AIR DERC_100216035-100557_CE_20031219_Certification_D1108

12/19/2003 ---------- EBTP IMS- PROJECT RECORD ----------

-

PROJECT#: 100557 STATUS: P DISP CODE: C

RECEIVED: 08/21/2003 PROJTYPE: BDRC ISSUED DT: 12/31/03

PUB NOT REQ: SUP-DISP DATE: 12/19/03

STAFF ASSIGNED TO PROJECT:
BANDA, MONICO

PROJECT TRANSACTIONS

TRANSACTION TYPE: DERC-GEN

COMPANY DATA

COMPANY NAME: E I DU PONT DE NEMOURS AND COMPANY
CUSTOMER REGISTRY ID: CN600128284

PORTFOLIO DATA

NUMBER: P1054 NAME: PORTFOLIO NAME for P1054

SITE DATA

REGION: 10 ACCOUNT: JE0033C REG ENTITY ID: RN100216035

SITE NAME: E I DUPONT DENEMOURS BEAUMONT WORKS
COUNTY: JEFFERSON
CITY: BEAUMONT
LOCATION:

CONTACT DATA

NAME: MR W DENNIS ISAACS TITLE: ENVIRONMENTAL TEAM LEADER
e-mail: W-DENNIS.ISSACS@USA.DUPONT.COM
STREET: PO BOX 3269 CITY/STATE,ZIP: BEAUMONT, TX , 77704-
FAX: 409-727-9412 ext
PHONE: 409-727-9528 ext

TRANSACTION DATA

DATE ENTERED: 2003-12-19 EFFECTIVE DATE: DELETED DATE:
DATE GENERATED: EXPIRATION DATE:
CONTAMINATE: **CO** TONS: **864.1** DOLLARS:
ALLOWANCE CERTIFICATE NO.: **D1108** COUNTY : **JEFFERSON**

STREAM AND FUTURE TRADES DATA

TRACKING ACTIVITES

FA - PROJECT ISSUED :
TR - PROJECT RECEIVED : 09/02/2003
TR - SUP/MANGR APP/RVW RQSTD : 12/16/2003

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 31, 2003

Mr. W. Dennis Isaacs
Environmental Team Leader
E. I. DuPont de Nemours and Company, Inc.
P.O. Box 3269
Beaumont, Texas 77704

Re: Review of Discrete Emission Reduction Credits (DERC) Generation
Beaumont Works
Beaumont, Jefferson County
Regulated Entity Number: RN100216035
Customer Reference Number: CN600128284

Dear Mr. Isaacs:

This letter is in response to your Form DEC-1, entitled "Notice of Generation and Generator Certification of Discrete Emission Credits," dated August 15, 2003. We have determined that the information contained in your registration is complete. This review verifies that all information needed for credit review has been received and verified.

Enclosed is DERC Certificate Number D-1108, issued to E. I. DuPont de Nemours & Company, Inc., in the amount of 864.1 tons of carbon monoxide discrete emission credits. This certificate has been deposited in the Texas Commission on Environmental Quality (TCEQ) Discrete Emissions Credit Registry. This certificate may be transferred or sold to another owner per the requirements of Title 30 Texas Administrative Code §§ 101.370 through 101.379. However, the certificate must be submitted to the TCEQ Discrete Emissions Credit Registry when ownership of the credits changes.

Please reference the regulated entity number (RN), and customer reference number (CN) noted in this document in all your future banking and trading correspondence. The RN replaces the former TCEQ account number for the facility or site. The CN is a unique number assigned to the company or corporation and applies to all facilities and sites owned or operated by this company or corporation.

Re: Review of Discrete Emission Reduction Credits (DERC) Generation

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 Mr. Monico Banda at (512) 239-1589 or write to the Texas Commission on Environmental Quality, Office of Permitting, Remediation, and Registration, Air Permits Division (MC-163), P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

Dale L. Beebe Farrow, P.E., Director
Air Permits Division
Office of Permitting, Remediation & Registration
Texas Commission on Environmental Quality

DBF/MSB/rc

cc: Mr. Stuart Mueller, Air Section Manager, Region 10 - Beaumont

Project Number: 100557

DISCRETE EMISSION REDUCTION CREDITS (DERCs) CERTIFICATION
SOURCE ANALYSIS & TECHNICAL REVIEW

Permit No:	B939	Company:	EI Dupont De Nemours & Company
Project Type:	BDRC	Facility Name:	DERC Generation at Beaumont Works
Record No:	100557	City:	Beaumont
Account No:	JE-0033-C	County:	Jefferson
Reviewer:	Monico Banda		

Project Overview

E.I. DuPont de Nemours & Company (DuPont) is seeking to generate DERCs from the shutdown of an ammonia manufacturing unit at their Beaumont Works facility. A total of 863 tons of CO DERCs are being claimed on the application.

Discrete Emission Reductions Summary

DuPont is claiming CO DERCs from the Ammonia manufacturing unit that was shut down on May 26, 2001. The generation period is May 27, 2002 to May 26, 2003. Baseline emissions were verified through testing, TCEQ flare calculation methodologies, monitoring and AP-42 calculation. Supporting documentation was submitted to verify all emissions.

Discrete Emission Calculation Methods

Flare - 2000 Emissions Calculation:

12,546 MMBtu/yr * 0.5496 lb/MMBtu of CO (from NSR Guidance)/2000 = 3.45 tpy

Process Vent Calculations:

Emissions from this point only occurred when the unit was in startup mode.The ton per hour CO emission rate is proportional to the valve position of the vent and the hours the valve was open during startup. A flow meter measures the gas release in tons per hour. For example on January 10, 2000 the vent was open for 15 hours and a flow rate of 4 tons per hour giving 60 tons of CO. The annual emissions were calculated by summing the CO for each of these events.

