



DuPont Titanium Technologies
Edge Moor Plant
104 Hay Road
Edge Moor, DE 19809

March 28, 2011

Via Federal Express

Lee Ann Walling
Chief of Planning
Office of the Secretary – Coastal Zone Group
89 Kings Highway
Dover, DE 19901

Subject: Response to comments received in a letter dated 2/17/2011
Ref: DuPont Edge Moor Boiler Installation Coastal Zone Permit

Dear Ms. Walling:

Attached along with this letter is a response to comments received by DuPont from the DNREC-Coastal Zone Group in regards to the installation of natural gas fired boilers at the DuPont Edge Moor Facility. As you will see in the discussion, DuPont has elected to accept the Department's suggestion that it agree to a reduction in the facility's PAL in order to provide the CZA offsets requested of the Edge Moor facility.

Please contact me at (302) 761-2302 or Vimal Vijaykumar at (302) 761-2298 if you have additional questions.

Sincerely,

Tushar S. Durve
Environmental Manager
DuPont Edge Moor

Enclosure – Response to Comments

Cc: File #
W. Smith
S. Rahaim
P. Jann
M. Parkowski
A. Mirzakhali, DNREC

DUPONT EDGE MOOR COASTAL ZONE PERMIT APPLICATION
COMMENTS & RESPONSE

Comments pertaining to Air Quality (DAQ):

CZA Comment #1:

You operate under Plant wide Applicability Limits (PAL) as now covered by your Title V permit. The emissions offsets you propose trade potential emissions from one unit for new allowable emissions for two new boilers under this PAL. This emissions trade does not represent an absolute or real reduction in emission; to the extent that your historical actual emissions have been substantially below this cap, actual emissions may indeed increase.

“Proposing to stay within the current permit limit shows no real or permanent reduction in emissions. Actual emissions were not used to determine the baseline for emissions reductions,” the Division states.

In your offset calculations, you propose that the plant “will give up its capacity to use fuel oil in the ore roaster. A significant reduction in emissions can be achieved by switching to only natural gas usage in the Ore Roaster.”

The Division of Air Quality notes that the ore roaster has not used No. 5 fuel oil for the past three years (2008-2010). No. 6 oil has not been burned in the roaster for at least the past five years. Eliminating the use of fuel oil in the roaster will provide you room under the PAL cap but do not give reductions that are real or quantifiable.

As an alternative, the facility may reduce the plant wide permit limits in the PAL in order to provide offsets for this project if these offsets are to be generated at the Edge Moor site. Note your current PAL limit for NOx is 65 tons per year, and your actual annual emissions have been substantially less: 27.2 tons for 2010, 31.93 tons for 2009 and 37.2 tons for 2008.

DuPont Response:

DuPont understands from the Department’s comments that the facility’s initial proposal to offset project emissions by accepting a restriction in its right to burn heavier fuel oil was deemed insufficient by the Division of Air Quality. DuPont respectfully disagrees with the Division’s comments since giving up a legal right to burn heavier fuel is a measurable and acceptable method for achieving offsets and this type of offset was previously accepted by the Department in a prior CZA-applicable project at the Edge Moor facility. However, and notwithstanding our objection, DuPont desires to move the current project forward as expeditiously as possible. Consequently, the Division’s option of restricting the facility’s PAL, as discussed in more detail below, is acceptable to DuPont as a means for achieving expeditious approval of the CZA application.

Before discussing the PAL offset, DuPont does want the Department to be aware that independent of any emission impact on the Edge Moor site, this project will result in a significant net emission decrease in the Edge Moor area. DuPont Edge Moor currently

DUPONT EDGE MOOR COASTAL ZONE PERMIT APPLICATION
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receives steam from the neighboring Calpine Power plant. It is anticipated that the installation of the proposed natural gas fired boiler will take approximately 10% of the load off of the Calpine boilers. In addition, it is expected that the new boilers proposed to be installed at Edge Moor are more efficient compared with the older Calpine Boilers and therefore would produce less emissions than the Calpine boilers for the same load. Also, the transfer losses from Calpine to DuPont amount to approximately 7-10% of the total steam produced for the DuPont requirements. The extra steam produced at Calpine to account for the transfer losses would also contribute towards emissions in the Edge Moor area. Consequently, there will be a significant net emission decrease in the Edge Moor area due to this switch.

