

AIR DERC_102041282-406184_
USE_20111220_Use_D2841**12/12/2011 ----- EBTP IMS- PROJECT RECORD -----**PROJECT#: 406184 STATUS: P
RECEIVED: 11/18/2011 PROJTYPE: BDIUDISP CODE: C
ISSUED DT:
SUP-DISP DATE: 12/20/2011**STAFF ASSIGNED TO PROJECT:**

BANDA, DANIEL

PROJECT NOTES:

INTENT TO USE PERIOD: 1/1/2012 - 3/31/2012

NOTE THAT THE 30-DAY ROLLING AVERAGE SYSTEM CAP LIMIT (218.9 LBS NOX/DAY) ESTABLISHED BY §117.320, FOR THE 3RD QUARTER MONTHS (JULY, AUGUST, SEPTEMBER), IS THE SAME FOR THE 1ST, 2ND AND 4TH QUARTER MONTHS.

THE FORM WAS SIGNED ON 11/16/11 AND WAS RECEIVED ON 11/18/11. THE SIGNATURE DATE WILL BE USED TO SATISFY THE 45 DAY SUBMITTAL REQUIREMENT IN 101.376.

GROUPWISE DOCUMENTS: ~~DCIS-17789~~ / DCTR-17790 / DCCT-17791**PROJECT TRANSACTIONS****COMPANY DATA**COMPANY NAME: AIR PRODUCTS LLC
CUSTOMER REGISTRY ID: CN602299257**PORTFOLIO DATA**

NUMBER: P0026 NAME: LA PORTE TEXAS FACILITY - RN102041282

SITE DATAACCOUNT:
HG0010N

REG ENTITY ID: RN102041282

SITE NAME: AIR PRODUCTS LA PORTE PLANT

COUNTY: HARRIS

LOCATION: 10202 STRANG RD, LA PORTE, TX

NEAREST CITY: LA PORTE

CONTACT DATA

NAME: PAUL MORRIS

TITLE: ENVIRONMENTAL ENGINEER

STREET: PO BOX 3326 CITY/STATE, ZIP: PASADENA, TX , 77501-0

PHONE: 713-920-7296 ext 0

FAX: 713-920-7445 ext 0

Email: morrispj@airproducts.com

TRANSACTION DATA

TRANSACTION TYPE: DERC_INTEN

DATE ENTERED: 2011-11-21 00:00:00.0

CONTAMINATE: NOX

ALLOWANCE0

DELETED DATE:

EFFECTIVE YEAR:

TONS: 33.70

DOLLARS: 0

CERTIFICATE NO.: D2841 COUNTY : HARRIS

TRANSACTION DATA

TRANSACTION TYPE: DERC_RET

DATE ENTERED: 2011-11-21 00:00:00.0

CONTAMINATE: NOX

ALLOWANCE0

DELETED DATE:

EFFECTIVE YEAR:

TONS: 10.10

DOLLARS: 0

CERTIFICATE NO.: D2842 COUNTY : HARRIS

File with
D-2841
+
D-2842

TRACKING ACTIVITIES

TR - ENGINEER RECEIVE PROJECT :	12/09/2011	TR - PROJ TECH COMPLETE :	12/12/2011	TR - SUP/MANGR APP/RVW RQSTD :	12/16/11
FA - PROJECT ISSUED :		TR - DATE SUP/MNGR REQ ADDL TR :			

DISCRETE EMISSION CREDITS INTENT TO USE TECHNICAL REVIEW

Project No.:	406184	Customer Reference No.:	CN602299257
Project Type:	BDIU	Regulated Entity No.:	RN102041282
Company:	Air Products, LLC	Facility Name:	Air Products La Porte Plant
City:	La Porte	County:	Harris
Project Reviewer:	Mr. Daniel Banda	Portfolio Name:	P0026 – La Porte Texas Facility - RN102041282

Project Overview

Air Products, LLC, submitted a Form DEC-2, (Notice of Intent to Use Discrete Emission Credits), received November 18, 2011, for the purpose of complying with the 30-day rolling average nitrogen oxides (NO_x) system cap under 30 Texas Administrative Code (TAC) §117.320 (previously §117.210), at the Air Products La Porte Plant. Air Products, LLC, intended to use 33.3 tons (including the 10% environmental contribution and 5% compliance margin) of NO_x Discrete Emission Reduction Credits (DERCs) to cover excess emissions from Facility Identification Numbers (FINs) GT-1 through GT-4. After reviewing the calculation methodology, it was discovered that the days represented in the use period were incorrectly listed as 90 days instead of the actual 91 days. After recalculating the DERC use amount, 33.7 tons (including the 10% environmental contribution and 5% compliance margin) are appropriate to cover any excess emissions from FINs GT-1 through GT-4 for the period of January 1, 2012, through March 31, 2012.