CO2 Stripper Calculations:

CEMS and annual samples show that for every ton of ammonia produced, 1.2 tons of CO2 are produced. Records are kept for the amount of ammonia and CO2 they produce. They subtract the tons of CO2 they sell from the total produced and that gives the amount emitted. For example, in 1998 504,380 tons of ammonia and 605,260 tons of CO2 were produced. 308,093 tons of CO2 were sold giving 297,167 tons of CO2 emitted. Using the CO2 analysis the VOC and CO content in the CO2 stream is 75 ppmw which, in this example, equates to 22.29 tons of CO.

Emission Reduction Calculation Methods

FIN	EPN	Baseline Year	Baseline Emissions	EI	Permit Allowable	Most Stringent	Eligible Credit	Amount Creditable
AMM/CBFL23	AMM-VNT23	1999	3.35	2.21	Unk	2.21	2.80	2.8
	Flare	2000	3.45	3.38		3.38		
AMM/PVENT	AMM-VNT23	1999	600	600	2700	600	841.0	841.0
	Process Vent	2000	1082	1082		1082		
AMM/STR182	AMM-STR182	1997	18.45	18.45	31	18.45	20.37	20.3
	CO2 Stripper	1998	22.29	22.29		22.29		
							Total	864.1

For shutdowns the DERC formula is (BER)*(BA), where BER is the most stringent emission rate.

Title 30 TAC Chapter 101, Subchapter H

A. Applicable Pollutants ..... CO
B. Date reduction achieved: ..... MAY 26, 2002
Most recent year of emissions inventory used for SIP determination: ..... NONE FOR CO FOR BPA
C. Generation Period:: ..... May 27, 2002 through May 26, 2003
D. Eligible Source: ..... SHUTDOWN OF AMMONIA UNIT
E. Attainment/Nonattainment ..... ATTAINMENT

Generation of Discrete Emission Credits
Generation Method: Shutdown of CO source

Control Requirements:
MACT Standards: NONE
NESHAPS: NONE
NSPS: NONE
Chapter 114: N/A
Chapter 115: N/A, BACT is more stringent.
Chapter 117: N/A
Compliance Schedule: N/A

Conclusion
DuPont has demonstrated and supported reductions of CO for the period of March 27, 2002 to March 26, 2003. DERC Certificate Number D-1108 in the amount of 864.1 tons of certified CO DERCs will be deposited in the TCEQ DERC Registry. The difference between their request for 863.0 tons and our approval of 864.1 tons is due to rounding.

Monica Barrera 12/16/03 Richard Craig Chism

Project Reviewer Date Team Leader Date

Form DEC-1 (Page 1)
Notice of Generation and Generator Certification of Discrete Emission Credits
(Title 30 Texas Administrative Code § 101.370 - § 101.374)

UPDATE: The TNRCC is now requiring all applications to be accompanied by the new TNRCC CORE Data Form located at: http://www.tnrcc.state.tx.us/permitting/projects/cr/index.html .

A notice of generation and generator certification must be submitted to the Texas Natural Resource Conservation Commission (TNRCC) DERC Registry in accordance with the following requirements if the reduction is to be creditable and marketable:

I. COMPANY IDENTIFYING INFORMATION		
A. Company Name: E.I. DuPont de Nemours & Company, Inc		
B. Owner or Operator of Generator Source: E.I. DuPont de Nemours & Company, Inc		
C. Plant/Site Name: Beaumont Works		
D. Street Address: Highway 347South		
E. Nearest City: Beaumont	F. Zip Code: 77705	
G. County: Jefferson	H. Primary SIC: 2869	
I. TNRCC Account No.: JE-0033-C		
J. Telephone: 409-727-9528	K. Fax: 409-727-9412	
L. Mailing Address: P.O. Box 3269		
City: Beaumont	State: TX	Zip Code: 77704

II. TECHNICAL CONTACT IDENTIFYING INFORMATION		
A. Technical Contact Name: (x Mr. __Mrs. __Ms. __Dr.) W. Dennis Isaacs		
B. Technical Contact Title: Environmental Team Leader		
C. Telephone: 409-727-9528	D. Fax: 409-727-9412	E. Email: w-dennis.issacs@usa.dupont.com
F. Mailing Address: P.O. Box 3269		
G. City: Beaumont	State: TX	Zip Code: 77704

III. CONTACT FOR SALE OF CERTIFICATE		
A. Contact Name: (x Mr. __Mrs. __Ms. __Dr.) W. Dennis Isaacs		
B. Sale Contact Title: Environmental Team Leader		
C. Telephone: 409-727-9528	D. Fax: 409-727-9412	E. Email: W-DENNIS.ISAACS@USA.dupont.com
F. Mailing Address: P.O. Box 3269		
G. City: Beaumont	State: TX	Zip Code: 77704

IV. Generation Period

__X__ 12 months
_____ Other _____ Days/months

Generation Period Start Date 05/27/ 2002
Generation Period End Date 05/26/2003

V. Generation Activity

☒ **Shutdown** ☐ **Additional Control** ☐**Other:**

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Date of Shutdown: 05/ 26 /2001 **Date of Reduction:** 05/26/2001

Form DEC-1 (Page 2)
Notice of Generation and Generator Certification of Discrete Emission Credits
(Title 30 Texas Administrative Code § 101.370 - § 101.374)

TNRCC

VI. EMISSIONS RATE DATA

Attach documentation which demonstrates the basis for each value represented in the following table.