With regard to the Department's PAL offset proposal, DuPont is offering reductions in PAL caps as outlined more specifically in Attachment A. The PAL cap reductions, and required offsets, will be achieved in reductions of Carbon Monoxide (CO), Sulfur Dioxide (SO₂), and Particulate Matter (PM). Such reduction is not offered for NO_x; however, CO reductions are substituted for NO_x because the site does not have enough offsets for NO_x under the PAL cap to be a workable offset. It is also our understanding that offsets in other pollutant categories, as presented in the Department's February 11, 2011 letter, would be acceptable in this regard.

DuPont does note that the PAL discussion undertaken by the Division of Air Quality focuses, in some respects, on emission data that is more representative of lower production levels during the current global recession (Y2008, Y2009) than historic baseline emissions. For example, the analysis presented for NO_x by DAQ does not consider pre-recession days from Y2007 when the NO_x emissions were 42 tons. Should production return to normal levels, and considering that the new boilers are expected to add approximately 16 tons per year of NO_x, the site will be close to the existing PAL (e.g., this scenario would predict a total of approximately 58 tons vs. the PAL limit of 65 tons NO_x.) Thus, DAQ's observation that the actual emissions were much lower than the PAL cap for NO_x is incorrect, and, as a result, the facility has offered offsets in other pollutant categories in lieu of NO_x as suggested by the Department's February letter.

CZA Comment #2:

In Part 6A of Section 6.3 of your application, you mention that the proposed installation will incorporate low NO_x Burners and Flue Gas Recirculation, and that the Division of Air Quality "accepts this as the Best Available Control Technology to control emissions from the proposed boilers." The Division states it did not assess or accept this proposed technology as BACT and points out in the attachment that there are lower NO_x emission factors that can be used for BACT analysis.

DuPont Response:

As a strictly legal matter, and as DuPont had discussed in pre application meetings with DAQ, the facility's current Title V permit specifically excludes applicability of Regulation 1125 Section 4. This exclusion means that BACT requirements are

DUPONT EDGE MOOR COASTAL ZONE PERMIT APPLICATION
COMMENTS & RESPONSE

inapplicable to the proposed boilers. Again, DuPont recognizes that DAQ might disagree with the intent of that Title V permit language and, in the context of achieving expeditious approval of the proposed boiler set, DuPont has previously committed to meeting BACT on the boilers. BACT for these boilers would consist of low NO_x burners and flue gas recirculation (FGR). Consequently, DuPont is providing information (Attachment B) that demonstrates that the emissions achieved by the proposed boilers fall within the BACT requirements as outlined in the EPA RACT/BACT/LAER Clearing House. (DuPont notes that emission rates offered by DAQ in its comments on the CZA application do not represent an analysis of BACT as that term is generally understood under the Clean Air Act. Rather, the DAQ evaluation was simply a list of other boiler emission rates.)

Comments pertaining to Solid & Hazardous Waste Management (SHWMB):

CZA Comment #1:

The E.I. DuPont De Nemours and Company, Inc., Edge Moor Plant stated that amine solid waste will be generated in steam traps. How this solid waste will be transported, stored or disposed was not addressed. The volumes of this waste must also be estimated.

DuPont Response:

DuPont outlined in the CZA application that 0.009 ppm of amines would be generated. This translates to approximately 0.0007 lbs (i.e., less than 1 gram) of amine on an annual basis provided both the boilers are operated at full capacity. Also, the small quantity of amines will be distributed among multiple steam traps throughout the site. It will be practically impossible to collect this miniscule quantity of solid waste generated in the steam traps. In meetings with SHWMB (Mr. Frank Gavas) it was discussed that the small quantity of solid waste cannot be recovered. Furthermore, DuPont does not believe that the small quantity of amines will negatively impact the groundwater because of the geology of the area (The area is clay lined and as such the impact to groundwater would be negligible). In addition, DuPont received guidance from Under Ground Injection Control Branch that no UIC permits were required so long as the steam complied with the drinking water standards. Amines are not a regulated constituent under the drinking water standards and, in any event, given that the expected generation of amines is less than 1 gram per year, DuPont believes that no further action is necessary with respect to the storage and/or disposal of amines.

