

OPERATING PERMIT - TECHNICAL SUMMARY
SITE OPERATING PERMIT - SOP
MINOR REVISION

Permit #:	O1553	Company:	Exxon Mobil Corporation
Project #:	7854	Site:	Exxonmobil Chemical Baytown Olefins
Account #:	HG-0228-H	Application Area:	Exxonmobil Chemical Baytown Olefins
Regulated Entity #:	RN102212925	Customer #:	CN600123939
Region:	12	County:	Harris
SIC Code:	2869	SIC Name:	Industrial Organic Chemicals,
Permit Reviewer: Becky L. Southard			

PERMIT INFORMATION

Was confidential information submitted?	No
Are any permits being reviewed for New Source Review action?	Yes
Is the application subject to acid rain permitting?	No

SITE INFORMATION

Physical Location: 3525 Decker Drive, Baytown 77520
Nearest City: Baytown
Major Pollutants: VOC, SO2, PM, NOX, HAPS, CO
Additional FOPs: None

PROJECT SUMMARY

See Revision Description Section below.

REVISION DESCRIPTION

Applicant requested the inclusion of a high level term and condition for units potentially applicable to MACT YY. It was also requested that the NSR authorizations be updated.

PROCESS DESCRIPTION

Base Plant Ethylene Unit and Expansion Ethylene Unit:

Hydrocarbon feed and recycled ethane are fed into cracking furnaces. The effluent from the furnace is cooled and fractionated to separate heavy organics (used for boiler fuel or marketed) & light organics. Methane and hydrogen are removed from the light effluent from the cracking furnaces. The light effluent is further processed by removing ethane which is split into ethylene product and ethane. The ethane is recycled within the plant. Several products are recovered for various use by the plant include:

Refinery Gas

Gaseous streams from the Baytown Refinery (BTRF) and the Baytown Olefins Plant (BOP) are processed in the refinery gas unit. The lightest components (methane) of this stream are used by the power boilers. All C2/C3 streams are separated and cracked in the furnaces. The C4 or higher

components are sent to the BTFR.

Propylene Recovery

Hydrocarbon feed from the BTRF and third party imports are sent to the de-ethanizer tower. The heavy hydrocarbons from the bottom of this tower are sent to a propylene concentrator. Finished propylene is stored or sent to customers. Propane collected in the process is sent to a third party customer.

Butadiene Recovery

The C4+ stream produced in the de-propanizer is separated into a C4 and a C5 stream. The C4 stream is further processed to remove the butadiene product.

Isoprene, Benzene, and SCN Recovery

The C5 stream from the de-butanizer is combined with pyrolysis gasoline stripper bottoms from the base plant ethylene unit. Dilute isoprene and benzene streams are recovered before the SCN is purified.

Utility Systems:

Electric power for the facility is provided from four gas turbines inside the plant. The steam from these boilers and heat boilers is used for various processes in the plant. Wastewater treatment is performed (expansion plant only) to process water with hydrocarbon content. The plant uses three flares to provide control for process vent streams. Some vent streams are combusted with the furnaces for control.

TECHNICAL REVIEW

After reviewing the revision application, it was found that some additional information was needed to include the high level term and condition. The applicant was asked to provide a list of all affected units, not unit types. This issue was e-mailed to the applicant on 11/09/05. The updated information was received on 11/22/05. After the updates were reviewed, it was found that there were additional unresolved items. Several of the affected units were never provided on an OP-SUM form. There was also some confusion as to whether GRP-EFLARE and GRP-EFLARX were type-o's or if they should be included in the permit. The applicant provided the updated OP-SUM and clarification about the group names on 01/13/06.

The draft permit was submitted to the applicant on: 01/17/06

Did the applicant comment on the draft permit? No.

MANUAL CHANGES TO PERMIT

MACT YY high level terms and the units pertaining to these rules were added manually in the WordPerfect version of the permit as well as in the IMS. Also, the NSR permit tables were updated manually in both places.

EMISSIONS BANKING AND TRADING PROVISIONS (Pursuant to 30 TAC Chapter 101, Subchapter H)

Is the site/permit area located in the Houston/Galveston ozone non-attainment area (as defined in 30 TAC Chapter 101, §101.1): Yes

Does the site collectively have an uncontrolled design capacity to emit ten tons or more per year of Nox.: Yes?

A Special Term and Condition relating to the Mass Emission Cap and Trade Program for the Houston/Galveston ozone nonattainment area pursuant to 30 TAC Chapter 101, Subchapter H, Division 3, is included in the permit.