If SA ≥ BA, then: (BER*BA) - (SER*SA) = reduction

If SA < BA, then: (BER*BA) - (SER*BA) = reduction

Emission Point No.	FIN	Air Contaminant	Calculation of DERCs					
			Baseline Activity (units)	Baseline Emission Rate (units)	Strategy Activity (units)	Strategy Emission Rate (units)	Most stringent emission rate (units)	DERCs (T)
AMM-VNT23	AMM/CBFL23	CO	12.1345 mmscf	See attached Calculations	0	0	0.5496 lb/mmbtu	3.0
AMM-STR182	AMM/STR182	CO	271,643.8 TPY	0.75 ppm	0	0		20
AMM-VNT23	AMM/PVENT	CO	See attached Calculations	See attached Calculations	0	0		840.0

VII. Shutdown Emission Reduction Strategies

Has production shifted from the shutdown facility to another facility in the same nonattainment area? ☐ Yes* ☒ No
*If Yes, DERC can not be claimed.

VIII. VOC

List Specific Compounds reduced:

Emission Point No	FIN	Name of Air Contaminant	DERCs (T)

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AIR PERMITS DIVISION

Form DEC-1 (Page 3)
Notice of Generation and Generator Certification of Discrete Emission Credits
(Title 30 Texas Administrative Code § 101.370 - § 101.374)

VIII. Most Strigent Emission Rate

Describe basis for most stringent emission rate: ☐ Permit_____ ☐ RACT_____ ☒ Other:

Please refer to the "Calculations" Section.

IX. Protocol

Protocol used to calculate DERC:

Please refer to the "Calculations" Section.

VIII. CERTIFICATION BY RESPONSIBLE OFFICIAL

I, James C. Ellis, hereby certify that the emission reductions claimed on this notice meet the requirements of 30 TAC Chapter 101, Subchapter H, Division 4 and are not based on an emission strategy prohibited in 30 TAC Chapter 101, Subchapter H, Division 4 to the best of my knowledge and belief and that the information entered in this application is correct to the best of my knowledge and belief.

Signature James C Ellis Signature Date 8/15/03

Title Plant Manager

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DERCS Generation for Period under Consideration 05/27/2002 - 05/26/2003

Total DERCs Generated for a 12 month Period	863	Tons
Days for which DERCs were generated in the 12 month Period	365	Days

FIN	EPN	DERCs Generated (Tons)			
		Annual	05/26/01-08/31/01	09/01/01-05/26/02	05/27/02-05/26/03
AMM/CBFL23	AMM-VNT23	3	1	2	**3** 2.8
AMM/PVENT	AMM-VNT23	840	223	617	**840** 841
AMM/STR182	AMM-STR182	20	5	15	**20** 20.3
	Total	863	229	634	**863** 864.1

ACH CONTAMCODE	ACH CHANGE DATE	ACH ACTUAL	FC FIN	PT EPN
90,300.00	19,991,231.00	0.00	ANI/TFX89B	ANI-FLR373
90,300.00	19,991,231.00	0.00	ANI/TFX94	ANI-FLR373
90,300.00	19,991,231.00	0.00	P&S/BLR28	P&S-BLR28
90,300.00	19,991,231.00	0.00	P&S/BLR30	P&S-BLR30
90,300.00	19,991,231.00	0.00	AMM/ANZ25	AMM-VNT25
90,300.00	19,991,231.00	0.01	SIT/ENG175	SIT-ENG175
90,300.00	19,991,231.00	0.01	SIT/ENG176	SIT-ENG176
90,300.00	19,991,231.00	0.01	SIT/ENG177	SIT-ENG177
90,300.00	19,991,231.00	0.01	AMM/PMP18	AMM-PMP18
90,300.00	19,991,231.00	0.03	ANI/STR68	ANI-FLR373
90,300.00	19,991,231.00	0.04	AMM/HTR27	AMM-HTR27
90,300.00	19,991,231.00	0.09	ACR/FLR57	ACR-FLR57
90,300.00	19,991,231.00	0.09	ACR/PRC58	ACR-FLR58
90,300.00	19,991,231.00	0.12	AMM/HR40-	AMM-HT401
90,300.00	19,991,231.00	0.12	AMM/HR40-	AMM-HT402
90,300.00	19,991,231.00	0.21	AMM/CBF26	AMM-CBF26
90,300.00	19,991,231.00	0.21	AMM/CBFL3	AMM-CBFL3
90,300.00	19,991,231.00	0.22	ACR/HTR56	ACR-HTR56
90,300.00	19,991,231.00	0.24	ANI/FLR296	ANI-FLR296
90,300.00	19,991,231.00	0.42	AMM/ANZ25	AMM-VNT25
90,300.00	19,991,231.00	1.11	ANI/DHNPR	ANI-FLR373
90,300.00	19,991,231.00	1.37	ANI/RXPRC	ANI-VNT78
90,300.00	19,991,231.00	2.21	AMM/CBFL2	AMM-VNT23
90,300.00	19,991,231.00	3.30	P&S/BLR31	P&S-BLR31
90,300.00	19,991,231.00	4.17	ACR/INC60	ACR-INC60
90,300.00	19,991,231.00	11.30	AMM/REF26	AMM-STK26
90,300.00	19,991,231.00	14.85	AMM/STR18	AMM-STR18
90,300.00	19,991,231.00	16.66	ACR/TOU51	ACR-TOU51
90,300.00	19,991,231.00	25.13	ANI/PRC373	ANI-FLR373
90,300.00	19,991,231.00	25.82	ANI/FLR374	ANI-FLR374
90,300.00	19,991,231.00	81.63	P&S/BLR139	P&S-BLR139
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90,300.00	20,001,231.00	0.00	ANI/RXPRC	ANI-VNT78
90,300.00	20,001,231.00	0.00	ANI/STR68	ANI-ABS62
90,300.00	20,001,231.00	0.00	ANI/STR68	ANI-CDR68
90,300.00	20,001,231.00	0.00	ANI/TF2871	ANI-FLR373
90,300.00	20,001,231.00	0.00	ANI/TF2872	ANI-FLR373
90,300.00	20,001,231.00	0.00	ANI/TFX66	ANI-FLR373
90,300.00	20,001,231.00	0.00	ANI/TFX89B	ANI-FLR373
90,300.00	20,001,231.00	0.00	ANI/TFX94	ANI-FLR373
90,300.00	20,001,231.00	0.00	P&S/BLR28	P&S-BLR28
90,300.00	20,001,231.00	0.00	P&S/BLR30	P&S-BLR30
90,300.00	20,001,231.00	0.00	AMM/ANZ25	AMM-VNT25
90,300.00	20,001,231.00	0.01	SIT/ENG175	SIT-ENG175

