Robert J. Huston, *Chairman* R. B. "Ralph" Marquez, *Commissioner* John M. Baker, *Commissioner* Jeffrey A. Saitas, *Executive Director* 

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## **TEXAS NATURAL RESOURCE CONSERVATION COMMISSION**

Protecting Texas by Reducing and Preventing Pollution

April 27, 2001

Mr. Richard Haar Senior Environmental Engineer DuPont Chemical Solutions Enterprise P.O. Box 3269 Beaumont, Texas 77704-3269

Re: Generation of Discrete Emission Reduction Credits DuPont Beaumont Site Beaumont, Jefferson County Account ID No. JE-0033-C

Dear Mr. Haar:

This will acknowledge receipt of your letter dated March 27, 2001 regarding the generation of Discrete Emission Reduction Credits (DERCs) for calendar year 2000. Generation of credit by this reduction strategy does not meet the requirements of 30 Texas Administrative Code (TAC) Chapter101, Subchapter H, Division 4, *Discrete Emission Credit Banking and Trading*, for the following reason:

The DERCs may not be generated by any strategy that curtails an activity at a source.

Please note that, if made permanently enforceable through a permit alteration, the reductions associated with this strategy may qualify as emission reduction credits under 30 TAC Chapter 101, Subchapter H, Division 1, *Emission Credit Banking and Trading*.

Thank you for your cooperation in this matter. If you have questions concerning the review or this notice, call Mr. Cory Chism at (512) 239-0539 or write to him at the Texas Natural Resource Conservation Commission, Office of Permitting, Remediation, and Registration, Air Permits Division (MC-162), P.O. Box 13087, Austin. Texas 78711-3087. If you need further assistance regarding the banking program or future transactions, please call me at (512) 239-1091.

Sincerely.

MR.\_

Matthew R. Baker Emission Credit Trading Coordinator Air Permits Division

MB/RC/jr

cc: Mr. Arturo Blanco, Air Program Manager, Region 12 - Houston

P.O. Box 13087 • Austin, Texas 78711-3087 • 512/239-1000 • Internet address: www.tnrcc.state.tx.us

# RECORD OF TELEPHONE CALL



DATE: **April 23, 2001** TIME: **10:00am** 

Staff Contact: Cory Chism
Phone: 239-0539
Division: Air Permits
City: Austin

Company Contact: Rich Haar Phone: 409/727-9128 Company: DuPont Chemical City: Beaumont

SUBJECT: Generation of DERCs at the Beaumont Site

#### SUMMARY:

Mr. Haar phoned in response to a deficiency letter he received from this office, sent on April 11, 2001. Mr. Haar wanted to inquire as to which equation from Chapter 101, Subchapter H, Division 4 he should use for the strategy implemented at the site since the strategic emission rate was actually higher than the baseline emission rate. He also indicated that the reduction strategy they had made application for was due to a decrease in the throughput of natural gas, therefore, they had decreased the strategic activity level below the baseline activity level. I informed Mr. Haar that this reduction strategy would be considered a curtailment in activity under the DERC rules and would not be permissible. I also discussed the option of making the reduction strategy permanently enforceable by altering the permit for the unit and then applying for Emission Reduction Credits. Mr Haar agreed to denial of the DERC application and indicated that they might reapply under the ERC program.

RCC

Robert J. Huston, *Chairman* R. B. "Ralph" Marquez, *Commissioner* John M. Baker, *Commissioner* Jeffrey A. Saitas, *Executive Director* 



**TEXAS NATURAL RESOURCE CONSERVATION COMMISSION** 

Protecting Texas by Reducing and Preventing Pollution

April 11, 2001

Mr. Richard Haar Senior Environmental Engineer DuPont Chemical Solutions Enterprise P.O. Box 3269 Beaumont, Texas 77704-3269

4/26/01

Re: Review of Discrete Emission Reduction Credits DuPont Beaumont Site Beaumont, Jefferson County Account ID No. JE-0033-C

Dear Mr. Haar:

This will acknowledge receipt of your letter dated March 27, 2001 regarding the generation of Discrete Emission Reduction Credits (DERCs). We have determined that the information contained in your registration is incomplete and additional information is needed to enable us to continue with our review. Please furnish the information indicated as follows:

- 1. Please submit Form DEC-1, Notice of Generation of DERCs with the appropriate signature.
- 2. Provide baseline emissions information, including the baseline activity and the baseline emission rate, for any two consecutive calendar years which precede the reduction strategy including or subsequent to the most recent Emissions Inventory (EI) year used in State Implementation Plan (SIP) determination. For Beaumont/Port Arthur the most recent EI year used in SIP determinations was 1993.
- 3. Substantiate with back-up documentation the baseline emission rate, baseline activity rate, strategic emission rate, and strategic activity rate.
- 4. EI data proving the generating unit's annual emissions were reported or represented in the most recent EI used for SIP determinations and EI data for the two consecutive calendar year baseline period.
- 5. Please give a complete description of how the thermal oxidizer is used in your process, the process control adjustments made to produce the claimed reduction, and identify any federal or state emission requirements applicable to this unit.
- 6. Please provide the actual calculations performed in determining the amount of credit generated from this reduction strategy.

P.O. Box 13087 • Austin, Texas 78711-3087 • 512/239-1000 • Internet address: www.tnrcc.state.tx.us printed on recycled paper using soy-based ink

Mr. Richard Haar Page 2 April 11, 2001

Re: Review of Discrete Emission Reduction Credits

After receipt of all the additional information, we will continue the review of your request. If the information furnished in response to this notice results in the need for further clarification or additional information, we will communicate that need as soon as possible.

Failure to submit all the requested information within 15 days of the date of this letter will result in the voidance of your application. Once voided, submittal of a new Form DEC-1 and all the information requested above will be required.

Thank you for your cooperation in this matter. If you have questions concerning the review or this notice, please contact me at (512) 239-0539 or write to me at Texas Natural Resource Conservation Commission, Office of Permitting, Air Permits Division (MC-162), P.O. Box 13087, Austin, Texas 7811-3087. If you need further assistance regarding the banking program or future transactions, please call Mr. Matthew R. Baker at (512) 239-1091.

Sincerely,

on Cory Chism

Emissions Banking and Trading Team Air Permits Division Texas Natural Resource Conservation Commission

RC/bw

bcc: Mr. Marion Everhart, Air Program Manager, Region 10, Beaumont

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



DuPont Chemical Solutions Enterprise

March 27, 2001

Certified Mail (Z 186 004 334) Return Receipt Requested

Mr. Matthew Baker Texas Natural Resource Conservation Commission Core Section, New Source Review Permits Office of Air Quality, MC-162 P.O. Box 13087 Austin, TX 78711-3087

DuPont Beaumont Works Beaumont, Jefferson County, TX Account I.D. No. JE-0033-C

Re: Application for Year 2000 Discrete Emission Reduction Credits (DERC's)

Dear Mr. Baker:

In response to 30 TAC 101.29, DuPont Beaumont Site submits documentation for Discrete Emission Reduction Credits (DERC's) generated in calendar year 2000 ending on December 31, 2000 and encompassing the months of November and December, 2000. Enclosed is documentation requesting 22 tons of NOx DERC's.

The accumulation of DERC's began November 4, 2000, when process control adjustments were implemented for the Acrylonitrile Thermal Oxidizer (EPN ACR-TOU51) which resulted in a net 30 pph NOx emission reduction during Thermal Oxidizer process operation.

If you have any questions, please call me at (409) 727-9128 or Glenn Harrison at (409) 727-9480.

Sincerely,

Richard H Haar

Richard H. Haar Senior Environmental Engineer

RHH/sn Enclosures

Recl APR 0 3 2001

#### Overview

#### Creation of Discrete Emission Reduction Credits for the DuPont Beaumont Site, Beaumont Texas:

DuPont Beaumont Site, Beaumont, TX requests to be credited with Discrete Emission Reduction Credits (DERC's) that were created when process control changes were implemented for the Acrylonitrile Plant Thermal Oxidizer (EPN ACR-TOU51).