COMPLIANCE ASSURANCE MONITORING (CAM)/ PERIODIC MONITORING (PM)

As this was a minor revision project, a CAM/PM review was not needed.

STATEMENT OF BASIS

A Statement of Basis sets forth the legal and factual basis for the permit conditions.

The Statement of Basis was prepared on: 01/24/06

The Statement of Basis GroupWise Document #(OPDP Database): 41320

PUBLIC ANNOUNCEMENT/EPA REVIEW

Posting Date: 02/07/06

Did the public comment on the working draft permit? The applicant commented, but as the permit reviewer agrees with all of the changes, the comments will be treated as an update.

Beginning of the EPA Review Period: 02/07/06

Did the EPA comment on the proposed permit? No.

See the attached applicant comments dated 03/07/06.

PUBLIC PETITION PERIOD/FINAL STATE ACTION

Effective permit issuance date: 04/24/06

Becky L. Southard
Permit Reviewer
Operating Permits Section
Air Permits Division

Javier Maldonado, P.E.
Team Leader
Operating Permits Section
Air Permits Division

ATTACHMENTS

IMS Tracking Elements
Communication Log
Administrative Data

TRACKING ELEMENTS

<u>Complete Date</u>	<u>Tracking Element</u>	<u>Type</u>
	DATE INITIAL INFO/APPL/REQUEST RECEIVED BY TCEQ	STANDARD EVENT
	DATE PAR RECEIVED PROJECT	STANDARD EVENT
	DATE PAR TRANSFERRED PROJECT TO APD	STANDARD EVENT
	DATE PROJECT RECEIVED BY ENGINEER	STANDARD EVENT
01/24/2006	TECHNICAL REVIEW PERIOD	STANDARD ACTIVITY
11/22/2005	INFORMAL REQUEST FOR INFORMATION	OPTIONAL ACTIVITY
01/13/2006	INFORMAL REQUEST FOR INFORMATION	OPTIONAL ACTIVITY
02/16/2006	WORKING DRAFT PERMIT REVIEW BY APPLICANT	STANDARD ACTIVITY
01/27/2006	SECTION MNGR REVIEW OF NPPPA PACKAGE	STANDARD ACTIVITY
01/27/2006	TEAM LEADER REVIEW OF NPPPA PACKAGE	STANDARD ACTIVITY
	PUBLIC ANNOUNCEMENT PERIOD	STANDARD ACTIVITY
03/24/2006	EPA REVIEW PERIOD	STANDARD ACTIVITY
	DATE COMMENT ON DRAFT PERMIT RECEIVED FROM PUBLIC	OPTIONAL EVENT
04/13/2006	TEAM LEADER REVIEW OF FINAL ACTION	STANDARD ACTIVITY
04/18/2006	SECTION MANAGER REVIEW OF FINAL ACTION	STANDARD ACTIVITY
	DATE OF EFFECTIVE / ISSUED PERMIT / AUTHORIZATION	STANDARD EVENT
	DATE PROJECT COMPLETED	STANDARD EVENT

COMMUNICATION LOG

Company Name		Application Area		Air Account Number	Regulated Entity Number	IMS Project Number
ExxonMobil Corporation		ExxonMobil Chemical Baytown Olefins Plant		HG-0228-H	RN102212925	7854
Contact	Title	Phone or E-Mail	Date	Notes		
Casey Hamilton	Title V Coordinator	281-834-6014	11/08/05	Ms. Hamilton was called to verify her contact information and to discuss the unresolved item found. Her e-mail address is casey.a.hamilton@exxonmobil.com		
Casey Hamilton	Title V Coordinator	281-834-6014	01/30/06	Ms. Hamilton was called to verify which unit the PSD permit matches with.		
Casey Hamilton	Title V Coordinator	281-834-6014	03/03/06	Ms. Hamilton called to discuss the comments she was making on the revised draft permit.		
Casey Hamilton	Title V Coordinator	281-834-6014	03/17/06	Ms. Hamilton was called to ask her which unit Ids were applicable to the MACT G high level term.		

ADMINISTRATIVE DATA

Responsible Official: Robert W. Bailes
Plant Manager
Exxon Mobil Corporation

Technical Contact: Casey Hamilton
Title V Coordinator
Exxon Mobil Corporation
P.O. Box 100
Baytown, TX 77522-0100
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email: casey.a.hamilton@exxonmobil.com