Wednesday, November 07, 2001 ANSWER

ACH CONTAMCODE	ACH CHANGE DATE	ACH ACTUAL	FC FIN	PT EPN
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90,300.00	20,001,231.00	0.04	AMM/HTR27	AMM-HTR27
90,300.00	20,001,231.00	0.09	ACR/FLR57	ACR-FLR57
90,300.00	20,001,231.00	0.09	ACR/PRC58	ACR-FLR58
90,300.00	20,001,231.00	0.11	AMM/HR40-	AMM-HT401
90,300.00	20,001,231.00	0.11	AMM/HR40-	AMM-HT402
90,300.00	20,001,231.00	0.21	ACR/HTR56	ACR-HTR56
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90,300.00	20,001,231.00	3.38	AMM/CBF26	AMM-CBF26
90,300.00	20,001,231.00	3.38	AMM/CBFL2	AMM-VNT23
90,300.00	20,001,231.00	3.38	AMM/CBFL3	AMM-CBFL3
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90,300.00	20,001,231.00	1,082.00	AMM/PVENT	AMM-VNT23

Wednesday, November 07, 2001 ANSWER

ACH CONTAMCODE	ACH CHANGE DATE	ACH ACTUAL	FC FIN	PT EPN
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90,300.00	19,971,231.00	0.00	ANI/PRC78	ANI-VNT78
90,300.00	19,971,231.00	0.00	ANI/PRC80	ANI-FLR373
90,300.00	19,971,231.00	0.00	ANI/RFM77	ANI-RFM77
90,300.00	19,971,231.00	0.00	ANI/STR68	ANI-ABS62
90,300.00	19,971,231.00	0.00	ANI/STR68	ANI-CDR68
90,300.00	19,971,231.00	0.00	ANI/TF2871	ANI-FLR373
90,300.00	19,971,231.00	0.00	ANI/TF2872	ANI-FLR373
90,300.00	19,971,231.00	0.00	ANI/TFX66	ANI-FLR373
90,300.00	19,971,231.00	0.00	ANI/TFX89B	ANI-FLR373
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90,300.00	19,971,231.00	0.00	P&S/BLR28	P&S-BLR28
90,300.00	19,971,231.00	0.00	P&S/BLR30	P&S-BLR30
90,300.00	19,971,231.00	0.00	AMM/ANZ25	AMM-VNT25
90,300.00	19,971,231.00	0.01	SIT/ENG175	SIT-ENG175
90,300.00	19,971,231.00	0.01	SIT/ENG176	SIT-ENG176
90,300.00	19,971,231.00	0.01	SIT/ENG177	SIT-ENG177
90,300.00	19,971,231.00	0.01	ACR/FPRCB	ACR-FPRCB
90,300.00	19,971,231.00	0.01	AMM/PMP18	AMM-PMP18
90,300.00	19,971,231.00	0.02	AMM/HTR27	AMM-HTR27
90,300.00	19,971,231.00	0.03	ANI/STR68	ANI-FLR373
90,300.00	19,971,231.00	0.04	AMM/CBFL2	AMM-VNT23
90,300.00	19,971,231.00	0.07	ANI/INC79	ANI-STK79
90,300.00	19,971,231.00	0.09	ACR/FLR57	ACR-FLR57
90,300.00	19,971,231.00	0.09	ACR/PRC58	ACR-FLR58
90,300.00	19,971,231.00	0.10	ANI/DHNPR	ANI-FLR373
90,300.00	19,971,231.00	0.10	ANI/RXPRC	ANI-VNT78
90,300.00	19,971,231.00	0.11	AMM/HR40-	AMM-HT401
90,300.00	19,971,231.00	0.11	AMM/HR40-	AMM-HT402
90,300.00	19,971,231.00	0.20	ACR/HTR56	ACR-HTR56
90,300.00	19,971,231.00	0.21	AMM/CBF26	AMM-CBF26
90,300.00	19,971,231.00	0.21	AMM/CBFL3	AMM-CBFL3
90,300.00	19,971,231.00	0.24	ANI/FLR296	ANI-FLR296
90,300.00	19,971,231.00	0.42	AMM/ANZ25	AMM-VNT25
90,300.00	19,971,231.00	0.44	P&S/BLR31	P&S-BLR31
90,300.00	19,971,231.00	4.59	ANI/PRC373	ANI-FLR373
90,300.00	19,971,231.00	9.67	AMM/REF26	AMM-STK26
90,300.00	19,971,231.00	18.45	AMM/STR18	AMM-STR18
90,300.00	19,971,231.00	26.62	ACR/INC60	ACR-INC60
90,300.00	19,971,231.00	37.16	P&S/BLR139	P&S-BLR139
90,300.00	19,971,231.00	66.12	ACR/TOU51	ACR-TOU51
90,300.00	19,971,231.00	111.42	AMM/PVENT	AMM-VNT23
90,300.00	19,981,231.00	0.00	ACR/ABS51	ACR-ABS51
90,300.00	19,981,231.00	0.00	ACR/ABS51	ACR-ABT51
90,300.00	19,981,231.00	0.00	ACR/ABS51	ACR-TOU51
90,300.00	19,981,231.00	0.00	ACR/ABS51	ACR-VNT51
90,300.00	19,981,231.00	0.00	ACR/FRRHC	ACR-FLR57
90,300.00	19,981,231.00	0.00	ACR/LRC15	ACR-HTR56
90,300.00	19,981,231.00	0.00	ACR/PRC57	ACR-FLR57
90,300.00	19,981,231.00	0.00	ACR/TFX24	ACR-FLR58
90,300.00	19,981,231.00	0.00	ACR/TFX24	ACR-FLR58
90,300.00	19,981,231.00	0.00	ACR/TFX27	ACR-FLR58
90,300.00	19,981,231.00	0.00	ACR/TFX27	ACR-FLR58
90,300.00	19,981,231.00	0.00	AMM/HR40-	AMM-HT402
90,300.00	19,981,231.00	0.00	AMM/LBA32	AMM-FLR32
90,300.00	19,981,231.00	0.00	AMM/REF26	AMM-CBF26
90,300.00	19,981,231.00	0.00	AMM/REF26	AMM-VNT23
90,300.00	19,981,231.00	0.00	ANI/CDR82	ANI-FLR373
90,300.00	19,981,231.00	0.00	ANI/DCN60	ANI-FLR373
90,300.00	19,981,231.00	0.00	ANI/DHNPR	ANI-STK79
90,300.00	19,981,231.00	0.00	ANI/FDHN	ANI-FDHN
90,300.00	19,981,231.00	0.00	ANI/FLR374	ANI-FLR374
90,300.00	19,981,231.00	0.00	ANI/PRC78	ANI-VNT78
90,300.00	19,981,231.00	0.00	ANI/PRC80	ANI-FLR373

