Air Quality Permit Application



Northside OBANBOBY Repowering Project

 Circulating Fluidized Bed Combustion Technology
 Volume 2 Emissions Unit 001

NGS Boiler No. 1

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT

(Regulated and Unregulated Emissions Units)

Emissio	ons Unit Information Section 1
NGS Bo	iter No. 1
Type of	Emissions Unit Addressed in This Section
1. Regi	ulated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

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B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

	Description of Emissions Unit NGS Boiler No. 1	Addressed in This Section:	
2.	Emissions Unit Identification [] No Corresponding I		nknown
3.	Emissions Unit Status Code: A	4. Acid Rain Unit? [X] Yes [] No	5. Emissions Unit Major Group SIC Code: 49
6.	project schedule calls for the rep Existing Unit 1, and Existing Unit 1		Existing Unit 1. Repowered Unit 2, for a period of time. The requested

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Emissions Unit Information Section			
Emissions Unit Control Equipment			
1. Description:	-		
2. Control Device or Method Code :			 ,,,,,,,

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 1 NGS Boiler No. 1	 -	
Emissions Unit Details		
1. Initial Startup Date: 16-	Nov-1965	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer :	M	Iodel Number :
4. Generator Nameplate Rating : 298	MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity 1. Maximum Heat Input Rate: 2892	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	0	
4. Maximum Production Rate:		
5. Operating Capacity Comment : Generator Nameplate Rating is 297.5 MW		
Maximum Heat Input shown is for Gas Firing. I	Maximum heat inpu	t while firing oil is 2767 mmBtu/hr
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule : 24 hours/day 52 weeks/year		7 days/week 8,760 hours/year

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D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section NGS Boiler No. 1	1		
Rule Applicability Analysis			
		·	

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List of Applicable Regulations

40 CFR Part 77.3, Offset Plans

40 CFR Part 77.5(b), Deduction of Allowances

40 CFR Part 77.6, Excess Emission Penalties for SO2 and NOx

40 CFR Part 72.6, Applicability

40 CFR Part 72.9, Standards Requirements

40 CFR Part 72 Subpart B, Designated Representative

40 CFR Part 72 Subpart C, Acid Rain Applications

40 CFR Part 72.40, General

40 CFR Part 73 Subpart E, Acid Rain Permit Contents

40 CFR Part 72.90, Annual Compliance Certification Report

40 CFR Part 73.35, Compliance

40 CFR Part 75.2, Applicability

40 CFR Part 75, Subpart B, Monitoring Provisions - except 75.15, 75.16, 75.17, & 75.18

40 CFR Part 75, Subpart C, Operation and Maintenance Procedures

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Emissions Unit Information Section

NGS Boiler No. 1

List of Applicable Regulations

40 CFR Part 75, Subpart F, Recordkeeping Requirements

40 CFR Part 75, Subpart G, Reporting Requiremnts

40 CFR Part 75, Appendix A, Specifications and Test Procedures

40 CFR Part 75, Appendix B, Qualtiy Assurance and Quality Control Procedures

40 CFR Part 75, Appendix C, Missing Data Statistical Estimation Procedures

40 CFR Part 75, Appendix D, Optional SO2 Emissions Data Protocol for Gas-Fired and Oil-Fired Units

40 CFR Part 75 Appendix E, Optional NOx Emissions Estimation Protocol

Rule 62-4.030, F.A.C., General Prohibition

Rule 62-4.040(1), F.A.C., Exemptions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-204.800(14), F.A.C., Adoption of 40 CFR Part 72 (As Noted)

Rule 62-204.800(15), F.A.C., Adoption of 40 CFR Part 73 (As Noted)

Rule 62-204.800(16), F.A.C., Adoption of 40 CFR Part 75 (As Noted)

Rule 62-204.800(17), F.A.C., Adoption of 40 CFR Part 76 (As Noted)

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NGS Boiler No. 1

List of Applicable Regulations

Rule 62-204.800(18), F.A.C., Adoption of 40 CFR Part 77 (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.700(2), (3), (4), (5), and (6), F.A.C., Excess Emissions

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-212.300(1), F.A.C., General Prohibitions

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-214.320, F.A.C., Applications

Rule 62-214.330, F.A.C., Acid Rain Compliance Plan and Compliance Options

Rule 62-214.350, F.A.C, Certification

Rule 62-214.430(1) and (2), F.A.C., Implementation and Termination of Compliance Options

Rule 62-296.405(1)(a), (b), (c)1.a, F.A.C., Fossil Fuel Fired Steam Generators

Rule 62-296.405(1)(e), (f), and (g), F.A.C., Fossil Fuel Fired Steam Generators

Rule 62-296.700(6)(d), F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter

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NGS Boiler No. 1

List of Applicable Regulations

Rule 62-296.702, F.A.C., Fossil Fuel Steam Generators

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5), F.A.C., Adoption of EPA Method 5

Rule 62-297.401(6), F.A.C., Adoption of EPA Method 6

Rule 62-297.401(9), F.A.C., Adoption of EPA Method 9

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution (As Noted)

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.501, Adoption of Chapter 62-213, F.A.C., (As Noted)

Rule 2.1001, Adoption of Chapter 62-296 F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, C.2., Air Pollution Nuisances

Rule 2.1203, E, Air Pollution Nuisances Prohibited

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Emissions Unit Information Section

NGS Boiler No. 1

List of Applicable Regulations

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

40 CFR Part 73.50, Scope and Submission of Transfers

40 CFR Part 73.51, Prohibition

40 CFR Part 75.4, Compliance Dates

40 CFR Part 75.5, Prohibition

40 CFR Part 75, Subpart D, Missing Data Substitution Procedures

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E. EMISSION POINT (STACK/VENT) INFORMATION

__1___

NGS Boiler No. 1		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram:	NGS Stack 1	•
2. Emission Point Type Code:		
3. Descriptions of Emission Points Comprising this Emission (limit to 100 characters per point)	ons Unit for VI	E Tracking:
4. ID Numbers or Descriptions of Emission Units with this	Emission Poin	t in Common:
Existing Unit 1 Steam Generator		
5. Discharge Type Code :	· V	, , , ,
6. Stack Height:	250	feet
7. Exit Diameter:	16.0	feet
8. Exit Temperature :	266	°F
9. Actual Volumetric Flow Rate :	0	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate:	0	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates :		
Zone: 17 East (km): 446.970	North (k	m): 3365.230

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Emissions Unit Information Section

14. Emission Point Comment:

Flow Rate is too High for ELSA - 1,000,000 ACFM

F. SEGMENT (PROCESS/FUEL) INFORMATION

NGS Boiler No. 1				
				Segment Description and Rate: Segment 1
1. Segment Description (Process/Fuel Type ar	nd Associated Operating Method/Mode):			
No. 6 Fuel Oil				
2. Source Classification Code (SCC): 10	100401			
3. SCC Units: Thousand Gallons Burned (all	l liquid fuels)			
4. Maximum Hourly Rate: 18.20	5. Maximum Annual Rate: 159,467.00			
6. Estimated Annual Activity Factor:				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 152				
10. Segment Comment :				
Max rates based on oil with a heat content of has no fuel sulfur limit, only a max emission	f 152 MBtu/kgal. Max rates vary with heat content. Unit rate for SO2 of 1.98 lb/mmBtu on a 24-hour basis.			

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1 NGS Boiler No. 1			
Segment Description (Process/Fuel Type an Natural Gas	nd Associated Operating Method/Mode):		
2. Source Classification Code (SCC): 101	100601		
3. SCC Units: Million Cubic Feet Burned (al	ll gaseous fuels)		
4. Maximum Hourly Rate: 2.89	5. Maximum Annual Rate: 25,334.00		
6. Estimated Annual Activity Factor:			
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:		
9. Million Btu per SCC Unit: 3			
10. Segment Comment :			
Max rates based on a heat content of 1000 M Max Rates Vary with Heat Content	Btu/MCF.		
Boiler co-fires natural gas, No. 6 Fuel Oil, an	nd On-Spec. Used Oil.		

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1				
NGS Boiler No. 1				
Segment Description and Rate: Segme	ent3			
1. Segment Description (Process/Fuel Type	and Associated Operating Method/Mode):			
On-Spec Used Oil				
2. Source Classification Code (SCC): 1	0100401			
3. SCC Units: Thousand Gallons Burned (a	all liquid fuels)			
4. Maximum Hourly Rate: 18.20	5. Maximum Annual Rate: 1,000.00			
6. Estimated Annual Activity Factor:				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 152				
10. Segment Comment :				
NGS can fire upto 1,000,000 gallons of on-	-spec used oil per year.			

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G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section	1_
NGS Boiler No. 1	

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	Pollutant Regulatory Code
1 - PM			EL
2 - PM10			NS
3 - SO2			EL
4 - NOX			EL
5 - CO			NS
6 - VOC			NS
7 - HAPS			NS
8 - H107			NS
9 - HCL			NS
10 - H133		·	NS
11 - SAM			NS

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Emissions Unit Information Section1 NGS Boiler No. 1	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions: 830.0000000 lb/hour	1,514.9000000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference: Rule, (EF=0.1)	
7. Emissions Method Code: 0	
8. Calculations of Emissions: (0.1 lb/mmBtu)(2767 mmBtu/hr) = 276.7 lb/hr (0.3 lb/mmBtu)(2767 mmBtu/hr) = 830.1 lb/hr {(0.1 lb/mmBtu)(2767 mmBtu/hr)(8760 hr/yr - (3hr/day)(365 day/yr)) + (mmBtu/hr)(3hr/day)(365 day/yr)}/2000 lb/ton = 1514.9 tons 276.7 lb/hr X (8760 - 1095) hr/yr / 2000 lb/ton = 1060.5 tons Multi Unit Cap - 881 tons/yr	(0.3 lb/mmBtu)(2767

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Emissions Unit Information Section 1_
NGS Boiler No. 1
9. Pollutant Potential/Estimated Emissions Comment:
Annual emissions includes allowable soot blowing activities (3 hr/day at 0.3 lb/mmBtu).

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Emissions Unit Information Section1 NGS Boiler No. 1			
Pollutant Potential/Estimated Emissions	: Pollutant 2	_	
1. Pollutant Emitted: PM10			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions :			
	lb/hour		tons/year
4. Synthetically Limited? [] Yes [] No			
5. Range of Estimated Fugitive/Other Em	issions:		
		to	tons/year
6. Emissions Factor Reference:	Units	<u> </u>	
7. Emissions Method Code :			
8. Calculations of Emissions:			
9. Pollutant Potential/Estimated Emission	s Comment :		

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Emissions Unit Information Section

Emissions Unit Information Section 1 NGS Boiler No. 1			
Pollutant Potential/Estimated Emissions: Pollutant 3			
1. Pollutant Emitted: SO2			
2. Total Percent Efficiency of Control: %		· · · · · · · · · · · · · · · · · · ·	
3. Potential Emissions: 5,479.0000000 lb/hour	23,997.0	0000000 tons/year	
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year	
6. Emissions Factor 2 Units 1b/ Reference : Rule, (EF=1.98)	mmBtu		
7. Emissions Method Code: 0			
8. Calculations of Emissions :			
(2767 lb/mmBtu)(1.98 lb-SO2/mmBtu) = 5478.7 lb/hr			
(5478.7 lb/hr)(8760 hr/yr)/(2000 lb/ton) = 23996.7 tons			
Multi Unit Cap - 12,284 tons/yr			
9. Pollutant Potential/Estimated Emissions Comment:	· · · · · ·		
Emission Limit set by regulation. III Part 9b - 4			

Effective: 3-21-96

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Emissions Unit Information Section	1		
NGS Boiler No. 1			

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Emissions Unit Information Section1 NGS Boiler No. 1	
Pollutant Potential/Estimated Emissions: Pollutant 4	
1. Pollutant Emitted: NOX	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions: 1,231.3000000 lb/hour	5,393.0000000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference : AP-42	
7. Emissions Method Code: 3	
8. Calculations of Emissions :	
(2767 mmBtu/hr) X (0.445 lb/mmBtu) = 1231.3 lb/hr	
(1231.3 lb/hr) (X (8,760 hr/yr) X (ton/2,000 lb) = 5393.09 Tons/yr	
9. Pollutant Potential/Estimated Emissions Comment:	
Potential emissions based on fuel oil firing and continuous operation.	

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Emissions Unit Information Section	1
NGS Boiler No. 1	

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NGS Boiler No. 1	_	
Pollutant Potential/Estimated Emissions: Pol	llutant 5	
1. Pollutant Emitted: CO		-
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions :	r	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions Comm	ent:	

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Emissions Unit Information Section 1 NGS Boiler No. 1		
Pollutant Potential/Estimated Emissions: Pollutant 6		
1. Pollutant Emitted: VOC	_	
2. Total Percent Efficiency of Control: %		
3. Potential Emissions:		
lb/hour		tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:		
	to	tons/year
6. Emissions Factor Units Reference:	***	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions Comment:		

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Emissions Unit Information Sectio NGS Boiler No. 1	n <u>1</u>	
Pollutant Potential/Estimated Emission	ns: Pollutant 7	
1. Pollutant Emitted: HAPS		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:		
	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other E	missions:	
	to	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code :		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emission	ons Comment :	

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Emissions Unit Information Section 1 NGS Boiler No. 1	
Pollutant Potential/Estimated Emissions: Pollutant 8	
1. Pollutant Emitted: H107	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions : lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor Units Reference:	
7. Emissions Method Code :	
8. Calculations of Emissions :	
9. Pollutant Potential/Estimated Emissions Comment:	

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Emissions Unit Information Section NGS Boiler No. 1	1	
Pollutant Potential/Estimated Emissions:	Pollutant 9	
1. Pollutant Emitted: HCL		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:	nour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emission	to	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions Cor	nment :	

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Emissions Unit Information Section1 NGS Boiler No. 1					
Pollutant Potential/Estimated Emission	Pollutant Potential/Estimated Emissions: Pollutant 10				
1. Pollutant Emitted: H133					
2. Total Percent Efficiency of Control:	%				
3. Potential Emissions :	-				
	lb/hour	tons/year			
4. Synthetically Limited? [] Yes [] No					
5. Range of Estimated Fugitive/Other E	missions:				
	to	tons/year			
6. Emissions Factor Reference:	Units				
7. Emissions Method Code:		,			
8. Calculations of Emissions:					
9. Pollutant Potential/Estimated Emission	ons Comment :				

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Emissions Unit Information Section1 NGS Boiler No. 1			
Pollutant Potential/Estimated Emission	ons: Pollutant 11		
1. Pollutant Emitted: SAM			
2. Total Percent Efficiency of Control	: %		
3. Potential Emissions:	lb/hour	tons/year	
4. Synthetically Limited? [] Yes [] No			
5. Range of Estimated Fugitive/Other I	Emissions:	tons/year	
6. Emissions Factor Reference:	Units		
7. Emissions Method Code:			
8. Calculations of Emissions:			
9. Pollutant Potential/Estimated Emiss	ions Comment:		

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Emissions Unit Information Section NGS Boiler No. 1						
Po	Pollutant Information Section 1					
<u>Al</u>	llowable Emissions 1					
1.	. Basis for Allowable Emissions Code :	RULE				
2.	. Future Effective Date of Allowable Emissions :					
3.	. Requested Allowable Emissions and Units :	16/	/mmBtu			
4.	. Equivalent Allowable Emissions :		-			
	276.70 lb/ho	our 1,060.50	tons/year			
5.	. Method of Compliance :					
	EPA Method 5, If firing oil 400 hours or more per ye	ır.				
6.	. Pollutant Allowable Emissions Comment (Desc.	of Related Operating Me	ethod/Mode):			
	Existing Unit 1 emission limitation is set at 0.1 lb/mn	Btu, not including excess	emissions.			

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Emissions Unit Information Section NGS Boiler No. 1						
Pollutant Information Section 1						
Allowable Emissions 2						
1.	Basis for Allowable Emissions Code:	RULE				
2.	Future Effective Date of Allowable Emissi	ons :				
3.	Requested Allowable Emissions and Units	: 0.30	lb/ı	nmBtu		
4.	Equivalent Allowable Emissions:	-				
	830.10	lb/hour	454.50	tons/year		
5.	Method of Compliance :	W- 11 A	18.0			
	EPA Method 5, If firing oil 400 hours or more	per year.				
6.	Pollutant Allowable Emissions Comment (Desc. of Related C	perating Me	thod/Mode) :		
	Existing Unit 1 excess emission limitation is s	et at 0.3 lb/mmBtu.				

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Emissions Unit Information Section 1 NGS Boiler No. 1							
Po	Pollutant Information Section 3						
<u>Al</u>	lowable Emissions 1						
1.	Basis for Allowable Emissions Code : RULE						
2.	Future Effective Date of Allowable Emissions:						
3.	Requested Allowable Emissions and Units: 1.98 lb/mmBtu						
4.	Equivalent Allowable Emissions:						
	5,478.70 lb/hour 23,996.70 tons/year						
5.	Method of Compliance :						
	Annual EPA Methods 6, 6A, 6B, or 6C or Fuel Sampling						
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):						

Emissions Unit Information Section 1 NGS Boiler No. 1
Pollutant Information Section 3
Allowable Emissions 3
1. Basis for Allowable Emissions Code: OTHER
2. Future Effective Date of Allowable Emissions: 01-Apr-2002
3. Requested Allowable Emissions and Units: 12,284.00 tons per year
4. Equivalent Allowable Emissions :
lb/hour 12,284.00 tons/year
5. Method of Compliance :
Acid Rain CEMS
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
Multi-unit emissions cap on Existing Unit 1, Existing Unit 3, and Repowered Unit 2. Emissions Cap is effective upon successful performance testing of Repowered Unit 2 and will include Repowered Unit 1

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	nissions Unit Information Section 1 GS Boiler No. 1
Po	llutant Information Section4
<u>Al</u>	lowable Emissions 1
1.	Basis for Allowable Emissions Code: OTHER
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002
3.	Requested Allowable Emissions and Units: 3,600.00 tons
4.	Equivalent Allowable Emissions:
	lb/hour 3,600.00 tons/year
5.	Method of Compliance :
	Acid Rain CEMS
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
	Multi-unit emissions cap on Existing Unit 1, Existing Unit 3, and Repowered Unit 2. Emissions Cap is effective upon successful performance testing of Repowered Unit 2 and will include Repowered Unit 1

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	missions Unit Information Section 1 GS Boiler No. 1				
Po	ollutant Information Section1				
<u>Al</u>	llowable Emissions 3				
1.	. Basis for Allowable Emissions Code:	OTHER			
2.	. Future Effective Date of Allowable Emissions :	01-Apr-2	002		
3.	. Requested Allowable Emissions and Units:	881.00	ton	s per year	
4.	. Equivalent Allowable Emissions :		· · · · · ·		
į	Jb/ho	our	881.00	tons/year	
5.	. Method of Compliance :				
	Operating Records & Test Data				
6.	Pollutant Allowable Emissions Comment (Desc. o	of Related O	perating Met	thod/Mode):	
	Multi-unit emissions cap on Existing Unit 1, Existing effective upon successful performance testing of Repo				

Emissions Unit Information Section 1 NGS Boiler No. 1		
Pollutant Information Section 3		
Allowable Emissions 2		
Basis for Allowable Emissions Code :	AMBIENT	
2. Future Effective Date of Allowable Emissions:	01-Apr-2002	
3. Requested Allowable Emissions and Units:	0.14	lb/mmBtu
4. Equivalent Allowable Emissions:	· · · · · · · · · · · · · · · · · · ·	
lb/ho	ur	tons/year
5. Method of Compliance :		
Acid Rain CEM for SO2		
6. Pollutant Allowable Emissions Comment (Desc. o	f Related Opera	ating Method/Mode):
A limit of 0.143 lb/mmBtu (24-hour block average) is contribute to air quality violations following start-up o	requested to ensu f Repowered Un	are that Existing Unit 1 does not it 2.

III. Part 9c - 7

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

. Visible Emissions Subtype:	40		
. Basis for Allowable Opacity:	RULE		
3. Requested Allowable Opacity:			-
Norma	l Conditions:	40	%
Exceptiona Maximum Period of Excess Opac	l Conditions: ity Allowed:	100 0	% min/hour
Method of Compliance:	· -		
Annual DEP Method 9 if firing oil for	400 hours or mor	re	
5. Visible Emissions Comment:			

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DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

1. Visible Emissions S	ubtype:	60			
2. Basis for Allowable	Opacity:	RULE			
3. Requested Allowabl	e Opacity:			·	
	Norr	mal Conditions:	60	%	
Maximum Period o	-	nal Conditions: acity Allowed:	100	% min/hour	
4. Method of Complian	nce :				
Annual DEP Method 9	if firing oil t	for 400 hours or mo	re		
5. Visible Emissions C	omment :				
60% Opacity -Excess >40% Opacity during				anges	

III. Part 10 - 2

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Continuous Monitoring System Continuous Monitor 1	NGS Boiler No. 1	•
3. CMS Requirement RULE 4. Monitor Information Manufacturer: KVB Model Number: 41H Ver 3.1.4 Serial Number: 41H-48394-280 5. Installation Date: 01-Aug-1994 6. Performance Specification Test Date: 29-Dec-1994 7. Continuous Monitor Comment: Continuous Monitoring System Continuous Monitor 2 1. Parameter Code: EM 2. Pollutant(s):	Continuous Monitoring System Continuous Mo	onitor1_
4. Monitor Information Manufacturer: KVB Model Number: 41H Ver 3.1.4 Serial Number: 41H-48394-280 5. Installation Date: 01-Aug-1994 6. Performance Specification Test Date: 29-Dec-1994 7. Continuous Monitor Comment: Continuous Monitoring System Continuous Monitor 2 1. Parameter Code: EM 2. Pollutant(s):	1. Parameter Code: CO2	2. Pollutant(s):
Manufacturer: KVB Model Number: 41H Ver 3.1.4 Serial Number: 41H-48394-280 5. Installation Date: 01-Aug-1994 6. Performance Specification Test Date: 29-Dec-1994 7. Continuous Monitor Comment: Continuous Monitoring System Continuous Monitor 2 1. Parameter Code: EM 2. Pollutant(s):	3. CMS Requirement RULE	
6. Performance Specification Test Date : 29-Dec-1994 7. Continuous Monitor Comment : Continuous Monitoring System Continuous Monitor 2 1. Parameter Code : EM 2. Pollutant(s):	Manufacturer: KVB Model Number: 41H Ver 3.1.4	
7. Continuous Monitor Comment : Continuous Monitoring System Continuous Monitor 2 1. Parameter Code : FM 2. Pollutant(s):	5. Installation Date :	01-Aug-1994
Continuous Monitoring System Continuous Monitor 2 1. Parameter Code: EM 2. Pollutant(s):	6. Performance Specification Test Date :	29-Dec-1994
1. Parameter Code: EM 2. Pollutant(s):	7. Continuous Monitor Comment:	
To To The Control of	Continuous Monitoring System Continuous Mo	onitor 2
	1. Parameter Code: FM	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section __1_

NGS Boiler No. 1	
3. CMS Requirement RULE	
4. Monitor Information	
Manufacturer: TECO Model Number: 42D Ver 3.1.4 Serial Number: 42D-47916-279	
5. Installation Date :	01-Aug-1994
6. Performance Specification Test Date:	29-Dec-1994
7. Continuous Monitor Comment:	
Continuous Monitoring System Continuous Mo	onitor 3
1. Parameter Code: EM	2. Pollutant(s): SO2
3. CMS Requirement RULE	
4. Monitor Information	
Manufacturer: TECO Model Number: 43B Ver 3.1.4 Serial Number: 43B-46895-276	
5. Installation Date :	01-Aug-1994
6. Performance Specification Test Date :	29-Dec-1994
7. Continuous Monitor Comment: 40 CFR Part 75	
Continuous Monitoring System Continuous Mo	onitor 4
1. Parameter Code: FLOW	2. Pollutant(s):
III. Part 11 - 2	

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J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 1 NGS Boiler No. 1	
3. CMS Requirement RULE	
4. Monitor Information Manufacturer: USI Model Number: 100 VER 3.1.4 Serial Number: 9401685	
5. Installation Date :	01-Aug-1994
6. Performance Specification Test Date :	29-Dec-1994
7. Continuous Monitor Comment: Stack Gas Flow 40 CFR Part 75	
Continuous Monitoring System Continuous I	Monitor 5
1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement RULE	
4. Monitor Information Manufacturer: TECO Model Number: 400B VER 3.1.4 Serial Number: 400B-48382	
5. Installation Date :	
6. Performance Specification Test Date :	29-Dec-1994
7. Continuous Monitor Comment: Serial Number 400B-48382-B69/281 Installation Date ~8/1/94 40 CFR Part 75	

III. Part 11 - 3

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Emissions Unit Information Section

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emiss	sions Unit Information Section 1
NGS B	Boiler No. 1
PSD I	ncrement Consumption Determination
1. Inc	rement Consuming for Particulate Matter or Sulfur Dioxide?
I	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
F t	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
u	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, paseline emissions are zero, and emissions unit consumes increment.
	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
s	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

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2.	In	crement Consu	ming for Nitrog	en Dioxi	de?		
[]		has undergone l			undergoing PSD reviously, for nitrogen o	ew as part of this lioxide. If so, emissions
[]	paragraph (c) of the emissions of	of the definition of the addressed in	of "major this sect	r source ion con	nmenced (or will com	or source pursuant to hapter 62-213, F.A.C., and mence) construction after unit consumes increment.
[]	unit began init		er Februa	ıry 8, 19	988, but before March	or source, and the emission 28, 1988. If so, baseline
[]					rill begin) initial opera	ation after March 28, 1988. Ement.
[X	[]	case, additiona	l analysis, beyoi issions have occ	nd the sc	ope of t	his application, is nee	unit are nonzero. In such ded to determine whether date that may consume or
3.	In	acrement Consu	ming/Expanding	g Code :			
		PM:	Е	SO2 :	Е	NO2 :	E
4.	В	aseline Emissio	ons :				
		PM : SO2 : NO2 :	345.7000 5471.0000			694.0000 10997.0000 · 2193.0000	•
5.	PS	SD Comment :					

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Baseline as determined from Records for PSD Application Purposes

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L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

__1__

NGS Boiler No. 1		
Supplemental Requirements for All Applications	<u> </u>	
1. Process Flow Diagram:	Waived	
2. Fuel Analysis or Specification:	Waived	
3. Detailed Description of Control Equipment :	Waived	
4. Description of Stack Sampling Facilities :	Waived	
5. Compliance Test Report :	7/6/98	
6. Procedures for Startup and Shutdown:	NA	<u></u>
7. Operation and Maintenance Plan:	NA	
8. Supplemental Information for Construction Permit Application :	F-9	
9. Other Information Required by Rule or Statue:	F-10	
Additional Supplemental Requirements for Category I Application	ons Only	
10. Alternative Methods of Operations:	NA	-
11. Alterntive Modes of Operation (Emissions Trading):	NA	
	<u> </u>	

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Emissions Unit Information Section

12. Identification of Additional Applicable Requirements:		NA	
13. Compliance Assurance Monitoring NA Plan:			
14. Acid Rain Applic	ation (Hard-copy Required):		
NA Acid Rain Part - Phase II (F		n No. 62-210.900(1)(a))	
NA	Repowering Extension Plan (Fo	orm No. 62-210.900(1)(a)1.)	
NA New Unit Exemption (Form No. 62-210.900(1)(a)2.)		o. 62-210.900(1)(a)2.)	
NA	Retired Unit Exemption (Form	No. 62-210.900(1)(a)3.)	

EMISSIONS UNIT 002

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

En	nissio	ons Unit Information Section 2
NC	SS Bo	oiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)
Тy	pe of	f Emissions Unit Addressed in This Section
1.	Regi	alated or Unregulated Emissions Unit? Check one:
	[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
l	[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2.	Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

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Emissions	Unit	Information Section	2	

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Uni		
NGS Boiler No. 2 (Long-Term l	Reserve Shutdown - 3/1/84)	
Emissions Unit Identification No Corresponding		Jnknown
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [X] Yes [] No	5. Emissions Unit Major Group SIC Code: 49
Repowered Unit 2 will operate	red under the proposed modificati for a period with Existing Unit 1 be effective during this period. Se	and Existing Unit 3. The requested
discussion.		