CZA Comment #2:

The SHWMB anticipates the proposed project will generate construction, demolition, or land clearing solid wastes. The E.I. DuPont De Nemours and Company, Inc., Edge Moor Plant did not include an estimated volume of construction, demolition, or land clearing solid wastes or how this solid waste will be transported, stored or disposed.

DUPONT EDGE MOOR COASTAL ZONE PERMIT APPLICATION
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DuPont Response:

The estimated volume for concrete due to demolition activities along with debris generated from the construction activities is estimated to be approximately 13,000 lbs. It is anticipated that the construction debris would qualify as solid waste based on past usage of the land where the boilers would be erected. However; a representative sample would be taken and a TCLP analysis would be conducted to determine the characteristic of the waste. Based on this analysis, the debris would be appropriately disposed in either a subtitle C land fill (if the debris shows characteristic for Hazardous Waste) or a Subtitle D landfill (if the debris is non-hazardous).

CZA Comment #3:

The SHWMB anticipates the proposed project will generate the potential hazardous waste stream of natural gas condensate. The waste condensate would be a hazardous waste if it has a flash point of less than 60°C (140°F). If the waste stream of natural gas condensate will be produced, the volumes and how it will be generated must also be included.

DuPont Response:

The waste stream of condensate consists of water condensate and not natural gas condensate. As a result, the flash point of the waste stream will not be less than 140F. Therefore; the said waste stream is a solid waste and not hazardous waste. Furthermore, this waste stream will be treated by the site's Wastewater Treatment Plant before discharging it into the Delaware River through a NPDES permitted outfall. Please note that per discussions with DNREC – Water Resources (Mr. John Defriece) a modification to the NPDES permit will not be required for such discharges.

**ATTACHMENT A
PAL CAP REDUCTION PROPOSAL.**

DUPONT EDGE MOOR - COASTAL ZONE OFFSET PROPOSAL FOR PAL CAP REDUCTION

Pollutants	Total New Boiler(s) Emissions (Tons)	Offsets Ratio Required ¹	Offsets Offered ² (Tons)	PAL Reductions Offered	Existing PAL Limits (Tons)	New PAL Limits After providing Offsets (Tons)	Net Reduction in PAL (Tons)
	NOX	16.45	1:1.3	21.39	21.39 tons CO substituted for Nox	65	65
CO	16.88	1:1.3	21.94	21.94 tons CO offered for CO	4120	4073.72	46.28
VOC	2.27	1:1.3	2.96	2.96 tons CO substituted for VOC	135	135	0.00
PM	3.14	1:1.3	4.09	4.09 tons PM offered for PM	119	114.91	4.09
SO2	0.25	1:1.3	2.00	2 tons SO2 offered for SO2	185	183.00	2.00

