and should not be considered absolute values for all operating scenarios.

Nonattainment and PSD Applicability Considerations

The overall emissions associated with this project do not exceed 5 tpy of emissions. Consequently, nonattainment and/or PSD review are not required.

MSS Considerations

There are no MSS emissions associated with this project.

**TOTAL -- Bayport HDPE Plant
Permit By Rule Registration**

Regulatory Information

§ 106.4 Requirements for Exemption from Permitting

(a) To qualify for an exemption, the following general requirements must be met.

- (1) Total actual emissions authorized under exemption from the proposed facility shall not exceed 250 tons per year (tpy) of carbon monoxide (CO) or nitrogen oxides (NO_x); or 25 tpy of volatile organic compounds (VOC) or sulfur dioxide (SO₂) or inhalable particulate matter (PM₁₀); or 25 tpy of any other air contaminant except carbon dioxide, water, nitrogen, methane, ethane, hydrogen, and oxygen.

The estimated emissions are less than 25 TPY of VOC. There is no increase in other air contaminants requested in this authorization.

- (2) Any facility or group of facilities, which constitutes a new major stationary source, as defined in §116.12 of this title (relating to Nonattainment Review Definitions), or any modification which constitutes a major modification, as defined in §116.12 of this title, under the new source review requirements of the Federal Clean Air Act (FCAA), Part D (Nonattainment) as amended by the FCAA Amendments of 1990, and regulations promulgated thereunder, must meet the permitting requirements of Chapter 116, Subchapter B of this title (relating to New Source Review Permits) and cannot qualify for an exemption under this chapter. Persons claiming an exemption under this chapter should see the requirements of §116.150 of this title (relating to New Major Source or Major Modification in Ozone Nonattainment Areas) to ensure that any applicable netting requirements have been satisfied.

This authorization does not constitute a new major source or major modification as defined in 30 TAC §116.12, and is therefore eligible to qualify for a permit by rule under 30 TAC §106.

The requirements of 30 TAC §116.150 are not applicable. The estimated emissions associated with this authorization are less than 5 TPY of VOC. There is no increase in other air contaminants requested in this authorization.

- (3) Any facility or group of facilities, which constitutes a new major stationary source, as defined in 40 Code of Federal Regulations (CFR) § 52.21, or any change which constitutes a major modification, as defined in 40 CFR § 52.21, under the new source review requirements of the FCAA, Part C (Prevention of Significant Deterioration) as amended by the FCAA Amendments of 1990, and regulations promulgated thereunder, must meet the permitting requirements of Chapter 116, Subchapter B of this title and cannot qualify for an exemption under this chapter.

This authorization does not constitute a new major source or major modification as defined in 40 CFR §52. The estimated emissions associated with this authorization are less than 5 TPY of VOC. The authorization is therefore eligible to qualify for a permit by rule under 30 TAC §106.

- (4) Unless at least one facility at an account has been subject to public notification and comment as required in Chapter 116, Subchapter B or Subchapter D of this title (relating to New Source Review Permits or Permit Renewals), total actual emissions from all exempted facilities at an account shall not exceed 250 tpy of CO or NO_x; or 25 tpy of VOC or SO₂ or PM₁₀; or 25 tpy of any other air contaminant except carbon dioxide, water, nitrogen, methane, ethane, hydrogen, and oxygen.

This regulated entity has been subject to public notice and comment as required in 30 TAC §116.

**TOTAL – Bayport HDPE Plant
Permit By Rule Registration**

- (5) Construction or modification of a facility commenced on or after the effective date of a revision of this section or the effective date of a revision to a specific exemption in this chapter must meet the revised requirements to qualify for an exemption.

This authorization will meet the requirements of the applicable permit by rule that is effective at the time of this submittal.

- (6) A facility shall comply with all applicable provisions of the FCAA, § 111 (Federal New Source Performance Standards) and § 112 (Hazardous Air Pollutants), and the new source review requirements of the FCAA, Part C and Part D and regulations promulgated thereunder.

The Bay 1 and Bay 2 process units are currently regulated under Federal New Source Performance Standard (NSPS) Subpart DDD.

The Bay 1 cooling tower complies with NESHAP for Source Categories (MACT), Subpart FFFF.

The facility complies with the applicable provisions of the FCAA, Part C; Prevention of Significant Deterioration (PSD) Review. The estimated increase in emissions associated with this authorization is less than 5 TPY of VOC and does not constitute a new major source or major modification as defined in 40 CFR §52.