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	Emissions Unit Information Section				
	Emissions Unit Control Equipment				
	1. Description:				· ·
-	2. Control Device or Method Code :	<u> </u>	 		-

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section	2
NGS Boiler No. 2 (Long-Term Reserve Shutde	own - 3/1/84)

Emissions Unit Details

1. Initial Startup Date: 16-Nov-1966 2. Long-term Reserve Shutdown Date: 01-Mar-1984 3. Package Unit: Manufacturer: Model Number: 4. Generator Nameplate Rating: 298 MW 5. Incinerator Information: Dwell Temperature: Degrees Fahrenheit Dwell Time: Seconds Incinerator Afterburner Temperature: Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:	2352	mmBtu/hr		
2. Maximum Incinerator Rate:		lb/hr	tons/day	
3. Maximum Process or Throughp	ut Rate :			
4. Maximum Production Rate:				
5. Operating Capacity Comment:				

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:

24 hours/day

7 days/week

52 weeks/year

8,760 hours/year

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D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	2		
NGS Boiler No. 2 (Long-Term Reserve Shut	down - 3/1/84)	•	
Rule Applicability Analysis			

Emissions Unit Information Section

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

List of Applicable Regulations

40 CFR Part 77.3, Offset Plans

40 CFR Part 77.5(b), Deduction of Allowances

40 CFR Part 77.6, Excess Emission Penalties for SO2 and NOx

40 CFR Part 72.9, Standards Requirements

40 CFR Part 72 Subpart B, Designated Representative

40 CFR Part 72 Subpart C, Acid Rain Applications

40 CFR Part 72.40, General

40 CFR Part 73 Subpart E, Acid Rain Permit Contents

40 CFR Part 72.90, Annual Compliance Certification Report

40 CFR Part 75, Subpart C, Operation and Maintenance Procedures

40 CFR Part 75, Subpart F, Recordkeeping Requirements

40 CFR Part 75, Subpart G, Reporting Requirements

40 CFR Part 75, Appendix A. Specifications and Test Procedures

40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedures

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Emissions Unit Information Section 2 NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

List of Applicable Regulations

40 CFR Part 75, Appendix C, Missing Data Statistical Estimation Procedures

40 CFR Part 75, Appendix D, Optional SO2 Emissions Data Protocol for Gas-Fired and Oil-Fired Units

40 CFR Part 75, Appendix E, Optional NOx Emissions Estimation Protocol

Rule 62-4.030, F.A.C., General Prohibition

Rule 62-4.040(1), F.A.C., Exemptions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-204.800(14), F.A.C., Adoption of 40 CFR Part 72 (As Noted)

Rule 62-204.800(15), F.A.C., Adoption of 40 CFR Part 73 (As Noted)

Rule 62-204.800(16), F.A.C., Adoption of 40 CFR Part 75 (As Noted)

Rule 62-204.800(17), F.A.C., Adoption of 40 CFR Part 76 (As Noted)

Rule 62-204.800(18), F.A.C., Adoption of 40 CFR Part 77 (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.700(2), (3), (4), (5), and (6), F.A.C., Excess Emissions

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Emissions Unit Information Section 2

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

List of Applicable Regulations

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-212.300(1), F.A.C., General Prohibitions

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-214.320, F.A.C., Applications

Rule 62-214.330, F.A.C., Acid Rain Compliance Plan and Compliance Options

Rule 62-214.350, F.A.C., Certification

Rule 62-214.430(1) and (2), F.A.C., Implementation and Termination of Compliance Options

Rule 62-296.405(1)(a), (b), (c)1.a., F.A.C., Fossil Fuel Fired Steam Generators

Rule 62-296.405(1)(e), (f), and (g), F.A.C., Fossil Fuel Fired Steam Generators

Rule 62-296.700(6)(d), F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter

Rule 62-296.702, F.A.C., Fossil Fuel Steam Generators

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5), F.A.C., Adoption of EPA Method 5

Rule 62-297.401(6), F.A.C., Adoption of EPA Method 6

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Emissions Unit Information Section 2 NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

List of Applicable Regulations

Rule 62-297.401(9), F.A.C., Adoption of EPA Method 9

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution (As Noted)

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-221, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.501, Adoption of Chapter 62-213, F.A.C., (As Noted)

Rule 2.1001, Adoption of Chapter 62-296, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, C.2., Air Pollution Nuisances

Rule 2.1203, E, Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

40 CFR Part 72.6, Applicability

40 CFR Part 73.35, Compliance

40 CFR Part 73.50, Scope and Submission of Transfers

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Emissions Unit Information Section 2 NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

List of Applicable Regulations

40 CFR Part 73.51, Prohibition

40 CFR Part 75.2, Applicability

40 CFR Part 75.4, Compliance Dates

40 CFR Part 75.5, Prohibition

40 CFR Part 75, Subpart B, Monitoring Provisions - except 75.15, 75.16, 75.17, & 75.18

40 CFR Part 75, Subpart D, Missing Data Substitution Procedures

E. EMISSION POINT (STACK/VENT) INFORMATION

2___

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram :	Stack 2	
2. Emission Point Type Code:		
3. Descriptions of Emission Points Comprising this Emissi (limit to 100 characters per point)	ons Unit for VI	E Tracking:
4. ID Numbers or Descriptions of Emission Units with this	Emission Poin	t in Common :
Existing Unit 2 Steam Generator		
5. Discharge Type Code :	· V	
6. Stack Height:	290	feet
7. Exit Diameter :	16.4	feet
8. Exit Temperature :	250	°F
9. Actual Volumetric Flow Rate :	900000	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate:	. 0	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates :		
Zone: 17 East (km): 446.910	North (kr	n): 3365.220

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Emissions Unit Information Section

14	14. Emission Point Comment:	

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F. SEGMENT (PROCESS/FUEL) INFORMATION

NGS Boiler No. 2 (Long-Term Reserve Shutdown	- 3/1/84)
Segment Description and Rate: Segmen	t <u>1</u>
1. Segment Description (Process/Fuel Type a	nd Associated Operating Method/Mode):
No. 6 Fuel Oil	
2. Source Classification Code (SCC): 10	100401
3. SCC Units: Thousand Gallons Burned (al	l liquid fuels)
4. Maximum Hourly Rate: 15.50	5. Maximum Annual Rate: 135,550.00
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 1.80	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 152	
10. Segment Comment :	
Maximum rates based on oil with a heat cont limit, only a max emission rate for SO2 of 1.	tent of 152 mmBtu/kgal. Existing Unit 2 has no fuel sulfur 98 lb/mmBtu on a 24-hour basis.

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2 NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)		
1. Segment Description (Process/Fuel Type an	d Associated Operating Method/Mode):	
Natural Gas		
2. Source Classification Code (SCC): 101		
3. SCC Units: Million Cubic Feet Burned (all	l gaseous fuels)	
4. Maximum Hourly Rate: 2.35	5. Maximum Annual Rate: 20,604.00	
6. Estimated Annual Activity Factor:		
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:	
9. Million Btu per SCC Unit: 1,000		
10. Segment Comment :		
Maximum rates based on heat content of 1000	mmBtu/mmcf. Maximum rates vary with heat content.	

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G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 2

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	Pollutant Regulatory Code
1 - CO			NS
2 - NOX			NS
3 - PM	-		EL
4 - SO2			EL
5 - VOC			NS
6 - SAM			NS
7 - H107			NS
8 - H106			NS
9 - H133			NS
10 - HAPS			NS
11 - PM10			NS

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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section	2	
NGS Boiler No. 2 (Long-Term Reserve Shuto	lown - 3/1/84)	
Pollutant Potential/Estimated Emission	s: Pollutant 1	
1. Pollutant Emitted: CO		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:		
	lb/hour	tons/year
4. Synthetically Limited?		
[] Yes [] No		
5. Range of Estimated Fugitive/Other En	nissions:	
	t	o tons/year
6. Emissions Factor	Units	
Reference:		
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emission	ns Comment :	

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Emissions Unit Information Section 2

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)			
Pollutant Potential/Estimated Emissions	s: Pollutant 2		
1. Pollutant Emitted: NOX			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions:	lb/hour	tons/year	
4. Synthetically Limited? [] Yes [] No			
5. Range of Estimated Fugitive/Other Em	nissions:		
	to	tons/year	
6. Emissions Factor Reference	Units		
7. Emissions Method Code:			
8. Calculations of Emissions:			
9. Pollutant Potential/Estimated Emission	ns Comment:		

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Emissions Unit Information Section 2

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)
Pollutant Potential/Estimated Emissions: Pollutant 3
1. Pollutant Emitted: PM
2. Total Percent Efficiency of Control: %
3. Potential Emissions:
705.9000000 lb/hour 1,289.0000000 tons/year
4. Synthetically Limited?
[] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions:
to tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference: Rule, (EF=0.1)
7. Emissions Method Code: 0
8. Calculations of Emissions:
Short Term Allowables
(0.1 lb/mmBtu)(2352 mmBtu/hr)=235.2 lb/hr (0.3 lb/mmBtu)(2352 mmBtu/hr)=705.9 lb/hr
Long Term Allowables $ [(235.2 \text{ lb/hr})(8760 \text{ hr/yr} - (3\text{hr/day})(365\text{day/yr})) + (705.9 \text{ lb/hr})(3\text{hr/day})(365 \text{ day/yr})]/2000 = 1289.0 $ tons
9. Pollutant Potential/Estimated Emissions Comment:
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Emissions Unit Information Section	2
NGS Boiler No. 2 (Long-Term Reserve Shutdov	vn - 3/1/84)

Maximum short term emissions based on soot blowing at 0.3 lb/mmBtu.

Maximum Long term emissions based on soot blowing activities 3 hr/day at 0.3 lb/mmBtu.

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<u>Pollutant</u>	Potential/Estimated Emissions: Pollu	tant <u>4</u>	
1. Pollut	ant Emitted: SO2		
2. Total	Percent Efficiency of Control:	%	
3. Potent	tial Emissions : 4,657.0000000 lb/hour	20	0,397.5000000 tons/year
	etically Limited? Yes [X] No		
5. Range	of Estimated Fugitive/Other Emissions:	to	tons/year
l	ions Factor Reference: Rule, (EF=1.98)	Units lb/mmBtu	
7. Emissi	ions Method Code: 0		
8. Calcul	lations of Emissions:		
1.98 r	mmBtu/hr x 2352 mmBtu/hr = 4657 lb/hr		
4657	$lb/hr \times 8760 \text{ hr/yr} \times ton/2000 \text{ lb} = 20397.5 \text{ tons}$	s per year	
9. Polluta	ant Potential/Estimated Emissions Commen	t:	
Allow	wable emission limit is set at 1.98 lb/mmBtu.		
			

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Emissions Unit Information Section

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

Emissions Unit Information Section 2

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

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Emissions Unit Information Section2 NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)			
Pollutant Potential/Estimated Emiss	sions: Pollutant 5		
1. Pollutant Emitted: VOC			
2. Total Percent Efficiency of Contro	ol : %		
3. Potential Emissions:	lb/hour	tons/year	
4. Synthetically Limited? [] Yes [] No			
5. Range of Estimated Fugitive/Other	r Emissions:		
	to	tons/year	
6. Emissions Factor Reference:	Units		
7. Emissions Method Code:			
8. Calculations of Emissions :			
9. Pollutant Potential/Estimated Emis	ssions Comment :		

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NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1	1/84)		
Pollutant Potential/Estimated Emissions: Pol	llutant 6		
1. Pollutant Emitted: SAM			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions :			
lb/hour	r		tons/year
4. Synthetically Limited? [] Yes [] No			
5. Range of Estimated Fugitive/Other Emissions:			
		to	tons/year
6. Emissions Factor Reference:	Units		
7. Emissions Method Code:			
8. Calculations of Emissions:			

III. Part 9b - 8

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Emissions Unit Information Section	2		
NGS Boiler No. 2 (Long-Term Reserve Shutdov	wn - 3/1/84)		
Pollutant Potential/Estimated Emissions :	Pollutant 7		
1. Pollutant Emitted: H107			·
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions:	lb/hour		tons/year
4. Synthetically Limited? [] Yes [] No			
5. Range of Estimated Fugitive/Other Emis	ssions:		
		to	tons/year
6. Emissions Factor Reference:	Units		
7. Emissions Method Code:			
8. Calculations of Emissions:			
9. Pollutant Potential/Estimated Emissions	Comment:		

III. Part 9b - 9

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	2	
NGS Boiler No. 2 (Long-Term Reserve Shutdown	- 3/1/84)	
Pollutant Potential/Estimated Emissions:	Pollutant 8	
1. Pollutant Emitted: H106		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions :		
Ib/I	hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissio	ns:	
	to	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions Co	omment :	

III. Part 9b - 10

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 2

NGS Boiler No. 2 (Long-Term Reserve Shut	tdown - 3/1/84)		
Pollutant Potential/Estimated Emission	ns: Pollutant 9	_	
1. Pollutant Emitted: H133			
2. Total Percent Efficiency of Control:	%		
3. Potential Emissions:			
	lb/hour		tons/year
4. Synthetically Limited? [] Yes [] No			
5. Range of Estimated Fugitive/Other Er	nissions:		
		to	tons/year
6. Emissions Factor Reference:	Units		
7. Emissions Method Code:			
8. Calculations of Emissions:			
9. Pollutant Potential/Estimated Emissio	ns Comment :		

III. Part 9b - 11

DEP Form No. 62-210.900(1) - Form

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/	/84)	
Pollutant Potential/Estimated Emissions: Poll	lutant10	
1. Pollutant Emitted: HAPS		
2. Total Percent Efficiency of Control:	%	·
3. Potential Emissions:		
lb/hour		tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:		
	to	tons/year
6. Emissions Factor	Units	
Reference :		
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions Comme	ent :	

III. Part 9b - 12

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Emissions Unit Information Section	on2	
NGS Boiler No. 2 (Long-Term Reserve Sh	outdown - 3/1/84)	
Pollutant Potential/Estimated Emissic	ons: Pollutant 11	
1. Pollutant Emitted: PM10		
2. Total Percent Efficiency of Control	: %	
3. Potential Emissions:		
	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other I	Emissions:	
	to	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emiss	ions Comment :	

III. Part 9b - 13

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 2

NGS Boiler No. 2 (Long	g-Term Reserv	re Shutdown - 3/	1/84)		
Visible Emissions Limit	itation : Visib	ble Emissions Li	mitation	1	
1. Visible Emissions S	ubtype :	40			
2. Basis for Allowable	Opacity:	RULE			
3. Requested Allowabl	e Opacity:				
	Norma	al Conditions:	40	%	
	Exceptiona	d Conditions:	100	%	
Maximum Period o			0	min/hour	
4. Method of Complian	nce :				
Annual VE using EPA	Method 9				
5. Visible Emissions C	omment :				

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

<u>Visible Emissions Limitation</u>: Visible Emissions Limitation 1. Visible Emissions Subtype: 60 2. Basis for Allowable Opacity: **RULE** 3. Requested Allowable Opacity: Normal Conditions: 60 % **Exceptional Conditions:** 100 % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: Annual VE using EPA Method 9 5. Visible Emissions Comment: Soot blowing VE limit 3 hrs/day

III. Part 10 - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Continuous	s Monitor
Parameter Code :	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer: Model Number: Serial Number:	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment:	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emis	ssions Unit Information Section 2
NGS	Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)
<u>PSD</u>	Increment Consumption Determination
1. In	crement Consuming for Particulate Matter or Sulfur Dioxide?
[]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[X]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	crement Consur	ning t	for Nitroge	en Dioxid	de?		
[]		has ur	ndergone P			s undergoing PSD revie reviously, for nitrogen d	ew as part of this lioxide. If so, emissions
[] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[]				_		will begin) initial opera ons unit consumes incre	ation after March 28, 1988. Ement.
[X	:]	case, additional	l analy	ysis, beyon	nd the sco	ope of	f this application, is need	unit are nonzero. In such ded to determine whether date that may consume or
3.	In	ncrement Consu	ming/	Expanding	Code :	•		
		PM :	E		SO2 :	E	NO2 :	U
4.	В	aseline Emissio	ns:					
		PM : SO2 : NO2 :		292.6000 4635.6000	lb/hour lb/hour		13839.0000	tons/year tons/year tons/year
5.	P.	SD Comment:						

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

Effective: 3-21-96

NOx emissions.

Baseline calculated using allowable and operating data for 73/74 for SO2 & PM and 86/87 data for

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 2

NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)		
Supplemental Requirements for All Applications		
1. Process Flow Diagram:	Waived	
2. Fuel Analysis or Specification:	Waived	
3. Detailed Description of Control Equipment :	Waived	
4. Description of Stack Sampling Facilities :	Waived	
5. Compliance Test Report :	NA	
6. Procedures for Startup and Shutdown:	NA	
7. Operation and Maintenance Plan:	NA	
8. Supplemental Information for Construction Permit Application:	F-9	
9. Other Information Required by Rule or Statue :	F-10	
Additional Supplemental Requirements for Category I Application	s Only	
10. Alternative Methods of Operations:		
11. Alterntive Modes of Operation (Emissions Trading):		
	<u></u>	

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

12. Identification of	Additional Applicable Requirements:					
13. Compliance Assurance Monitoring Plan:						
14. Acid Rain Appli	cation (Hard-copy Required):					
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))					
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)					
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)					
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)					

DEP Form No. 62-210.900(1) - Form

Emissions Unit 003

NGS Boiler No. 3

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissio	ons Unit Information Section 3
NGS Bo	iler No. 3
Type of	Emissions Unit Addressed in This Section
1. Regu	alated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

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H MICCIANC	III	Information Section	4
LHIMOSIVIIS	CILL		,

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions	Unit Addressed in This Section:	
NGS Boiler No. 3		
Emissions Unit Identifica No Correspond		Unknown
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [X] Yes [] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment	: :	
		nit 2, the requested multi-unit rom Existing Unit 3. See Attachment

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	3
NGS Boiler No. 3	
Emissions Unit Control Equipment	1
Description: This unit is equipped with low-NOx bur	mers to reduce formation of NOx emissions.
2. Control Device or Method Code :	24

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section NGS Boiler No. 3		
Emissions Unit Details		
1. Initial Startup Date : 28-Jun	-1977	
2. Long-term Reserve Shutdown Date :		
3. Package Unit:		
Manufacturer:	Model Number:	
4. Generator Nameplate Rating: 564 M	IW	
5. Incinerator Information :		
Dwell Temperature:	Degrees Fahrenheit	
Dwell Time:	Seconds	
Incinerator Afterburner Temperature :	Degrees Fahrenheit	
Emissions Unit Operating Capacity 1. Maximum Heat Input Rate: 5260	mmBtu/hr	
2. Maximum Incinerator Rate:	lb/hr tons/day	
3. Maximum Process or Throughput Rate:	0	
4. Maximum Production Rate:		
5. Operating Capacity Comment: Generator Nameplate Rating is 563.7 MW; 5260 mn	nBtu/hr for gas firing & 5033 mmBtu/hr on	ı oil.
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule:	<u></u>	
24 hours/day	7 days/week	
52 weeks/year	8,760 hours/year	

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	3
NGS Boiler No. 3	

Rule Applicability Analysis

Existing Unit 3 will not be modified as part of the proposed construction activities associated with the repowering of Existing Unit 1 or Existing Unit 2. Following successful performance testing on Repowered Unit 2, emissions from Existing Unit 3 will be capped and included within the multi-unit emissions caps for NOx, SO2, and PM. See Attachment F-10 for detailed discussion.

III. Part 6a - 1

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3

List of Applicable Regulations

40 CFR Part 77.3, Offset Plans

40 CFR Part 77.5(b), Deduction of Allowances

40 CFR Part 77.6, Excess Emission Penalties for SO2 and NOx

40 CFR Part 72.9, Standards Requirements

40 CFR Part 72, Subpart B, Designated Representative

40 CFR Part 72, Subpart C, Acid Rain Permit Applications

40 CFR Part 72.40, General

40 CFR Part 72, Subpart E, Acid Rain Permit Contents

40 CFR Part 73.35, Compliance

40 CFR Part 73.50, Scope and Submission of Transfers

40 CFR Part 73.51, Prohibition

40 CFR Part 75.2, Applicability

40 CFR Part 75.4, Compliance Dates

40 CFR Part 75.5, Prohibition

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS Boiler No. 3

List of Applicable Regulations

40 CFR Part 75, Subpart B, Monitoring Provisions - except 75.15, 75.16, 75.17, & 75.18

40 CFR Part 72.90, Annual Compliance Certification Report

40 CFR Part 75, Subpart C, Operation and Maintenance Procedures

40 CFR Part 75, Subpart D, Missing Data Substitution Procedures

40 CFR Part 75, Subpart F, Recordkeeping Requirements

40 CFR Part 75, Subpart G, Reporting Requiremnts

40 CFR Part 75, Appendix A, Specifications and Test Procedures

40 CFR Part 75, Appendix B, Quality Assurance and Quality Control Procedures

40 CFR Part 75, Appendix C, Missing Data Statistical Estimation Procedures

40 CFR Part 75, Appendix D, Optional SO2 Emissions Data Protocol for Gas-Fired and Oil-Fired Units

Rule 62-4.030, F.A.C., General Prohibition

Rule 62-4.04(1), F.A.C., Exemptions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-204.800(14), F.A.C., Adoption of 40 CFR Part 72 (As Noted)

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS Boiler No. 3

List of Applicable Regulations

Rule 62-204.800(15), F.A.C., Adoption of 40 CFR Part 73 (As Noted)

Rule 62-204.800(16), F.A.C., Adoption of 40 CFR Part 75 (As Noted)

Rule 62-204.800(17), F.A.C., Adoption of 40 CFR Part 76 (As Noted)

Rule 62-204.800(18), F.A.C., Adoption of 40 CFR Part 77 (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.700(2(, (3), (4), (5), and (6), F.A.C., Excess Emissions

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-212.300(1), F.A.C., General Prohibitions

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-214.320, F.A.C., Applications

Rule 62-214.330, F.A.C., Acid Rain Compliance Plan and Compliance Options

Rule 62-214.350, F.A.C., Certification

Rule 62-214.430(1) and (2), F.A.C., Implementation and Termination of Compliance Options

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

NGS Boiler No. 3

List of Applicable Regulations

Rule 62-296.405(1)(a), (b), (c)1.a., and (d)1., F.A.C., Fossil Fuel Fired Steam Generators

Rule 62-296.405(1)(e), (f), and (g)., F.A.C., Fossil Fuel Fired Steam Generators

Rule 62-296.700(6)(d), F.A.C., Reasonably Available Control Technology (RACT) Particulate Matter

3

Rule 62-29.702, F.A.C., Fossil Fuel Steam Generators

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5), F.A.C., Adoption of EPA Method 5

Rule 62-297.401(6), F.A.C., Adoption of EPA Method 6

Rule 62-297.401(7), F.A.C., Adoption of EPA Method 7

Rule 62-297.401(9), F.A.C., Adoption of EPA Method 9

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution (As Noted)

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-2213, F.A.C., (As Noted)

III. Part 6b - 4

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Emissions Unit Information Section

NGS Boiler No. 3

List of Applicable Regulations

Rule 2.1001, Adoption of Chapter 62-296, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, C.2., Air Pollution Nuisances

Rule 2.1203, E, Air Pollution Nuisances Prohibited

Rule 62-1.301, Adoption of Chapter 62-4, F.A.C., (As Noted)

40 CFR Part 72.6, Applicability

III. Part 6b - 5

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E. EMISSION POINT (STACK/VENT) INFORMATION

3___

NGS Boiler No. 3		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram:	NGS Stack 3	
2. Emission Point Type Code:		
3. Descriptions of Emission Points Comprising this Emissio (limit to 100 characters per point)	ons Unit for VE	E Tracking:
4. ID Numbers or Descriptions of Emission Units with this	Emission Point	t in Common :
Existing Unit 3 Steam Generator		
5. Discharge Type Code:	V	
6. Stack Height:	350	feet
7. Exit Diameter :	15.5	feet
8. Exit Temperature :	305	°F
9. Actual Volumetric Flow Rate :	0	acfm
10. Percent Water Vapor:	0.00	%
11. Maximum Dry Standard Flow Rate:	0	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates:		
Zone: 17 East (km): 446.850	North (kr	m): 3365.210

III. Part 7a - 1

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Emissions Unit Information Section

14. Emission Point Comment:

Flow Rate is to High for ELSA - 1,500,000 ACFM

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3	_
NGS Boiler No. 3	
Segment Description and Rate: Segment	1
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
No. 6 Fuel Oil	
2. Source Classification Code (SCC): 10100)401
3. SCC Units: Thousand Gallons Burned (all lie	quid fuels)
4. Maximum Hourly Rate: 33.10	5. Maximum Annual Rate: 290,060.00
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 152	
10. Segment Comment :	
Max rates based on oil only at a heat content of has no fuel sulfur limit, only a max emission rate	52 MBtu/kgal. Max rates vary with heat content. Unit for SO2 of 1.98 lb/mmBtu on a 24-hour basis

III. Part 8 - 1

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3	-			
NGS Boiler No. 3				
Segment Description and Rate: Segment	Segment Description and Rate: Segment 2			
Segment Description (Process/Fuel Type and A Natural Gas	Associated Operating Method/Mode):			
2. Source Classification Code (SCC): 10100	601			
3. SCC Units: Million Cubic Feet Burned (all ga	aseous fuels)			
4. Maximum Hourly Rate: 5.26	5. Maximum Annual Rate: 46,078.00			
6. Estimated Annual Activity Factor:				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit: 1,000				
10. Segment Comment :				
Max rates based on a heat content of 1000 MBtu. Actual Rates Vary with Heat Content	/MCF.			
Boiler co-fires natural gas, No. 6 Fuel Oil, and O	n-Spec. Used Oil.			

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3	_
NGS Boiler No. 3	
Segment Description and Rate: Segment	3
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
On-Spec Used Oil	
2. Source Classification Code (SCC): 10100)401
3. SCC Units: Thousand Gallons Burned (all lie	quid fuels)
4. Maximum Hourly Rate: 33.10	5. Maximum Annual Rate: 1,000.00
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 152	
10. Segment Comment:	
NGS can fire up to 1,000,000 gallons of on-spec	used oil per year.

III. Part 8 - 3

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section	3
NGS Boiler No. 3	

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	Pollutant Regulatory Code
1 - PM			EL
2 - PM10			NS
3 - SO2			EL
4 - NOX			EĻ
5 - CO			NS
6 - VOC			NS
7 - HAPS			NS
8 - H107			NS
9 - HCL			NS
10 - H133			NS
11 - SAM			NS

III. Part 9a - 1

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Emissions Unit Information Section ___3

NGS Boiler No. 3					
Pollutant Potential/Estimated Emissions: Pollutant 1					
1. Pollutant Emitted: PM					
2. Total Percent Efficiency of Control:	%				
3. Potential Emissions: 1,509.9000000 lb/hour	2,7	755.6000000 tons/year			
4. Synthetically Limited? [] Yes [X] No					
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year			
6. Emissions Factor 0 Reference: Rule, (EF=0.1)	Units lb/mmBtu				
7. Emissions Method Code: 0					
8. Calculations of Emissions : Short Term allowables (0.1 lb/mmBtu)(5033 mmBtu/hr) = 503.3 lb/hr (0.3 lb/mmBtu)(5033 mmBtu/hr) = 1509.9 lb/hr					
Long Term Allowables {(503.3)(8760 hr/yr - (3hr/day)(365 day/yr)) + (1509 2755.6 tons 276.7 lb/hr X (8760 - 1095) hr/yr / 2000 lb/ton = 106	-	lay/yr)}/2000 lb/ton =			

III. Part 9b - 1

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Emissions Unit Information Section 3	
NGS Boiler No. 3	
9. Pollutant Potential/Estimated Emissions Comment:	
Maximum short term emissions based on soot blowing at 0.3 lb/mmBtu	
Maximum long term emissions based on soot blowing activities 3 hr/day at 0.3 lb/mmBtu.	

III. Part 9b - 2

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Emissions Unit Information Section NGS Boiler No. 3 Pollutant Potential/Estimated Emissions: Pollutant 2				
2. Total Percent Efficiency of Control: %				
3. Potential Emissions :	<u>.</u>			
lb/hour	tons/year			
4. Synthetically Limited? [] Yes [] No				
5. Range of Estimated Fugitive/Other Emissions:				
to	tons/year			
6. Emissions Factor Units Reference:				
7. Emissions Method Code:				
8. Calculations of Emissions:				
9. Pollutant Potential/Estimated Emissions Comment:				

III. Part 9b - 3

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N	GS Boiler No. 3			
Po	Ilutant Potential/Estimated Emissions: Pollut	tant 3	_	
1.	Pollutant Emitted: SO2			
2.	Total Percent Efficiency of Control:	%		
3.	Potential Emissions: 9,965.0000000 lb/hour		43,648	.2000000 tons/year
4.	Synthetically Limited? [] Yes [X] No			
5.	Range of Estimated Fugitive/Other Emissions:		to	tons/year
6.	Emissions Factor 2 Reference: Rule, (EF=1.98)	Units lb/m	mBtu	
7.	Emissions Method Code: 0			
8.	Calculations of Emissions:			
	Short Term (5033 lb/mmBtu)(1.98 lb-SO2/mmBtu) = 9965 lb/hr (9965 lb/hr)(8760 hr/yr)/(2000 lb/ton) = 43648 tons	·		
9.	Pollutant Potential/Estimated Emissions Comment	::		
	Allowable emission limit is set at 1.98 lb/mmBtu.			
	III Part Oh 1			

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Emissions Unit Information Section

Emissions Unit Information Section	3
NGS Boiler No. 3	

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Emissions Unit Information Section3 NGS Boiler No. 3	
Pollutant Potential/Estimated Emissions: Pollutant 4	
1. Pollutant Emitted: NOX	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions :	· -
1,509.9000000 lb/hour	6,613.3600000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference: Rule, (EF=0.3)	
7. Emissions Method Code: 0	
8. Calculations of Emissions:	
(0.3 lb/mmBtu)(5033 mmBtu/hr) = 1509.9 lb/hr	
(1509.9 lb/hr)(8760 hr/yr)/2000 lb/ton = 6613 tons/year	
9. Pollutant Potential/Estimated Emissions Comment:	
Emission limit is set at 0.3 lb/mmBtu per Regulation.	