Wednesday, November 07, 2001 ANSWER

ACH_CONTAMCODE	ACH_CHANGE_DATE	ACH_ACTUAL	FC_FIN	PT_EPN
90,300.00	19,981,231.00	0.00	ANI/RFM77	ANI-RFM77
90,300.00	19,981,231.00	0.00	ANI/STR68	ANI-ABS62
90,300.00	19,981,231.00	0.00	ANI/STR68	ANI-CDR68
90,300.00	19,981,231.00	0.00	ANI/TF2871	ANI-FLR373
90,300.00	19,981,231.00	0.00	ANI/TF2872	ANI-FLR373
90,300.00	19,981,231.00	0.00	ANI/TFX66	ANI-FLR373
90,300.00	19,981,231.00	0.00	ANI/TFX89B	ANI-FLR373
90,300.00	19,981,231.00	0.00	ANI/TFX94	ANI-FLR373
90,300.00	19,981,231.00	0.00	P&S/BLR28	P&S-BLR28
90,300.00	19,981,231.00	0.00	P&S/BLR30	P&S-BLR30
90,300.00	19,981,231.00	0.00	AMM/ANZ25	AMM-VNT25
90,300.00	19,981,231.00	0.01	SIT/ENG175	SIT-ENG175
90,300.00	19,981,231.00	0.01	SIT/ENG176	SIT-ENG176
90,300.00	19,981,231.00	0.01	SIT/ENG177	SIT-ENG177
90,300.00	19,981,231.00	0.01	ACR/FPRCB	ACR-FPRCB
90,300.00	19,981,231.00	0.01	AMM/PMP18	AMM-PMP18
90,300.00	19,981,231.00	0.01	AMM/HTR27	AMM-HTR27
90,300.00	19,981,231.00	0.02	ANI/INC79	ANI-STK79
90,300.00	19,981,231.00	0.03	ANI/STR68	ANI-FLR373
90,300.00	19,981,231.00	0.03	AMM/HR40-	AMM-HT401
90,300.00	19,981,231.00	0.03	AMM/HR40-	AMM-HT402
90,300.00	19,981,231.00	0.09	ACR/FLR57	ACR-FLR57
90,300.00	19,981,231.00	0.09	ACR/PRC58	ACR-FLR58
90,300.00	19,981,231.00	0.21	AMM/CBF26	AMM-CBF26
90,300.00	19,981,231.00	0.21	AMM/CBFL3	AMM-CBFL3
90,300.00	19,981,231.00	0.23	ACR/HTR56	ACR-HTR56
90,300.00	19,981,231.00	0.23	ANI/FLR296	ANI-FLR296
90,300.00	19,981,231.00	0.42	AMM/ANZ25	AMM-VNT25
90,300.00	19,981,231.00	0.84	ANI/DHNPR	ANI-FLR373
90,300.00	19,981,231.00	1.03	ANI/RXPRC	ANI-VNT78
90,300.00	19,981,231.00	2.20	P&S/BLR31	P&S-BLR31
90,300.00	19,981,231.00	2.21	AMM/CBFL2	AMM-VNT23
90,300.00	19,981,231.00	3.84	ACR/INC60	ACR-INC60
90,300.00	19,981,231.00	11.31	ANI/PRC373	ANI-FLR373
90,300.00	19,981,231.00	11.89	AMM/REF26	AMM-STK26
90,300.00	19,981,231.00	16.82	ACR/TOU51	ACR-TOU51
90,300.00	19,981,231.00	22.29	AMM/STR18	AMM-STR18
90,300.00	19,981,231.00	83.91	P&S/BLR139	P&S-BLR139
90,300.00	19,981,231.00	505.72	AMM/PVENT	AMM-VNT23
90,300.00	19,991,231.00	0.00	ACR/ABS51	ACR-ABS51
90,300.00	19,991,231.00	0.00	ACR/ABS51	ACR-ABT51
90,300.00	19,991,231.00	0.00	ACR/ABS51	ACR-TOU51
90,300.00	19,991,231.00	0.00	ACR/ABS51	ACR-VNT51
90,300.00	19,991,231.00	0.00	ACR/FPRCB	ACR-FPRCB
90,300.00	19,991,231.00	0.00	ACR/FRRHC	ACR-FLR57
90,300.00	19,991,231.00	0.00	ACR/LRC15	ACR-HTR56
90,300.00	19,991,231.00	0.00	ACR/PRC57	ACR-FLR57
90,300.00	19,991,231.00	0.00	ACR/TFX24	ACR-FLR58
90,300.00	19,991,231.00	0.00	ACR/TFX24	ACR-FLR58
90,300.00	19,991,231.00	0.00	ACR/TFX27	ACR-FLR58
90,300.00	19,991,231.00	0.00	ACR/TFX27	ACR-FLR58
90,300.00	19,991,231.00	0.00	AMM/HR40-	AMM-HT402
90,300.00	19,991,231.00	0.00	AMM/LBA32	AMM-FLR32
90,300.00	19,991,231.00	0.00	AMM/REF26	AMM-CBF26
90,300.00	19,991,231.00	0.00	AMM/REF26	AMM-VNT23
90,300.00	19,991,231.00	0.00	ANI/CDR82	ANI-FLR373
90,300.00	19,991,231.00	0.00	ANI/DCN60	ANI-FLR373
90,300.00	19,991,231.00	0.00	ANI/DHNPR	ANI-STK79
90,300.00	19,991,231.00	0.00	ANI/FDHN	ANI-FDHN
90,300.00	19,991,231.00	0.00	ANI/INC79	ANI-STK79
90,300.00	19,991,231.00	0.00	ANI/PRC78	ANI-VNT78
90,300.00	19,991,231.00	0.00	ANI/PRC80	ANI-FLR373
90,300.00	19,991,231.00	0.00	ANI/RFM77	ANI-RFM77
90,300.00	19,991,231.00	0.00	ANI/STR68	ANI-ABS62
90,300.00	19,991,231.00	0.00	ANI/STR68	ANI-CDR68
90,300.00	19,991,231.00	0.00	ANI/TF2871	ANI-FLR373
90,300.00	19,991,231.00	0.00	ANI/TF2872	ANI-FLR373
90,300.00	19,991,231.00	0.00	ANI/TFX66	ANI-FLR373