The facility complies with the applicable provisions of FCAA, Part D; Federal New Source Review (NSR). The estimated increase in emissions associated with this facility is less than 5 TPY of VOC and does not constitute a new major source or major modification as defined in 30 TAC §116.150.

- (7) There are no permits under the same commission account number that contain a condition or conditions precluding the use of a standard exemption or an exemption under this chapter.

There are no permits that contain conditions precluding the use of a permit by rule under 30 TAC §116.

- (8) The proposed facility or group of facilities shall obtain allowances for NO_x if they are subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program).

There are no NO_x emissions associated with this authorization.

- (b) No person shall circumvent by artificial limitations the requirements of § 116.110 of this title (relating to Applicability).

- (c) The emissions from the facility shall comply with all rules and regulations of the commission and with the intent of the Texas Clean Air Act (TCAA), including protection of health and property of the public, and all emissions control equipment shall be maintained in good condition and operated properly during operation of the facility.

- (d) Facilities exempted by this chapter are not exempted from any permits or registrations required by local air pollution control agencies. Any such requirements must be in accordance with TCAA, § 382.113 and any other applicable law.

The facility intends to comply with the applicable requirements of paragraphs (b) - (d).

**TOTAL – Bayport HDPE Plant
Permit By Rule Registration**

§ 106.261 Facilities (Emission Limitations).

- (a) Except as specified under subsection (b) of this section, facilities, or physical or operational changes to a facility, are permitted by rule provided that all of the following conditions of this section are satisfied.
- (1) The facilities or changes shall be located at least 100 feet from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the facilities or the owner of the property upon which the facilities are located.

The facilities are located at least 100 feet from the nearest off-site receptor.

- (2) Total new or increased emissions, including fugitives, shall not exceed 6.0 pounds per hour (lb/hr) and ten tons per year of the following materials: acetylene, argon, butane, crude oil, refinery petroleum fractions (except for pyrolysis naphthas and pyrolysis gasoline) containing less than ten volume percent benzene, carbon monoxide, cyclohexane, cyclohexene, cyclopentane, ethyl acetate, ethanol, ethyl ether, ethylene, fluorocarbons Numbers 11, 12, 13, 14, 21, 22, 23, 113, 114, 115, and 116, helium, isohexane, isopropyl alcohol, methyl acetylene, methyl chloroform, methyl cyclohexane, neon, nonane, oxides of nitrogen, propane, propyl alcohol, propylene, propyl ether, sulfur dioxide, alumina, calcium carbonate, calcium silicate, cellulose fiber, cement dust, emery dust, glycerin mist, gypsum, iron oxide dust, kaolin, limestone, magnesite, marble, pentaerythritol, plaster of paris, silicon, silicon carbide, starch, sucrose, zinc stearate, or zinc oxide.

The estimated emissions are subject to 106.261(a)(3).

- (3) Total new or increased emissions, including fugitives, shall not exceed 1.0 lb/hr of any chemical having a limit value (L) greater than 200 milligrams per cubic meter (mg/m^3) as listed and referenced in Table 262 of § 106.262 of this title or of any other chemical not listed or referenced in Table 262. Emissions of a chemical with a limit value of less than 200 mg/m^3 are not allowed under this section.

The estimated emissions associated with this facility are less than 1 lbs/hr, as demonstrated in Table 1, below.

Table 1

Component	Proposed lb/hr	ESL (106.262)	E = L/K (106.262)	< 1 lbs/hr (106.261(a)(3))	Proposed tpy	< 4.83 tpy (106.261(a)(3))
		mg/m ³	(lb/hr)	(Y/N)		(Y/N)
VOC	0.002	N/A	N/A	Y	0.002	Y

Note 1: Composition represents typical operations.

- (4) For physical changes or modifications to existing facilities, there shall be no changes to or additions of any air pollution abatement equipment.

There will be no changes to or additions of air pollution abatement equipment associated with this facility.

- (5) Visible emissions, except uncombined water, to the atmosphere from any point or fugitive source shall not exceed 5.0% opacity in any five-minute period.

No visible emissions are anticipated from this facility.

- (6) For emission increases of five tons per year or greater, notification must be provided using Form PI-7-261 within ten days following the installation or modification of the facilities. The notification shall

**TOTAL – Bayport HDPE Plant
Permit By Rule Registration**

include a description of the project, calculations, data identifying specific chemical names, limit values, and a description of pollution control equipment, if any

This submittal includes a description, calculations, chemical compound, limit values, and PI-7.