III. Part 9b - 6

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 3
NGS Boiler No. 3

III. Part 9b - 7

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 3 NGS Boiler No. 3	
Pollutant Potential/Estimated Emissions: Pollutant 5	
1. Pollutant Emitted: CO	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions :	
lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor Units Reference:	
7. Emissions Method Code :	
8. Calculations of Emissions:	
9. Pollutant Potential/Estimated Emissions Comment:	

III. Part 9b - 8

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS Boiler No. 3	n3	
Pollutant Potential/Estimated Emissions: Pollutant 6		
1. Pollutant Emitted: VOC		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Er	missions:	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissio	ns Comment :	

III. Part 9b - 9

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section3 NGS Boiler No. 3		
Pollutant Potential/Estimated Emission	s: Pollutant7	
1. Pollutant Emitted: HAPS	•	
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other En	nissions:	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code:		,
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emission	ns Comment :	

III. Part 9b - 10

DEP Form No. 62-210.900(1) - Form

NGS Boiler No. 3	on <u>3</u>	
Pollutant Potential/Estimated Emission	ns: Pollutant 8	•
1. Pollutant Emitted: H107		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:	lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other E	imissions:	
	to	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emission	ons Comment :	

III. Part 9b - 11

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 3 NGS Boiler No. 3		
Pollutant Potential/Estimated Emissions: Pollutant 9		
1. Pollutant Emitted: HCL		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions : lb/hour		tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor U Reference	Jnits	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions Comment:		

III. Part 9b - 12

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section3_ NGS Boiler No. 3	
Pollutant Potential/Estimated Emissions: Pollutant 10	
1. Pollutant Emitted: H133	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions :	
lb/hour	tons/year
4. Synthetically Limited? [] Yes [] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor Units Reference:	
7. Emissions Method Code :	
8. Calculations of Emissions:	
9. Pollutant Potential/Estimated Emissions Comment:	

III. Part 9b - 13

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 3 NGS Boiler No. 3		
Pollutant Potential/Estimated Emissions:	Pollutant 11	
1. Pollutant Emitted: SAM		
2. Total Percent Efficiency of Control:	%	·
3. Potential Emissions:		
· 11:	b/hour	tons/year
4. Synthetically Limited? [] Yes [] No		
5. Range of Estimated Fugitive/Other Emissi	ions:	
	to	tons/year
6. Emissions Factor Reference:	Units	
7. Emissions Method Code:		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions C	Comment :	

III. Part 9b - 14

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS Boiler No. 3
Pollutant Information Section 1
Allowable Emissions 1
1. Basis for Allowable Emissions Code: RULE
2. Future Effective Date of Allowable Emissions :
3. Requested Allowable Emissions and Units: 0.10 lb/mmBtu
4. Equivalent Allowable Emissions:
503.30 lb/hour 1,928.90 tons/year
5. Method of Compliance :
EPA Method 5, If firing oil 400 hours or more per year.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
The emission limit is set at 0.1 lb/mmBtu, not including excess emissions.
Long term emissions based on 7,665 hours per year and exclude soot blowing emissions.

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 3 NGS Boiler No. 3	
Pollutant Information Section1_	
Allowable Emissions 2	
1. Basis for Allowable Emissions Code: RULE	
2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 0.30 lb/mmBtu	<u> </u>
4. Equivalent Allowable Emissions:	· · · · · ·
1,509.90 lb/hour 826.70 tons/ye	аг
5. Method of Compliance :	
EPA Method 5, If firing oil 400 hours or more per year.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) The excess emissions limitation is set at 0.3 lb/mmBtu.):

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS Boiler No. 3	3		-
Pollutant Information Section 3			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE	· · · · · · · · · · · · · · · · · · ·	
2. Future Effective Date of Allowable En	nissions :		
3. Requested Allowable Emissions and U	Jnits: 1.98	lb/m	mBtu
4. Equivalent Allowable Emissions:			.
9,965.00	lb/hour	43,648.00	tons/year
5. Method of Compliance :			

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :

DEP Form No. 62-210.900(1) - Form

EPA Methods 6, 6A, 6B, or 6C or Fuel Sampling

Emissions Unit Information Section NGS Boiler No. 3	3		
Pollutant Information Section 4	-		
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE		
2. Future Effective Date of Allowable Em	issions :		
3. Requested Allowable Emissions and Un	nits: 0.30	lb/m	mBtu
4. Equivalent Allowable Emissions:			
1,509.90	lb/hour	6,613.36	tons/year
5. Method of Compliance :			
Continuous Emission Monitor			
6. Pollutant Allowable Emissions Comme	nt (Desc. of Related	Operating Met	hod/Mode):
Compliance based on 30-day rolling avera	ge.		

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

Emissions Unit Information Section NGS Boiler No. 3	
Pollutant Information Section 1	
Allowable Emissions 3	
1. Basis for Allowable Emissions Code:	OTHER
2. Future Effective Date of Allowable Emission	ns: 01-Apr-2002
3. Requested Allowable Emissions and Units:	881.00 tons per year
4. Equivalent Allowable Emissions:	
	lb/hour 881.00 tons/year
5. Method of Compliance:	
Recodkeeping System	
6. Pollutant Allowable Emissions Comment (D	esc. of Related Operating Method/Mode):
The multi-unit emissions cap is effective upon s Repowered Unit 2. See Attachment F-10 for det	successful completion of performance testing for sailed discussion.

DEP Form No. 62-210.900(1) - Form

	hissions Unit Information Section 3 SS Boiler No. 3
Po	Ilutant Information Section 4
All	lowable Emissions 2
1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002
3.	Requested Allowable Emissions and Units: 3,600.00 Tons per Year
4.	Equivalent Allowable Emissions:
	lb/hour 3,600.00 tons/year
5.	Method of Compliance :
	Acid Rain CEMS
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
	The multi-unit emissions cap is effective upon successful completion of performance testing for Repowered Unit 2. See Attachment F-10 for detailed discussion.

DEP Form No. 62-210.900(1) - Form

	Emissions Unit Information Section 3 NGS Boiler No. 3					
Po	Pollutant Information Section 3					
Al	Allowable Emissions 2					
1.	1. Basis for Allowable Emissions Code:	OTHER				
2.	2. Future Effective Date of Allowable Emissions:	: 01-Apr-20	02			
3.	3. Requested Allowable Emissions and Units:	12,284.00	tons	per year		
4.	4. Equivalent Allowable Emissions:					
	lba	/hour	12,284.00	tons/year		
5.	5. Method of Compliance :	· · · · · · · · · · · · · · · · · · ·				
	Acid Rain CEMS					
6.	6. Pollutant Allowable Emissions Comment (Desc	c. of Related Op	erating Meth	od/Mode):		
	The multi-unit emissions cap is effective upon succeed Repowered Unit 2. See Attachment F-10 for details	-	n of performa	nce testing for		

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section NGS Boiler No. 3	3			
Visible Emissions Limitation: Visible	Emissions Lir	nitation	1	
1. Visible Emissions Subtype: 2	0			
Basis for Allowable Opacity: R	ULE			
2. Basis for Anowable Opacity.	ULD			
3. Requested Allowable Opacity :	<u>. </u>			
Normal C	onditions :	40	%	
Exceptional C	onditions:	100	%	
Maximum Period of Excess Opacity	Allowed:	0	min/hour	
4. Method of Compliance :		•		
Annual VE test using DEP Method 9, if >	400 hours usin	g oil		
5. Visible Emissions Comment:				

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

NC	SS Boiler No. 3
V E	sible Emissions Limitation: Visible Emissions Limitation 2
1.	Visible Emissions Subtype: 60
2.	Basis for Allowable Opacity: RULE
3.	Requested Allowable Opacity:
	Normal Conditions: 60 %
1	Exceptional Conditions: 100 %
	Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance :
	Annual VE test using DEP Method 9, if > 400 hours on oil.
5.	Visible Emissions Comment :
	60% Opacity -Excess Emission during Soot Blowing and Load Changes >100% Opacity during Startup, Shutdown and Malfunctions

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 3

NGS Boiler No. 3					
Continuous Monitoring System Continuous M	Continuous Monitoring System Continuous Monitor 1				
1. Parameter Code: CO2	2. Pollutant(s):				
3. CMS Requirement RULE					
4. Monitor Information					
Manufacturer: TECO Model Number: 41H Ver 3.1.4 Serial Number: 41H-48550-2810					
5. Installation Date :	09-Jul-1994				
6. Performance Specification Test Date :	05-May-1995				
7. Continuous Monitor Comment: 40 CFR Part 75	-				
Continuous Monitoring System Continuous M	onitor 2				
1. Parameter Code: EM	2. Pollutant(s): NOX				
III. Part 11 - 1					

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DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 3 NGS Boiler No. 3						
3. CMS Requirement RULE	3. CMS Requirement RULE					
4. Monitor Information Manufacturer: TECO Model Number: 42D Ver 3.1.4 Serial Number: 42D-48008-279						
5. Installation Date :	09-Jul-1994					
6. Performance Specification Test Date:	05-May-1995					
7. Continuous Monitor Comment : 40 CFR Part 75						
Continuous Monitoring System Continuous Mo	onitor 3					
1. Parameter Code: FM	2. Pollutant(s): SO2					
3. CMS Requirement RULE						
4. Monitor Information Manufacturer: TECO Model Number: 43B Ver 3.1.4 Serial Number: 43B-46865-276						
5. Installation Date :	09-Jul-1994					
6. Performance Specification Test Date :	05-May-1995					
7. Continuous Monitor Comment : 40 CFR Part 75						
Continuous Monitoring System Continuous Monitor 4						
1. Parameter Code: FLOW	2. Pollutant(s):					
III. Part 11 - 2						

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 3 NGS Boiler No. 3 3. CMS Requirement RULE 4. Monitor Information Manufacturer: USI Model Number: 100 VER 3.1.4 Serial Number: 9401639 5. Installation Date: 09-Jul-1994 6. Performance Specification Test Date: 05-May-1995 7. Continuous Monitor Comment: 40 CFR Part 75 Stack gas flow <u>Continuous Monitoring System</u> Continuous Monitor <u>5</u> VF. 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement RULE 4. Monitor Information Manufacturer: TECO Model Number: 400B VER 3.1.4 Serial Number: 400B-48382 5. Installation Date: 6. Performance Specification Test Date: 05-May-1995 7. Continuous Monitor Comment: Serial Number 400B-48381-B69/281 Installed 7/9/94 - ELSA would not allow entry into above field. Installation Date ~8/1/94 40 CFR Part 75

III. Part 11 - 3

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emi	ssions Unit Information Section 3					
NGS	NGS Boiler No. 3					
<u>PSD</u>	Increment Consumption Determination					
1. I	ncrement Consuming for Particulate Matter or Sulfur Dioxide?					
[]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.					
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.					
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.					
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.					
[X]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.					

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

l	j		has undergone l			indergoing PSD reviewiously, for nitrogen d	•	
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[:]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[]	•		_		ill begin) initial opera s unit consumes incre		March 28, 1988.
[X]	case, additiona	il analysis, beyon issions have occ	nd the sc	ope of t	ions of the emissions his application, is nee cur) after the baseline	ded to det	termine whether
3.	Ir	ncrement Consu	ming/Expandin	g Code :				
		PM:	E	SO2:	E	NO2:	Е	
4.	В	aseline Emissio	ons :					
		PM : SO2 : NO2 :	629.1300 9965.0000			2756.0000 43648.0000 1552.0000	tons/year	
5.		SD Comment: 7ith respect to qu	estion 1. Unit is t	aseline s	ince it "(Commenced Constructi	ion" prior	to January 6, 1975

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

(Rules 62-204.200(20) & 62-210.200(117), F.A.C.)

2. Increment Consuming for Nitrogen Dioxide?

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

NGS Boiler No. 3				
Supplemental Requirements for All Applications				
1. Process Flow Diagram:	Waived			
2. Fuel Analysis or Specification:	Waived			
3. Detailed Description of Control Equipment :	Waived			
4. Description of Stack Sampling Facilities:	Waived	· · ·		
5. Compliance Test Report :	06/24/1998			
6. Procedures for Startup and Shutdown:	NA			
7. Operation and Maintenance Plan:	NA			
8. Supplemental Information for Construction Permit Application :	F-9			
9. Other Information Required by Rule or Statue :	F-10			
Additional Supplemental Requirements for Category I Application	ns Only			
10. Alternative Methods of Operations:	NA			
11. Alterntive Modes of Operation (Emissions Trading):	NA			
	- .			

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III. Part 13 - 1

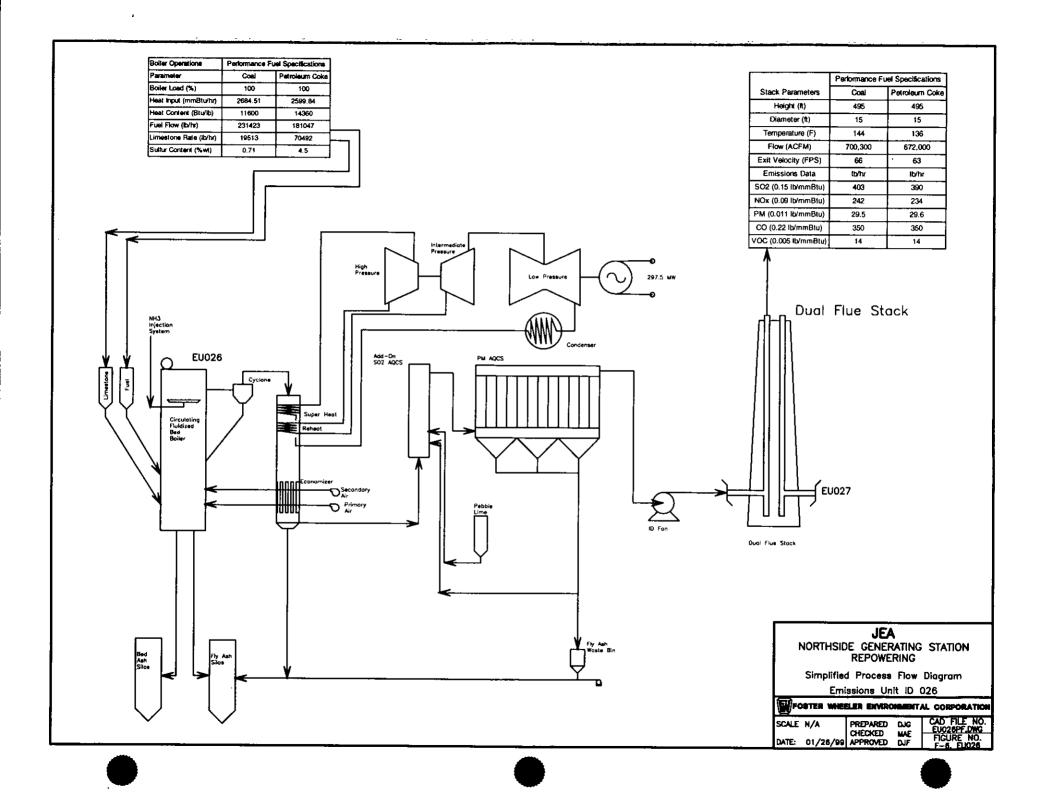
DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

12. Identification of Additional Applicable Requirements:		NA	
13. Compliance Assurance M Plan:	NA		
14. Acid Rain Application (Ha	ard-copy Required):		
	Acid Rain Part - Phase II (Form	No. 62-210.900(1)(a))	
	Repowering Extension Plan (Fo	rm No. 62-210.900(1)(a)1.)	
•	New Unit Exemption (Form No	. 62-210.900(1)(a)2.)	
	Retired Unit Exemption (Form)	No. 62-210.900(1)(a)3.)	

Emissions Unit 026

NGS - Circulating Fluidized Bed Boiler No. 2



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 4
NGS - Circulating Fluidized Bed Boiler No. 2
Type of Emissions Unit Addressed in This Section
1. Regulated or Unregulated Emissions Unit? Check one:
[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
 Single Process, Group of Processes, or Fugitive Only? Check one: [X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

•		Addressed in This Section :	
NGS - Circulatir	ig Fluidized Bec	Boiler No. 2	
2. Emissions Uni	t Identification Corresponding		Jnknown
3. Emissions Uni Code :	t Status C	4. Acid Rain Unit? [X] Yes [] No	5. Emissions Unit Major Group SIC Code: 49
Existing Unit 2	roject includes t will be repower	ed with a coal and petroelum coke	-
Emissions Unit	•	umber EU002, which is used to tr	Unit Identification Number EU026. rack baseline data for Existing Unit

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	4
NGS - Circulating Fluidized Bed Boiler No. 2	
Emissions Unit Control Equipment	1
Description: Oxides of Nitrogen will be controlled by the	ne use of Selective Noncatalytic Reduction (SNCR).
2. Control Device or Method Code :	107

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	4
NGS - Circulating Fluidized Bed Boiler No. 2	
Emissions Unit Control Equipment	2
Description: Sulfur Dioxide and acid gases will be cont bed.	rolled by the injection of limestone into the CFB boiler
2. Control Device or Method Code:	41

III. Part 3 - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	4
NGS - Circulating Fluidized Bed Boiler No. 2	
Emissions Unit Control Equipment	3
Description: Residual sulfur dioxide, acid gases, and son an add-on air quality control system (AQCS)	ne volatile metal emissions will be further controlled by S) or polishing scrubber.

2. Control Device or Method Code: 13

III. Part 3 -

3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	4
NGS - Circulating Fluidized Bed Boiler No. 2	
Emissions Unit Control Equipment	4
1. Description:	
	e use of a high efficiency add-on AQCS (i.e., Fabric Filter ependent upon the polishing scrubber selection.

2. Control Device or Method Code: 10

III. Part 3 - 4

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	4
NGS - Circulating Fluidized Bed Boiler No. 2	
Emissions Unit Control Equipment	5
* · · · · · · · · · · · · · · · · · · ·	e use of a high efficiency add-on AQCS (i.e., Fabric Filter ependent upon the polishing scrubber selection.

2. Control Device or Method Code: 16

III. Part 3 - 5

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

NGS - Circulating Fluidized Bed Boiler No. 2	_	
Emissions Unit Details		
1. Initial Startup Date : 01-A	pr-2002	
2. Long-term Reserve Shutdown Date:	-	
Package Unit: Manufacturer: Foster Wheeler		Model Number :
4. Generator Nameplate Rating: 298	MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature: Emissions Unit Operating Capacity		Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity		
1. Maximum Heat Input Rate: 2764	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment: The Generators Nameplate Rating is 297.5 megawa	atts.	
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule:		
24 hours/day 52 weeks/year		7 days/week 8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	4
NGS - Circulating Fluidized Bed Boiler No.	2

Rule Applicability Analysis

This project is subject to the Preconstruction Review Requirements as outlined in Chapter 62-212, F.A.C. Specifically this project is subject to the requirements of 62-212.300, F.A.C. for all regulated pollutants and the requirements of 62-212.400, F.A.C. for NOx, TSP, PM10, CO, VOC, total fluorides (as HF), and mercury.

A detailed applicability analysis of the preconstruction review is provided in the attached PSD report.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Circulating Fluidized Bed Boiler No. 2

List of Applicable Regulations

40 CFR Part 77.3, Offset Plans

40 CFR Part 77.5(b), Deduction of Allowances

40 CFR Part 77.6 Excess Emission Penalites for SO2 and NOx

40 CFR Part 60.7, Notification and Recordkeeping

40 CFR Part 60.8, Performance Tests

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.11, Compliance with Standard and Maintenance Requirements

40 CFR Part 60.19, General Notifications and Reporting Requirements

40 CFR Part 72.6, Applicability

40 CFR Part 72, Subpart B, Designated Representative

40 CFR Part 72, Subpart C, Acid Rain Applications

40 CFR Part 72.40, General

40 CFR Part 72, Subpart E, Acid Rain Permit Contents

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Circulating Fluidized Bed Boiler No. 2

List of Applicable Regulations

40 CFR Part 72.90, Annual Compliance Certification Report

40 CFR Part 73, Subpart C, Allowance Tracking System

40 CFR Part 75, Subpart A, General

40 CFR Part 75, Subpart B, Monitoring Provisions except 75.15, 75.16, 75.17, and 75.18

40 CFR Part 75, Subpart C, Operation and Maintenance Procedures

40 CFR Part 75, Subpart D, Missing Data Substitution Procedures

40 CFR Part 75, Subpart E, Alternative Monitoring Systems

40 CFR Part 75, Subpart F, Recordkeeping Requirements

40 CFR Part 75, Subpart G, Reporting Requirements

40 CFR Part 75, Appendix A, Specifications and Test Procedures

40 CFR Part 75. Appendix B, Quality Assurance and Quality Control Procedures

40 CFR Part 75, Appendix C, Missing Data Statistical Estimation Procedures

40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units

Rule 62-204.800(7)(b)2, F.A.C., Adoption of 40 CFR 60 Subpart Da

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

NGS - Circulating Fluidized Bed Boiler No. 2

List of Applicable Regulations

Rule 62-204.800(7)(c),(d), & (e), F.A.C., Adoption of 40 CFR 60, General Provisions and Appendices.

Rule 62-204.800(14), F.A.C., Adoption of 40 CFR Part 72

Rule 62-204.800(15), F.A.C., Adoption of 40 CFR Part 73

Rule 62-204.800(16), F.A.C., Adoption of 40 CFR Part 75

Rule 62-204.800(18), F.A.C., Adoption of 40 CFR Part 77

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), (5) & (6), F.A.C., Excess Emissions

Rule 62-214.340(5), F.A.C., Exemptions

Rule 62-214.350, F.A.C., Certification

Rule 62-214.430(1) and (2), F.A.C., Implementation and Termination of Compliance Options

Rule 62-296.405(2), F.A.C., New Fossil Fuel Fired Steam Generators

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(12), F.A.C., EPA Method 12

Rule 62-297.401(13), F.A.C., EPA Methods 13A and 13B

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DEP Form No. 62-210.900(1) - Form

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NGS - Circulating Fluidized Bed Boiler No. 2

List of Applicable Regulations

Rule 62-297.401(17), F.A.C., EPA Method 17

Rule 62-297.401(25), F.A.C., EPA Method 25

Rule 62-297.401(29), F.A.C., EPA Method 29

Rule 62-297.401(41), F.A.C., EPA Method 201

Rule 62-204.800(9)(e), F.A.C., Adoption of 40 CFR Part 61 Appendices

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1001, Adoption of Chapter 62-296, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, C.2., Air Pollution Nuisances

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

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DEP Form No. 62-210.900(1) - Form

NGS - Circulating Fluidized Bed Boiler No. $\overline{2}$

List of Applicable Regulations

Rule 62-4.030, F.A.C., General Prohibition

Rule 62-4.040(1), F.A.C., Exemptions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-212.300, F.A.C., General - Preconstruction Review Requirements

Rule 62-212.400, F.A.C., Prevention of Significant Deterioration

Rule 62-214.320, F.A.C., Applications - Acid Rain Regulations

Rule 62-214.330, F.A.C., Acid Rain Compliance Plan and Compliance Options

Rule 62-297.401(5), F.A.C., EPA Method 5

Rule 62-297.401(6), F.A.C., EPA Method 6

Rule 62-297.401(7), F.A.C., EPA Method 7

Rule 62-297.401(8), F.A.C., EPA Method 8

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DEP Form No. 62-210.900(1) - Form

NGS - Circulating Fluidized Bed Boiler No. $\overline{2}$

List of Applicable Regulations

Rule 62-297.401(9), F.A.C., EPA Method 9

Rule 62-297.401(10), F.A.C., EPA Method 10

40 CFR Part 72.9, Standards Requirements

E. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram:	Stack	
2. Emission Point Type Code:		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: (limit to 100 characters per point)		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
Repowered Unit 2 will share a common stack with Repower two separate flues with one for each CFB Boiler.	red Unit 1. The co	ommon stack will contain
5. Discharge Type Code:	V	
6. Stack Height:	495	feet
7. Exit Diameter :	15.0	feet
8. Exit Temperature :	144	°F
9. Actual Volumetric Flow Rate :	700300	acfm
10. Percent Water Vapor:	0.00	%
11. Maximum Dry Standard Flow Rate:	0	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates:		

III. Part 7a - 1

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Emissions Unit Information Section

NGS - Circulating Fluidized Bed Boiler No. 2

Zone: 17 East (km): 446.670 North (km): 3365.070

14. Emission Point Comment:

Repowered Unit 2 and Repowered Unit 1 will share a common stack with two separate flues.

III. Part 7a - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 4		
NGS - Circulating Fluidized Bed Boiler No. 2		
Segment Description and Rate: Segment	1	
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mo	ode):
Bituminous Coal		
2. Source Classification Code (SCC): 10100)218	
3. SCC Units: Tons Burned (all solid fuels)		
4. Maximum Hourly Rate: 138.20	5. Maximum Annual Rate:	1,210,632.00
6. Estimated Annual Activity Factor: 0.00	1	
7. Maximum Percent Sulfur: 4.50	8. Maximum Percent Ash:	15.00
9. Million Btu per SCC Unit: 10,000		
10. Segment Comment:		

III. Part 8 - 1

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2	
d Associated Operating Method/M	lode):
00299	
5. Maximum Annual Rate:	892,644.00
8. Maximum Percent Ash:	3.00
	d Associated Operating Method/M 00299 5. Maximum Annual Rate:

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 4	-
NGS - Circulating Fluidized Bed Boiler No. 2	
Segment Description and Rate: Segment	3
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Natural Gas	
Start-up Only (Based on 5 Start-ups per year)	
2. Source Classification Code (SCC): 10100	299
3. SCC Units: Million Cubic Feet Burned (all ga	aseous fuels)
4. Maximum Hourly Rate: 0.31	5. Maximum Annual Rate: 15.60
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1,000	1
10. Segment Comment :	
Natural Gas - Start-up Fuel	

III. Part 8 - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 4	
NGS - Circulating Fluidized Bed Boiler No. 2	
Segment Description and Rate: Segment	4
1. Segment Description (Process/Fuel Type and A	ssociated Operating Method/Mode):
Low Sulfur Distillate Oil (0.05% S)	
Start-up Only (Based on 5 Start-ups per year)	
2. Source Classification Code (SCC): 101002	99
3. SCC Units: Thousand Gallons Burned (all liqu	id fuels)
4. Maximum Hourly Rate: 2.26	5. Maximum Annual Rate: 113.00
6. Estimated Annual Activity Factor: 0.00	·
7. Maximum Percent Sulfur: 0.05	8. Maximum Percent Ash: 0.10
9. Million Btu per SCC Unit: 140	
10. Segment Comment :	
Low Sulfur Distillate Oil is for Start-up.	

III. Part 8 - 4

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G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	Pollutant Regulatory Code
1 - CO			EL
2 - PB	010		EL
3 - NOX	107		EL .
4 - PM	010		EL
5 - PM10	010		EL
6 - SO2	041	013	EL
7 - VOC			EL
8 - SAM	041	013	EL
9 - H107	013		EL
10 - H114	013	010	EL
11 - HCL	013		NS
12 - HAPS			NS

III. Part 9a - 1

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Emissions Unit Information Section NGS - Circulating Fluidized Bed Boiler No. 2	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: CO	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions:	
350.0000000 lb/hour	1,533.0000000 tons/year
4. Synthetically Limited? [X] Yes [] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor 350 Units 1b/hr Reference: Manufufacturer	
7. Emissions Method Code: 0	
8. Calculations of Emissions:	
lb/hr = 350 (Set By Request)	
TPY - (350 lb/hr) X (8,760 hr/yr) X (ton/2,000 lb) = 1533 tons per year	
9. Pollutant Potential/Estimated Emissions Comment:	"
The requested emission limit is set at 350 lb/hr (24-hour average), exclimalfunction.	uding startup shutdown and

III. Part 9b - 1

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Emissions Unit Information Section
NGS - Circulating Fluidized Bed Boiler No. 2

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NGS - Circulating Fluidized Bed Boiler No. 2	
Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: PB	
2. Total Percent Efficiency of Control: 99.00 · %	
3. Potential Emissions : 0.0720000 lb/hour	0.3150000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor Units lb/mmBtu Reference: Manuf., (EF=2.61E-5)	
7. Emissions Method Code: 2	
8. Calculations of Emissions:	
lb/hr = (2.61E-5 lb/mmBtu) X (2764 mmBtu/hr) = 0.072	
Tons/Year = $(0.072 \text{ lb/hr}) \text{ X } (8,760 \text{ hr/yr}) \text{ X } (\text{ton/2,000 lb}) = 0.315$	
9. Pollutant Potential/Estimated Emissions Comment:	
Appendix A of the PSD Report contains the vendor data on potential emiss PSD report contains detailed emissions calculations (Attachment F-9).	ions. Appendix C of the

III. Part 9b - 3

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Emissions Unit Information Section

Emissions Unit Information Section

NGS - Circulating Fluidized Bed Boiler No. 2

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DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

NGS - Circulating Fluidized Bed Boiler No. 2
Pollutant Potential/Estimated Emissions: Pollutant 3
1. Pollutant Emitted: NOX
2. Total Percent Efficiency of Control: 67.00 %
3. Potential Emissions :
248.7600000 lb/hour 1,089.5700000 tons/year
4. Synthetically Limited? [] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions:
to tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference: Manuf., (EF=0.09)
7. Emissions Method Code: 0
8. Calculations of Emissions:
lb/hr = (0.09 lb/mmBtu) X (2764 mmBtu/hr) = 248.76
tons/yr = $(248.76 \text{ lb/hr}) \text{ X} (8,760 \text{ hr/yr}) \text{ X} (ton/2,000 \text{ lb}) = 1,089.57$
9. Pollutant Potential/Estimated Emissions Comment:
Appendix A of the PSD report contains detailed expected emission rates based on load and fuel type. Appendix C of the PSD report contains detailed emission calculations (Attachment F-9).

