06/24/2016 ---------- EBTP IMS- PROJECT RECORD ----------

PROJECT#: 411202 STATUS: P DISP CODE: C
RECEIVED: 05/09/2016 PROJTYPE: BDIU ISSUED DT:
SUP-DISP DATE: 6/24/16

STAFF ASSIGNED TO PROJECT:
MERCADO, PE, MARIE

PROJECT NOTES:
INTENT PERIOD: JUNE 21, 2016 THROUGH JUNE 20, 2016

PROJECT TRANSACTIONS

COMPANY DATA
COMPANY NAME: EXXON MOBIL CORPORATION
CUSTOMER REGISTRY ID: CN600123939

PORTFOLIO DATA
NUMBER: P0275 NAME: EXXON MOBIL BAYTOWN OLEFINS PLANT - RN102212925

SITE DATA
ACCOUNT: HG0228H
REG ENTITY ID: RN102212925
SITE NAME: EXXON MOBIL CHEMICAL BAYTOWN OLEFINS PLANT
COUNTY: HARRIS NEAREST CITY: BAYTOWN
LOCATION: 3525 DECKER DRIVE, BAYTOWN 77520

CONTACT DATA
NAME: SUFANG ZHAO TITLE: ENVIRO SECTION SUPERVISOR
STREET: PO BOX 4004 CITY/STATE,ZIP: BAYTOWN, TX , 77522-4004
PHONE: 281-834-5823 ext 0
Email: sufang.zhao@exxonmobil.com

TRANSACTION DATA
TRANSACTION TYPE: DERC_INTEN
DATE ENTERED: 2016-06-15 00:00:00.0 DELETED DATE: EFFECTIVE YEAR:
CONTAMINATE: **NOX** TONS: **92.00** DOLLARS: **0**
ALLOWANCE**0** CERTIFICATE NO.: **D2808** COUNTY : **HARRIS**

TRACKING ACTIVITES
PROJECT SUBMITTED : 05/06/2016 PM RECEIVED DATE : 06/15/2016 PROJECT COMPLETED : 7/8/2016

DISCRETE EMISSION CREDIT INTENT TO USE TECHNICAL REVIEW

Project No.:	411202	Customer Reference No.:	CN600123939
Project Type:	BDIU	Regulated Entity No.:	RN102212925
Company:	Exxon Mobil Corporation	Site Name:	Exxon Mobil Chemical Baytown Olefins Plant
City:	Baytown	County:	Harris
Project Reviewer:	Ms. Marie Mercado, P.E.	Portfolio Number:	P0275

Project Overview

Exxon Mobil Corporation (Exxon) submitted a Notice of Intent to Use Discrete Emission Credits received May 9, 2016. Exxon intends to use nitrogen oxides (NO_X) Discrete Emission Reduction Credits (DERCs) to comply with the requirements of 30 Texas Administrative Code (TAC) §117.320(c) at the Exxon Mobil Chemical Baytown Olefins Plant (Olefins Plant). The use period is June 21, 2016 through June 20, 2017. Exxon has requested that a total of 92.0 tons (including the 5% compliance margin of 4.0 tons and the 10% environmental contribution of 8.0 tons) of NO_X DERCs be set aside for this intent. DERCs from DERC certificate D-2808 for 92.0 tons, currently owned by Exxon, will be set aside for this intent.

Discrete Emission Credit Intent to Use

Exxon is requesting to use NO_X DERCs to comply with the emission limit in §117.320(c) for five Stationary Gas Turbine and Heat Recovery Steam Generators, Facility Identification Numbers SGT01/HRSG01, SGT02/HRSG02, SGT03/HRSG03, SGT04/HRSG04, and SGT05/HRSG05. The company is expecting to use NO_X DERCs for compliance with the daily and 30-day rolling average system cap emission limits specified in §117.320(c).