Air Products, LLC, has requested that credits from DERC certificate D-2561 be used for this intent. DERC certificate D-2561 has already been used in another project. A portion of the remaining unused credits from DERC certificate D-2651 have been retained on DERC certificate D-2841. A total of 33.7 tons of credit from DERC certificate D-2841 will be used to satisfy this intent to use project. The remaining 10.1 tons of credits from DERC certificate D-2841 have been retained on DERC certificate D-2842. Refer to the flow chart for more information.

Discrete Emission Credit Intent to Use

Certificate to be used	D-2841
Pollutant	NO _x
Amount	33.7 tons
Regulation	§117.320
Use period	01/01/12 – 03/31/12

Credit Use Calculation Methods

Per 30 TAC §101.376(d)(2)(A)(i), the amount of discrete emission credits needed to demonstrate compliance or meet a regulatory requirement is calculated as follows:

$$\sum_{i=1}^N [(EH_i \times ER_i) - (H_i \times R_i)] \frac{d}{2000}$$

Where:

d = the number of days in the use period
 i = each emission unit in the source or system cap
 N = the total number of emission units in the source or system cap
 H_i = actual daily heat input, in million British thermal units (MMBtu) per day, as calculated according to §117.320

R_i = emission specification in pound (lb)/MMBtu, as defined in §117.320
 ER_i = expected new emission rate, in lb/MMBtu
 EH_i = expected new daily heat input, in MMBtu/day

The expected new daily heat input (EH_i) per unit was calculated as follows:

$$\frac{38 \text{ MW}}{1 \text{ MW}} \times \frac{1000 \text{ kW}}{1 \text{ MW}} \times \frac{12,200 \text{ Btu}}{1 \text{ kWh}} \times \frac{1 \text{ MMBtu}}{1,000,000 \text{ Btu}} \times \frac{16 \text{ hr}}{1 \text{ day}} = 7,417.6 \text{ MMBtu/day}$$

Credit Use Calculation Methods Cont.

Air Products, LLC, estimated a level of activity from 01/01/12- 03/31/12 of 7,417.6 MMBtu/day for each of the four 38MW turbines. Each turbine operates at a 12,200 Btu/kwh efficiency level. All facilities were permitted (Permit No. 21878) at an expected emission rate of 0.029 lb/MMBtu. There are 91 days in the use period.

$$[(860.4^1 \text{ lb/day}) - (218.9^2 \text{ lb/day})] \frac{91 \text{ days}}{2000 \text{ lb/ton}} = 29.2 \text{ tons}$$

¹ Expected new daily NO_x total for all 4 units; equivalent to (4)(EH_i x ER_i) in the DERC equation

² Regulatory NO_x system cap per §117.320(c); equivalent to (4)(H_i x R_i) in the DERC equation