Table 4. Flare Fac

Waste Stream	Destruction/Removal Efficiency (DRE)
VOC	98 percent (generic) 99 percent for compounds containing no more than 3 carbons that contain no elements other than carbon and hydrogen in addition to the following compounds: methanol, ethanol, propanol, ethylene oxide and propylene oxide
H_2S	98 percent
NH_3	case by case
CO	case by case
Air Contaminants	**Emission Factors**
thermal NO_x	steam-assist: high Btu 0.0485 lb/MMBtu low Btu 0.068 lb/MMBtu other: high Btu 0.138 lb/MMBtu low Btu 0.0641 lb/MMBtu
fuel NO_x	NO_x is 0.5 wt percent of inlet NH_3, other fuels case by case
CO	steam-assist: high Btu 0.3503 lb/MMBtu low Btu 0.3465 lb/MMBtu other: high Btu 0.2755 lb/MMBtu low Btu 0.5496 lb/MMBtu
PM	none, required to be smokeless
SO_2	100 percent S in fuel to SO_2

*The only exeption ot this is if inorganics might be emitted from the flare. In the case of landfills, the AP-42 PM factor may be used. In other cases, the emissions should be based on the composition of the waste stream routed to the flare.

EI info Need for NH_3 – 1999 RMH 4/18 20

Startup Heater = 11* # of startups = _____

guard bed reduction time = 0 . . .

(11* times s/u htr was used, 8 total s/u's – some took more than 1 try

Process Vent – CO – 75 tons x 8 s/u's = 600 Tons
CH_4 – 4 tons x " = 32 x .02 = 6
NH_3 – 0 from s/u's Lbs/hr

Total hrs of startup & shutdown = 320 hours

Refrig Flare – estimated tons vented during startup & shutdown 32 tons

Ammonia Process Purge Gas – how much? 100 ppm NH_3.

– how many hours 6500 hrs (up through 11/15,

NH_3 Emission – Process Vent EPN 23
Year 2000 RHH 2/11/00

	DATE	Vent time (Hrs)		Material	Amount (Tons)	
①	1/10/00 @ 19:00 – 1/11/00 @ 10:00	115	4T/hr	Methane	0.04	Basis – gas bu in fla
				CO	60	
				CO_2	200	
②	1/20/00 @ 23:00 – 1/21/00 @ 19:00	20	4T/hr	Methane	0.07	
				CO	83	
				CO_2	172	
③	2/16/00 @ 19:00 – 2/18/00 @ 22:00	51	5T/hr	Methane	0.18	
				CO	250	
				CO_2	600	
④	3/30/00 @ 10:00 – 3/31/00 @ 23:00	37		Methane	0.17	
				CO	122	
				CO_2	295	
⑤ s/d	4/18/00 @ 13:00 – 4/19/00 @ 06:00	17	6.5T/hr	Methane	0.02	
				CO	110	
				CO_2	270	
⑥ s/u	4/29/00 @ 02:00 – 5/1/00 @ 01:00	47	5T/hr	Methane	0.17	
				CO	228	
				CO_2	590	
⑦	6/17/00 @ 05:00 – 6/17/00 @ 21:00	16		Methane	0.08	
				CO	129	
				CO_2	254	
⑧ s/d s/u	8/14/00 @ 15:00 – 8/15/00 @ 16:00	25		Methane	0.10	
				CO	100	
				CO_2	250	