Certificates to be used:	D-2808
Pollutant:	NO_X
Amount:	92.0 tons
Regulation:	§117.320(c)
Use period:	06/21/2016 – 06/20/2017

Credit Intent Use Calculation Methods

Per the company, the equations available in 30 TAC §101.376(d)(2)(A) were used to estimate the total DERCs that might be needed. Refer to “Attachment A” submitted with the application for details on the calculations used by the company to determine the DERCs need.

Total amount of DERCs required (rounded up to a tenth of a ton) = 80.0 tons

5% Compliance Margin (rounded up to a tenth of a ton) = 4.0 tons

10% Environmental Contribution (rounded up to a tenth of a ton) = 8.0 tons

Total DERCs set-aside = 80.0 + 4.0 + 8.0 = 92.0 tons.

Conclusion

Exxon has submitted the required application in time to use DERCs to comply with §117.320(c) at their Olefins plant for the use period of June 21, 2016 through June 20, 2017. As requested by the company, an amount of 92.0 tons (including the 5% compliance margin of 4.0 tons and the 10% environmental contribution of 8.0 tons) will be set aside from DERC certificate D-2808.

Cruz Marie Mercado 7/8/16
Project Manger Date

Joseph Musa 7/11/16
Peer Reviewer Date

MM

Form DEC-2 (Page 1)
Notice of Intent to Use Discrete Emission Credits
(Title 30 Texas Administrative Code § 101.370 / § 101.379)

RECEIVED
MAY 09 2016
AIR QUALITY DIVISION

I. Company Identifying Information		
A. Company Name: Exxon Mobil Corporation 411202		
Mailing Address: P.O. Box 4004		
City: Baytown	State: TX	Zip Code: 77522-4004
Telephone: 281-834-5297		Fax: 281-834-5788
B. TCEQ Customer Number (CN): CN600123939		
C. Site Name: Baytown Olefins Plant		
Street Address (If no street address, give driving directions to site): 3525 Decker Dr.		
Nearest City: Baytown	Zip Code: 77520	County: Harris
D. TCEQ Regulated Entity Number (RN): RN102212925 P0275		
E. TCEQ Air Account Number: (*if applicable*) HG-0228-H		
F. Primary SIC: 2869		Air Permit Number: 3452
II. Technical Contact Identifying Information		
A. Technical Contact Name: (☒ Mr. ☐ Mrs. ☐ Ms. ☐ Dr.) : Kaiser Ahmed		
Technical Contact Title: Environmental Advisor		
Mailing Address: P.O. Box 4004		
City: Baytown	State: TX	Zip Code: 77522-4004
Telephone: 281-834-5297	Fax: 281-834-5788	E-mail: kaiser.u.ahmed@exxonmobil.com
III. Company Contact Identifying Information (*If different from Technical Contact*)		
A. Company Contact Name: (☐ Mr. ☐ Mrs. ☐ Ms. ☐ Dr.) :		
Company Contact Title:		
Mailing Address:		
City:	State:	Zip Code:
Telephone:	Fax:	E-mail:

Exxon Mobil Chemical

IV. Mass Emission Cap and Trade Program (MECT)

Is the DERC use for compliance with 30 TAC Chapter 101 Subchapter H, Division 3? ☐YES ☒ NO

Year DERC Generated: _____ Year of Use: _____ Ratio of DERC to Allowance: ____to____

Note: If DERC use is to comply with MECT then go to Section IX

V. Intended Use Period

Intended Use Start Date: 06/21/2016 Intended Use End Date: 06/20/2017

VI. State and Federal Requirements

Applicable State and Federal requirements that the DERCs will be used for compliance:
30 TAC 117.320

VII. Most Stringent Emission Rate

Describe basis for most stringent allowable emission rate:

☐ Permit _____ ☐ RACT _____ ☒ Other: 30 TAC 117.320

Notes:

VIII. Protocol

Protocol used to calculate DERC:

Note: Attach the actual calculations that were used to determine the amounts of DERCs needed to this form

Continue to Section IX (next page)

Form DEC-2 (Page 3)
Notice of Intent To Use Discrete Emission Credits
(Title 30 Texas Administrative Code § 101.370 - § 101.379)