¹ As per DNREC Policy

² Ratio of 1:1.3 has been proposed by DuPont Edge Moor

ATTACHMENT B
BACT ANALYSIS – RACT/BACT/LAER
CLEARING HOUSE REVIEW

DUPONT EDGE MOOR - BACT ANALYSIS

Edge Moor
Manufacturer
Guaranteed Emission

Nox	CO
0.039 Lb/MMBTU	0.040 Lb/MMBTU
30 ppm	50 ppm
1.88 lbs/hr	1.93 lbs/hr

No.	Rating MMBTU/hr	State	Company	Technology	Fuel Used	NOX	CO	Basis
1	33.5	PA	J & L SPECIALTY STEEL, INC.	Ultra Low Nox	NG	30 ppm	2.75 lbs/hr	Case by Case
2	50.4	OH	TITAN TIRE CORPORATION	Unknown	NG	2.47 lbs/hr	4.15 lbs/hr	BACT-PSD
3	99	VA	VA POWER - POSSUM POINT	Low NOX Burners & Low Nox Fuel	NG	0.036 lb/MMBTU	14.9 lbs/hr	Case by Case
4	35.4	NV	HARRAH'S ENTERTAINMENT	Low NOX Burner	NG	0.035 lb/MMBTU	0.036 lb/MMBTU	BACT-PSD
5	34	WI	ACE ETHANOL, LLC	Low NOX Burners	NG	0.04 lb/MMBTU	0.08 lb/MMBTU	BACT-PSD
6	50	AL	HYUNDAI MOTOR MANUFACTURING OF ALABAMA, LLC	Low NOX Burners	NG	1.75 lbs/hr	4.5 lbs/hr	BACT-PSD
7	76.8	NH	CONCORD STEAM CORPORATION	Low NOX, FGR, & < 700 hours	NG	0.049 lb/MMBTU	None	LAER
8	Unknown	GA	KIA MOTORS	Low NOX Burners	NG	30 ppm	None	BACT-PSD



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RBLC ID: PA-0216
Corporate/Company: J & L SPECIALTY STEEL, INC.
Facility Name: J & L SPECIALTY STEEL, INC.
Process: BOILER, DRAP LINE

Primary Fuel: NATURAL GAS
Throughput: 33.50 MMBTU/H
Process Code: 13.310

Pollutant Information - List of Pollutants

Pollutant	Primary Emission Limit	Basis	Verified
<u>Carbon Monoxide</u>	2.7500 LB/H	Other Case-by-Case	NO
<u>Nitrogen Oxides (NOx)</u>	30.0000 PPM @ 3% O2	Other Case-by-Case	NO

Process Notes: Installation of ultra-low Nox burner on the drap line

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RBLC ID: PA-0216

Corporate/Company: J & L SPECIALTY STEEL, INC.

Facility Name: J & L SPECIALTY STEEL, INC.

Process: BOILER, DRAP LINE

Pollutant: Nitrogen Oxides (NOx)

CAS Number: 10102

Pollutant Group(s): InOrganic Compounds, Oxides of Nitrogen (NOx), Particulate Matter (PM),

Substance Registry System: Nitrogen Oxides (NOx)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: ULTRA LOW NOX BURNER

Test Method: Unspecified [EPA/DAR Methods](#) [All Other Methods](#)

Percent Efficiency: 0

Compliance Verified:

EMISSION LIMITS:

Case-by-Case Basis: Other Case-by-Case

Other Applicable Requirements:

Other Factors Influence Decision:

Emission Limit 1: 30.0000 PPM @ 3% O2

Emission Limit 2: 0

Standard Emission Limit: 0.0400 LB/MMBTU Calculated using F-Factor

COST DATA:

Cost Verified? No

Dollar Year Used in Cost Estimates:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Pollutant Notes:



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RBLC ID: OH-0323
Corporate/Company: TITAN TIRE CORPORATION
Facility Name: TITAN TIRE CORPORATION OF BRYAN
Process: BOILER

Pollutant Information - List of Pollutants

Primary Fuel: NATURAL GAS
Throughput: 50.40 MMBTU/H
Process Code: 13.310

Pollutant	Primary Emission Limit	Basis	Verified
<u>Carbon Monoxide</u>	4.1500 LB/H	BACT-PSD	NO
<u>Nitrogen Oxides (NOx)</u>	2.4700 LB/H	BACT-PSD	NO
<u>Particulate matter, filterable < 10 µ (FPM10)</u>	0.0940 LB/H	N/A	NO
<u>Particulate Matter (PM)</u>	0.0200 LB/MMBTU	N/A	NO
<u>Visible Emissions (VE)</u>	20.0000 %	N/A	NO
<u>Volatile Organic Compounds (VOC)</u>	0.2700 LB/H	BACT-PSD	NO

Process Notes:

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RBLC ID: OH-0323
Corporate/Company: TITAN TIRE CORPORATION
Facility Name: TITAN TIRE CORPORATION OF BRYAN
Process: BOILER

Pollutant: Nitrogen Oxides (NOx) **CAS Number:** 10102

Pollutant Group(s): InOrganic Compounds, Oxides of Nitrogen (NOx), Particulate Matter (PM), **Substance Registry System:** Nitrogen Oxides (NOx)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: N

P2/Add-on Description:

Test Method:	Unspecified	EPA/OAR Methods	All Other Methods
Percent Efficiency:	0		
Compliance Verified:	No		
EMISSION LIMITS:			
Case-by-Case Basis:	BACT-PSD		
Other Applicable Requirements:	SIP		
Other Factors Influence Decision:	Unknown		
Emission Limit 1:	2.4700 LB/H		
Emission Limit 2:	10.8200 T/YR		
Standard Emission Limit:	50.0000 LB/MMSCF AP-42 FACTOR		
COST DATA:			
Cost Verified?	No		
Dollar Year Used in Cost Estimates:			
Cost Effectiveness:	0 \$/ton		
Incremental Cost Effectiveness:	0 \$/ton		
Pollutant Notes:			



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RBLC ID: VA-0255
Corporate/Company: Virginia Power
Facility Name: VA POWER - POSSUM POINT
Process: BOILER, AUXILIARY

Pollutant Information - List of Pollutants

Primary Fuel: NATURAL GAS
Throughput: 99.00 MMBTU/H
Process Code: 13.310

Pollutant	Primary Emission Limit	Basis	Verified
Carbon Monoxide	14.9000 LB/H	Other Case-by-Case	NO
Nitrogen Dioxide (NO2)	0.0360 LB/MMBTU	Other Case-by-Case	NO
Particulate matter, filterable < 10 μ (FPM10)	0.7000 LB/H	Other Case-by-Case	NO
Sulfur Dioxide (SO2)	0.1000 LB/H	Other Case-by-Case	NO
Volatile Organic Compounds (VOC)	0.4000 LB/H	Other Case-by-Case	NO

Process Notes: 2 Auxiliary boilers.

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RBLC ID: VA-0255
Corporate/Company: Virginia Power
Facility Name: VA POWER - POSSUM POINT
Process: BOILER, AUXILIARY

Pollutant: Nitrogen Dioxide (NO2) **CAS Number:** 10102-44-0

Pollutant Group(s): Inorganic Compounds, Oxides of Nitrogen (NOx), **Substance Registry System:** Nitrogen Dioxide (NO2)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: LOW NOX BURNERS AND LOW NOX FUEL.

Test Method: Unspecified [EPA/DAR Methods](#) [All Other Methods](#)

Percent Efficiency: 0
Compliance Verified:
EMISSION LIMITS:
Case-by-Case Basis: Other Case-by-Case
Other Applicable Requirements:
Other Factors Influence Decision:
Emission Limit 1: 0.0360 LB/MMBTU EACH UNIT
Emission Limit 2: 18.0000 T/YR UNITS COMBINED
Standard Emission Limit: 0.0360 LB/MMBTU EACH UNIT

COST DATA:
Cost Verified? No
Dollar Year Used in Cost Estimates:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Pollutant Notes:



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RBLC ID: NV-0044
Corporate/Company: HARRAH'S ENTERTAINMENT
Facility Name: HARRAH'S OPERATING COMPANY, INC.
Process: COMMERCIAL/INSTITUTIONAL-SIZE BOILERS

Pollutant Information - List of Pollutants

Primary Fuel: NATURAL GAS
Throughput: 35.40 MMBTU/H
Process Code: 13.310

Pollutant	Primary Emission Limit	Basis	Verified
Carbon Monoxide	0.0360 LB/MMBTU	BACT-PSD	UNKNOWN
Nitrogen Oxides (NOx)	0.0350 LB/MMBTU	BACT-PSD	UNKNOWN
Particulate matter, filterable < 10 µ (FPM10)	0.0075 LB/MMBTU	BACT-PSD	UNKNOWN
Sulfur Oxides (SOx)	0.0010 LB/MMBTU	BACT-PSD	UNKNOWN
Volatile Organic Compounds (VOC)	0.0050 LB/MMBTU	BACT-PSD	UNKNOWN