2000 Totals. Methane – 0.83 tons, CO – 1082 tons, CO_2 – 2631 t
avg = 5T/hr

E.I. DU PONT BEAUMONT WORKS

USER DEFINED SOURCE EMISSIONS CALCULATION PARAMETERS AND RESULTS

SOURCE ID: AMM/CBF23a PROCESS (PILOT) VENT FL.
ESTIMATION DATES: 1/1/1999 - 12/31/1999

EMISSION SOURCE DATA:

UNIT: AMMONIA

PRODUCT: AMM-COMB_23 INDUSTRIAL FLARE

POTENTIAL THROUGHPUT: 0.00

UTILIZED THROUGHPUT: NULL

POTENTIAL OPERATING HOURS: 7,594.00

UTILIZED OPERATING HOURS: NULL

COLUMN1 : TOT. CONTAM. :0.58 LB/UNIT

COLUMN2 : FUEL QUANTITY :11,969.68 FUEL/UT USED

COLUMN3 : OZ FACTOR :1.00 NONE

COLUMN4: NULL

COLUMN5: NULL

COLUMN6: NULL

COLUMN7: NULL

STREAM AND STREAM COMPOSITION DATA:

LIQUID MOLECULAR WEIGHT: NULL

VAPOR MOLECULAR WEIGHT: 0.00

DENSITY: 0.00 lbs/gal

HIGH HEAT VALUE: 0.00 HHV Btu/scf

LOW HEAT VALUE: 0.00 LHV Btu/scf

RVP: 0.00 psia

TRUE VAPOR PRESSURE: NULL

STANDARD TEMP: NULL

COMPOUND	ESTIMATION METHOD	EMISSIONS (lbs/hr)	EMISSIONS (tons/yr)	EMISSIONS (lbs/est)	EMISSIONS (tons/est)	FORMULA OR COMPOSITION USED
TOTAL EMISSIONS		0.91	3.9904	6,918.4749	3.4592	ef * column1 * column2 / operating_hours
CO	64.01 WT% v of TOTALS	0.58	2.5544	4,428.7790	2.2144	composition = AMM-COMB_23
NOX	11.76 WT% v of TOTALS	0.11	0.4695	813.9378	0.4070	composition = AMM-COMB_23
VOC-U	24.22 WT% v of TOTALS	0.22	0.9665	1,675.7585	0.8379	composition = AMM-COMB_23

Comments OPERATING HOURS SAME AS DESULURIZERS REGENERATION HOURS
FUEL USED = 23.3*60*HRS/1000

tvp_std = STANDARD TRUE VAPOR PRESSURE; tempf_std = STANDARD TEMPERATURE; tvp_reid = REID TRUE VAPOR PRESSURE;
sulfur_content_ppm = SULFUR CONTENT IN PPM; mw_tank_vapor = VAPOR MOLECULAR WEIGHT;
mw = LIQUID MOLECULAR WEIGHT; low_heat_content = LOW HEAT CONTENT .

E.I. DU PONT BEAUMONT WORKS

COMBUSTION SOURCES EMISSIONS CALCULATION PARAMETERS AND RESULTS

SOURCE ID: AMM/CBFL23 PROCESS VENT FLARE
ESTIMATION DATES: 1/1/2000 - 12/31/2000

EMISSION SOURCE DATA:

UNIT: AMMONIA
FUEL TYPE COMBUSTED: Flare Natural Gas
DESIGN RATE: 0.00 mmBTU/hr

FUEL USAGE: 12.30 mmscf/est
FIRING RATE: 1.40 mmBTU/hr
LOAD REDUCTION FACTOR: 0.00

LIQUID FUEL USED: 0.00 Gallons
POTENTIAL HORSEPOWER: 0.00 HP
UTILIZED HORSEPOWER: 0.00 HP

POTENTIAL OPERATING HRS: 7,725.00
UTILIZED OPERATING HRS: 8,784.00

STREAM AND STREAM COMPOSITION DATA:

LIQUID MOLECULAR WEIGHT: 16.00
VAPOR MOLECULAR WEIGHT: 16.00
DENSITY: 0.00 lbs/gal

HIGH HEAT VALUE: 1,000.00 HHV Btu/scf
LOW HEAT VALUE: 1,000.00 LHV Btu/scf
RVP: 0.00 psia

TRUE VAPOR PRESSURE: NULL
STANDARD TEMP: NULL

COMPOUND	ESTIMATION METHOD	EMISSIONS (lbs/hr)	EMISSIONS (tons/yr)	EMISSIONS (lbs/est)	EMISSIONS (tons/est)	FORMULA OR COMPOSITION USED
CO	0.5496 10^-6 lb/mmBTU	0.8749	3.8322	6,758.7608	3.3794	ef * cvt_fuelusage*1000/ operating_hours * heat_content/1000
NOX	0.0641 10^-6 lb/mmBTU	0.1020	0.4469	788.2762	0.3941	ef * cvt_fuelusage*1000/ operating_hours * heat_content/1000
SULFUR DIOXIDE (SO2)	57.2088 lb/mmscf	0.0911	0.3989	703.5309	0.3518	ef * cvt_fuelusage/ operating_hours
VOC-U	26.9427 lb/mmscf	0.0429	0.1879	331.3306	0.1657	ef * cvt_fuelusage/operating_hours