IX. Tons of DERCS Required

Emission Point No.	FIN	Air Contaminant	Calculation of DERCs								
			Expected Activity (MMBtu)	Expected Emission Rate (lb/MMBtu)	Number of Days	Expected Total Emissions (tons)	Regulated Activity (MMBtu)	Regulated Emission Rate (lb/MMBtu)	Regulated Total Emissions		DERCs (tons)
									value	(units)	
HRSG1	SGT01/HRSG01										
HRSG2	SGT02/HRSG02										
HRSG3	SGT03/HRSG03										
HRSG4	SGT04/HRSG04										
HRSG5	SGT05/HRSG05										
System Cap - daily	ozone season	NOx	122,166	0.0897	5	27.405	92,568	0.032	1.481	tons/day	20.0
System Cap - rolling 30-day	ozone season	NOx	3,664,980	0.0293	N/A	53.703	2,106,420	0.032	33.703	tons/30-days	20.0
System Cap - daily	non-ozone season	NOx	122,166	0.0897	5	27.405	92,568	0.032	1.481	tons/day	20.0
System Cap - rolling 30-day	non-ozone season	NOx	3,664,980	0.0307	N/A	56.244	2,265,270	0.032	36.244	tons/30-days	20.0
										Total:	80.0

Form DEC-2 (Page 4)
Notice of Intent to Use Discrete Emission Credits
(Title 30 Texas Administrative Code § 101.370 - § 101.379)

X. Total DERCS Required for Use (round up to the nearest tenth of a ton)

Tons of DERCs required (from Sect. VII.)	CO:	NO_X: 80.0	PM_{10}:	SO_2:	VOC:
Offset Ratio (if required)	CO:	NO_X:	PM_{10}:	SO_2:	VOC:
Environmental Contribution (+ 10%)	CO:	NO_X: 8.0	PM_{10}:	SO_2:	VOC:
Compliance Margin (+ 5%) *(If DERC use requires >10 tons)*	CO:	NO_X: 4.0	PM_{10}:	SO_2:	VOC:
Total DERCs	**CO:**	**NO_X: 92.0**	**PM_{10}:**	**SO_2:**	**VOC:**

XI. DERC Information

Name of the DERC Generator: ExxonMobil Baytown Olefins Plant
DERC Generator Regulated Entity Number: RN102212925
Certificate number of the DERCs acquired or to be acquired: D-1069 D2808 @ 92.0
Date on which the DERCs were acquired or will be acquired: 06/17/03
Note: The certificate number is assigned by the TCEQ

XII. Certification by Responsible Official

I, Sufang Zhao, hereby certify, to the best of my knowledge and belief, that this application is correct and the use strategy claimed on this notice has met the requirements of all applicable state and federal rules and regulations. I further state that to the best of my knowledge and belief the information in this certification is not in any way in violation of 30 TAC, Subchapter H, Division 4, §101.370-101.379 or any applicable air quality rule or regulation of the Texas Commission on Environmental Quality and that intentionally or knowingly making or causing to be made false material statements or representations in this certification is a CRIMINAL OFFENSE subject to criminal penalties. I hereby also waive the Federal statute of limitations defense in regards to the generation and use of discrete emission credits.

Signature Sufang Zhao ✓ Signature Date 05/06/2016

Title Environmental Section Supervisor

ATTACHMENT A

DAILY CAP

$$\left[(EH \times EER) \times \frac{1ton}{2000lbs}\right] - \left[(RH \times RER) \times \frac{1ton}{2000lbs}\right]$$

Where:

RER	=	maximum emission rate in lb/MMBtu, is defined as in §117.320(c)(3)
	=	0.032 lb/MMBtu
RH	=	the maximum daily heat input, in MMBtu/day, as defined in §117.320(c)(3)
	=	92,568 MMBtu/day
EH	=	expected heat input, in MMBtu/day for Trains 1 – 5
	=	122,166 MMBtu/day
EER	=	expected average emission rate, in lb/MMBtu for Trains 1 – 5
	=	0.0897 lb/MMBtu

$$\left(\frac{122,166\ MMBtu}{day} \times \frac{0.0897\ lb}{MMBtu} \times \frac{1ton}{2000\ lbs}\right) - \left(\frac{92,568\ MMBtu}{day} \times \frac{0.032\ lb}{MMBtu} \times \frac{1ton}{2000\ lbs}\right)$$

$$= \frac{5.48\ tons}{day} - \frac{1.48\ tons}{day} = \frac{4.0\ tons}{day}$$

Amount of DERCs Needed for Daily Cap:
5.48 tons/day, total emissions - 1.48 tons/day, allowances = 4.0 tons/day,excess
Expected duration = 5 days

Total DERCs Needed = 4.0 tons/day * 5 days = 20.0 tons

30-DAY TOTAL CAP – OZONE SEASON

$$\left[(EH \times EER) \times \frac{1ton}{2000lbs}\right] - \left[(RH \times RER) \times \frac{1ton}{2000lbs}\right]$$

Where:

RER	=	maximum emission rate in lb/MMBtu, is defined as in §117.320(c)(1)
	=	0.032 lb/MMBtu
RH	=	the maximum daily heat input, in MMBtu/30-days, as defined in §117.320(c)(1)
	=	2,106,420 MMBtu/30-days
EH	=	expected heat input, in MMBtu/30-days for Trains 1 – 5
	=	3,664,984 MMBtu/30-days
EER	=	expected average emission rate, in lb/MMBtu for Trains 1 – 5
	=	0.0293 lb/MMBtu

$$\left(\frac{3{,}664{,}984\ \ MMBtu}{30\ days}\times\frac{0.0293\ lb}{MMBtu}\times\frac{1\,ton}{2000\ lbs}\right)-\left(\frac{2{,}106{,}420\ \ MMBtu}{30\ days}\times\frac{0.032\ lb}{MMBtu}\times\frac{1\,ton}{2000\ lbs}\right)$$

$$=\frac{53.70\ tons}{30\ days}-\frac{33.70\ tons}{30\ days}=\frac{20.0\,tons}{30\ days}$$

Amount of DERCs Needed for 30-Day Total Ozone Season System Cap:
53.70 tons/30days - 33.70 tons/30days = 20.0 tons

30-DAY TOTAL CAP – NON-OZONE SEASON

$$\left[(EH\times EER)\times\frac{1ton}{2000lbs}\right]-\left[(RH\times RER)\times\frac{1ton}{2000lbs}\right]$$

Where:

RER = maximum emission rate in lb/MMBtu, is defined as in §117.320(c)(2)
= 0.032 lb/MMBtu
RH = the maximum daily heat input, in MMBtu/day, as defined in §117.320(c)(2)
= 2,265,270 MMBtu/30-days
EH = expected heat input, in MMBtu/day for Trains 1 – 5
= 3,664984 MMBtu/30-days
EER = expected average emission rate, in lb/MMBtu for Trains 1 – 5
= 0.0307 lb/MMBtu

$$\left(\frac{3{,}664{,}984\ \ MMBtu}{30\ days}\times\frac{0.0307\ lb}{MMBtu}\times\frac{1\,ton}{2000\ lbs}\right)-\left(\frac{2{,}265{,}270\ \ MMBtu}{30\ days}\times\frac{0.032\ lb}{MMBtu}\times\frac{1\,ton}{2000\ lbs}\right)$$

$$=\frac{56.24\ tons}{30\ days}-\frac{36.24\ tons}{30\ days}=\frac{20.0\,tons}{30\ days}$$

Amount of DERCs Needed for 30-Day Total Non-Ozone Season System Cap:
56.24 tons/30days - 36.24 tons/30days = 20.0 tons

ExxonMobil Chemical Company
3525 Decker Drive
Baytown, TX 77520-1699

ExxonMobil
Chemical

CERTIFIED MAIL

May 6, 2016

Application for Notice of Intent to Use
Discrete Emission Reduction Credits
Form DEC-2
Exxon Mobil Corporation
Baytown Olefins Plant
Baytown, Harris County
Account No.: HG-0228-H
RN102212925