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DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Emissions Unit Information Section

NGS - Circulating Fluidized Bed Boiler No. 2

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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

NGS - Circulating Fluidized Bed Boiler No. 2	
Pollutant Potential/Estimated Emissions: Pollutant 4	
1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control: 99.90 %	
3. Potential Emissions : 30.4040000 lb/hour	133.1700000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference : Manuf., (EF=0.011)	
7. Emissions Method Code: 0	
8. Calculations of Emissions :	
lb/hr = (0.011 lb/mmBtu) X (2764 mmBtu/hr) = 30.404	
Tons/year = $(30.404 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{ton/2,000 lb/hr}) = 133.17$	
9. Pollutant Potential/Estimated Emissions Comment:	
Appendix A of the PSD report contains detailed expected emission rates by Appendix C of the PSD report contains detailed emission calculations (At	

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DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Emissions Unit Information Section

NGS - Circulating Fluidized Bed Boiler No. 2

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Emissions Unit Information Section NGS - Circulating Fluidized Bed Boiler No. 2	
Pollutant Potential/Estimated Emissions: Pollutant 5	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.90 %	
3. Potential Emissions : 30.4040000 lb/hour	133.1700000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference: Manuf., (EF=0.011)	
7. Emissions Method Code: 0	
8. Calculations of Emissions:	
lb/hr = (0.011 lb/mmBtu) X (2764 mmBtu/hr) = 30.404	
Tons/year = (30.404 lb/hr) X (8,760 hr/yr) X (ton/2,000 lb/hr) = 133.17	
9. Pollutant Potential/Estimated Emissions Comment:	
Appendix A of the PSD report contains detailed expected emission rates b Appendix C of the PSD report contains detailed emissions calculation (At	

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Emissions Unit Information Section

NGS - Circulating Fluidized Bed Boiler No. 2

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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section ____4__

NGS - Circulating Fluidized Bed Boiler No. 2
Pollutant Potential/Estimated Emissions: Pollutant 6
1. Pollutant Emitted: SO2
2. Total Percent Efficiency of Control: 98.00 %
3. Potential Emissions : 552.8000000 lb/hour 1,815.9500000 tons/year
4. Synthetically Limited? [] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference: Manuf., (EF=0.15)
7. Emissions Method Code: 0
8. Calculations of Emissions:
lb/hr = (0.2 lb/mmBtu) X (2764 mmBtu/hr) = 552.8 (Short-Term, 24-Hour Maximum)
lb/hr = (0.15 lb/mmBtu) X (2764 mmBtu/hr) = 414.60 (Long-Term, 30-Day Rolling Average)
Tons/year = $(414.60 \text{ lb/hr}) \text{ X} (8,760 \text{ hr/yr}) \text{ X} (\text{Ton/2,000 lb}) = 1815.95$
9. Pollutant Potential/Estimated Emissions Comment:
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Emissions Unit Information Section	4			
NGS - Circulating Fluidized Bed Boiler No. 2				
		_	 _	

Appendix A of the PSD report contains detailed expected emission rates based on load and fuel type. Appendix C of the PSD report contains detailed emission calculations (Attachment F-9).

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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section NGS - Circulating Fluidized Bed Boiler No. 2	
Pollutant Potential/Estimated Emissions: Pollutant7	
1. Pollutant Emitted: VOC	
2. Total Percent Efficiency of Control: %	1 d. 100-100 V
3. Potential Emissions: 14.0000000 lb/hour	61.3200000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 14 Units lb/hr Reference : Manufacturer	
7. Emissions Method Code: 0	
8. Calculations of Emissions:	
lb/hr = 14 (Set By Request)	
Tons/year = $(14 \text{ lb/hr}) \text{ X } (8,760 \text{ hr/yr}) \text{ X } (\text{ton/ } 2,000 \text{ lb}) = 61.32$	
9. Pollutant Potential/Estimated Emissions Comment:	
The requested emission limit is set at 14 lb/hr, excluding startup shutdown	and malfunction.

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Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

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Pollutant Potential/Estimated Emissions: Pollutant 8					
1.	Pollutant Emitted: SAM				
2.	Total Percent Efficiency of Control: %				
3.	Potential Emissions: 1.1060000 lb/hour 4.8440000 tons/year				
4.	Synthetically Limited? [] Yes [X] No				
5.	Range of Estimated Fugitive/Other Emissions: to tons/year				
6.	Emissions Factor 0 Units lb/mmBtu Reference : Manuf., (EF=0.0004)				
7.	Emissions Method Code: 0				
8.	Calculations of Emissions : Ib/hr = (0.0004 lb/mmBtu) X (2764 mmBtu/hr) = 1.106 Tons/year = (1.106 lb/hr) X (8,760 hr/yr) X (ton/2,000 lb) = 4.844				
9.	Pollutant Potential/Estimated Emissions Comment: Appendix C of the PSD report contains detailed emission calculations (Attachment F-9).				

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Emissions Unit Information Section NGS - Circulating Fluidized Bed Boiler No. 2

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

NGS - Circulating Fluidized Bed Boiler No. 2
Pollutant Potential/Estimated Emissions: Pollutant 9
1. Pollutant Emitted: H107
2. Total Percent Efficiency of Control: %
3. Potential Emissions : 0.4340000 lb/hour 1.9010000 tons/year
4. Synthetically Limited? [] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
5. Emissions Factor 0 Units lb/mmBtu Reference: Manuf., (EF=1.57E-4)
. Emissions Method Code: 0
3. Calculations of Emissions:
lb/hr = (1.57E-4 lb/mmBtu) X (2764 mmBtu/hr) = 0.434
Tons/year = $(0.434 \text{ lb/hr}) \text{ X} (8,760 \text{ hr/yr}) \text{ X} (\text{ton/2,000 lb}) = 1.901$
Pollutant Potential/Estimated Emissions Comment :
Appendix A of the PSD report contains detailed expected emission rates based on load and fuel type. Appendix C of the PSD report contains detailed emissions calculations (Attachment F-9).
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Emissions Unit Information Section

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

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Emissions Unit Information Section 4	
NGS - Circulating Fluidized Bed Boiler No. 2	
Pollutant Potential/Estimated Emissions: Pollutant 10	
1. Pollutant Emitted: H114	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions:	
0.0290000 lb/hour	0.1270000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor Reference: AP-42, (EF=1.05E-5) Units lb/mmBtu	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
lb/hr = (1.05E-5 lb/mmBtu) X (2764 mmBtu/hr) = 0.029	
Tons/yr = $(0.029 \text{ lb/hr}) \text{ X } (8,760 \text{ hr.yr}) \text{ X } (\text{ton/2000 lb}) = 0.127$	
9. Pollutant Potential/Estimated Emissions Comment:	
Appendix A of the PSD report contains detailed expected emission rates Appendix C of the PSD report contains detailed emission calculations (A	

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Emissions Unit Information Section	4
NGS - Circulating Fluidized Bed Boiler No. 2	

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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

	nissions Unit Information Section GS - Circulating Fluidized Bed Boiler No.			
<u>Po</u>	llutant Potential/Estimated Emission	ns: Pollutant	11	
1.	Pollutant Emitted: HCL			
2.	Total Percent Efficiency of Control:		%	
3.	Potential Emissions: 0.0000000	0 lb/hour	- · ·	0.0000000 tons/year
4.	Synthetically Limited? [] Yes [X] No		,	
5.	Range of Estimated Fugitive/Other Er	missions:	to	tons/year
6.	Emissions Factor Reference:	Uni		tons/year
7.	Emissions Method Code:			
8.	Calculations of Emissions:			
9.	Pollutant Potential/Estimated Emissio	ons Comment :	,	

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4

53.0000000 tons/year
to tons/year
actors. Appendix C of the PSD ce of each factor for coal and pet

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Emissions Unit Information Section

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

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Emissions Unit Information Section 4
NGS - Circulating Fluidized Bed Boiler No. 2

Pollutant Information Section 1							
<u>Al</u>	Allowable Emissions 1						
1.	. Basis for Allowable Emissions Co	ode :		RULE		- 	
2.	. Future Effective Date of Allowab	le Emissi	ions :	01-Apr-20	002		
3.	. Requested Allowable Emissions a	nd Units	:	350.00	lb/hr		
4.	. Equivalent Allowable Emissions				<u>-</u> .		
	350.	00	lb/hour		1,533.00	tons/year	
5.	. Method of Compliance :						
	Continuous Emissions Monitor						
6.	. Pollutant Allowable Emissions Co	omment ((Desc. of	Related O ₁	perating Meth	nod/Mode):	
	BACT is proposed at 350 lb/hr (24-h	our avera	nge), exclu	ding startu _l	o, shutdown ar	d malfunction.	

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ULE 11-Apr-2002	
1-Apr-2002	
.07	lb/hr
 .	
0.30	tons/year
lated Operating	
	0.30

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Pollutant Information Section 3							
Allow	able Emissions	1					
1. Ba	asis for Allowable	Emissions C	ode :		RULE		
2. Fu	ture Effective Date	e of Allowab	ole Emissio	ons :	01-Apr-20	002	
3. Re	equested Allowable	Emissions	and Units	:	0.09	lb/m	mBtu
4. Eq	quivalent Allowable	e Emissions	:				
		248	.80	lb/hour		1,090.00	tons/year
5. M	ethod of Complian	ce:					
A	cid Rain CEMS						
6. Po	ollutant Allowable	Emissions C	omment (Desc. of l	Related Op	perating Meth	nod/Mode):
1	ACT is proposed at (artup, shutdown and		u based on	a 30-day	rolling ave	erage as BACT	for NOx, excluding

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Pollutant Information Section 4								
Allowable Emissions 1								
1. Basis for Allowable Emissions Code:	RULE							
2. Future Effective Date of Allowable Emissions:	01-Apr-2002							
3. Requested Allowable Emissions and Units:	0.01	lb/mmBtu						
4. Equivalent Allowable Emissions:								
30.40 lb/h	nour 133.	00 tons/year						
5. Method of Compliance :								
Quarterly stack tests for first 2 years. EPA Methods	5 & 17.							
6. Pollutant Allowable Emissions Comment (Desc.	of Related Operation	ng Method/Mode):						
BACT is proposed at 0.011 lb/mmBtu based on a 3-and malfunction. All TSP is expected to be PM10.	hour average for TSP	excluding startup, shutdown,						

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Pollutant Information Section 5							
Allowable Emissions 1							
1. Basis for Allowable Emissions Code:	RULE						
2. Future Effective Date of Allowable Emissions:	01-Apr-2002						
3. Requested Allowable Emissions and Units:	0.01	lb/mmBtu					
4. Equivalent Allowable Emissions:							
30.40 lb/h	our 133.00	tons/year					
5. Method of Compliance :							
Quarterly stack tests for initial 2 years. EPA Method	201						
6. Pollutant Allowable Emissions Comment (Desc.	of Related Operating N	Method/Mode):					
BACT is proposed at 0.011 lb/mmBtu based on a 3-h malfunction.	our average, excluding s	startup, shutdown, and					

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Pollutant Information Section 6								
<u>Al</u>	owable Emissions 1							
1.	Basis for Allowable Emissions Code: OTHER							
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002							
3.	Requested Allowable Emissions and Units: 0.15 lb/mmBtu							
4.	Equivalent Allowable Emissions:							
	414.60 lb/hour 1,816.00 tons/year							
5.	Method of Compliance:							
	Acid Rain CEMS							
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):							
	Repowered Unit 2 is not subject to PSD Review and BACT for SO2. The emission limit is requested as a 30-day rolling average, excluding startup, shutdown, and malfunction.							

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Po	Pollutant Information Section 6								
Al	Allowable Emissions 2								
1.	1. Basis for Allowable Emissions Code:	OTHER							
2.	2. Future Effective Date of Allowable Emissions:	01-Apr-2002							
3.	3. Requested Allowable Emissions and Units:	0.20 lb/mmBtu							
4.	4. Equivalent Allowable Emissions:								
	552.80 lb/hour	r 1,816.00 tons/year	r						
5.	5. Method of Compliance:								
	Acid Rain CEMS								
6.	6. Pollutant Allowable Emissions Comment (Desc. of	Related Operating Method/Mode):	•						
	Repowered Unit 2 is not subject to PSD Review and BA a 24-hour block average, excluding startup, shutdown as	•	quested as						

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DEP Form No. 62-210.900(1) - Form

7			
ode:	RULE		
le Emissions :	01-Apr-2	2002	
and Units:	14.00	lb/	hr
-			
:			
0 lb/h	our	61.50	tons/year
	le Emissions :	le Emissions : 01-Apr-2	le Emissions : 01-Apr-2002 and Units : 14.00 lb/

BACT is proposed at 14 lb/hr (3-hour average), excluding startup, shutdown and malfunction. The CO CEMS is proposed as a surrogate compliance method.

III. Part 9c - 8

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Pollutant Information Se	ction 8	-			
Allowable Emissions	1				
Basis for Allowable En	missions Code:	F	RULE		
2. Future Effective Date	of Allowable Emi	issions :	01-Apr-2002		
3. Requested Allowable I	Emissions and Un	nits :	1.10	lb/hr	
4. Equivalent Allowable	Emissions :	 -			<u> </u>
	1.10	lb/hour	4.80	to	ons/year
5. Method of Compliance	:	-	 -		-
Initial and Renewal Stac	k Tests. EPA Meth	nod 8			
6. Pollutant Allowable Er	nissions Commer	nt (Desc. of R	elated Operating	g Method/I	Mode):
BACT is proposed at 1.1 CEMS is proposed as su		rage), excludin	g startup, shutdov	vn and malf	unction. SO2

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DEP Form No. 62-210.900(1) - Form

Pollutant Information Section	9

Allowable Emissions 1

1.	Basis for Allowable Emission	ons Code :		RULE		•		
2.	Future Effective Date of Alle	owable Emission	ons :	01-Apr-2	2002			
3.	Requested Allowable Emiss.	ions and Units	Ξ.	0.43		lb/hr		
4.	Equivalent Allowable Emiss	ions :						
		0.43	lb/hou	-	1.90		tons/year	
5.	Method of Compliance :		·					
	Initial and Renewal Stack Test	s - EPA Method	s 13A &	13B				
6.	Pollutant Allowable Emissio	ns Comment (I	Desc. of	Related C	perating	Metho	d/Mode):	
	BACT is proposed at 0.43 lb/h	r (3-hour averag	e), exclu	ding startu	p, shutdov	wn and i	malfunction.	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 4

Zimbolom Child Information Beetion	7
NGS - Circulating Fluidized Bed Boiler	No. 2

Pollutant Information Section 10

Allowable Emissions 1

_					
1.	Basis for Allowable Emissions Code:		RULE		
2.	Future Effective Date of Allowable Emission	ons :	01-Apr-2002	2	
3.	Requested Allowable Emissions and Units:		0.03	lb/hr	
4.	Equivalent Allowable Emissions:	-			
	0.03	lb/hour	0	.13	tons/year
5.	Method of Compliance :				
	EPA Method s 29 & 101A				
6.	Pollutant Allowable Emissions Comment (D	Desc. of I	Related Oper	ating Metho	d/Mode):
	BACT is proposed at 0.03 lb/hr (3-hour average	e), exclud	ing startup, sl	nutdown and	malfunction.

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	4
NGS - Circulating Fluidized Bed Boiler No.	2
Pollutant Information Section 1	

____2

Allowable Emissions

1. Basis for Allowable Emissions Code:	OTHER		
2. Future Effective Date of Allowable Emission	s: 01-Apr-2	002	
3. Requested Allowable Emissions and Units:	1,533.00	Ton	s per year
4. Equivalent Allowable Emissions:			
	lb/hour	1,533.00	tons/year
5. Method of Compliance:			
Continuous Emissions Monitor			
6. Pollutant Allowable Emissions Comment (De	esc. of Related O	perating Met	hod/Mode):
Emissions cap for Repowered Unit 2.			

III. Part 9c - 12

DEP Form No. 62-210.900(1) - Form

Pollu	stant Information Section 3			
Allov	vable Emissions 2			
1. B	asis for Allowable Emissions Code:	OT	HER	7.0
2. Ft	uture Effective Date of Allowable Emission	ns: 01-	Apr-2002	
3. R	equested Allowable Emissions and Units:	3,6	00.00 ton	s per year
4. Ec	quivalent Allowable Emissions:			
j		lb/hour	3,600.00	tons/year
5. M	lethod of Compliance:			
A	cid Rain CEMS			
6. Pc	ollutant Allowable Emissions Comment (D	esc. of Rela	ted Operating Met	hod/Mode):
M co	Iulti-unit emissions cap for Repowered Units 1 ompletion of initial performance testing on Rep	& 2, and ex powered Uni	isting Unit 3 is effect: 2.	ctive upon successful

III. Part 9c - 13

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

Pollutant Inf	formation Se	ction 4	_				
Allowable E	missions						
1. Basis for	Allowable Er	nissions Code :		OTHER	· · · ·		
2. Future Ef	fective Date of	of Allowable Em	issions :	01-Apr-20	002		
3. Requested	d Allowable I	Emissions and U	nits:	881.00	tons	s per year	
4. Equivaler	nt Allowable l	Emissions :			·		<u> </u>
			lb/hou	r	881.00	tons/year	
5. Method o	f Compliance	:					
Annual Te	esting - EPA M	ethods 5 & 17					
6. Pollutant	Allowable En	nissions Comme	nt (Desc. of	Related Op	perating Met	hod/Mode):	
		for Repowered U formance testing o			Unit 3 effectiv	e upon successful	

III. Part 9c - 14

DEP Form No. 62-210.900(1) - Form

Po	llutant Information Section 6			
Al	lowable Emissions 3			
1.	Basis for Allowable Emissions Code:	OTHER		
2.	Future Effective Date of Allowable Emissions :	01-Apr-20	002	
3.	Requested Allowable Emissions and Units:	12,284.00	tons	/уеаг
4.	Equivalent Allowable Emissions:			
	lb/he	our	12,284.00	tons/year
5.	Method of Compliance :			
	Acid Rain CEMS			
6.	Pollutant Allowable Emissions Comment (Desc.	of Related O	perating Meth	nod/Mode):
	Multi-unit emissions cap for Existing Unit 1, Repowe upon successful completion of initial performance tes	ered Units 1 & sting of Repow	2, and existin	g Unit 3 is effective

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS - Circulating Fluidized Bed Boiler No. 2 **Pollutant Information Section Allowable Emissions** 1. Basis for Allowable Emissions Code: **OTHER** 2. Future Effective Date of Allowable Emissions: 01-Apr-2002 3. Requested Allowable Emissions and Units: 61.50 tons per year 4. Equivalent Allowable Emissions: lb/hour 61.50 tons/year 5. Method of Compliance: Initial & Renewal Stack Test. - EPA Method 25

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):

III. Part 9c - 16

DEP Form No. 62-210.900(1) - Form

Emissions cap for Repowered Unit 2.

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 4 NGS - Circulating Fluidized Bed Boiler No. 2

<u>V</u>	sidle Emissions Limitation: Visible Emissions Li	mitation	<u> </u>	
1.	Visible Emissions Subtype: 10			
2.	Basis for Allowable Opacity: RULE		·	
3.	Requested Allowable Opacity:			
	Normal Conditions:	10	%	
	Exceptional Conditions:	100	%	
	Maximum Period of Excess Opacity Allowed:	100	min/hour	
4.	Method of Compliance :			
	Opacity Monitor - EPA Method 9			
5.	Visible Emissions Comment :			
:	BACT is proposed at 10 percent opacity. Excess emissic along with exceptional conditions limits required by the		cussed in detail in Attachme	nt E-4

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 4
NGS - Circulating Fluidized Bed Boiler No. 2

DEP Form No. 62-210.900(1) - Form

Continuous Monitoring System Continuous Mo	enitor 1
1. Parameter Code: VF	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment : CEMS Vendor Data will be provided 45 days prior Monitoring Plan Revisions	to initial start-up as part of the Acid Rain
Continuous Monitoring System Continuous Mo	nitor 2
1. Parameter Code: FM	2. Pollutant(s): NOX
III. Part 11 - 1	

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section 4 NGS - Circulating Fluidized Bed Boiler No. 2 3. CMS Requirement RULE 4. Monitor Information Manufacturer: Model Number: Serial Number: 5. Installation Date: 6. Performance Specification Test Date: 7. Continuous Monitor Comment: CEMS Vendor Data will be provided 45 days prior to initial start-up as part of the Acid Rain Monitoring Plan Revisions. Continuous Monitoring System Continuous Monitor 3 1. Parameter Code: EM 2. Pollutant(s): SO₂ 3. CMS Requirement RULE 4. Monitor Information Manufacturer: Model Number: Serial Number: 5. Installation Date: 6. Performance Specification Test Date: 7. Continuous Monitor Comment: CEMS Vendor Data will be provided 45 days prior to initial start-up as part of the Acid Rain Monitoring Plan Revisions. Continuous Monitoring System Continuous Monitor 4 1. Parameter Code: **EM** 2. Pollutant(s): CO

III. Part 11 - 2

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section __4_

NGS - Circulating Fluidized Bed Boiler No. 2		
3. CMS Requirement OTHER		
4. Monitor Information Manufacturer: Model Number: Serial Number:		
5. Installation Date :		
6. Performance Specification Test Date:		
 Continuous Monitor Comment : CEMS Vendor Data will be provided 45 days prior to initial start-up as part of the Acid Rain Monitoring Plan Revisions. 		
Continuous Monitoring System Continuous Mo	nitor5_	
1. Parameter Code: FLOW	2. Pollutant(s):	
3. CMS Requirement		
4. Monitor Information Manufacturer: Model Number: Serial Number:		
5. Installation Date :		
6. Performance Specification Test Date :		
7. Continuous Monitor Comment: CEMS Vendor Data will be provided 45 days prior Monitoring Plan Revisions.	to initial start-up as part of the Acid Rain	

III. Part 11 - 3

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 4		
NGS - Circulating Fluidized Bed Boiler No. 2		
PSD Increment Consumption Determination		
ncrement Consuming for Particulate Matter or Sulfur Dioxide?		
The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.		
The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.		
The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.		

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2. Increment Consuming for Nitrogen Dioxide?

[X]	The emissions unit addressed in this section is undergoing PSD review as part of this
	application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions
	unit consumes increment.

- [] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- 1 The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- ſ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- 1 None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

Increment Consuming/Expanding Code:

PM:

SO2:

 \mathbf{C}

NO2: C

4. Baseline Emissions:

PM:

30.0400 lb/hour

133.0000 tons/year

SO2:

414.6000 lb/hour

1816.0000 tons/year

NO2:

1090.0000 tons/year

5. PSD Comment:

Item 4 reflects consuming increment values. Emissions from Repowered Units 1 and 2, and Existing Unit 3 are subject to multi-unit caps.

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

. Process Flow Diagram :	F-6, EU026
2. Fuel Analysis or Specification:	E-1
3. Detailed Description of Control Equipment:	E-2
Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	E-4
7. Operation and Maintenance Plan:	NA
S. Supplemental Information for Construction Permit Application :	F-9
Other Information Required by Rule or Statue :	F-10
dditional Supplemental Requirements for Category I Applicat	ions Only
0. Alternative Methods of Operations :	

III. Part 13 - 1

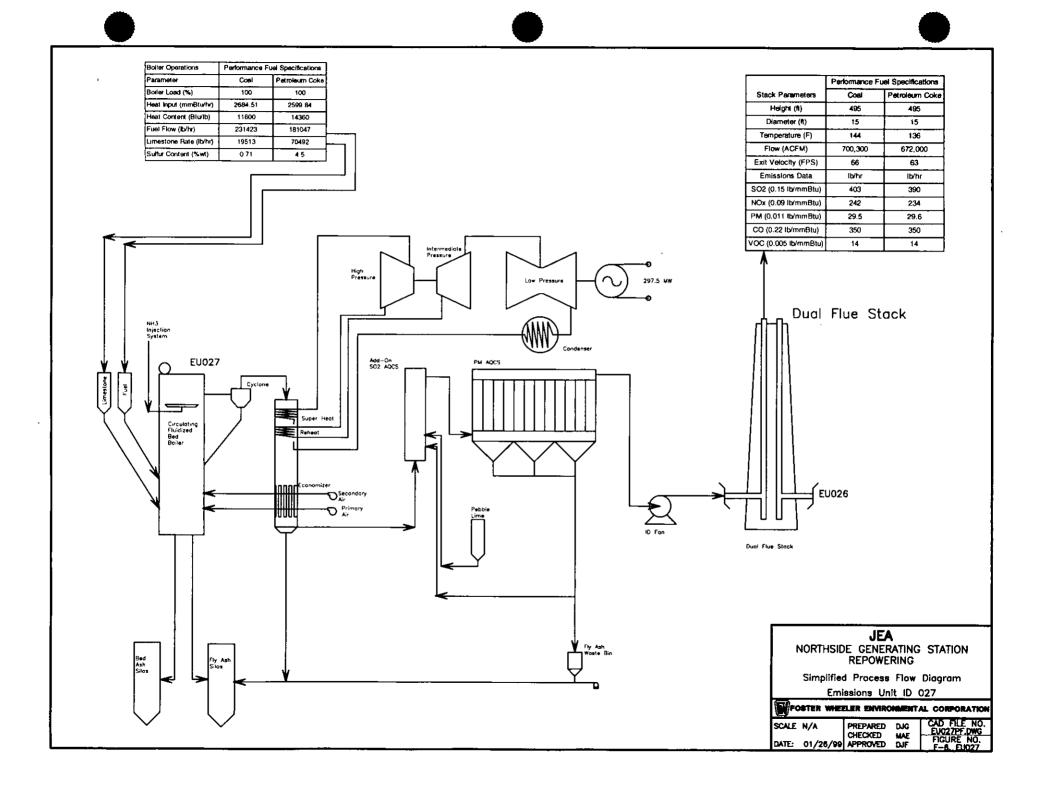
DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

12. Identification of Additional Applicable Requirements:		
13. Compliance Assurance Monitoring Plan:		
14. Acid Rain Application (Hard	d-copy Required):	
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))	
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)	
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)	
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)	

Emissions Unit 027

NGS - Circulating Fluidized Bed Boiler No. 1



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions	Unit Information Section5
NGS - Circ	ulating Fluidized Bed Boiler No. 1
Type of E	missions Unit Addressed in This Section
1. Regulat	ted or Unregulated Emissions Unit? Check one:
	The emissions unit addressed in this Emissions Unit Information Section is a regulated missions unit.
	he emissions unit addressed in this Emissions Unit Information Section is an unregulated missions unit.
	•
2. Single F	Process, Group of Processes, or Fugitive Only? Check one:
pr	his Emissions Unit Information Section addresses, as a single emissions unit, a single rocess or production unit, or activity, which produces one or more air pollutants and which as at least one definable emission point (stack or vent).
pr	his Emissions Unit Information Section addresses, as a single emissions unit, a group of rocess or production units and activities which has at least one definable emission point tack or vent) but may also produce fugitive emissions.
	his Emissions Unit Information Section addresses, as a single emissions unit, one or more rocess or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions	Unit	Information Section	5
Talli19210112	UIIII	minomination Section	3

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

Description of Emissions Uni NGS - Circulating Fluidized Beau			
2. Emissions Unit Identification Number: 027 [] No Corresponding ID [] Unknown			
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [X] Yes [] No	5. Emissions Unit Major Group SIC Code: 49	
Existing Unit 1 will be repower (CFB) boiler. Repowered Unit 1	ed with a coal and petroelum coll will be assigned the Emissions umber EU001, which is used to	at the Northside Generating Station. ke fired circulating fluidized bed Unit Identification Number EU027. track baseline data for Existing Unit	

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Emissions Unit Information Section	
NGS - Circulating Fluidized Bed Boiler No. 1	
Emissions Unit Control Equipment	1
Description: Oxides of Nitrogen will be controlled by the	he use of Selective Noncatalytic Reduction (SNCR).
2. Control Device or Method Code:	107

III. Part 3 - 1

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Emissions Unit Information Section	5
NGS - Circulating Fluidized Bed Boiler No. 1	
Emissions Unit Control Equipment	2
1. Description :	

Description:

 Sulfur Dioxide and acid gases will be controlled by the injection of limestone into the CFB boiler bed.