(7) For emission increases of less than five tons per year, notification must be provided using either:

- (A) Form PI-7-261 within ten days following the installation or modification of the facilities. The notification shall include a description of the project, calculations, data identifying specific chemical names, limit values, and a description of pollution control equipment, if any; or
- (B) Form PI-7-261(a) by March 31 of the following year summarizing all uses of this exemption in the previous calendar year. This annual notification shall include a description of the project, calculations, data identifying specific chemical names, limit values, and a description of pollution control equipment, if any.

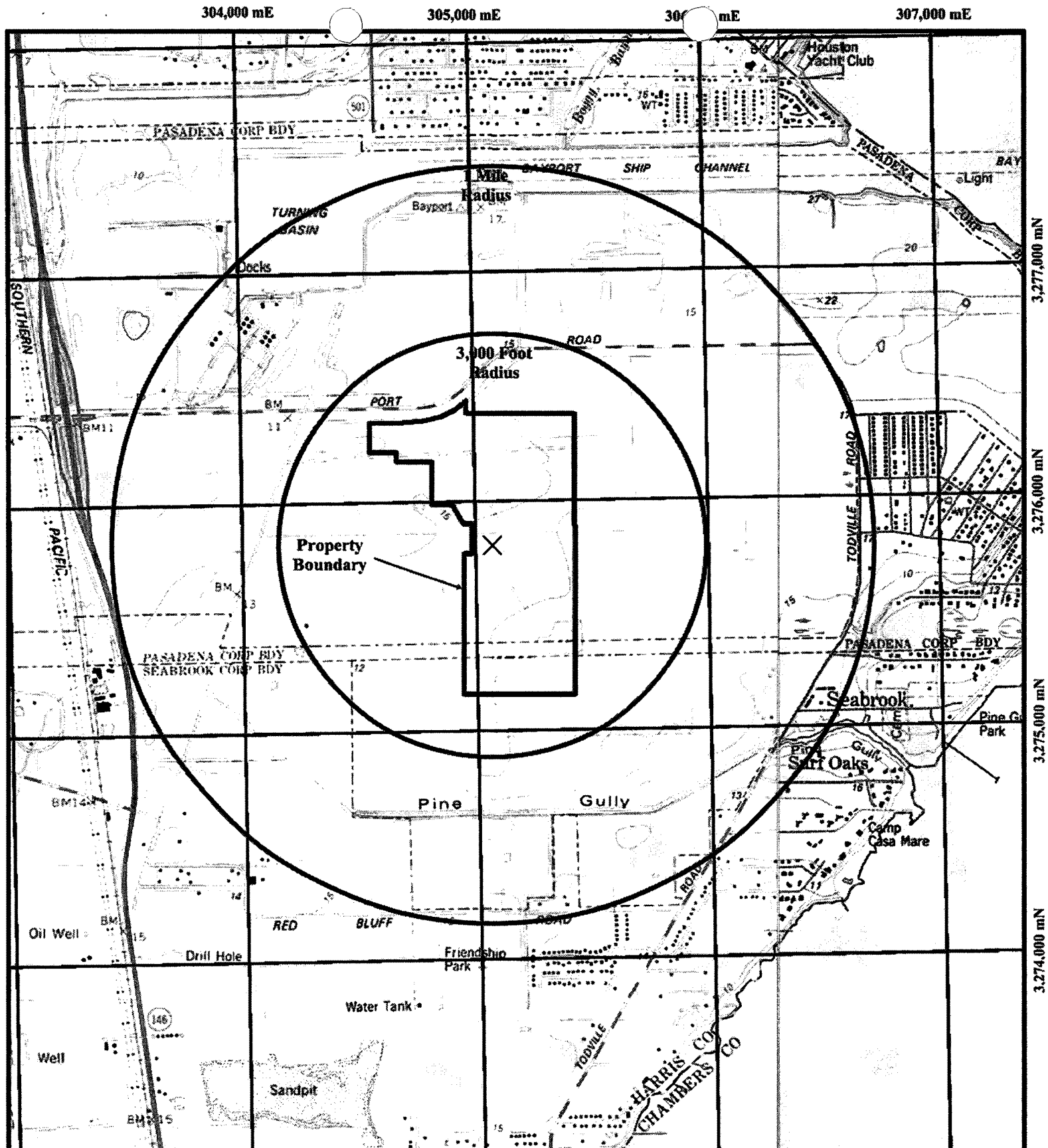
This submittal includes a description, calculations, chemical compound, limit values, and PI-7.