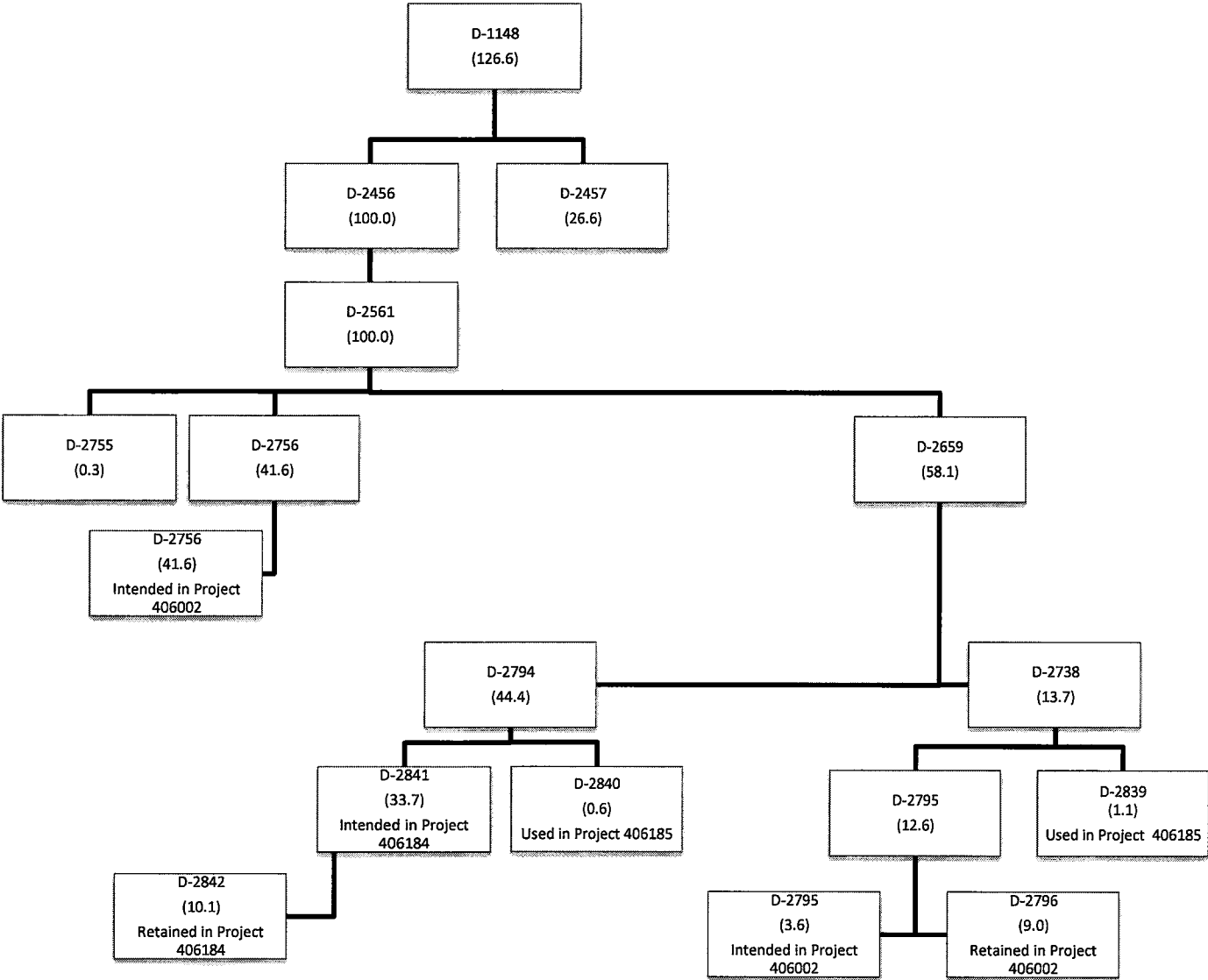
The total emissions over the system cap are estimated to be 29.2 tons. The additional 10% environmental contribution (3.0 tons) and 5% compliance margin (1.5 tons) require a total of 33.7 tons of NO_x DERCs to be set aside.

Conclusion

Air Products, LLC, submitted the required documentation to use DERCs for the purpose of compliance with §117.320. A total of 33.7 tons of NO_x DERCs will be set aside from DERC certificate D-2841. The remaining 10.1 tons of unused credits from DERC certificate D-2841 will be issued on DERC certificate D-2842.

1 D. Q. B. L. 12/19/11
Project Reviewer Date

Brand L. J. 12/20/2011
Team Leader/Section Date
Manager/Backup





Form DEC-2 (Page 1)
Notice of Intent to Use Discrete Emission Credits
(Title 30 Texas Administrative Code § 101.370 - § 101.379)
406184 DB