 Control Device or Method Code: 41

III. Part 3 - 2

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Emissions Unit Information Section	
NGS - Circulating Fluidized Bed Boiler No. 1	-
Emissions Unit Control Equipment	3
Description: Residual sulfur dioxide, acid gases, and so an add-on air quality control system (AQC)	ome volatile metal emissions will be further controlled by

13

III. Part 3 - 3

DEP Form No. 62-210.900(1) - Form

2. Control Device or Method Code:

Emissions Unit Information Section	5
NGS - Circulating Fluidized Bed Boiler No. 1	•
Emissions Unit Control Equipment	4
1. Description :	
	use of a high efficiency add-on AQCS (i.e., Fabric Filter pendent upon the polishing scrubber selection.

2. Control Device or Method Code: 10

III. Part 3 -

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Emissions Unit Information Section	5
NGS - Circulating Fluidized Bed Boiler No. 1	
Emissions Unit Control Equipment	5

1. Description:

Particulate matter will be controlled by the use of a high efficiency add-on AQCS (i.e., Fabric Filter or ESP). Final selection of the AQCS is dependent upon the polishing scrubber selection.

2. Control Device or Method Code:

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III. Part 3 -

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C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Details 1. Initial Startup Date: 01-Oct-2002 2. Long-term Reserve Shutdown Date: 3. Package Unit:	
2. Long-term Reserve Shutdown Date :	
3. Package Unit:	
	Model Number :
4. Generator Nameplate Rating: 298 MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:	Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity	
1. Maximum Heat Input Rate: 2764 mmBtu/hr	
2. Maximum Incinerator Rate : lb/hr	tons/day
3. Maximum Process or Throughput Rate:	
4. Maximum Production Rate :	
5. Operating Capacity Comment: The Generators Nameplate Rating is 297.5 megawatts.	
Emissions Unit Operating Schedule	
Requested Maximum Operating Schedule: 24 hours/day 52 weeks/year	7 days/week 8,760 hours/year

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	5
NGS - Circulating Fluidized Bed Boiler No. 1	

Rule Applicability Analysis

This project is subject to the Preconstruction Review Requirements as outlined in Chapter 62-212, F.A.C. Specifically this project is subject to the requirements of 62-212.300, F.A.C. for all regulated pollutants and the requirements of 62-212.400, F.A.C. for NOx, TSP, PM10, CO, VOC, total fluorides (as HF), and mercury.

A detailed applicability analysis of the preconstruction review is provided in the attached PSD report.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

. NGS - Circulating Fluidized Bed Boiler No. 1

List of Applicable Regulations

40 CFR Part 77.3, Offset Plans

40 CFR Part 77.5(b), Deduction of Allowances

40 CFR Part 77.6 Excess Emission Penalites for SO2 and NOx

40 CFR Part 60.7, Notification and Recordkeeping

40 CFR Part 60.8, Performance Tests

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.11, Compliance with Standard and Maintenance Requirements

40 CFR Part 60.19, General Notifications and Reporting Requirements

40 CFR Part 72.6, Applicability

40 CFR Part 72, Subpart B, Designated Representative

40 CFR Part 72, Subpart C, Acid Rain Applications

40 CFR Part 72.40, General

40 CFR Part 72, Subpart E, Acid Rain Permit Contents

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Circulating Fluidized Bed Boiler No. 1

List of Applicable Regulations

40 CFR Part 72.90, Annual Compliance Certification Report

40 CFR Part 73, Subpart C, Allowance Tracking System

40 CFR Part 75, Subpart A, General

40 CFR Part 75, Subpart B, Monitoring Provisions except 75.15, 75.16, 75.17, and 75.18

40 CFR Part 75, Subpart C, Operation and Maintenance Procedures

40 CFR Part 75, Subpart D, Missing Data Substitution Procedures

40 CFR Part 75, Subpart E, Alternative Monitoring Systems

40 CFR Part 75, Subpart F, Recordkeeping Requirements

40 CFR Part 75, Subpart G, Reporting Requirements

40 CFR Part 75, Appendix A, Specifications and Test Procedures

40 CFR Part 75. Appendix B, Quality Assurance and Quality Control Procedures

40 CFR Part 75, Appendix C, Missing Data Statistical Estimation Procedures

40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units

Rule 62-204.800(7)(b)2, F.A.C., Adoption of 40 CFR 60 Subpart Da

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

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NGS - Circulating Fluidized Bed Boiler No. 1

List of Applicable Regulations

Rule 62-204.800(7)(c),(d), & (e), F.A.C., Adoption of 40 CFR 60, General Provisions and Appendices.

Rule 62-204.800(14), F.A.C., Adoption of 40 CFR Part 72

Rule 62-204.800(15), F.A.C., Adoption of 40 CFR Part 73

Rule 62-204.800(16), F.A.C., Adoption of 40 CFR Part 75

Rule 62-204.800(18), F.A.C., Adoption of 40 CFR Part 77

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), (5) & (6), F.A.C., Excess Emissions

Rule 62-214.340(5), F.A.C., Exemptions

Rule 62-214.350, F.A.C., Certification

Rule 62-214.430(1) and (2), F.A.C., Implementation and Termination of Compliance Options

Rule 62-296.405(2), F.A.C., New Fossil Fuel Fired Steam Generators

Rule 62-297.310, F.A.C., General Test Requirements

40 CFR Part 72.9, Standards Requirements

Rule 62-4.030, F.A.C., General Prohibition

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Circulating Fluidized Bed Boiler No. 1.

List of Applicable Regulations

Rule 62-4.040(1), F.A.C., Exemptions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-212.300, F.A.C., General - Preconstruction Review Requirements

Rule 62-212.400, F.A.C., Prevention of Significant Deterioration

Rule 62-214.320, F.A.C., Applications - Acid Rain Regulations

Rule 62-214.330, F.A.C., Acid Rain Compliance Plan and Compliance Options

Rule 62-297.401(5), F.A.C., EPA Method 5

Rule 62-297.401(6), F.A.C., EPA Method 6

Rule 62-297.401(7), F.A.C., EPA Method 7

Rule 62-297.401(8), F.A.C., EPA Method 8

Rule 62-297.401(9), F.A.C., EPA Method 9

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DEP Form No. 62-210.900(1) - Form

NGS - Circulating Fluidized Bed Boiler No. 1

List of Applicable Regulations

Rule 62-297.401(10), F.A.C., EPA Method 10

Rule 62-297.401(12), F.A.C., EPA Method 12

Rule 62-297.401(13), F.A.C., EPA Methods 13A and 13B

Rule 62-297.401(17), F.A.C., EPA Method 17

Rule 62-297.401(25), F.A.C., EPA Method 25

Rule 62-297.401(29), F.A.C., EPA Method 29

Rule 62-297.401(41), F.A.C., EPA Method 201

Rule 62-204.800(9)(e), F.A.C., Adoption of 40 CFR Part 61 Appendices

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1001, Adoption of Chapter 62-296, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

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Emissions Unit Information Section

NGS - Circulating Fluidized Bed Boiler No. $\overline{1}$

List of Applicable Regulations

Rule 2.1203, C.2., Air Pollution Nuisances

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

E. EMISSION POINT (STACK/VENT) INFORMATION

NGS - Circulating Fluidized Bed Boiler No. 1				
Emission Point Description and Type:				
1. Identification of Point on Plot Plan or Flow Diagram	n: Stack			
2. Emission Point Type Code: 1				
3. Descriptions of Emission Points Comprising this En (limit to 100 characters per point)	3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: (limit to 100 characters per point)			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: Repowered Unit 1 will share a common stack with Repowered Unit 2. The common stack will contain two separate flues with one for each CFB Boiler.				
5. Discharge Type Code:	V			
6. Stack Height:	495	feet		
7. Exit Diameter :	15.0	feet		
8. Exit Temperature :	144	°F		
9. Actual Volumetric Flow Rate:	700300	acfm		
10. Percent Water Vapor :	0.00	%		
11. Maximum Dry Standard Flow Rate:	0	dscfm		
12. Nonstack Emission Point Height:	0	feet		
13. Emission Point UTM Coordinates :				

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Emissions Unit Information Section

Zone: 17 East (km): 446.670 North (km): 3365.070

14. Emission Point Comment:

Repowered Unit 1 and Repowered Unit 2 will share a common stack with two separate flues.

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DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 5	-		
NGS - Circulating Fluidized Bed Boiler No. 1			
Segment Description and Rate: Segment	1		
1. Segment Description (Process/Fuel Type and A	Associated Operating Method/Mode):		
Bituminous Coal			
2. Source Classification Code (SCC): 101003	218		
3. SCC Units: Tons Burned (all solid fuels)			
4. Maximum Hourly Rate: 138.20	5. Maximum Annual Rate : 1,210,632.00		
6. Estimated Annual Activity Factor: 0.00			
7. Maximum Percent Sulfur: 4.50	8. Maximum Percent Ash: 15.00		
9. Million Btu per SCC Unit: 10,000			
10. Segment Comment :			

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DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 5	·		
NGS - Circulating Fluidized Bed Boiler No. 1			
Segment Description and Rate: Segment 2	<u>. </u>		
1. Segment Description (Process/Fuel Type and Asso	ociated Operating Method/Mode):		
Petroleum Coke			
2. Source Classification Code (SCC): 10100299			
3. SCC Units: Tons Burned (all solid fuels)			
4. Maximum Hourly Rate: 101.90 5.	Maximum Annual Rate: 892,644.00		
6. Estimated Annual Activity Factor:			
7. Maximum Percent Sulfur: 8.00 8.	Maximum Percent Ash: 3.00		
9. Million Btu per SCC Unit: 13,000			
10. Segment Comment:			

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DEP Form No. 62-210.900(1) - Form

NGS - Circulating Fluidized Bed Boiler No. 1	
Segment Description and Rate: Segme	nt <u>3</u>
1. Segment Description (Process/Fuel Type	and Associated Operating Method/Mode):
Natural Gas	
Start-up Only (Based on 5 Start-ups per year)
2. Source Classification Code (SCC): 1	0100299
3. SCC Units: Million Cubic Feet Burned ((all gaseous fuels)
4. Maximum Hourly Rate: 0.31	5. Maximum Annual Rate: 15.60
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1,000	
10. Segment Comment :	
Natural Gas - Start-up Fuel	

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DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 5	
NGS - Circulating Fluidized Bed Boiler No. 1	
Segment Description and Rate: Segment	4
1. Segment Description (Process/Fuel Type and As	ssociated Operating Method/Mode):
Low Sulfur Distillate Oil (0.05% S)	
Start-up Only (Based on 5 Start-ups per year)	
2. Source Classification Code (SCC): 1010029	99
3. SCC Units: Thousand Gallons Burned (all liqui	d fuels)
4. Maximum Hourly Rate: 2.26 5	. Maximum Annual Rate: 113.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur: 0.05	3. Maximum Percent Ash: 0.10
9. Million Btu per SCC Unit: 140	
10. Segment Comment:	
Low Sulfur Distillate Oil is for Start-up.	

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DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	Pollutant Regulatory Code
1 - CO			EL
2 - PB	010		EL
3 - NOX	107		EL
4 - PM	010		EL
5 - PM10	010		EL
6 - SO2	041	013	EL
7 - VOC			EL
8 - SAM	041	013	EL
9 - H107	013		EL
10 - H114	013	010	EL
11 - HCL	013		NS
12 - HAPS			NS

NGS - Circulating Fluidized Bed Boiler No. 1	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: CO	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions :	
350.0000000 lb/hour	1,533.0000000 tons/year
4. Synthetically Limited?	
[] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	
t	tons/year
6. Emissions Factor 350 Units 1b/hr Reference: Manufacturer	
7. Emissions Method Code: 0	
8. Calculations of Emissions:	,
lb/hr = 350 (Set By Request)	
TPY - $(350 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{ton/2,000 lb}) = 1533 \text{ tons per year}$	г
9. Pollutant Potential/Estimated Emissions Comment:	
The requested emission limit is set at 350 lb/hr (24-hour average), excl malfunction.	uding startup, shutdown, and

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DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only) Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section NGS - Circulating Fluidized Bed Boiler No. 1	
Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: PB	
2. Total Percent Efficiency of Control: 99.00 %	
3. Potential Emissions:	
0.0720000 lb/hour	0.3150000 tons/year
4. Synthetically Limited?	
[] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	-
to	tons/year
6. Emissions Factor Units lb/mmBtu Reference: Manuf., (EF=2.61E-5)	
7. Emissions Method Code: 2	
8. Calculations of Emissions:	
lb/hr = (2.61E-5 lb/mmBtu) X (2764 mmBtu/hr) = 0.072	
Tons/Year = $(0.072 \text{ lb/hr}) \text{ X} (8,760 \text{ hr/yr}) \text{ X} (\text{ton/2,000 lb}) = 0.315$	
9. Pollutant Potential/Estimated Emissions Comment:	
Appendix A of the PSD Report contains the vendor data on potential emission PSD report contains detailed emissions calculations (Attachment F-9).	ons. Appendix C of the

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Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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$\boldsymbol{\mathsf{H}}.$ Emissions unit pollutant detail information

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1		
Pollutant Potential/Estimated Emissions: Pollutant	3	
1. Pollutant Emitted: NOX		
2. Total Percent Efficiency of Control: 67.00 %		
3. Potential Emissions: 248.7600000 lb/hour	1,089.57	00000 tons/year
4. Synthetically Limited? [] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor 0 Units 18 Reference: Manuf., (EF=0.09)	o/mmBtu	
7. Emissions Method Code: 0		
8. Calculations of Emissions:		
lb/hr = (0.09 lb/mmBtu) X (2764 mmBtu/hr) = 248.76		
tons/yr = (248.76 lb/hr) X (8,760 hr/yr) X (ton/2,000 lb) = 1,089	9.57	
9. Pollutant Potential/Estimated Emissions Comment:		
Appendix A of the PSD report contains detailed expected emiss Appendix C of the PSD report contains detailed emission calculates		
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Emissions Unit Information Section ____5

NGS - Circulating Fluidized Bed Boiler No. 1

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DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

NGS	S - Circulating Fluidized Bed Boiler No. 1
<u>Poll</u>	utant Potential/Estimated Emissions: Pollutant 4
1.	Pollutant Emitted: PM
2.	Total Percent Efficiency of Control: 99.90 %
3. 1	Potential Emissions : 30.4040000 lb/hour 133.1700000 tons/year
4. \$	Synthetically Limited? [] Yes [X] No
5. 1	Range of Estimated Fugitive/Other Emissions: to tons/year
6. 1	Emissions Factor 0 Units lb/mmBtu Reference: Manuf., (EF=0.011)
7. I	Emissions Method Code: 0
8. (Calculations of Emissions:
	lb/hr = (0.011 lb/mmBtu) X (2764 mmBtu/hr) = 30.404
	Tons/year = $(30.404 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{ton/2,000 lb/hr}) = 133.17$
9. 1	Pollutant Potential/Estimated Emissions Comment:
	Appendix A of the PSD report contains detailed expected emission rates based on load and fuel type. Appendix C of the PSD report contains detailed emission calculations (Attachment F-9).

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Emissions Unit Information Section

Emissions Unit Information Section ____5

NGS - Circulating Fluidized Bed Boiler No. 1

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DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section		
NGS - Circulating Fluidized Bed Boiler No. 1		
Pollutant Potential/Estimated Emissions : F	llutant5_	
1. Pollutant Emitted: PM10		
2. Total Percent Efficiency of Control: 99	0 %	
3. Potential Emissions :		
30.4040000 lb/hc	r	133.1700000 tons/year
4. Synthetically Limited?		
[] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions		
		to tons/year
6. Emissions Factor 0 Reference: Manuf., (EF=0.011)	Units lb/mmB	tu
7. Emissions Method Code: 0		
8. Calculations of Emissions :		
lb/hr = (0.011 lb/mmBtu) X (2764 mmBtu/hr) =	0.404	
Tons/year = $(30.404 \text{ lb/hr}) \text{ X } (8,760 \text{ hr/yr}) \text{ X } (to$	/2,000 lb/hr) = 133.1	7
9. Pollutant Potential/Estimated Emissions Com	ent:	
Appendix A of the PSD report contains detailed Appendix C of the PSD report contains detailed		
		

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Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

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NGS - Circulating Fluidized Bed Boiler No. 1		
Pollutant Potential/Estimated Emissions: Pollutant 6		
1. Pollutant Emitted: SO2		
2. Total Percent Efficiency of Control: 98.00 %		
3. Potential Emissions : 552.8000000 lb/hour 1,815.9500000 tons/year		
4. Synthetically Limited? [] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions: to tons/year		
6. Emissions Factor 0 Units lb/mmBtu Reference: Manuf., (EF=0.15)		
7. Emissions Method Code: 0		
8. Calculations of Emissions:		
lb/hr = (0.2 lb/mmBtu) X (2764 mmBtu/hr) = 552.8 (Short-Term, 24-Hour Maximum)		
lb/hr = (0.15 lb/mmBtu) X (2764 mmBtu/hr) = 414.60 lb/hr (Long-Term, 30-Day Rolling Average)		
Tons/year = $(414.60 \text{ lb/hr}) \text{ X} (8,760 \text{ hr/yr}) \text{ X} (\text{Ton/2,000 lb}) = 1815.95$		
9. Pollutant Potential/Estimated Emissions Comment:		

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Emissions Unit Information Section

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

Appendix A of the PSD report contains detailed expected emission rates based on load and fuel type. Appendix C of the PSD report contains detailed emission calculations (Attachment F-9).

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DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1	
Pollutant Potential/Estimated Emissions: Pollutant7	
1. Pollutant Emitted: VOC	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions: 14.0000000 lb/hour	61.3200000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 14 Units lb/hr Reference : Manufacturer	
7. Emissions Method Code: 0	
8. Calculations of Emissions:	
lb/hr = 1/4 Set by Request)	
Tons/year = $(14 \text{ lb/hr}) \text{ X} (8,760 \text{ hr/yr}) \text{ X} (ton/ 2,000 \text{ lb}) = 61.32$	
9. Pollutant Potential/Estimated Emissions Comment:	
The allowable emission limit is set at 14 lb/hr, excluding startup shutdown	a, and malfunction.

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Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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Emissions Unit Information Section 5

NGS - Ci	rculating Flu	idized Bed Boiler No. 1			
<u>Pollutan</u>	t Potential/	Estimated Emissions :	Pollutant	8	
1. Pollu	tant Emitted	I: SAM			
2. Total	Percent Eff	iciency of Control:		%	
3. Poten	tial Emissio	ns:	lb/hour		4.8440000 tons/year
!	netically Lin Yes	nited? [X] No			
5. Rang	e of Estimat	ed Fugitive/Other Emiss	sions:	to	tons/year
6. Emis	sions Factor Reference	0 : Manuf., (EF=0.004)	Uni	ts lb/mmBtu	
7. Emiss	sions Metho	d Code: 0			
8. Calcu	lations of E	missions:			
lb/hr	= (0.0004 lb)	/mmBtu) X (2764 mmBtu	h(r) = 1.106		
Tons	/year = (1.10	6 lb/hr) X (8,760 hr/yr) X	(ton/2,000 lb)	= 4.844	
9. Pollut	tant Potentia	l/Estimated Emissions (Comment:		· · · · · · · · · · · · · · · · · · ·
Арре	endix C of the	e PSD report contains deta	ailed emission o	alculations (Attac	chment F-9).

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Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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NGS - Circulating Fluidized Bed Boiler No. 1
Pollutant Potential/Estimated Emissions: Pollutant 9
1. Pollutant Emitted: H107
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 0.4340000 lb/hour 1.9010000 tons/year
4. Synthetically Limited? [] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0 Units lb/mmBtu Reference: Manuf., (EF=1.57E-4)
7. Emissions Method Code: 0
8. Calculations of Emissions:
lb/hr = (1.57E-4 lb/mmBtu) X (2764 mmBtu/hr) = 0.434
Tons/year = $(0.434 \text{ lb/hr}) \text{ X} (8,760 \text{ hr/yr}) \text{ X} (ton/2,000 \text{ lb}) = 1.901$
9. Pollutant Potential/Estimated Emissions Comment:
Appendix A of the PSD report contains detailed expected emission rates based on load and fuel type. Appendix C of the PSD report contains detailed emissions calculations (Attachment F-9).

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Emissions Unit Information Section

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 5		
NGS - Circulating Fluidized Bed Boiler No. 1		
Pollutant Potential/Estimated Emissions: Polluta	ant <u>10</u>	
1. Pollutant Emitted: H114		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions:		
0.0290000 lb/hour		0.1270000 tons/year
4. Synthetically Limited?		
[] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:		
	to	tons/year
6. Emissions Factor	Units lb/mmBtu	
Reference : AP-42, (EF=1.05E-5)		
7. Emissions Method Code: 3		
8. Calculations of Emissions:		
lb/hr = (1.05E-5 lb/mmBtu) X (2764 mmBtu/hr) = 0.0	29	
Tons/yr = $(0.029 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{ton/2000 li})$	$a_0 = 0.127$	
10h3/y1 = (0.025 lb/llt) /k (0,700 lll/y1) /k (10h2000 ll	0, = 0.12,	
9. Pollutant Potential/Estimated Emissions Comment	:	
Appendix A of the PSD report contains detailed expect Appendix C of the PSD report contains detailed emiss		
III Dort Ob 10		<u>.</u>

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Emissions Unit Information Section

NGS - Circulating Fluidized Bed Boiler No. 1

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(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1		
Pollutant Potential/Estimated Emissions: Pollutant 11		
1. Pollutant Emitted: HCL		
2. Total Percent Efficiency of Control: %		
3. Potential Emissions : 0.0000000 lb/hour		0.0000000 tons/year
4. Synthetically Limited? [] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Units Reference:		
7. Emissions Method Code :		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions Comment:		

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DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section5_	
NGS - Circulating Fluidized Bed Boiler No. 1	
Pollutant Potential/Estimated Emissions: Pollutant 12	
1. Pollutant Emitted: HAPS	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions:	
12.1000000 lb/hour	53.0000000 tons/year
4. Synthetically Limited? [] Yes [] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor Units lb/ton	
Reference: EPA or other data	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
Emissions were calculated based on fuel consumption and emission factors report (Attachment F-9) shows the emission factors used and the source of coke.	
9. Pollutant Potential/Estimated Emissions Comment:	
Emission calculations for hazardous air pollutants are contained in Appendix (Attachment F-9).	lix C of the PSD report
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Emissions Unit Information Section 5
NGS - Circulating Fluidized Bed Boiler No. 1

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DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1	
Pollutant Information Section 1	
Allowable Emissions 1	
1. Basis for Allowable Emissions Code:	RULE
2. Future Effective Date of Allowable Emissions :	01-Oct-2002
3. Requested Allowable Emissions and Units:	350.00 lb/lb/hr
4. Equivalent Allowable Emissions:	
350.00 lb/	/hour 1,533.00 tons/year
5. Method of Compliance :	
Continuous Emissions Monitor	
6. Pollutant Allowable Emissions Comment (Desc BACT is proposed at 350 lb/hr (24-hour average), of	

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Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1

Pollutant Information Section 1			
Allowable Emissions 2			
1. Basis for Allowable Emissions Code:	OTHER		-
2. Future Effective Date of Allowable Emission	ns: 01-Oct	-2002	
3. Requested Allowable Emissions and Units:	1,533.0	0 To	ns per year
4. Equivalent Allowable Emissions:			
	lb/hour	1,533.00	tons/year
5. Method of Compliance :			
Continuous Emissions Monitor			
6. Pollutant Allowable Emissions Comment (D	esc. of Related	Operating Me	thod/Mode):
Emissions cap for Repowered Unit 1.			

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1

Po	ollutant Information Section 2			
<u>Al</u>	lowable Emissions 1			
1.	Basis for Allowable Emissions Code:	RULE		
2.	Future Effective Date of Allowable Emissions:	01-Oct-	2002	
3.	Requested Allowable Emissions and Units:	0.07	lb	/hr
4.	Equivalent Allowable Emissions:			
	0.07 lb/h	our	0.32	tons/year
5.	Method of Compliance :			
	Initial & Renewal Stack Tests - EPA Methods 12 & 2	29		
6.	Pollutant Allowable Emissions Comment (Desc.	of Related	Operating M	ethod/Mode):
	BACT is proposed at 0.07 lb/hr (as a 3-hour average)	, excluding	startup, shutd	own, and malfunction.

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Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1	
Pollutant Information Section 3	
Allowable Emissions 1	
1. Basis for Allowable Emissions Code:	PULE
2. Future Effective Date of Allowable Emissions:	01-Oct-2002
3. Requested Allowable Emissions and Units:	0.09 lb/mmBtu
4. Equivalent Allowable Emissions:	
248.80 lb/hour	1,090.00 tons/year
5. Method of Compliance:	
Acid Rain CEMS	
6. Pollutant Allowable Emissions Comment (Desc. of Re BACT is proposed at 0.09 lb/mmBtu based on a 30-day ro startup, shutdown, and malfunction.	

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DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1
Pollutant Information Section 3
Allowable Emissions 2
1. Basis for Allowable Emissions Code: OTHER
2. Future Effective Date of Allowable Emissions: 01-Oct-2002
3. Requested Allowable Emissions and Units: 3,600.00 tons per year
4. Equivalent Allowable Emissions :
lb/hour 3,600.00 tons/year
5. Method of Compliance :
Acid Rain CEMS
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
Multi-unit emissions cap for Repowered Units 1 & 2, and existing Unit 3 is effective upon successful completion of initial performance testing on Repowered Unit 2.

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Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1

llutant Information Section	4			
lowable Emissions 1				
Basis for Allowable Emissions	Code:	RULE		
Future Effective Date of Allow	vable Emissic	ons: 01-Oct	-2002	
Requested Allowable Emission	ns and Units:	0.01	lb/ı	mmBtu
Equivalent Allowable Emissio	ns:			
3	30.40	lb/hour	133.00	tons/year
Method of Compliance :				
Quarterly stack tests for first 2 years	ears. EPA Met	hods 5 & 17.		
Pollutant Allowable Emissions	Comment (I	Desc. of Related	Operating Me	thod/Mode):
			e for TSP, exclu	ding startup, shutdown,
	Future Effective Date of Allow Requested Allowable Emission Equivalent Allowable Emission Method of Compliance: Quarterly stack tests for first 2 yes Pollutant Allowable Emissions BACT is proposed at 0.011 lb/mi	Basis for Allowable Emissions Code: Future Effective Date of Allowable Emission Requested Allowable Emissions and Units: Equivalent Allowable Emissions: 30.40 Method of Compliance: Quarterly stack tests for first 2 years. EPA Method Pollutant Allowable Emissions Comment (EBACT is proposed at 0.011 lb/mmBtu based on	Basis for Allowable Emissions Code: RULE Future Effective Date of Allowable Emissions: 01-Oct Requested Allowable Emissions and Units: 0.01 Equivalent Allowable Emissions: 30.40 lb/hour Method of Compliance: Quarterly stack tests for first 2 years. EPA Methods 5 & 17. Pollutant Allowable Emissions Comment (Desc. of Related)	Basis for Allowable Emissions Code: RULE Future Effective Date of Allowable Emissions: 01-Oct-2002 Requested Allowable Emissions and Units: 0.01 lb/n Equivalent Allowable Emissions: 30.40 lb/hour 133.00 Method of Compliance: Quarterly stack tests for first 2 years. EPA Methods 5 & 17. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method BACT is proposed at 0.011 lb/mmBtu based on a 3-hour average for TSP, exclu

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DEP Form No. 62-210.900(1) - Form

Pollutant Information Section 4			
Allowable Emissions 2			
1. Basis for Allowable Emissions Code:	ОТНІ	ER	
2. Future Effective Date of Allowable Emis	ssions: 01-O	ct-2002	
3. Requested Allowable Emissions and Uni	its: 881.0	00 ton	s per year
4. Equivalent Allowable Emissions:			

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):

Multi-unit emissions cap for Repowered Units 1 & 2, and existing Unit 3 effective upon successful completion of initial performance testing on Repowered Unit 2.

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DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS - Circulating Fluidized Bed Boiler No. 1 **Pollutant Information Section Allowable Emissions** 1. Basis for Allowable Emissions Code: **RULE** 2. Future Effective Date of Allowable Emissions: 01-Oct-2002 3. Requested Allowable Emissions and Units: 0.01 lb/mmBtu 4. Equivalent Allowable Emissions: 30.40 lb/hour 133.00 tons/year 5. Method of Compliance: Quarterly stack tests for initial 2 years. EPA Method 201 6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode): BACT is proposed at 0.011 lb/mmBtu based on a 3-hour average excluding startup, shutdown, and malfunction.