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

- (1) construction of a facility authorized in another section of this chapter or for which a standard permit is in effect; and
- (2) any change to any facility authorized under another section of this chapter or authorized under a standard permit.

The emissions requested in this authorization are not specifically authorized in another section of 30 TAC §106. In addition, the facility is not authorized under a standard permit.

AREA MAP



SCALE 1:24,000

0 MILES 0.5 1.0 MILES

0 FEET 2500 5000 FEET

U.S.G.S. 7.5 MINUTE SERIES
LEAGUE CITY, TEXAS QUADRANGLE
BACLIFF, TEXAS QUADRANGLE

NORTH



FIGURE 1-1 AREA MAP

ATOFINA Petrochemicals, Inc.
Bayport Plant

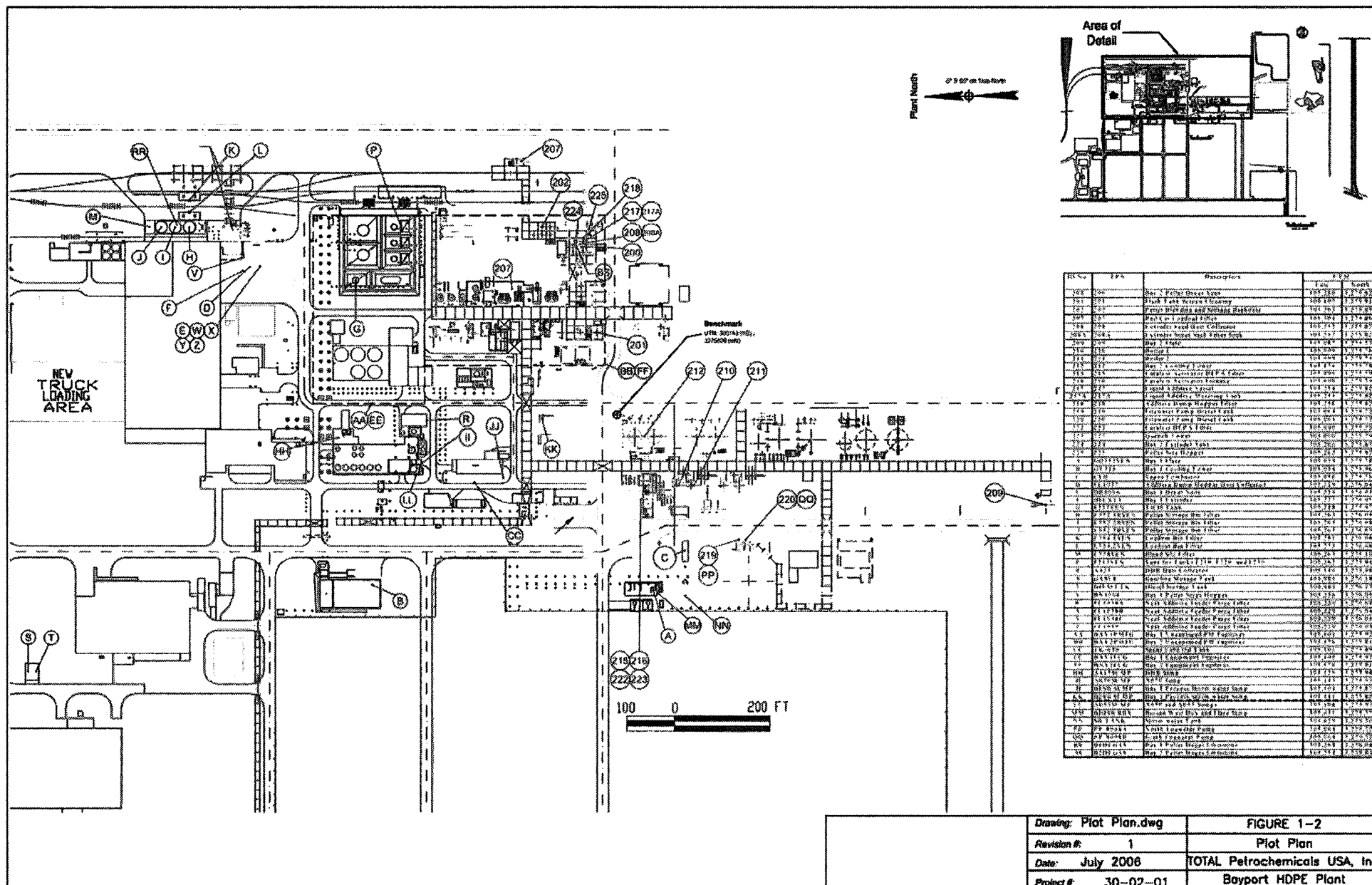
SITE LOCATION ON USGS MAP
12212 Port Road, Pasadena, TX 77507