Process Notes: THE BACT DETERMINATIONS REPORTED HERIN ARE SPECIFICALLY FOR THE TWO HURST BOILERS INSTALLED AT CAESAR'S PALACE. EACH OF THEM HAS A RATED HEAT INPUT OF 35.4 MMBTU/HR. THE PERMITTING ACTION ALSO APPROVED THE INSTALLATION OF A NUMBER OF SMALL BOILERS, ALL OF WHICH HAVE A RATED HEAT INPUT BELOW THE THRESHOLD OF INSTITUTIONAL SIZE. NATURAL GAS IS THE ONLY FUEL USED FOR ALL BOILERS FOR THIS FACILITY. THE TOTAL INCREASE OF RATED HEAT INPUT FOR ALL THE NEW BOILERS IS 100.7 MMBTU/HR. THE TWO NEW HURST BOILERS HAVE THE COMBINED RATED HEAT INPUT OF 70.8 MMBTU/HR, ACCOUNTING FOR 70% OF THE TOTAL INCREASE.

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RBLC ID: NV-0049
Corporate/Company: HARRAH'S OPERATING COMPANY, INC.
Facility Name: HARRAH'S OPERATING COMPANY, INC.
Process: BOILER - UNIT CP01

Pollutant: Nitrogen Oxides (NOx) **CAS Number:** 10102

Pollutant Group(s): Inorganic Compounds, Oxides of Nitrogen (NOx), Particulate Matter (PM), **Substance Registry System:** Nitrogen Oxides (NOx)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: LOW NOX BURNER

Test Method: Unspecified [EPA/OAR Methods](#) | [All Other Methods](#)

Percent Efficiency: 0
Compliance Verified: Yes
EMISSION LIMITS:
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP , OPERATING PERMIT
Other Factors Influence Decision: No
Emission Limit 1: 0.0350 LB/MMBTU
Emission Limit 2: 29.0000 PPMVD CORRECTED TO 3% OXYGEN
Standard Emission Limit: 0.0350 LB/MMBTU
COST DATA:
Cost Verified? No
Dollar Year Used in Cost Estimates:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Pollutant Notes:



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RBLC ID: WI-0207
Corporate/Company: ACE ETHANOL, LLC
Facility Name: ACE ETHANOL - STANLEY
Process: BOILER, S53 / B53, 34 MMBTU/H

Pollutant Information - List of Pollutants

Primary Fuel: NATURAL GAS
Throughput: 34.00 MMBTU/H
Process Code: 13.310

Pollutant	Primary Emission Limit	Basis	Verified
<u>Carbon Monoxide</u>	0.0800 LB/MMBTU	BACT-PSD	UNKNOWN
<u>Nitrogen Oxides (NOx)</u>	0.0400 LB/MMBTU	BACT-PSD	UNKNOWN
<u>Particulate Matter (PM)</u>	0.0075 LB/MMBTU	BACT-PSD	UNKNOWN
<u>Volatile Organic Compounds (VOC)</u>	0.0054 LB/MMBTU	BACT-PSD	NO

Process Notes:

http://cfpub.epa.gov/rblc/index.cfm?

action=PermitDetail.PollutantInfo&Facility_ID=26055&Process_ID=103857&Pollutant_ID=149&Per_Control_Equipment=1038570



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Pollutant Information

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FINAL

RBLC ID: WI-0207
Corporate/Company: ACE ETHANOL, LLC
Facility Name: ACE ETHANOL - STANLEY
Process: BOILER, S53 / B53, 34 MMBTU/H

Pollutant: Nitrogen Oxides (NOx) **CAS Number:** 10102

Pollutant Group(s): Inorganic Compounds, Oxides of Nitrogen (NOx), Particulate Matter (PM), **Substance Registry System:** Nitrogen Oxides (NOx)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: NATURAL GAS / PROPANE; LOW NOX BURNER

Test Method: Unspecified [EPA/OAR Methods](#) [All Other Methods](#)

Percent Efficiency: 0
Compliance Verified: Unknown
EMISSION LIMITS:
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements:
Other Factors Influence Decision: Unknown
Emission Limit 1: 0.0400 LB/MMBTU
Emission Limit 2: 0
Standard Emission Limit: 0.0400 LB/MMBTU

COST DATA:
Cost Verified? No
Dollar Year Used in Cost Estimates: 2005
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Pollutant Notes:



http://cfpub.epa.gov/rblc/index.cfm?action=PermitDetail.ProcessInfo&facility_id=25092&PROCESS_ID=98810
Last updated on Monday, November 08, 2010