Comments Pilot gas flow for 2 pilots will always be 69.6 scfh for fuel usage

For 1999, flare began operation ~ first of February.

current_firing_rate = CURRENT FIRING RATE; cvt_fuelusage = CONVERTED FUEL USAGE; designrate = DESIGN RATE;
liq_fuel_used = LIQUID FUEL USED; noxlrf = NOX LOAD REDUCTION FACTOR; operating_hours = POTENTIAL OPERATING HOURS;
potential_horsepower = POTENTIALHORSE POWER .

tvp_std = STANDARD TRUE VAPOR PRESSURE; tempf_std = STANDARD TEMPERATURE; tvp_reid = REID TRUE VAPOR PRESSURE;
sulfur_content_ppm = SULFUR CONTENT IN PPM; mw_tank_vapor = VAPOR MOLECULAR WEIGHT;
mw = LIQUID MOLECULAR WEIGHT; low_heat_content = LOW HEAT CONTENT .

Source Name	CO2 Stripper
FIN:	AMM/STR182
EPN:	AMM-STR182

Year	Ammonia Produced Mtons	CO2 Produced, TPY	CO2 Sold, TPY	CO2 Emitted	CO emitted
1998	504.38	605,260	308,093	297,167	22
1997	459.60	551,520	305,399	246,121	18
			Average	271644	20

The amount of CO emitted is based on the amount of CO2 emitted. This is calculated by substracting the amount of CO2 sold from the total amount produced. The amount of CO2 produced is equal to 1.2 times the total amount of ammonia produced. The plant chemical reports showing the total amount of ammonia produced are attached. Based on an analysis of the CO2 stream, the VOC and CO content of the CO2 emitted is 75 ppmw.

DuPont Chemical Solutions Enterprise
P.O. Box 3269
Beaumont, TX 77704-3269

DuPont Chemical Solutions Enterprise

August 15, 2003

CERTIFIED MAIL (7002 3150 0002 0920 5604)
RETURN RECEIPT REQUESTED

Karen Hill
Texas Commission on Environmental Quality
Office of Air Quality
Mail Code 162
P.O. Box 13087
Austin, Texas 78711-3087

Ref.: Application for the Generation of Discrete Emission Reduction Credits for the year 2002-2003

Dear Ms. Hill:

Please find attached form DEC-1 requesting the generation of Discrete Emission Reduction Credits (DERCs) for the period of 05/27/2002 to 05/26/2003. These DERCs are generated due to the shutdown of the ammonia unit at the Du Pont Beaumont Works (Du Pont) facility located in Jefferson County, Texas. The ammonia unit was shutdown on May 26, 2001. Du Pont has already applied for the generation of DERCs for the period August 26, 2001 to August 26, 2002. This was done in 2 parts. The first set of DERCs were generated for the period 05/26/2001 to 08/31/2001 and the second set for the period 09/01/2001 to 05/26/2002.

Since the DERCs are generated due to a shutdown, there is no change in DERCs generation strategy. Supporting documentation for the basis of generation of these DERCs has already been submitted with the earlier applications.

The total number of CO DERCs to be generated during the period under consideration is 863 tons.

Please review the enclosed package and call me at (409) 727-9528 or Conrad Reynolds at (409) 727-9292 if you have any comments or questions.

Sincerely,

W. Dennis Isaacs
Environmental Team Leader

WDI/JCR/sc
Enclosure

Source Name	Process Vent Flare
FIN	AMM/CBFL23
EPN	AMM-VNT23

Calculated

.5496

Year	Fuel Consumption	Fuel Consumption	Emission Factor	Emissions	Emissions
	mmscf/yr	mmbtu/yr	lbs/mmbtu	lbs/yr	TPY
2000	12.30	12,546.00	0.55	6,895.28	3.45
1999	11.97	12,208.38	0.55	6,709.73	3.35
Average	12.13	12,377.19	0.55	6,802.50	3 3.4

Numbers Reported

2000				6758.76	3
1999				6918.47	3
				Average	3

Flowrate calculation basis
23.3 scf/min design basis

Two separate methods were used to calculate the emissions from this point in the two years under consideration. For the 2000 EI, a CO emission factor of 0.5496 lb/MMBtu from Table 4: Flare factors of the TNRCC BACT Fuidence Document for flares was used.

In the 1999 EI, a total contaminant lbs/units of fuel consumption was calculated based on the emission rates of individual species (NMOC, NOx, CO). This factor was calculated to be 0.58 lbs/Unit of Fuel Consumed. The amount of CO produced was then calculated as a percentage of the total contaminant emissions based on the CO factor. The factors were from Section 11.5 of AP-42 4D dated 09/91.

Source Name	Process Vent
FIN	AMM/PVENT
EPN	AMM-VNT23

Year	Emissions, TPY
2000	1080 1082
1999	600
Average	840 841

Source Name	CO2 Stripper
FIN:	AMM/STR182
EPN:	AMM-STR182

Year	Ammonia Produced Mtons	CO2 Produced, TPY	CO2 Sold, TPY	CO2 Emitted	CO emitted
1998	504.38	605,260	308,093	297,167	22
1997	459.60	551,520	305,399	246,121	18
			Average	271644	20

22.25
18.45
20.37

The amount of CO emitted is based on the amount of CO2 emitted. This is calculated by substracting the amount of CO2 sold from the total amount produced. The amount of CO2 produced is equal to 1.2 times the total amount of ammonia produced. The plant chemical reports showing the total amount of ammonia produced are attached. Based on an analysis of the CO2 stream, the VOC and CO content of the CO2 emitted is 75 ppmw.