On November 4, 2000 DuPont implemented process control adjustments for the Thermal Oxidizer which resulted in a 30 pph reduction of NOx emissions. The reduction in NOx emissions is quantified using the TOU's TNRCC approved CEMS analyzers and their historical data. Historical CEMS data for October 1998 through October 2000 demonstrates a calculated mean baseline emission rate of 100 pph NOx averaged hourly. CEMS data for November and December 2000 demonstrate a calculated mean emission rate of 70 pph NOx averaged hourly. The result is a 22 ton reduction in Thermal Oxidizer NOx stack emissions for November and December, 2000 versus a 2 year historical NOx emissions baseline comparison. (See supporting data and calculations.)

The NOx reduction was achieved by process control changes for the waste gas distribution to the plenum rings, intermediate zone primary controller, and steam purge program for the off gas Preheater. The process control changes are the result of a comprehensive study to reduce Thermal Oxidizer NOx emissions while maintaining complete off gas combustion and destruction.

The application, along with the necessary documentation and calculations is enclosed. If you would like additional information, please call me at (409) 727-9480, or Rich Haar at (409) 727-9128.

Glenn E. Harrison ACRN Production/Project Manager

#### ACRN Thermal Oxidizer NOx DERCS

#### (EPN ACR-TOU51)

#### Summary of Calculations

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Base line NOx (2 year average)

10/98 to 10/99 106.942 pph (Mean) Attach. A

10/99 t0 10/00

93.1932 pph (Mean) Attach. B

Avg. = 100.07 pph

Post change NOx (2 months)

11/00 and 12/00 69.8763 pph (Mean) Attach. C

Difference

100 pph NOx -70 pph NOx 30 pph NOx

30 lbs./hr. NOx X 61 days X 24 hours/day = 43920 pounds or

#### 21.96 tons NOx DERCS

## Attachment A

ACRN Thermal Oxidizer Nox Values: October 1998 thru October 1999

## Descriptive Statistics



95% Confidence Interval for Mu



#### NOx 10/98 Thru 10/99

Anderson-Darling Normality Test		
A-Squared:	85.069	
P-Value:	0.000	
Mean	106.942	
StDev	34.297	
Variance	1176.32	
Skewness	1.52282	
Kurtosis	4.38731	
N	3592	
Minimum	15.436	
1st Quartile	86.745	
Median	101.853	
3rd Quartile	119.332	
Maximum	333.217	
95% Confidence Interval for Mu		
105.820	108.064	
95% Confidence Interval for Sigma		
33.522	35.110	
95% Confidence Interval for Median		
100.838	102.594	

## Attachment B

October 1999 thru October 2000:

# Descriptive Statistics



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#### NDx: 10/99 thru 10/00

Anderson-Darling Normality Test		
A-Squarect	120.774	
P-Value:	0.000	
Mean	03 1072	
StDev	25.2630	
Variance	638.217	
Skewness	1.23573	
Kurtosis	4.65397	
N	17542	
Minim	20,323	
1st Quartile	76.273	
Median	92,149	
3rd Quartile	106.729	
Maximum	275.704	
95% Confidence Interval for Mu		
92.819	93.567	
95% Confidence Interval for Sigma		
25.001	25.530	
95% Confidence Interval for Median		
91.746	92.615	

### Attachment C

November 4, 2000 thru December 28, 2000

# Descriptive Statistics



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#### Variable: NOx 11/00 th

Anderson-Darling Normality Test		
A-Squarect	61.502	
P-Value:	0.000	
Mean	69.8763	
StDev	17.4047	
Variance	302.922	
Skewness	3.01590	
Kurtosis	26.6143	
N	2457	
Minimum	1.556	
1st Quartile	61.769	
Median	70.133	
3rd Quartile	78.088	
Maximum	233.855	
95% Confidence Interval for Mu		
69.188	70.565	
95% Confidence Interval for Sigma		
16.931	17.905	
95% Confidence Interval for Median		
69.634	70.650	