III. Part 9c - 8

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1

Pollutant Information Section 6			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code :	OT	HER	
2. Future Effective Date of Allowable Emissi	ons : 01	-Oct-2002	
3. Requested Allowable Emissions and Units	: 0.1	5 lb/i	nmBtu
4. Equivalent Allowable Emissions:			
414.60	lb/hour	1,816.00	tons/year
5. Method of Compliance :			
Acid Rain CEMS			
6. Pollutant Allowable Emissions Comment (Desc. of Rela	ated Operating Me	thod/Mode):
Repowered Unit 1 is not subject to PSD Revie a 30-day rolling average, excluding startup, sh			sion limit is requested as

DEP Form No. 62-210.900(1) - Form

Pollutant Information Section 6	•	
Allowable Emissions 2		
1. Basis for Allowable Emissions Code:	OTHER	
2. Future Effective Date of Allowable Emissions:	01-Oct-2002	
3. Requested Allowable Emissions and Units:	0.20	lb/mmBtu
4. Equivalent Allowable Emissions:		
552.80 lb/h	our	tons/year
5. Method of Compliance :		
Acid Rain CEMS		

III. Part 9c - 10

a 24-hour block average, excluding startup, shutdown, and malfunction.

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1

Po	ollutant Information Section6_			
Al	llowable Emissions 3			
1.	. Basis for Allowable Emissions Code:	OTHER		
2.	Future Effective Date of Allowable Emissions :	01-Oct-20	002	
3.	Requested Allowable Emissions and Units:	12,284.00	tons/	year
4.	Equivalent Allowable Emissions:			
	lb/ho	ur	12,284.00	tons/year
5.	Method of Compliance :			
	Acid Rain CEMS			
6.	Pollutant Allowable Emissions Comment (Desc. o	f Related Op	perating Meth	od/Mode):
	Multi-unit emissions cap for Repowered Units 1 & 2, completion of initial performance testing of Repowere		Jnit 3 is effect	ive upon successful

III. Part 9c - 11

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 5						
Pollutant Information Section 7						
Allowable Emissions 1						
Basis for Allowable Emissions Code: RULE						
2. Future Effective Date of Allowable Emissions: 01-Oct-2002						
3. Requested Allowable Emissions and Units: 14.00 lb/hr						
4. Equivalent Allowable Emissions:						
14.00 lb/hour 61.50 tons/year						
5. Method of Compliance :						
Initial & Renewal Stack Test EPA Method 25						
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):						
BACT is proposed at 14 lb/hr (3-hour average) excluding startup, shutdown, and malfunction. The CEMS is proposed as a surrogate compliance method.	СО					

III. Part 9c - 12

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS - Circulating Fluidized Bed Boiler No. 1 **Pollutant Information Section** Allowable Emissions 1. Basis for Allowable Emissions Code: **RULE** 2. Future Effective Date of Allowable Emissions: 01-Oct-2002 3. Requested Allowable Emissions and Units: 1.10 lb/hr 4. Equivalent Allowable Emissions: 1.10 lb/hour tons/year 4.80 5. Method of Compliance: Initial and Renewal Stack Tests, EPA Method 8

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :

BACT is proposed at 1.1 lb/hr (3-hour average), excluding startup, shutdown and malfunction. SO2 CEMS is proposed as surrogate.

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1

Pollutant Information Section	9			
Allowable Emissions 1				
1. Basis for Allowable Emissions C	Code :	RULE		
2. Future Effective Date of Allowal	ole Emissions :	01-Oct-2	2002	···
3. Requested Allowable Emissions	and Units:	0.43	lb	/hr
4. Equivalent Allowable Emissions	:			
0.4	0 lb/hc	our	1.90	tons/year
5. Method of Compliance:		<u></u>		
Initial and Renewal Stack Tests - E	PA Methods 13A	& 13В		
6. Pollutant Allowable Emissions C	comment (Desc. o	of Related C	perating Mo	ethod/Mode):
BACT is proposed at 0.4 lb/hr (3-he	our average), exclu	iding startup	, shutdown, a	and malfunction.

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1

Pollutant Information S	10		
Allowable Emissions	1		

1.	Basis for Allowable Emissions Code:	RULE	3		
2.	Future Effective Date of Allowable Emissio	ns: 01-0	ct-2002		
3.	Requested Allowable Emissions and Units:	0.03		lb/hr	
4.	Equivalent Allowable Emissions:				
	0.03	lb/hour	0.13	tons/year	
5.	Method of Compliance :				
!	EPA Methods 29 & 101A				
6.	Pollutant Allowable Emissions Comment (D	esc. of Related	d Operating	Method/Mode):	
	BACT is proposed at 0.03 lb/hr (6-hour average	e), excluding sta	ırtup, shutdow	n, and malfunction.	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	5
NGS - Circulating Fluidized Bed Boiler No.	1

Po	lutant Information Section 7		
All	owable Emissions 2		
1.	Basis for Allowable Emissions Code:	OTHER	
2.	Future Effective Date of Allowable Emissions:	01-Oct-2002	
3.	Requested Allowable Emissions and Units:	61.50	tons per year
4.	Equivalent Allowable Emissions:		_
	1b/h	nour	tons/year
5.	Method of Compliance:		
	Initial & Renewal Stack Test EPA Method 25		
6.	Pollutant Allowable Emissions Comment (Desc.	of Related Operat	ting Method/Mode):
	Emissions Cap for Repowered Unit 1		

III. Part 9c - 16

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1 Visible Emissions Limitation: Visible Emissions Limitation 1				
1. Visible Emissions Subtype: 10				
2. Basis for Allowable Opacity: RULE				
3. Requested Allowable Opacity: Normal Conditions: 10	%			
Exceptional Conditions: 100 Maximum Period of Excess Opacity Allowed:	% min/hour			
Method of Compliance: Opacity Monitor - EPA Method 9				
5. Visible Emissions Comment: BACT is proposed at 10 percent opacity. Excess emissions are along with exceptional conditions limits required by the boilers				

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only)

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2		
Continuous Monitor 1		
1. Parameter Code: VE	2. Pollutant(s):	
3. CMS Requirement		
4. Monitor Information Manufacturer: Model Number: Serial Number:		
5. Installation Date :		
6. Performance Specification Test Date :		
7. Continuous Monitor Comment: CEMS Vendor Data will be provided 45 days prior Monitoring Plan Revisions	to initial start-up as part of the Acid Rain	
Continuous Monitoring System Continuous Mo	onitor 2	
1. Parameter Code: FM	2. Pollutant(s): NOX	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only)

Emissions Unit Information Section 5 NGS - Circulating Fluidized Bed Boiler No. 1

Continuous Monitoring System Continuous Mo	onitor 1
1. Parameter Code: VF.	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information	
Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment: CEMS Vendor Data will be provided 45 days prior Monitoring Plan Revisions	to initial start-up as part of the Acid Rain
Continuous Monitoring System Continuous Mo	nitor 2
1. Parameter Code: EM	2. Pollutant(s):
3. CMS Requirement RULE	
4. Monitor Information	
Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date:	,

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only)

Emissions Unit Information Section __5_

NGS - Circulating Fluidized Bed Boiler No. 1			
Continuous Monitoring System Continuous Monitor 3			
1. Parameter Code: EM 2. Pollutant(s):			
3. CMS Requirement RULE			
4. Monitor Information			
Manufacturer: Model Number: Serial Number:			
5. Installation Date :			
6. Performance Specification Test Date:			
 Continuous Monitor Comment : CEMS Vendor Data will be provided 45 days prior to initial start-up as part of the Acid Rain Monitoring Plan Revisions. 			
Continuous Monitoring System Continuous Monitor 4			
1. Parameter Code: EM 2. Pollutant(s):			
3. CMS Requirement OTHER			
4. Monitor Information			
Manufacturer: Model Number: Serial Number:			
5. Installation Date :			
Installation Date : Performance Specification Test Date :			
6. Performance Specification Test Date :			

III. Part 11 - 2

DEP Form No. 62-210.900(1) - Form

(Regulated Emissions Units Only)

Emissions Unit Information Sec	tion <u>5</u>		
NGS - Circulating Fluidized Bed Boi	ler No. 1		
Continuous Monitoring System	Continuous Monitor	5	

1. Parameter Code: FLOW	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer: Model Number: Serial Number:	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment: CEMS Vendor Data will be provided 45 days prior Monitoring Plan Revisions.	r to initial start-up as part of the Acid Rain

III. Part 11 - 3

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emi	ssions Unit Information Section 5			
NGS	NGS - Circulating Fluidized Bed Boiler No. 1			
<u>PSD</u>	PSD Increment Consumption Determination			
1. I	1. Increment Consuming for Particulate Matter or Sulfur Dioxide?			
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.			
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.			
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.			

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

i	2.	In	crement Consuming for Nitrogen Dioxide?
	[2	K]	The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
	[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
	[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
	[]	For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
ţ	[]	None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

	PM:	C Se	O2: C	NO2 :	С
<u> </u>	Baseline Emissio	ons :			
	PM :	30.4000 II	b/hour	133.0000	tons/year
	SO2:	414.6000 11	b/hour	1816.0000	•
	NO2 :			1090.0000	tons/year

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form Effective : 3-21-96

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	F-6, EU027
2. Fuel Analysis or Specification:	E-1
3. Detailed Description of Control Equipment:	E-2
4. Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	E-4
7. Operation and Maintenance Plan:	NA
8. Supplemental Information for Construction Permit Application :	F-9
9. Other Information Required by Rule or Statue :	F-10
Additional Supplemental Requirements for Category I Application	ns Only
10. Alternative Methods of Operations :	
11. Alterntive Modes of Operation (Emissions Trading):	
	

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

12.	Identification	of	Additional	Applicable	Requirements	:
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13. Compliance Assurance Monitoring Plan:

14. Acid Rain Application (Hard-copy Required):

Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))

Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)

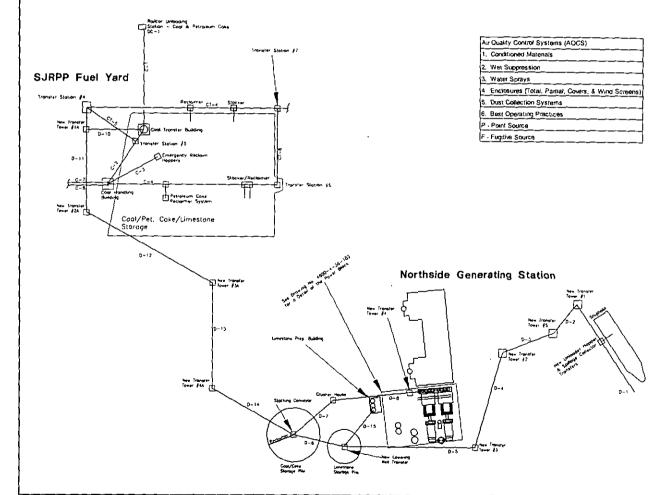
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 028

NGS - Materials Handling & Storage Operations

NGS - Base Case Materials Handling & Storage Operations Layout Schematic - Not To Scale

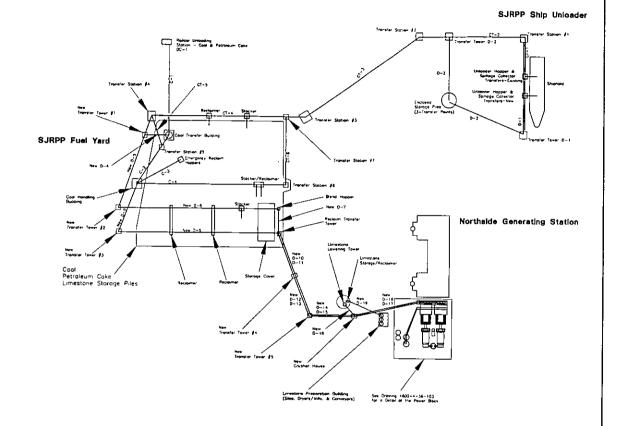


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Diver and Coates to 3 Immediate Chaine Common Franch Forces 1, 2, 5, 3 Immediate Principal Chaines System Train 1 Immediate Principal Chaines System Train 2 Bear Ann Sai Loading User 2 Bear Ann Sai Loading User 3 Bear Ann Sai Loading User 3 Bear Ann Sai Loading User 3 Bear Ann Sai Loading User 4 Bear Ann Sai Emilyane Chaines User 4 Bear Ann Sai Emilyane Chaines User 4 By Ann Fales Separato Traines Principal in 2 By Ann Sai Loading User 3 By Ann Sai Loading User 4 By Ann Sai Sai Emilyane Chaines User 1 By Ann Sai Sai Emilyane Chaines User 1 By Ann Sai Emilyane Chaines User 1 By Ann Sai Privation User 1 By Ann Sai Privation User 1	D.	at Collector DC-1 (Coal Unioscorg) at Collector DC-2 (Coal Transfer Building/Emergancy Stackor nastone Rectain Brig
Umasione Churine Connys Fareller Tears, 1, 2, 5, 5 Umasione Prumato Tarrelle System Tran 1 Jamestrae Prumato Tarrelle System Tran 2 Ben Aan Se Loaderg Unit 12 Ben Aan Se Congrey Unit 12 Ben Aan Se Emergency Deprings Unit 12 Ben Aan Se Emergency Deprings Unit 12 Ben Aan Se Emergency Deprings Unit 12 By Aan Fast Systemator Transler Prot Unit 12 By Aan Fast Seat Seat Unit 12 By Aan Fast Seat Seat Unit 12 By Aan Se Emergency Deprings Unit 12 By Aan Se Emergency Deprings Unit 12 By Aan Se Emergency Deprings Unit 12 Ben Aan Se Hydrators Unit 1 Ben Aan Se Hydrators Unit 1	D. D. D.	at Collector DC-1 (Cost Unionsory) at Collector DC-2 (Cost Transfer Building/Emergancy Stackor neutone Rectain Bing rer and Coustier No. 1
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Comedities Promises Danieles System Tran 2 Bea Alen Salo Loading Liver 1 1 Bea Alen Salo Loading Liver 1 1 Bea Alen Salo Loading Liver 1 2 Bed Alen Salo Emargency Dacharage Liver 1 Bed Alen Salo Emargency Dacharage Liver 1 2 By Alen Fales Spanstor Transis Power Liver 12 By Alen Fales Spanstor Transis Power Liver 12 By Alen Salo Loading Liver 1 By Alen Salo Loading Liver 12 By Alen Salo Loading Liver 12 By Alen Salo Loading Liver 12 By Alen Salo Emargency Dacharage Liver 12 Bed Alen Salo Hydratora Liver 1 By Alen Salo Brightona Liver 1	Do Do Do Do	as Collector DC1 (Cold Underson): as Collector DC2 (Cold Transile Guiding/Emergency Stacks) regions Recognition real and Collective No. 1 relented College No. 2 relent College No. 3 relent College No. 3
Ben Ann Sel Caedry (Jun 12) Ben Ann Sel Caedry (Jun 12) Ben Ann Sel Emergency Departury (Jun 14) Ben Ann Sel Emergency Departury (Jun 14) Ben Ann Sel Emergency Departury (Jun 12) Py Ann Faet Separation Transite Promit (Jun 14) Py Ann Sel Caedry (Jun 14) Py Ann Sel Emergency Departury (Jun 14) Py Ann Sel Emergency Departury (Jun 14) Ben Ann Sel Productor (Jun 12) Ben Ann Sel Productor (Jun 12) Py Ann Sel Productor (Jun 12) Ben Ann Sel Productor (Jun 12) Py Ann Sel Emergency Departury (Jun 14) Ben Ann Sel Productor (Jun 12) Py Ann Sel Productor (Jun 12)	Du Du Dn Dn Dn	as Collector DC1 (Coal University) as Collector DC2 (Coal Iransite Guiding/Emirgancy Stacko, majorion Reculain Berg er and Couline No. 1 er and Couline No. 2 er and Couline No. 2 er and Couline No. 3 er and Couline No. 3 er and Couline No. 3 erand Couline No. 3
Den Ach Sei Cooping Unit 12 Bed Ach Sei Emergeuch Deznangs Unit 41 Bed Ach Sei Emergeuch Deznangs Unit 42 PP, Ach Feet Semprech Deznangs Unit 42 PP, Ach Feet Separation Transie Power Unit 41 PP, Ach Sei Cooping Unit 41 PP, Ach Sei Cooping Unit 42 PP, Ach Sei Cooping Unit 42 PP, Ach Sei Cooping Unit 42 PP, Ach Sei Emergency Deznangs Unit 41 PP, Ach Sei Emergency Deznangs Unit 42 Bed Ach Sei Privations Unit 1 PP, Ach Sei Privations Unit 1 PP, Ach Sei Privations Unit 1	Do Do Do Do Do Lin	at Collector DC-1 (Cold Liverbancy) at Collector DC-2 (Cold Tarethe Guiding Emergency Stacro, majorie Recisient Brief er and Cutainge No 1; ex and Cutainge No 1; ex and Cutainge No 2; ex and Cutainge No 2; ex and Cutainge No 3; extended to Collector Designed C
Den Ash Sel Emergency Oscinarya Unit 41 Bot Ash Sale Emergency Oscinarya Unit 42 Phy Ash Fales Separation Transiste Point Unit 41 Phy Ash Fales Separation Transiste Point Unit 42 Phy Ash Sale Loading Unit 42 Phy Ash Sale Loading Unit 42 Phy Ash Sale Sole Emergency Oscinarya Unit 41 Phy Ash Sale Designey Oscinarya Unit 42 Both Ash Sale Individual Unit 41 Both Ash Sale Projectors Unit 42 Phy Ash Sale Projectors Unit 42	Do Do Do Do Lin	at Collector DC1 (Coll Unionality). at Collector DC2 (Coll Transis Guading-Emergency Stacks, mellione Recision Help 1 res and College Help 1 res and College Help 2 res and College Help 2 res and College Help 2 reserve College Help 3 reserve Promise College Help 3 reserve Promise College Help 3 reserve Promise College Help 3 reserves He
Bed Ash Self-Engineer Descrape Unit 22 Py Ash Feet-Pointure Travelle Point Unit 1 Py Ash Feet-Pointure Travelle Point Unit 1 Py Ash Feet-Pointure Travelle Point Unit 12 Py Ash Self-Lossey Unit 11 Py Ash Self-Lossey Unit 12 Py Ash Self-Engineery Descripe Unit 11 Py Ash Self-Engineery Descripe Unit 12 Py Ash Self-Engineery Descripe Unit 12 Py Ash Self-Engineery Descripe Unit 12 Ped Ash Self-Pointure Unit 1 Ped Ash Self-Pointure Unit 1 Ped Ash Self-Pointure Unit 1	Don Don Don Don Don Don	at Collector PC-1 (Cold Livelance) at Collector PC-2 (Cold Transfer Subdroy/Emirgancy Situation instation Recipies Brig er and College Res 1 er and College Res 1 er and College Res 2 er and College Re
PP, ALD FLARES SOURCES TROUGH FOR LIFE 1 PP, ALD FLARES SOURCES TROUGH FOR LIFE 12 PP, ALD SELECTION TO THE PROPERTY OF 1 PP, ALD SELECTION TO THE 12 PP, ALD SELECTION TO THE 12 PP, ALD SELECTION TO THE 12 PP, ALD SELECTION TO THE 1 PP, ALD	Do Do Do Do Do Do Do Do Do Do Do Do Do D	at Codector DC-1 (Code University Stating Emergency Stating matters finding the first ear and Cotanier file 1 ear and Cotanier file 2 ear and Cotanier file 2 ear and Cotanier file 3 ear and
Phy Auth Chardisopanies Transpiller Done (Unit 22 Phy Auth Cale Chandry (Unit 42 Phy Auth Cale Physician (Unit 42 Physician (U	Do Do Do Do Do Do Do Do Do Do Do Do Do D	at Collector DC-1 (Coal Unionality) at Collector DC-2 (Coal Transite Guiding-Emergency Staczo, mischon Recoam Height res and Coutaine Transite House res and Coutaine Conveyor Francher Transite restore Promangic Transite System Transit restore Promangic Transit Transit restore Promangic Transit Transit Transit Transit Transit Tra
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Fly Ash Sdo Emergency Decreage Unit 11 Fly Ash Sdo Emergency Decreage Unit 42 Bed Ash Sdo Phydriatos Unit 1 Bed Ash Sdo Phydratos Unit 2 Fly Ash Sdo Hydrators Unit 1	DO D	at Collector DC-1 (Cold Livelancy) at Collector DC-2 (Cold Transite Suddry)Emirgancy Stacco- mations Recognized Brig er and College Res er and College College Res er and Set Loading Unit if er and Set Loading College Res er and Set Loading Unit if er and Set Loading
Ph. Ash São Emergency Decherge Unit #2 Bod Ash São Phydistora Unit 1 Bod Ash São Phydistora Unit 2 Ply Ash São Phydistora Unit 1	DO D	at Codector DC-1 (Code Liverboard) at Codector DC-2 (Code Transin Guadroy Emirgand V Stactor insplore Recision Bring er and Cutarier No 1 ; er and Cutarier No 1 ; er and Cutarier No 1 ; er and Cutarier No 2 ; er and Cutarier No 3 ; er and Cutarier No 4 ; er and Side Cutarier
Bed Ash Sde Hydrators Unit 1 Bed Ash Sde Hydrators Unit 2 Fly Ash Sde Hydrators Unit 1	Don Don Don Don Bee Bee Fly	at Collector PC-1 (Cold Linebach) at Collector PC-2 (Cold Transher Sudding/Eminguary Stacio, institute Recision Brig er and College Rep er
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Fly Ash Silo Hydrators Unit 2	DO D	at Codector DC-1 (Cod Liverboard) at Codector DC-2 (Cod Transin Guadroy Emirpancy Stactor institute Recision Brieg er and Codaries No 1 er and Codaries No 1 er and Codaries No 1 er and Codaries No 2 er and Codaries No 2 er and Codaries No 2 er and Codaries No 3 er and Codaries Codaries Codaries (Codaries Codaries Codari
	Don Don Don Don Don Bar Bar Fly Fly Bar Fly	at Collector PC-1 (Cold Lineboard) at Collector PC-2 (Cold Transfer 6-addroy/Emirgand's Station institute Recision Brig are and College

NGS - Alternate #1 Materials Handling & Storage Operations Layout Schematic - Not To Scale

Fugitive Duet Sourcee	ADCS	Control Efficiency	PM10 (6/h/s)	PM to (TPY)
Shiphoid - New	1, 4, 5 6	70 00%	0.257	0.385
Shiphoid - Existing	1, 4, 8 6	70 00%	0.257	0.305
Unloader Hopper and Spillage Collector Transfers - New Ship Unioader	1, 3, 4 & 6	85.00%	0 130	0 194
Unloader Hopper and Spillage Collector Transless - Existing System	1, 3, 4 & 6	65 00%	0 t30	0 194
Hopper Bell, Schlage Conveyors, and DC-1 Transfer Points - New Ship Unloader	1, 4, 8, 6	96 00%	0.063	0.094
Fransier Tower D-1	1, 2, 1 4	94 00%	0.021	0 031
Enclosed Storage Pite - 3 Transfer Points	1, 3, 4 & 6	98 00%	0.063	0.094
Enclosed Pile - Vehicle Activities	1, 3, 4, & 6	98.00%	0 011	0.047
Transler Tower D-2	1, 2, 4, 4	98 00%	0.021	0 031
Transfer Station No. 1	1, 2, 4.4	98.00%	0.021	0.031
Transfer Station No. 2	1, 2, 4 4	98.00%	0 021	0.063
Transfer Station No. 3	1244	98 DO%	0 022	0 086
Transfer Statem No. 4	164	98 00%	0.021	0.053
Coke Storage Pile - Active Pile Factor	1,3 &6	75 00%	0 495	0 546
Limestone Storage Pile - Active Pile Fector	1.3 46	75 00%	0 495	0.046
Coke Storage Prie - Vehicle Activism	1, 3, 4 6	75.00%	0 113	0.497
Limestone Storage Pile - Valscie Activides	1, 3, 4.6	75 00%	0 013	0.057
Limestone Rectain Lowering Well	1, 2, 4.6	98 00%	0.014	0.007
Limestone Reclaim Hopper	1, 2, & 6	75.00%	0 121	0 175
New Transler Tower #1-NGS	1, 2, 5 4	98 OC%	0.042	0 119
New Transler Tower #2-HGS	1, 2, 8 4	98 00%	6.042	0 119
New Bland Hopper	1, 3, 6.4	96 00%	0.068	9 096
New Stacker	1, 3, 4 4	85.00%	0.314	0.790
SURPP Rectamen	1, 3, 5 4	75.00%	0 244	1 768
New Transler Yower #3-NGS	1, 2, 4 4	98 00%	0 039	0 143
NGS Reclamer	1, 3, 4 4	75.00%	2 2 A.A	0 845
New Rectam Transfer Tower	1, 2, 1, 1	98.00%	9 0220	0.048
New Transler Tower #4-NGS	1. 2. 8.4	98.00%	0 029	0.048
New Transfer Town #5-NGS	1, 2, 5 4	98 00%	0 029	0.048
New Transfer Tower #6-NGS	1, 2, 4	98 00%	0 029	0.061
Bed Ash São Unit #1 Unicacing - Hydrators	146	0.00%	9 020	9.087
Bed Ash Sec Unit #2 Unloading - Hydrators	1 & 6	0.00%	6 020	D.087
Fly Ash Silo Unit #1 Uniqueling - Hydrators	184	0.00%	6 017	0 074
Fly Ash Sio Unit 42 Unloading - Hydratura	188	0.00%	0.017	0 074
Unpaved Road, By-Product Storage Area	188	75 00%	0.156	0.661

Point Saucee	ACCS	Control Efficiency	PM 10 (B/hr)	PM10 (TPY)
Hopper Balt, Spillage Conveyors, and CT-1 Transfer Points - Existing Ship Union	1, 3, 4 5, 4 6	99 50%	9016	0 023
Railcar Rotary Dumper	1, 3, 4 & 8	97 00%	0 069	0 965
Duet Collector DG-1 (Coal Uninaring)	1, 4 & 5	99 50%	0.002	0.078
Dust Collector DC-2 (Coal Transler Building/Emergency Stackaut)	1, 4 & 5	90 50%	0.010	0 010
NGS CAMPEr House	1, 4 & 5	99 50%	4 027	0.029
NGS Baster Salos	4, £ 5	99.50%	0.005	0.006
Limestone Receiving Biris	1, 4, 8.5	99 50%	0.005	0 007
Dryer and Crusher No. 1	4 & 5	99 94%	0 317	1 390
Dryer and Crusher No. 2	4 4 5	99 94%	Q 317	1 300
Dryer and Crusher No. 3	4 & 5	99 S4%	0 317	1 390
Limestone Crueher Corneyor Transfer Trans 1, 2, & 3	4, 8.5	99 94%	0.048	II 206
Umestone Pnumetic Transfer System Train I (Feed São)	4, 6.5	99 50%	0 034	0 151
Lamestone Prumetic Transfer System Train 2 (Feed Sée)	4 & 5	99 50%	9 034	0 151
Bed Ash Sila Londing Unit #1	4 3 5	99 50%	0 014	0 063
Sed Ash Silo Loading Unit #2	4 4 5	99 50%	6 074	0.063
Bed Ash Silo Emergency Dephase Unit #1	4 & 5	99 96%	0 013	0.058
Bad Ash Silo Emergency Decharge Unit #2	4, å 5	99 98%	0 013	0.058
Fly Ash Filter/Separator Transfer Point Unit #1 (Weste Birs)	4 & 5	99 50%	0.004	0.018
Fly Ash Felen/Separator Transfer Point Unit #2 (Wasse Bire)	4 & 5	99 50%	0.004	0.018
Fly Ash Site Leading Unit #1	4 6 5	99 50%	0.019	G 091
Fly Ash Silo Loading Unit #2	4 4 5	99 50%	9019	0.061
Fly Ash Silo Emergency Discharge Unit #1	4 4 5	99 98%	0013	0.054
Fly Ash Silo Emergency Descharge Unit #2	4 8 5	99 98%	0013	0 054
Berd Ash Silo Hydrators Unit 1	4 8 5	99 80%	0.062	0 273
Berd Ash Sea Hydrators Unit 2	4 4 5	99 60%	0.062	0 273
Fly Ash Silo Hydrasora Line 1	4 4 5	90 80%	0.063	0 731
Fly Ash Silo Hydretons Unit 2	4 4 5	99 80%	0.053	0 231
Petble Lime Silo	485	99 90%	0.014	0.060



	Conditioned Materials
_	Wet Suppression
3.	Water Sprays
4	Enclosures (Total, Partial, Covers, & Wind Screen
5.	Dust Collection Systems
6	Best Operating Practicas
P	Pont Source
F.	Fugitive Source

JEA
NORTHSIDE GENERATING STATION
REPOWERING

Materials Handling and Storage Operations Equipment Layout - Alternate No. 1

FORTER	WHEELER ENVIRO	MMENTA	L CORPORATIO
SCALE N/A	PREPARED	DJG	CAD FILE NO

IN THE WASHINGTON				
SCALE N/A DATE: 02/09/99	PREPARED CHECKED APPROVED	DJG MAE DJF	CAD FILE NO. NGSA10.0WG FIGURE NO. NGS - MHS A1	