Texas Commission on Environmental Quality
Emissions Banking and Trading - MC 206
P.O. Box 13087
Austin, Texas 78711-3087

Exxon Mobil Corporation is respectfully submitting an Application for Notice of Intent to Use Discrete Emission Reduction Credits (DERCs), DEC-2, to use 92.0 tons of NOx DERCs for §117.320, system cap compliance, at the Baytown Olefins Plant (HG-0228-H), RN102212925. Per Section VIII of the DEC-2 and §101.376, we are also providing the calculation protocol used to determine the number of DERCs needed for the use period of June 21, 2016, through June 20, 2017 (Attachment A).

If you have any questions concerning this application, please contact me at (281) 834-5297.

Sincerely,

Kaiser Ahmed
Environmental Advisor

Attachments

Received
MAY 09 2016
Air Quality Division

bc: - Kaiser Ahmed

File: I.D.6.a.
RMG: ENV4000

Certified Mail Number
7015-1730-0001-7448-4226

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 8, 2016

Ms. Sufang Zhao
Environmental Section Supervisor
Exxon Mobil Corporation
PO Box 4004
Baytown, Texas 77522-4004

Re: Notice of Intent to Use Discrete Emission Credits
Exxon Mobil Baytown Chemical Baytown Olefins Plant
Baytown, Harris County
Regulated Entity Reference Number: RN102212925
Customer Reference Number: CN600123939
Portfolio Number: P0275

Dear Ms. Zhao:

This letter is in response to Exxon Mobil Corporation's Notice of Intent to Use Discrete Emission Credits received on May 9, 2016 regarding the use of nitrogen oxides (NO_x) Discrete Emission Reduction Credits (DERCs) for the purpose of compliance with 30 Texas Administrative Code (TAC) §117.320(c) for the period of June 21, 2016 through June 20, 2017.

Upon review, we find the notice and the credits to be used meet the requirements of 30 TAC §§101.370 through 101.378 for compliance with §117.320(c). As requested, a total of 92.0 tons (including the 5% compliance margin of 4.0 tons and the 10% environmental contribution of 8.0 tons) of NO_x DERCs has been set aside from certificate D-2808. Certificate D-2808 was completely set aside for this intent.

A Notice of Use of Discrete Emission Credits must be submitted within 90 days of the end of the use period.

Thank you for your cooperation in this matter. If you have questions concerning this review or need further assistance regarding the banking program, please contact Ms. Marie Mercado, P.E., at (512) 239-2054 or write to the Texas Commission on Environmental Quality, Office of Air, Air Quality Division (MC-206), PO Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the executive director of the Texas Commission on Environmental Quality.

Sincerely,

David Brymer, Director
Air Quality Division

DB/MM/jm

cc: Air Section Manager, Region 12 – Houston
Mr. Bob Allen, Director, Harris County Pollution Control Services Department, Pasadena
Mr. Kaiser Ahmed, Environmental Advisor, Exxon Mobil Corporation, Baytown

Project Number: 411202

DERC Intent
June 21, 2016 - June 20, 2017

Banking and Trading Route Slip

AIR QUALITY DIVISION Emissions Banking and Trading Program				
Company Name: Exxon Mobil Corporation_Exxon Mobil Chemical Baytown Olefins Plant_RN102212925_P0275				
Project Number: 411202				
Type of Letter Correspondence: DCTR; DCUA				
Letter Document Number(s): 26802; 26803				
Certificate Number(s): D-2808				
Review and Approval	**Initial and Date**	**Comments/Special Instructions**		
Deric Patton, Work Lead EBTP	—	—		
Author/Creator Review	MM 7/8/16			
Peer Review Completed	JM 6/29/16			
Author/Creator	MM 6/24/16		**Copies Made** MM	**Date** 7/8
			E-Mailed MM	**Date** 7/8
Please return **Routing Slip** and **Project Paperwork** to Deric Patton, MC-206, Ext. 3159				

C
7/8/16
MM