DATE: July 2003

PROJ. # A-30-02-01

FILE NAME: Area Map.dwg

PLOT PLAN



CALCULATIONS

TOTAL Petrochemicals USA, Inc.
 Bayport HDPE Plant
 AIR QUALITY ACCOUNT ID NO. HG-4662-F
 RN100909373
 CN600582399

EMISSION CALCULATIONS

Pollutant Type: **VOC**
 EPN#: GT335
 Name: Bay 1 Cooling Tower Analyzer

Description: Emissions associated with sample volumes remaining in the chromatographs that vent to the atmosphere.

EQUATIONS AND PARAMETERS

Parameter	Value	Units	Description
F	200.00	cm3/min	Analyzer Sample Volumetric Flowrate
P	5	psig	Analyzer Stream Pressure
T	80	F	Analyzer Stream Temperature
MW	86	lb/lb-mol	Analyzer Stream Mol. Wt.
R	10.73	psi ft3/lb-mol R	Ideal Gas Law Constant

Note:

(1) VOC can include any number of compounds such as ethylene, propylene, butane, butene, hexene, hexane, etc.

Stream Density =	19.7 psi	86 lb		lb-mol R
		lb-mol	540 R	10.73 psi ft3

Stream Density = 0.29 lb/ft3

Hourly Emissions =	200.00 cm3	1 ft3	0.29 lb	60	min
	min	28317 cm3	ft3		hr

Hourly Emissions = 1.24E-01 lb/hr assumed 0.001

Annual Emissions =	1.24E-01 lbs	8,760 hrs	1 ton
	hr	yr	2000 lbs

Annual Emissions = 5.44E-01 ton/yr assumed 0.001

Components	Estimated Composition (wt.%)	Hourly Emissions (lb/hr)	Annual Emissions (ton/yr)
VOC	100	0.001	0.001

TOTAL Petrochemicals USA, Inc.
 Bayport HDPE Plant
 AIR QUALITY ACCOUNT ID NO. HG-4662-F
 RN100909373

EMISSION CALCULATIONS

Pollutant Type: **VOC**
 EPN#: CT8001
 Name: Bay 2 Cooling Tower Analyzer

Description: Emissions associated with sample volumes remaining in the chromatographs that vent to the atmosphere.

EQUATIONS AND PARAMETERS

Parameter	Value	Units	Description
F	200.00	cm3/min	Analyzer Sample Volumetric Flowrate
P	5	psig	Analyzer Stream Pressure
T	80	F	Analyzer Stream Temperature
MW	84	lb/lb-mol	Analyzer Stream Mol. Wt.
R	10.73	psi ft3/lb-mol R	Ideal Gas Law Constant

Note:

(1) VOC can include any number of compounds such as ethylene, propylene, butane, butene, hexene, hexane, etc.

$$\text{Stream Density} = \frac{19.7 \text{ psi}}{\frac{84 \text{ lb}}{\text{lb-mol}} \times \frac{540 \text{ R}}{10.73 \text{ psi ft}^3}}$$

$$\text{Stream Density} = 0.29 \text{ lb/ft}^3$$

$$\text{Hourly Emissions} = \frac{200.00 \text{ cm}^3}{\text{min}} \times \frac{1 \text{ ft}^3}{28317 \text{ cm}^3} \times \frac{0.29 \text{ lb}}{\text{ft}^3} \times \frac{60}{\text{min}} \times \frac{\text{hr}}{\text{hr}}$$

$$\text{Hourly Emissions} = 1.21\text{E-}01 \text{ lb/hr} \quad \text{assumed} \quad 0.001$$

$$\text{Annual Emissions} = \frac{1.21\text{E-}01 \text{ lbs}}{\text{hr}} \times \frac{8,760 \text{ hrs}}{\text{yr}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}}$$

$$\text{Annual Emissions} = 5.31\text{E-}01 \text{ ton/yr} \quad \text{assumed} \quad 0.001$$

Components	Estimated Composition (wt. %)	Hourly Emissions (lb/hr)	Annual Emissions (ton/yr)
VOC	100	0.001	0.001

TCEQ FORM PI-7

TCEQ CORE DATA FORM

COPY OF FEE PAYMENT