RECEIVED
NOV 17 2011
AIR QUALITY DIVISION

I. Company Identifying Information			
A. Company Name: Air Products LLC ✓			
Mailing Address: 10202 Strang Road			
City: La Porte	State: TX	Zip Code: 77571	
Telephone: 281-478-5901		Fax: 281-478-3042	
B. TCEQ Customer Number (CN): CN602299257 ✓			
C. Site Name: La Porte Facility			
Street Address (If no street address, give driving directions to site) 10202 Strang Rd.			
Nearest City: La Porte	Zip Code: 77571	County: Harris	
D. TCEQ Regulated Entity Number (RN): RN102041282 ✓			
E. TCEQ Air Account Number: (if applicable) HG-0010-N ✓		P0026	
F. Primary SIC: 2813		Air Permit Number: 21878	
II. Technical Contact Identifying Information			
A. Technical Contact Name: (<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.) : Paul J. Morris			
Technical Contact Title: Senior Principal Environmental Engineer			
Mailing Address: PO Box 3326			
City: Pasadena	State: TX	Zip Code: 77501	
Telephone: 713- 920-7296	Fax: 713-920-7445	E-mail: morrispj@airproducts.com	
III. Company Contact Identifying Information (If different from Technical Contact)			
A. Company Contact Name: (<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr.) : David C. Hefeledc			
Company Contact Title: West Gulf Coast Region Manager			
Mailing Address: PO Box 3326			
City: Pasadena	State: TX	Zip Code: 77501	
Telephone: 713-920-7284	Fax:	E-mail: hefeledc@airproducts.com	
IV. Mass Emission Cap and Trade Program (MECT)			
Is the DERC use for compliance with 30 TAC Chapter 101 Subchapter H, Division 3? <input type="checkbox"/> YES <input checked="" type="checkbox"/> 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: 01 / 01 / 2012		Intended Use End Date: 03 / 31 / 2012	



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

VI. State and Federal Requirements

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

VII. Most Stringent Emission Rate

Describe basis for most stringent allowable emission rate:

☐ Permit _____ ☒ RACT 0.032 lb/MMBTU ☐ Other: _____

Notes:

ESAD 30 TAC §117.310(a)(10)(A)

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

**See attached. Calculation per 30 TAC Chapter 101, Subchapter H – Emissions Banking and Trading,
Division 4 Discrete Emission Banking and Trading – 30 TAC §101.376 (d)(2)(i)**

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 (units)	Expected Emission Rate (units)	Expected Total Emissions (tons)	Regulated Activity (units)	Regulated Emission Rate (units)	Regulated Total Emissions (tons)	DERCs (tons)
GT-1	Pecogen1	NO _x	See Attached Table on Page 6						
GT-2	Pecogen2	NO _x							
GT-3	Pecogen3	NO _x							
GT-4	Pecogen4	NO _x							
Total:									

Air Products, LLC
La Porte Facility
10202 Strang Road
La Porte, TX 77571

Attachment
DERC Calculation to Satisfy
Sections VII and VIII of
Notice of Intent to Use, Form DEC-2

CN 602299257

Turbines (number of units)	Capacity (MW/Unit)	Expected Hours of Operation (Daily, hrs/day)	Expected New Daily Heat Input (MMBtu/ day)	Expected Emission Rate (lb/MMBtu)	Expected New Daily Total Emissions (lbs NOx/day)	Regulatory Limit (System Cap per 30 TAC §117.320, lbs NOx/day)	Difference (lbs NOx/day)	Use Period (days)	DERCs (tons)	10% Compliance Contribution (tons)	5% Compliance Margin (tons)	Total DERCs Required (tons)
4	38	16	29670.4	0.029	860.4	218.9	641.5	90	28.9	2.9	1.5	33.3

Heat Rate: 12,200 Btu/kwh

Calculation based upon the DERC calculation in 30 TAC §101.376(d)(2)(i):

Expected New Daily Total = 4 units * 38 MW/unit * 12,200 btu/kwh * 1000 kw/ 1 MW * 0.029 lb NOx/mmbtu * 1 mmbtu/10⁶ btu * 16 hr/day

Established system cap of 218.9 lbs NOx/day established per 30 TAC §117.320 is the same for the 4th quarter months (November, December) and 1st quarter months (January, February, March).