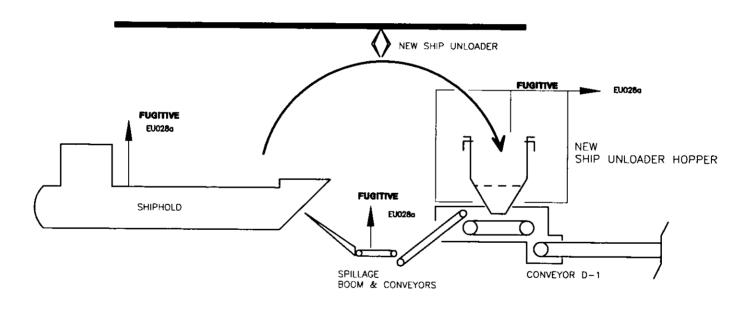
NORTHSIDE GENERATING STATION SHIP UNLOADING OPERATIONS **BASE CASE**

HANDLING RATES/EMISSIONS

UNLOADING RATE: 1,500 TPH LIMESTONE: 1,445,400 TPY COAL/PET. COKE: 2,421,000 TPY

SHIPHOLD:
PHITO EMISSIONS:
LIMESTONE: 0.18 LB/HR & 0.09 TPY
COAL/PET, COKE: 0.28 LB/HR & 0.21 TPY
VISIBLE EMISSIONS: 10% OPACITY

UNLGADING HOPPER/TRANSFER POINTS: PM10 EMISSIONS: UMESTIONE: 0.11 LB/HR & 0.05 TPY COAL/PET. COKE: 0.16 LB/HR & 0.13 TPY VISIBLE EMISSIONS: 10% OPACITY



JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram Emissions Unit ID 028

ľ	POSTER	WHEELER	ENVINORMENTAL	CORPORATION
L				

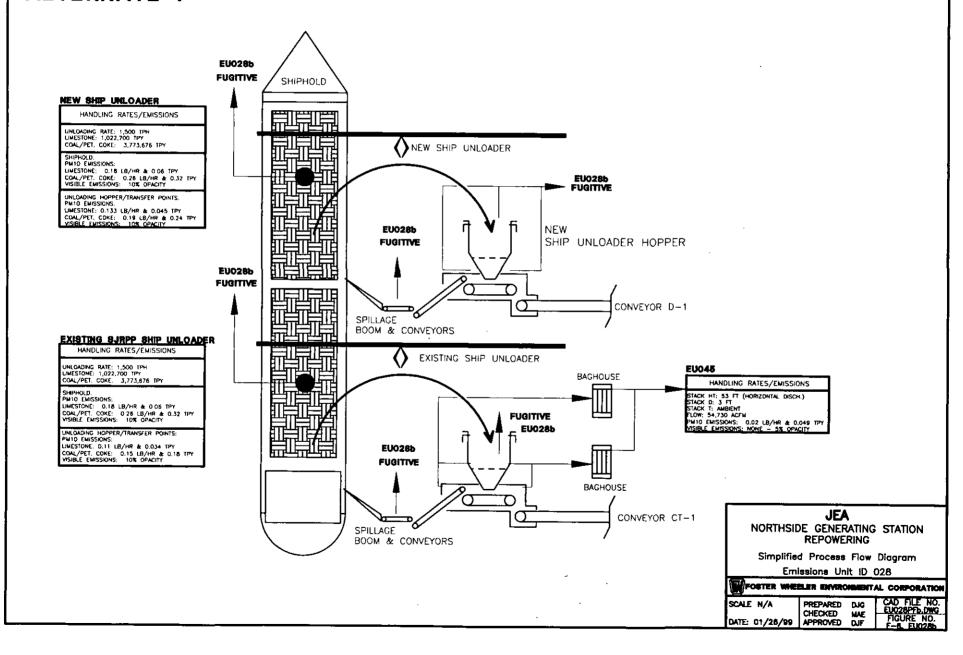
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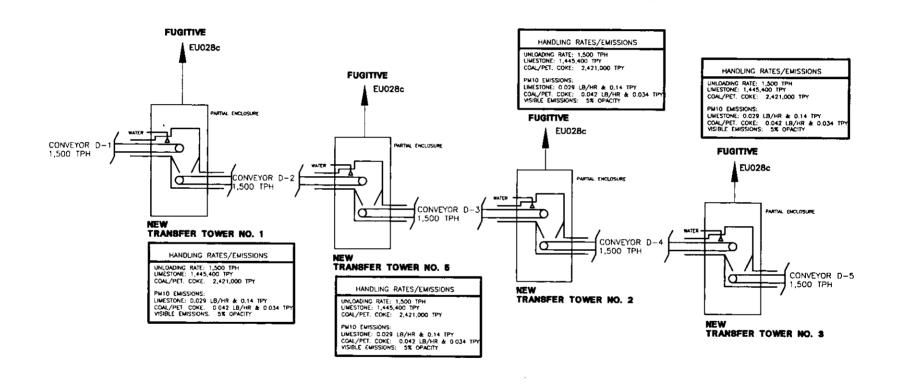
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CAD FILE NO. EU028PFa.DWG

NORTHSIDE GENERATING STATION SHIP UNLOADING OPERATIONS ALTERNATE 1



NORTHSIDE GENERATING STATION **NEW SHIP UNLOADING TRANSFER TOWERS** BASE CASE



JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram Emissions Unit ID 028

POSTER WHEELER ENVIRONMENTAL CORPORATION

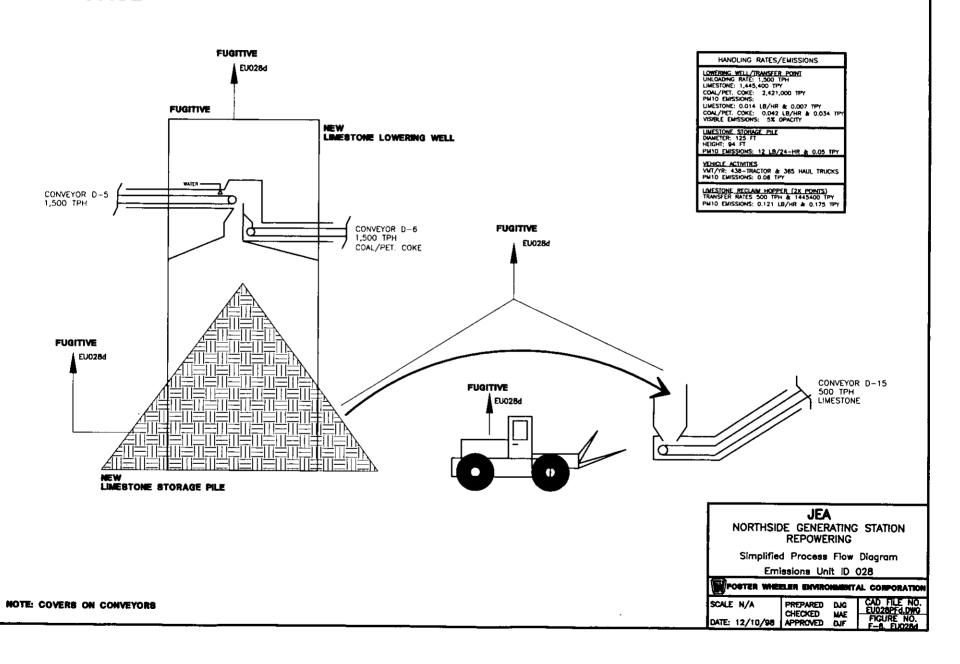
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PREPARED DJG CHECKED MAE DATE: 12/10/98 APPROVED DUF

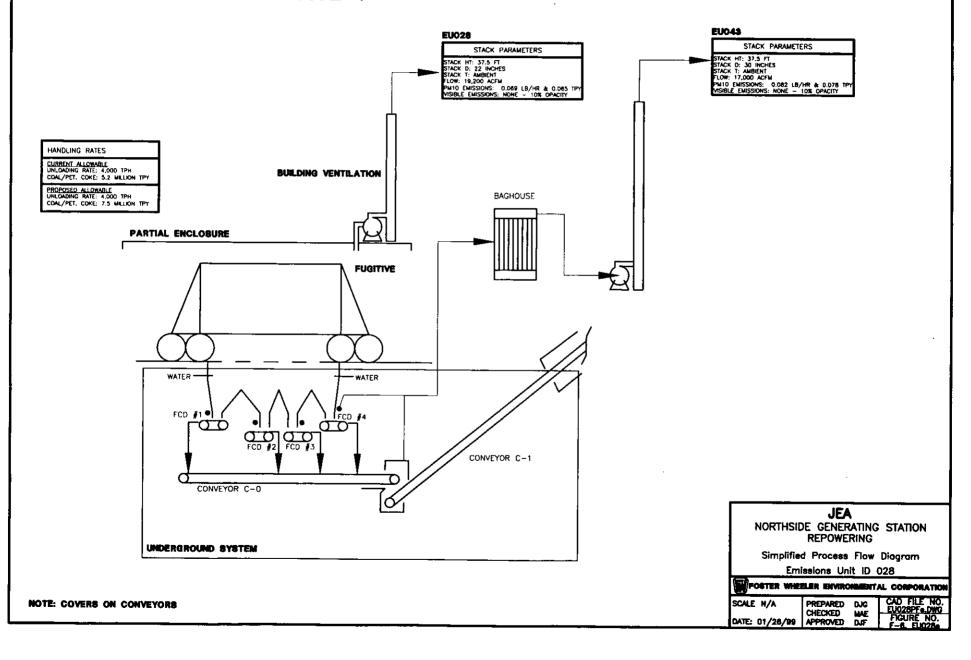
CAD FILE NO. EU028PFc.DWG FIGURE NO.

NOTE: COVERS ON CONVEYORS

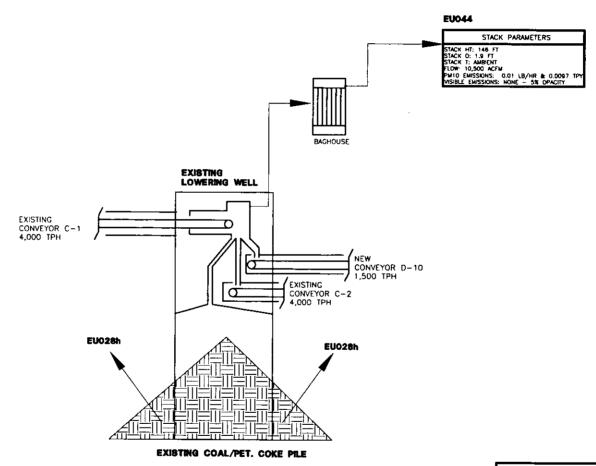
NORTHSIDE GENERATING STATION NEW LIMESTONE LOWERING WELL & STORAGE PILE BASE CASE



NORTHSIDE GENERATING STATION EXISTING SJRPP RAIL CAR UNLOADING SYSTEM BASE CASE & ALTERNATE 1



NORTHSIDE GENERATING STATION COAL TRANSFER BUILDING - COAL PILE **BASE CASE & ALTERNATE 1**



JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram Emissions Unit ID 028

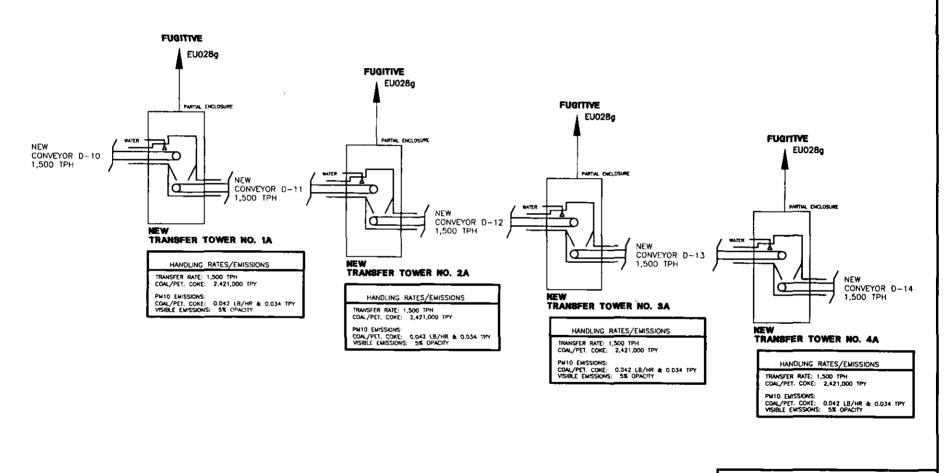
FOSTER WHEELER ENVIRONMENTAL COMPORATION PREPARED DJG

SCALE N/A

CHECKED MAE DATE: 12/10/98 APPROVED DUF

NOTE: COVERS ON CONVEYORS

NORTHSIDE GENERATING STATION NEW TRANSFER TOWERS BASE CASE



JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram
Emissions Unit 1D 028

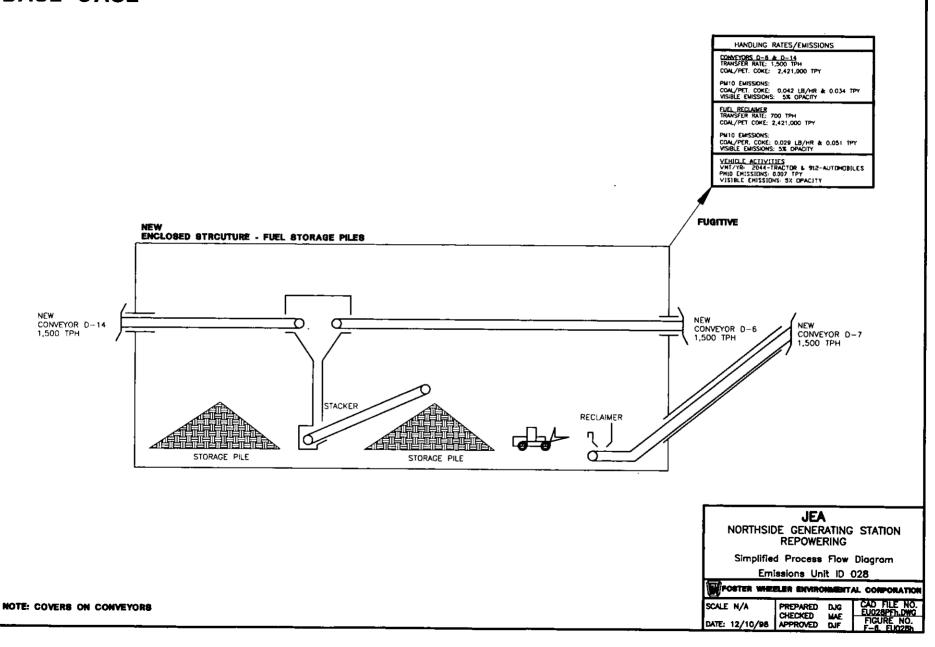
7	POSTER	WHEELER	ENVIRONMENTAL	CORPORATION
_	,			

SCALE N/A DATE: 12/10/98

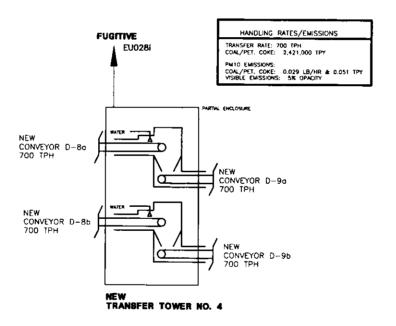
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NOTE: COVERS ON CONVEYORS

NORTHSIDE GENERATING STATION NEW COAL/PET. COKE STORAGE PILES BASE CASE



NORTHSIDE GENERATING STATION **NEW TRANSFER TOWER NO. 4 BASE CASE**



JEA NORTHSIDE GENERATING STATION REPOWERING

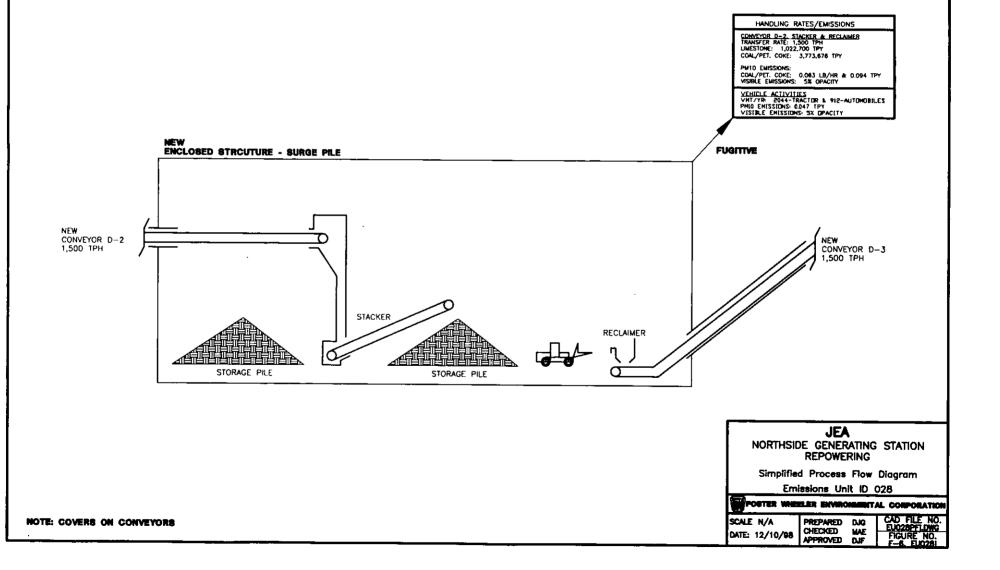
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FOSTER WHEELER ENVIRONMENTAL CORPORATION

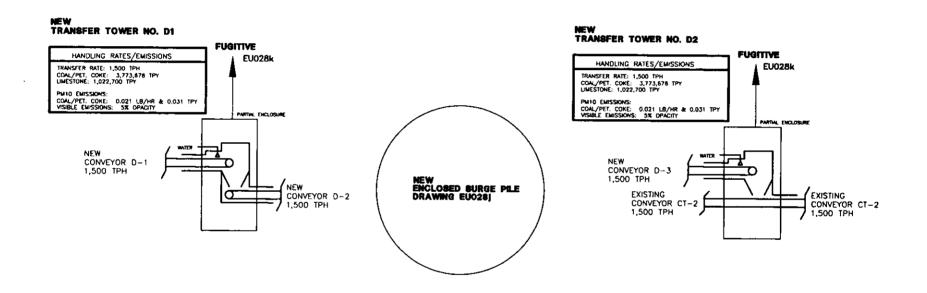
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PREPARED DAG CHECKED MAE

NORTHSIDE GENERATING STATION NEW SURGE PILES ALTERNATE 1



NORTHSIDE GENERATING STATION NEW SHIP UNLOADING TRANSFER TOWERS ALTERNATE 1



JEA NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram Emissions Unit ID 028

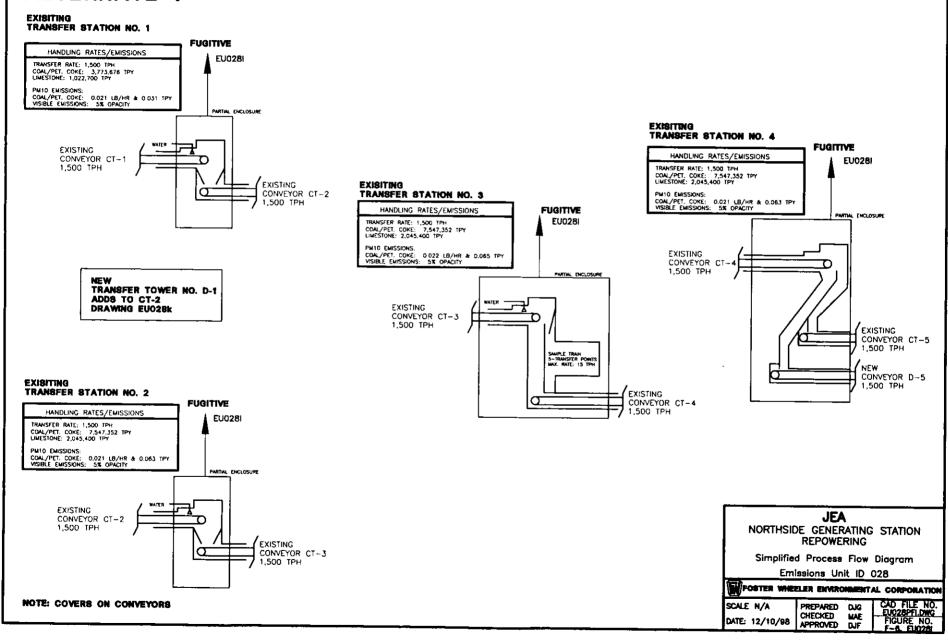
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SCALE N/A DATE: 12/10/98

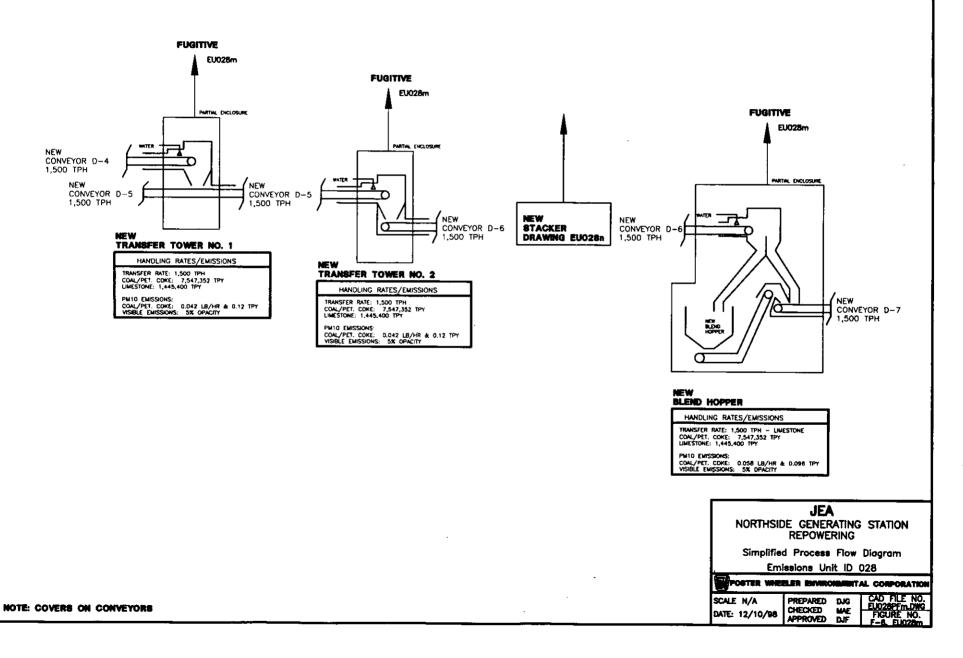
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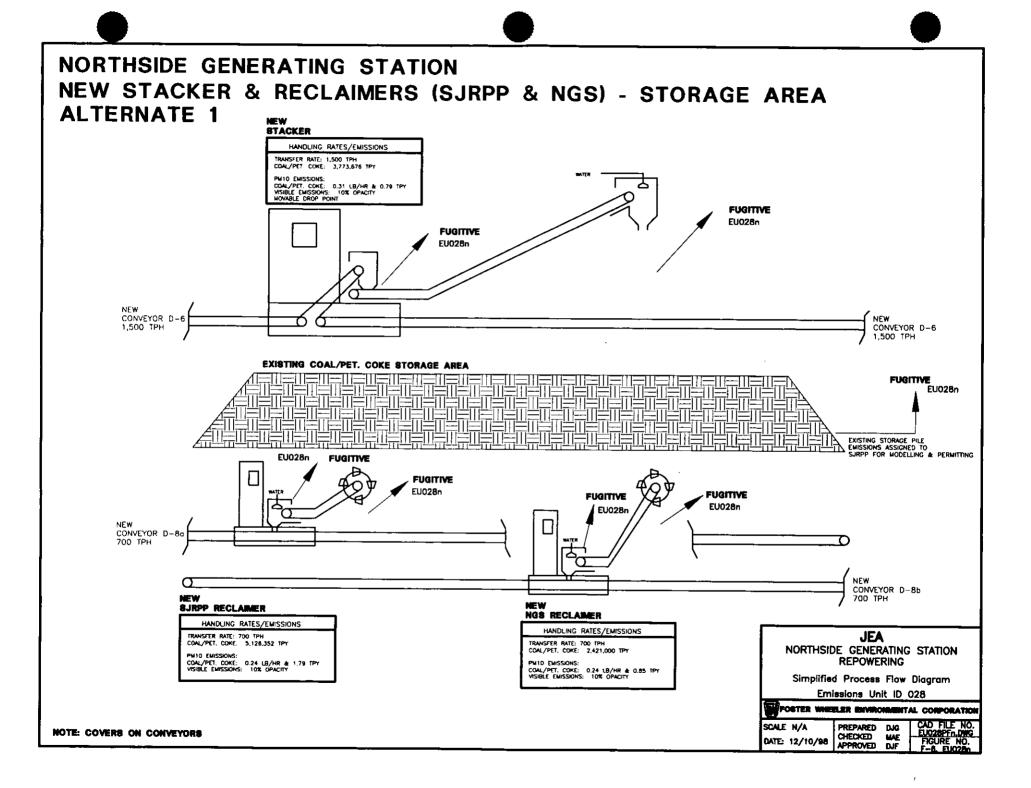
NOTE: COVERS ON CONVEYORS

NORTHSIDE GENERATING STATION SJRPP EXISTING TRANSFER STATIONS ALTERNATE 1

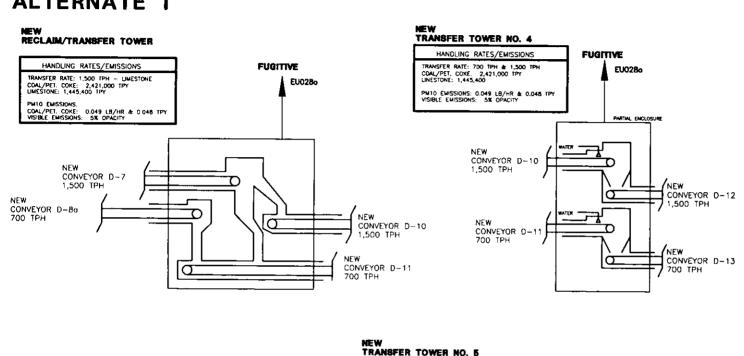


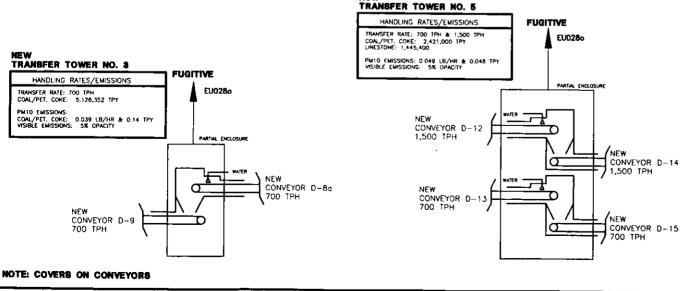
NORTHSIDE GENERATING STATION NEW TRANSFER TOWERS (SJRPP & NGS) - STORAGE AREA ALTERNATE 1





NORTHSIDE GENERATING STATION NEW TRANSFER TOWERS (SJRPP & NGS) - STORAGE AREA **ALTERNATE 1**





JEA NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram Emissions Unit ID 028

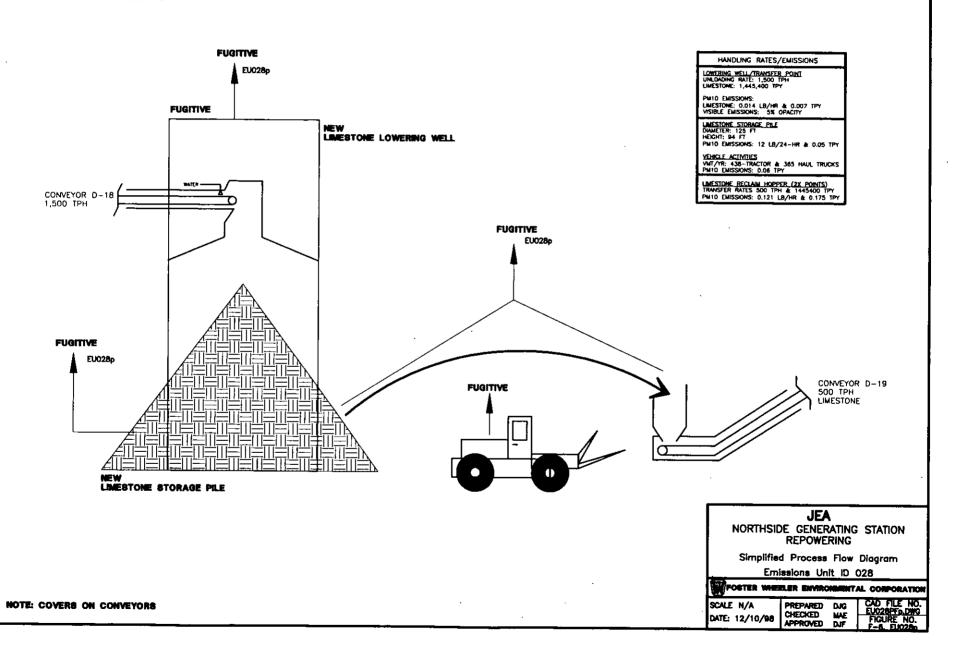
FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A DATE: 12/10/98

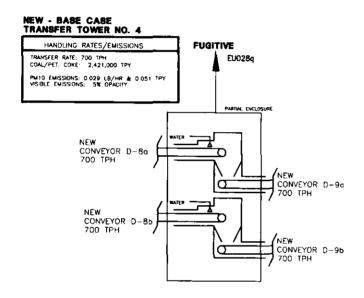
PREPARED DJG CHECKED MAE APPROVED DJF

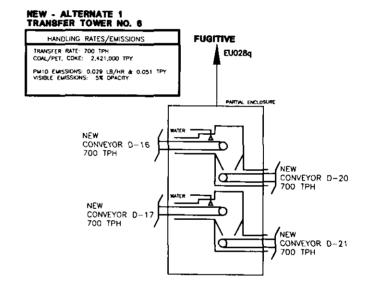
FIGURE NO.