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Process Information - Details

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FINAL

RBLC ID: AL-0191

Corporate/Company: HYUNDAI MOTOR MANUFACTURING OF ALABAMA, LLC
Facility Name: HYUNDAI MOTOR MANUFACTURING OF ALABAMA, LLC
Process: BOILERS, NATURAL GAS, (3)

Primary Fuel: NATURAL GAS
Throughput: 50.00 MMBTU/H
Process Code: 13.310

Pollutant Information - List of Pollutants [Help](#)

Pollutant	Primary Emission	Basis	Verified

	Limit		
Carbon Monoxide	4.5000 LB/H	BACT- PSD	NO
Nitrogen Oxides (NOx)	1.7500 LB/H	BACT- PSD	NO
Particulate matter, filterable < 10 μ (FPM10)	0.3800 LB/H	BACT- PSD	NO

Process Notes: BACT for NOx, PM, and CO

http://cfpub.epa.gov/rblc/index.cfm?

action=PermitDetail.PollutantInfo&Facility_ID=25092&Process_ID=98810&Pollutant_ID=149&Per_Control_Equipment_ID=22961 Wednesday, March 16, 2011



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Pollutant Information

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RBLC ID: AL-0191

Corporate/Company: HYUNDAI MOTOR MANUFACTURING OF ALABAMA, LLC

Facility Name: HYUNDAI MOTOR MANUFACTURING OF ALABAMA, LLC

Process: BOILERS, NATURAL GAS, (3)

Pollutant: Nitrogen Oxides (NOx)

CAS Number: 10102

Pollutant Group(s): Inorganic Compounds, Oxides of Nitrogen (NOx), Particulate Matter (PM),

Substance Registry System: Nitrogen Oxides (NOx)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: NATURAL GAS ONLY; LOW NOX BURNERS

Test Method: Unspecified [EPA/OAR Methods](#) | [All Other Methods](#)

Percent Efficiency: 0

Compliance Verified:

EMISSION LIMITS:

Case-by-Case Basis: BACT-PSD

Other Applicable Requirements:

Other Factors Influence Decision:

Emission Limit 1: 1.7500 LB/H

Emission Limit 2: 0.0350 LB/MMBTU

Standard Emission Limit: 0.0350 LB/MMBTU

COST DATA:

Cost Verified? No

Dollar Year Used in Cost Estimates:

Cost Effectiveness: 0 \$/ton

Incremental Cost Effectiveness: 0 \$/ton

Pollutant Notes:



http://cfpub.epa.gov/rblc/index.cfm?action=PermitDetail.ProcessInfo&facility_id=26943&PROCESS_ID=107023
Last updated on Monday, November 08, 2010

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Process Information - Details

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DRAFT

RBLC ID: NH-0015
Corporate/ Company: CONCORD STEAM CORPORATION
Facility Name: CONCORD STEAM CORPORATION
Process: BOILER 3 (AUXILIARY)

Primary Fuel: NATURAL GAS
Throughput: 76.80 MMBTU/H
Process Code: 13.310

Pollutant Information - List of Pollutants [Help](#)

Pollutant	Primary Emission Limit	Basis Verified

<u>Nitrogen Oxides (NOx)</u>	0.0490 LB/MMBTU	LAER UNKNOWN
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Process Notes: AUXILIARY BOILERS 2 AND 3 PROVIDE BACKUP STEAM TO THE CITY OF CONCORD STEAM DISTRICT (MOSTLY PROVIDES BUILDING HEAT TO BUSINESSES IN THE DOWNTOWN AREA OF CONCORD) WHEN BOILER 1 IS OUT OF SERVICE FOR SCHEDULED AND UNSCHEDULED MAINTENANCE.

http://cfpub.epa.gov/rblc/index.cfm?

action=PermitDetail.PollutantInfo&Facility_ID=26943&Process_ID=107022&Pollutant_ID=149&Per_Control_Equipment_ID=17265 Tuesday, March 16, 2011



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FINAL

RBLC ID: NH-0015

Corporate/Company: CONCORD STEAM CORPORATION
Facility Name: CONCORD STEAM CORPORATION
Process: BOILER 2 (AUXILIARY)

Pollutant: Nitrogen Oxides (NOx) **CAS Number:** 10102

Pollutant Group(s): InOrganic Compounds, Oxides of Nitrogen (NOx), Particulate Matter (PM), **Substance Registry System:** Nitrogen Oxides (NOx)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: LOW NOX BURNERS, FLUE GAS RECIRCULATION, AND LESS THAN 700 HOURS OPERATION PER CONSECUTIVE 12 MONTH PERIOD.