Use Period Start Date: 1/1/2012

Use Period End Date: 3/31/2012



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)

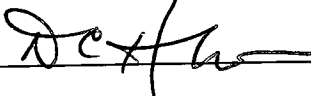
Tons of DERCS required (from Sect. VII.)	CO: _____	NO _x : <u>28.9</u>	PM ₁₀ : _____	SO ₂ : _____	VOC: _____
Offset Ratio (if required)	CO: _____	NO _x : <u>N/A</u>	PM ₁₀ : _____	SO ₂ : _____	VOC: _____
Environmental Contribution (+ 10%)	CO: _____	NO _x : <u>2.9</u>	PM ₁₀ : _____	SO ₂ : _____	VOC: _____
Compliance Margin (+ 5%) (If DERC use requires >10 tons)	CO: _____	NO _x : <u>1.5</u>	PM ₁₀ : _____	SO ₂ : _____	VOC: _____
Total DERCS	CO: _____	NO _x : <u>33.3</u>	PM ₁₀ : _____	SO ₂ : _____	VOC: _____

XI. DERC Information

Name of the DERC Generator: Exelon Generation Company LLC (purchased from Dow Chemical Company)
DERC Generator Regulated Entity Number: RN100225945
Certificate number of the DERCS acquired or to be acquired: D2561 (Parent Certificate D2456)
Date on which the DERCS were acquired or will be acquired: 09/08/2010
Note: The certificate number is assigned by the TCEQ

XII. Certification by Responsible Official

I, David C. Hefe, 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  Signature Date 11-16-11

Title West Gulf Coast Region Manager

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

January 4, 2012

Mr. Paul J. Morris
Senior Principal Environmental Engineer
Air Products, LLC
PO Box 3326
Pasadena, Texas 77501

Re: Notice of Intent to Use Discrete Emission Credits
Air Products La Porte Plant
La Porte, Harris County
Regulated Entity Reference Number: RN102041282
Customer Reference Number: CN602299257
Portfolio Number: P0026

Dear Mr. Morris:

This letter is in response to a Form DEC-2 (Intent to Use Discrete Emission Credits) received on November 18, 2011, regarding the use of nitrogen oxides (NO_x) Discrete Emission Reduction Credits (DERCs) for the purpose of complying with the 30-day rolling average NO_x system cap under 30 Texas Administrative Code (TAC) §117.320 for the period of January 1, 2012, through March 31, 2012.

We have reviewed your application and found that the intent to use notice and the credits set aside meet the requirements of 30 TAC §§101.370 through 101.379. A total amount of 33.7 tons of NO_x (including the 10% environmental contribution and 5% compliance margin) will be set aside from DERC certificate D-2841.

Enclosed is a copy of DERC certificate D-2842 issued for the amount of 10.1 tons of NO_x DERCs retained from certificate D-2841. DERC certificate D-2842 has been deposited in the Texas Commission on Environmental Quality (TCEQ) Discrete Emission Credit Registry. This certificate may be transferred or sold to another owner for use per the requirements of §§101.370 through 101.379.

Thank you for your cooperation in this matter. If you have questions concerning this review, please contact Mr. Daniel Banda at (512) 239-4701 or write to the Texas Commission on Environmental Quality, Chief Engineer's Office, Air Quality Division (MC-206), PO Box 13087, Austin, Texas 78711-3087.

Mr. Paul J. Morris

Page 2

January 4, 2012

This action is taken under authority delegated by the Executive Director of the TCEQ.

Sincerely,

A handwritten signature in black ink, appearing to read "David Brymer". The signature is fluid and cursive, with the first name "David" being more prominent than the last name "Brymer".

David Brymer, Director
Air Quality Division

DB/DB/jm

cc: Air Section Manager, Region 12 – Houston

Mr. Michael Schaffer, Director, Environmental Public Health Division, Harris County Public
Health and Environmental Services, Pasadena

Project Number: 406184

Banking and Trading Route Slip

Clsd 1/4/12
Kc

Company:

Air Products, LLC
- La Porte Plant

Project
Number:

4061821

Type of Letter
Correspondence:

DCHA DCTR DCTT

Letter Doc No:

17789 17790 17791

Certificate No:

D 2842

	Initials:	Date
Author/Creator	DB	12/12
Peer Review Completed	Minor edits JM	12/13/11
Author/Creator Review	DB	12/19
Review and Approval By:	Initials:	Date
WL Review: Brandon Greulich	BG	12/20
Management Review: Chance Goodin	BG for Cb	12/20 ^{date}
Donna Huff		
David Brymer		
Copies made	DB	1/4/12
Mailed	DB	1/4/12

Comments/Special Instructions

Close after 406185. Don't

DB

Please return **Routing Slip** and **Project Paperwork**
to Norma Blakely, MC-206, Ext. 3618