Test Method:	Unspecified	EPA/DAR Methods	All Other Methods
Percent Efficiency:	0		
Compliance Verified:	Unknown		
EMISSION LIMITS:			
Case-by-Case Basis:	LAER		
Other Applicable Requirements:	NSPS , OPERATING PERMIT		
Other Factors Influence Decision:	Unknown		
Emission Limit 1:	0.0490 LB/MMBTU AVERAGE OF 3 ONE-HOUR TEST RUNS		
Emission Limit 2:	0		
Standard Emission Limit:	0		
COST DATA:			
Cost Verified?	No		
Dollar Year Used in Cost Estimates:			
Cost Effectiveness:	0 \$/ton		
Incremental Cost Effectiveness:	0 \$/ton		
Pollutant Notes:			



http://cfpub.epa.gov/rblc/index.cfm?action=PermitDetail.ProcessInfo&facility_id=26872&PROCESS_ID=106725
Last updated on Monday, November 08, 2010

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Process Information - Details

For information about the pollutants related to this process, click on the specific pollutant in the list below.

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DRAFT

RBLC ID: GA-0130
Corporate/Company: KIA MOTORS
Facility Name: KIA MOTORS MANUFACTURING GEORGIA
Process: BOILERS AND HEATERS

Primary Fuel: NATURAL GAS
Throughput:
Process Code: 13.310

Pollutant Information - List of Pollutants [Help](#)

Pollutant	Primary Emission	Basis	Verified

	Limit	
Nitrogen Oxides (NOx)	30.0000 PPM @ 3%O2	BACT-PSD UNKNOWN

Process Notes: BOILERS AND HEATERS

http://cfpub.epa.gov/rblc/index.cfm?action=PermitDetail.PollutantInfo&Facility_ID=26872&Process_ID=106725&Pollutant_ID=149&Per_Control_Equipment=147068

Updated on Wednesday, March 16, 2011



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Pollutant Information

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FINAL

RBLC ID: GA-0130
Corporate/Company: KIA MOTORS
Facility Name: KIA MOTORS MANUFACTURING GEORGIA
Process: BOILERS AND HEATERS

Pollutant: Nitrogen Oxides (NOx) **CAS Number:** 10102

Pollutant Group(s): InOrganic Compounds, Oxides of Nitrogen (NOx), Particulate Matter (PM), **Substance Registry System:** Nitrogen Oxides (NOx)

Pollution Prevention/Add-on Control Equipment/Both/No Controls Feasible: P

P2/Add-on Description: LOW NOX BURNERS ON BOILER BURNERS

Test Method: Unspecified [EPA/DAR Methods](#) | [All Other Methods](#)

Percent Efficiency: 0
Compliance Verified: Unknown

EMISSION LIMITS:
Case-by-Case Basis: BACT-PSD
Other Applicable Requirements: SIP
Other Factors Influence Decision: Unknown
Emission Limit 1: 30.0000 PPM @ 3%O2 BOILERS
Emission Limit 2: 0.0900 LB/MMBTU HEATERS
Standard Emission Limit: 0

COST DATA:
Cost Verified? No
Dollar Year Used in Cost Estimates:
Cost Effectiveness: 0 \$/ton
Incremental Cost Effectiveness: 0 \$/ton
Pollutant Notes: 3 BOILERS 30MMBTU/HR EACH 20 HEATERS, BOTH DIRECT FIRED AND INDIRECT FIRED RANGING IN CAPACITY FROM 2MMBTU/HR TO 31MMBTU/HR (AVG = 14MMBTU/HR)