NORTHSIDE GENERATING STATION NEW LIMESTONE LOWERING WELL & STORAGE PILE ALTERNATE 1



NORTHSIDE GENERATING STATION NEW TRANSFER TOWERS BASE CASE & ALTERNATE 1





JEA

NORTHSIDE GENERATING STATION REPOWERING

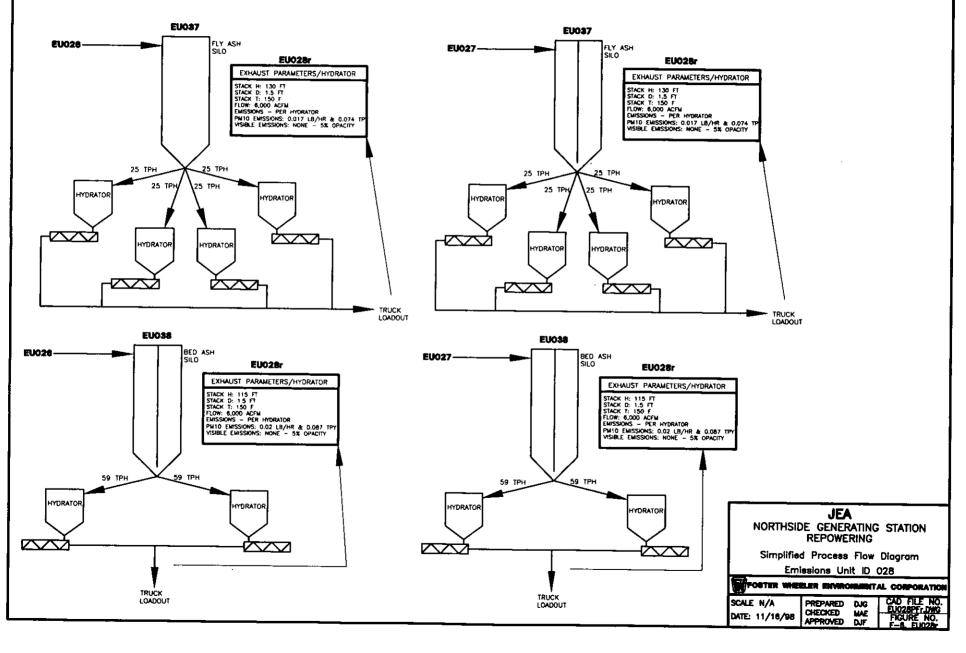
Simplified Process Flow Diagram
Emissions Unit ID 028

POSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A DATE: 12/10/98 PREPARED DJG CHECKED MAE APPROVED DJF

CAD FILE NO.
EU028PFq.DWG
FIGURE NO.
F-8. EU028a

NORTHSIDE GENERATING STATION FLY & BED ASH SILO HYDRATOR LOADOUTS BASE CASE & ALTERNATE 1



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissi	ons Unit Information Section6
NGS - N	Materials Handling & Storage Operations
Type o	f Emissions Unit Addressed in This Section
1. Reg	ulated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	6
NGS - Materials Handling & Storage Opera	tions

Rule Applicability Analysis

This process is subject to the Preconstruction Review Requirements as specified in Chapter 62-212, F.A.C. Specifically, this facility is subject to 62-212.300 and to 62-212.400 Prevention of Significant Deterioration for total particulate and for PM10.

In addition to the permitting requirements, the activities are subject to BACT which reflects a Visible Emissions Limitations, NSPS for the conveyor transfer points when handling limestone which is a Visible Emissions Limitation but less stringent than that proposed as BACT, and NSPS for the coal handling Operations (Conveyors & Transfer Points but not the open storage piles) which is also a Visible Emissions Limitation but less stringent than that proposed as BACT.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	6
NGS - Materials Handling & Storage Operations	
Emissions Unit Control Equipment	1

Description :
 Ship Unloading Operations - Base Case, New Conditioned Materials & Water Sprays Figure EU028a

2. Control Device or Method Code:

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 2

1. Description:

Ship Unloading Operations - Alternate 1, Existing & New Conditioned Materials & Water Sprays - New Conditioned Materials, Water Sprays, & Dust Collection - Existing Figure EU028b

2. Control Device or Method Code:

III. Part 3 -

2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 3

1. Description:

Rail Car Unloading System - Both Cases, Existing
Partial Enclosures, Conditioned Materials, Water Sprays, & Dust Collection - Existing
Figure EU028e

2. Control Device or Method Code:

III. Part 3 -

3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	6
NGS - Materials Handling & Storage Operati	ons
Emissions Unit Control Equipment	4
Description: SJRPP Coal Transfer Building - Both Case Conditioned Materials Figure EU028f	ses, Existing & New
2. Control Device or Method Code:	

III. Part 3 - 4

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 5

1. Description:

Transfer Towers - Base Case, New Partial Enclosures, Conditioned Materials, & Wet Suppression (as depicted) Figures EU028c, EU028g, & EU028i

2. Control Device or Method Code:

III. Part 3 - 5

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 6

1. Description:

Transfer Towers/Stations - Alternate 1, New & Existing Partial Enclosures, Conditioned Materials & Wet Suppression (as depicted) Figures EU028k, EU028l, EU028m, & EU028o

2. Control Device or Method Code:

III. Part 3 -

6

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 7

1. Description:

Transfer Towers - Both Cases, New Partial Enclosures, Conditioned Materials, & Wet Suppression (as depicted) Figure EU028q

2. Control Device or Method Code:

III. Part 3 - 7

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 8

 Description : Coal/Pet. Coke Piles - Base Case, New

Partial Enclosure & Conditioned Materials

Figure EU028h

2. Control Device or Method Code:

III. Part 3 -

8

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 9

1. Description:

Limestone/Coal/Pet. Coke Surge Piles, Stacker and Reclaimer - Alternate 1, New Enclosure & Conditioned Materials
Figure EU028j

2. Control Device or Method Code:

III. Part 3 -

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	
NGS - Materials Handling & Storage Operati	ons
Emissions Unit Control Equipment	10
1. Description:	
Stacker and Reclaimers - Alternate 1, New	N
Conditioned Materials & Water Sprays	
Figure EU028n	

2. Control Device or Method Code:

III. Part 3 - 10

DEP Form No. 62-210.900(1) - Form

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 11

1. Description:

Limestone Lowering Well & Piles - Both Cases, New Partial Enclosure, Conditioned Materials, & Water Sprays (as necessary) Figures EU028d and EU028p

6

2. Control Device or Method Code:

III. Part 3 - 11

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 12

Description:
 Fly & Bed Ash Silo Hydrator Loadouts - Both Cases, New Conditioned Materials
 Figure EU028r

2. Control Device or Method Code:

III. Part 3 -

12

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 13

 Description:
 Ship Unloading Conveyors - Both Cases, New & Existing Conditioned Materials & Wind Screens

2. Control Device or Method Code:

III. Part 3 - 13

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 14

- Description :
 Transfer Conveyors Both Cases, New & Existing Conditioned Materials & Covers
- 2. Control Device or Method Code:

III. Part 3 - 14

DEP Form No. 62-210.900(1) - Form

Emissions Unit Control Equipment 15

Description :
 Stacker/Reclaimer Conveyors - Alternate 1, New Conditioned Materials & Wind Screens

2. Control Device or Method Code:

III. Part 3 - 15

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 6		
NGS - Materials Handling & Storage Operations		
Emissions Unit Details		
1. Initial Startup Date: 01-	Apr-2002	·
2. Long-term Reserve Shutdown Date:		
3. Package Unit:		
Manufacturer :		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:	- ••••	· · · · · · · · · · · · · · · · · · ·
. Dwell Temperature:		Degrees Fahrenheit
Dwell Time :		Seconds
Incinerator Afterburner Temperature :		Degrees Fahrenheit
Emissions Unit Operating Capacity 1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	0	
4. Maximum Production Rate:	.,	
5. Operating Capacity Comment: See Process Flow Diagrams for individual rates.		
Emissions Unit Operating Schedule		
Emissions Unit Operating Schedule Requested Maximum Operating Schedule: 24 hours/day		7 days/week

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	6
NGS - Materials Handling & Storage Operat	ions

Rule Applicability Analysis

This process is subject to the Preconstruction Review Requirements as specified in Chapter 62-212, F.A.C. Specifically, this facility is subject to 62-212.300 and to 62-212.400 Prevention of Significant Deterioration for total particulate and for PM10.

In addition to the permitting requirements, the activities are subject to BACT which reflects a Visible Emissions Limitations, NSPS for the conveyor transfer points when handling limestone which is a Visible Emissions Limitation but less stringent than that proposed as BACT, and NSPS for the coal handling Operations (Conveyors & Transfer Points but not the open storage piles) which is also a Visible Emissions Limitation but less stringent than that proposed as BACT.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Materials Handling & Storage Operations

List of Applicable Regulations

40 CFR 60.7 Notification and Recordkeeping

40 CFR 60.8 Performance Tests

40 CFR 60.11 Compliance with Standard and Maintenance Requirements

40 CFR 60.12 Circumvention

40 CFR 60.13 Monitoring Requirements

40 CFR 60.19 General Notifications and Reporting Requirements

40 CFR 60 Subpart Y- Standards of Performance for Coal Preparation Plants

Rule 62-204.800(7)(b)30., F.A.C., Adoption of 40 CFR 60 Subpart Y

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.370(3)(a) & (c), F.A.C., Annual Operating Report

Rule 62-210.650 Circumvention, F.A.C.

Rule 62-210.700(1), (4) & (6), F.A.C. Excess Emissions

62-297.310 General Test Requirements

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Materials Handling & Storage Operations

<u>List of Applicable Regulations</u>

62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.350(1) & (2), F.A.C. Public Notice and Comment

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-297.401(5) & (9)(c), F.A.C.

40 CFR 60.250(a) Applicability and Designation of Affected Facility

40 CFR 60.252(c) Standards for Particulate Matter (To the Extext Applicable)

40 CFR 60.254(b)(2) Test Methods and Procedures

Rule 62-204.800(7)(b)63., F.A.C., Adoption of 40 CFR 60 Subpart OOO (As Noted)

40 CFR 60 Subpart OOO - Standards of Performance for Nonmettalic-Mineral Processing Plants

40 CFR 60.670(a)(1) Applicability and Designation of Affected Facilities (Transfer Points)

40 CFR 60.672(b) Standard for Particulate Matter

40 CFR 60.675(a), (b)(2) & (c), (g), & (h) Test Methods & Procedures

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

NGS - Materials Handling & Storage Operations

List of Applicable Regulations

40 CFR 60.676 Reporting and Recordkeeping

Rule 62-212.400(1), F.A.C., General Provisions

Rule 62-212.400(2)(d)4. F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e). F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f). F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4). F.A.C., General Provisions

Rule 62-212.400(5)(e). F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b). F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c). F.A.C., Preconstruction Review Requirements - BACT

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution (As Noted)

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

NGS - Materials Handling & Storage Operations

List of Applicable Regulations

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 2.105, Maintenance of Air Pollution Control Devices

E. EMISSION POINT (STACK/VENT) INFORMATION

6

NGS - Materials Handling & Storage Operations Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagra	nm: NGS-MHS-1	BC & A1
2. Emission Point Type Code: 4		
3. Descriptions of Emission Points Comprising this E (limit to 100 characters per point)	Emissions Unit for V	E Tracking:
4. ID Numbers or Descriptions of Emission Units wit	th this Emission Poir	nt in Common:
See Figures NGS-MHS-BC & NGS-MHS-A1 along w EU028.	ith other process flow	diagrams associated
5. Discharge Type Code:	F	
6. Stack Height:	0	feet
7. Exit Diameter :	0.0	feet
8. Exit Temperature :	0	°F
9. Actual Volumetric Flow Rate:	0	acfm
10. Percent Water Vapor :	0.00	%
11. Maximum Dry Standard Flow Rate:	0	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates:		

III. Part 7a - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

	Zone:	17	East (km):	466.820	North (km):	3364.975	
14.	Emission	Point Cor	nment:				

III. Part 7a - 2

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6 NGS - Materials Handling & Storage Operations				
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):			
Ship Unloading Operations Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates	for the Base Case and Alternate 1			
2. Source Classification Code (SCC): 3050	1099			
3. SCC Units: Tons Transferred Or Handled				
4. Maximum Hourly Rate: 0.00	5. Maximum Annual Rate :			
6. Estimated Annual Activity Factor: 100.0	0			
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit:				
10. Segment Comment:				

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6	•			
NGS - Materials Handling & Storage Operations				
Segment Description and Rate: Segment 2				
1. Segment Description (Process/Fuel Type and Associated	Operating Method/Mode):			
Rail Car Unloading Operation Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates for the Base (Based on Proposed Levels for SJRPP)	Case and Alternate 1			
2. Source Classification Code (SCC): 30501099				
3. SCC Units: Tons Transferred Or Handled				
4. Maximum Hourly Rate: 0.00 5. Maxim	num Annual Rate :			
6. Estimated Annual Activity Factor: 100.00				
7. Maximum Percent Sulfur: 8. Maximum 8. Max	num Percent Ash:			
9. Million Btu per SCC Unit :				
10. Segment Comment :				

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6	
NGS - Materials Handling & Storage Operations	
Segment Description and Rate: Segment	3
1. Segment Description (Process/Fuel Type and A	ssociated Operating Method/Mode):
Transfer Towers and Stations Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates fo (Based on Proposed Levels for SJRPP)	r the Base Case and Alternate 1
2. Source Classification Code (SCC): 305010	99
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 0.00	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor: 100.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 6	_
NGS - Materials Handling & Storage Operations	
Segment Description and Rate: Segment	4
Segment Description (Process/Fuel Type and A Lowering Wells, Stackers, Storage Piles & Reclaim	
Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates fo (Based on Proposed Levels for SJRPP)	or the Base Case and Alternate 1
2. Source Classification Code (SCC): 30501	099
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 0.00	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor: 100.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 4

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	5
NGS - Materials Handling & Storage Operations	
Segment Description and Rate: Segment	5
1. Segment Description (Process/Fuel Type and	d Associated Operating Method/Mode):
Conveyors Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rate (Based on Proposed Levels for SJRPP)	s for the Base Case and Alternate 1
2. Source Classification Code (SCC): 305	01099
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 0.00	5. Maximum Annual Rate :
6. Estimated Annual Activity Factor: 100	.00
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment :	

III. Part 8 - 5

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 6	<u>S</u>
NGS - Materials Handling & Storage Operations	
Segment Description and Rate: Segment	6
Segment Description (Process/Fuel Type an Ash Hydrator Loadouts Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates.)	
2. Source Classification Code (SCC): 305	01099
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 0.00	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor: 100.	.00
7. Maximum Percent Sulfur :	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment :	

III. Part 8 - 6

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 6
NGS - Materials Handling & Storage Operations

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
ı - PM10			WP
2 - PM			WP

Emissions Unit Information Section6	_	
NGS - Materials Handling & Storage Operations	_	
Pollutant Potential/Estimated Emissions: Pol	lutant <u>1</u>	
1. Pollutant Emitted: PM10		
2. Total Percent Efficiency of Control:	%	
3. Potential Emissions :		
lb/hour		tons/year
4. Synthetically Limited? [] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:		
	to	tons/year
6. Emissions Factor Reference: AP-42	Units	
7. Emissions Method Code: 3		
8. Calculations of Emissions:		
9. Pollutant Potential/Estimated Emissions Comme	ent:	
See Appendix C of the PSD Application for detaile	d calculations and control ef	ficiencies.

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS - Materials Handling & Storage Operations	6		
Pollutant Potential/Estimated Emissions:	Pollutant _	2	
1. Pollutant Emitted: PM			
2. Total Percent Efficiency of Control:		%	
3. Potential Emissions:		-	
lb/h	iour		tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emission	15.		
		to	tons/year
6. Emissions Factor Reference:	Units		
7. Emissions Method Code: 3		,	
8. Calculations of Emissions:			
9. Pollutant Potential/Estimated Emissions Cor	nment :		
See Appendix C of the PSD Application for de	tailed calculati	ons and control effi	ciencies.

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Pollutant Information Section Allowable Emissions 1. Basis for Allowable Emissions Code: 2. Future Effective Date of Allowable Emissions: 3. Requested Allowable Emissions and Units: 4. Equivalent Allowable Emissions: | Ib/hour | tons/year | 5. Method of Compliance: 6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 6 NGS - Materials Handling & Storage Operations

<u>Vi</u>	<u>Visible Emissions Limitation</u> : Visible Emissions Limitation 1			
1.	Visible Emissions Subtype: 10			
2.	Basis for Allowable Opacity: RULE			<u> </u>
3.	Requested Allowable Opacity:			
	Normal Conditions:	10	%	
	Exceptional Conditions:	100	%	
	Maximum Period of Excess Opacity Allowed:	100	min/hour	
4.	Method of Compliance :			
	Annual VE Test using EPA Method 9			
5.	Visible Emissions Comment :			
	Ship Unloading Operations - Shiphold & Receiving Hop Existing Rail Car Unloading Operation - Building Existing Coal Transfer Building - Building Existing Storage Piles	opers		

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section NGS - Materials Handling & Storage Operations <u>Visible Emissions Limitation</u>: Visible Emissions Limitation 1. Visible Emissions Subtype: 5 2. Basis for Allowable Opacity: **RULE** 3. Requested Allowable Opacity: Normal Conditions: 5 % **Exceptional Conditions:** 100 Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: Annual EPA Method 9 5. Visible Emissions Comment: As Read at the Property Line Transfer Towers and Stations New Coal Storage Piles New Stacker/Reclaimers New Limestone Piles New Limestone Lowering Wells New Ash Hydrator Loadouts All Conveyors

III. Part 10 - 2

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Con	ntinuous Monitor
1. Parameter Code :	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information	
Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date	e :
7. Continuous Monitor Comment:	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emi	ssions Unit Information Section 6
NGS	- Materials Handling & Storage Operations
PSD	Increment Consumption Determination
1. I	ncrement Consuming for Particulate Matter or Sulfur Dioxide?
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	2. Increment Consuming for Nitrogen Dioxide?				
[]		has undergone	in this section is undergoing le PSD review previously, for r	PSD review as part of this nitrogen dioxide. If so, emissions
[]	paragraph (c) of the emissions u	of the definition unit addressed i	of "major source of air pollut n this section commenced (or	EPA major source pursuant to ion" in Chapter 62-213, F.A.C., and will commence) construction after missions unit consumes increment.
]]	unit began init	tial operation af		EPA major source, and the emissions ore March 28, 1988. If so, baseline.
[]			s unit began (or will begin) ini ero, and emissions unit consu	tial operation after March 28, 1988. mes increment.
[] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.				
3.	In	ncrement Consu	ıming/Expandiı	ng Code :	. ,,,,
		PM:	С	SO2:	NO2:
4.	4. Baseline Emissions :				
!		PM:		lb/hour	tons/year
		SO2:		lb/hour	tons/year
		NO2:			tons/year
5.	P	SD Comment :			

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations		
Supplemental Requirements for All Applications		
1. Process Flow Diagram:	F-6, EU028	
2. Fuel Analysis or Specification:	NA	
3. Detailed Description of Control Equipment :	E-2	
4. Description of Stack Sampling Facilities :	NA	
5. Compliance Test Report :	NA	
6. Procedures for Startup and Shutdown:	NA	
7. Operation and Maintenance Plan:	NA	
8. Supplemental Information for Construction Permit Application :	F-9	•
9. Other Information Required by Rule or Statue :	NA	
Additional Supplemental Requirements for Category I Application	as Only	
10. Alternative Methods of Operations :		
11. Alterntive Modes of Operation (Emissions Trading):		

III. Part 13 - 1

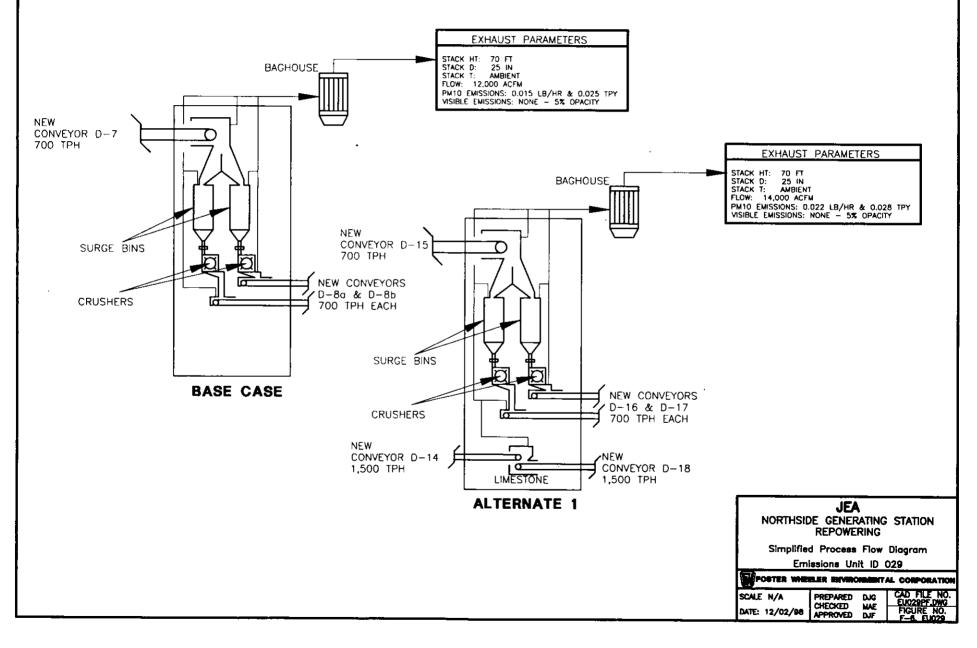
DEP Form No. 62-210.900(1) - Form

2. Identification of Additional Applicable Requirements:		
13. Compliance Assurance Mon Plan:	itoring	
14. Acid Rain Application (Hard-copy Required) :		
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))	
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)	
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)	
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)	

Emissions Unit 029

NGS - Crusher House

NORTHSIDE GENERATING STATION COAL/PETROLEUM COKE CRUSHER HOUSE BASE CASE & ALTERNATE 1



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emiss	ions Unit Information Section7
NGS -	Crusher House
Type o	of Emissions Unit Addressed in This Section
1. Reg	gulated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Sin	gle Process, Group of Processes, or Fugitive Only? Check one:
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions	Unit	Information	Section	7
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B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Uni	t Addressed in This Section :			
NGS - Crusher House				
2. Emissions Unit Identification Number: 029				
[] No Corresponding	ш [](Unknown 		
3. Emissions Unit Status	4. Acid Rain Unit?	5. Emissions Unit Major		
Code: C	[] Yes [X] No	Group SIC Code: 49		
6. Emissions Unit Comment:				
	the crushing operations for coal a ttachment F-9, PSD Report (App	and pet coke. Detailed description of pendix C).		

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 7	
NGS - Crusher House	
Emissions Unit Control Equipment 1	
Description: Application Forms reflect "Worst Case Scenario" for the Crusher House as described Alternate No. 1. This scenario includes one additional transfer point associated with Conveyor.	
2. Control Device or Method Code: 18	

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Secti NGS - Crusher House	ion <u>7</u>	
Emissions Unit Details		
1. Initial Startup Date:	01-Apr-2002	
2. Long-term Reserve Shutdown I	Date:	
3. Package Unit:		
Manufacturer:		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:		
Dwell Temperat		Degrees Fahrenheit
Dwell T	ime:	Seconds
Incinerator Afterburner Temperat	ure:	Degrees Fahrenheit
1. Maximum Heat Input Rate:	0 mmBtu/	nr
2. Maximum Incinerator Rate :	11 /	tons/day
2. Maximum memerator Rate.	lb/hr	tons/day
3. Maximum Process or Throughp		tons/hr
3. Maximum Process or Throughp4. Maximum Production Rate :5. Operating Capacity Comment :	out Rate: 1400	
 Maximum Process or Throughp Maximum Production Rate : Operating Capacity Comment : Throughput rate is for both crushe 	out Rate: 1400	tons/hr
 Maximum Process or Throughp Maximum Production Rate : Operating Capacity Comment : Throughput rate is for both crushe 	rs and 6 transfer points. Deta	tons/hr
 Maximum Process or Throughp Maximum Production Rate : Operating Capacity Comment : Throughput rate is for both crushe F-9, PSD Report (Appendix C). 	out Rate : 1400 rs and 6 transfer points. Deta	tons/hr
 Maximum Process or Throughp Maximum Production Rate : Operating Capacity Comment : Throughput rate is for both crushe F-9, PSD Report (Appendix C). Emissions Unit Operating Schedu Requested Maximum Operating Sc 	out Rate : 1400 rs and 6 transfer points. Deta	tons/hr

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	7
NGS - Crusher House	

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300, Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60, Subpart Y - Standards of Performance for Coal Preparation Plants while processing coal and 40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (Alternate 1 - Limestone Transfer Point).

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Crusher House

List of Applicable Regulations

Rule 62-210.700(1), (4), & (6), F.A.C,. Excess Emissions

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-212.400(1), F.A.C., General Provisions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Sources

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

40 CFR Part 60, Subpart Y, Standards of Performance for Coal Preparation Plants

60 CFR Part 60.250 (a), Applicability and Designation of Affected Facility

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Crusher House

List of Applicable Regulations

40 CFR Part 60.252 (c), Standards for Particulate Matter

40 CFR Part 60.254(b)(2), Test Methods and Procedures

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

Rule 62-210.350(1) & (2), F.A.C., Public Notice & Comment

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-297.401 (5) & (9)(c), F.A.C., EPA Methods 5 and 9, 40 CFR Part 60, Appendix A

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic-Mineral Processing Plants

40 CFR Part 60.679(a)(1), (e), & (f), Applicability and Designation of Affected Facility

40 CFR Part 60.672(e), Standards for Particulate Matter

40 CFR Part 60.675, Test Methods and Procedures

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

NGS - Crusher House

List of Applicable Regulations

40 CFR Part 60.676, Reporting and Recordkeeping

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution (As Noted)

7

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4. F.A.C., (As Noted)

Rule 2.105, Maintenance of Air Pollution Control Devices

40 CFR Part 60.7, Notification and Recordkeeping

40 CFR Part 60.8, Performance Tests

40 CFR Part 60.11, Compliance with Standards and Maintenance Requirements

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

NGS - Crusher House

List of Applicable Regulations

40 CFR Part 60.19, General Notifications and Reporting Requirements

Rule 62-204.800(7)(b).31, F.A.C., Adoption of 40 CFR Part 60 Subpart Y

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Rule 62-204.800(7)(b)64., F.A.C., Adoption of 40 CFR Part OOO, Nonmetalic-Mineral Processing Plants

III. Part 6b - 4

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

7___

NGS - Crusher House		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram	: Attachment	F-8, List
2. Emission Point Type Code:		
3. Descriptions of Emission Points Comprising this En (limit to 100 characters per point)	nissions Unit for V	E Tracking:
 ID Numbers or Descriptions of Emission Units with The Crusher House (Base Case & Alternate 1) transfer presented in F-16, EU029 identifies stack parameters for both cases. 	ooints are controlled	by a fabric filter. Figure
5. Discharge Type Code :	v	
6. Stack Height:	70	feet
7. Exit Diameter :	2.1	feet
8. Exit Temperature :	68	°F
9. Actual Volumetric Flow Rate :	14000	acfm
10. Percent Water Vapor :	2.00	%
11. Maximum Dry Standard Flow Rate:	14000	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates :		

III. Part 7a - 13

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Zone: 17 East (km): 446.756 North (km): 3365.328

14. Emission Point Comment:

Attachments F-6, F-8, and F-9 contain additional information related to stack parameters and location.

III. Part 7a - 14

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section /	_
NGS - Crusher House	
Segment Description and Rate: Segment	1
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Crushing Operations - Coal (Either/Or Application - Total Maximum 2,421,0)	000 tons per year)
2. Source Classification Code (SCC): 30501	1099
3. SCC Units: Tons Processed	
4. Maximum Hourly Rate: 1,400.00	5. Maximum Annual Rate : 2,421,000.00
6. Estimated Annual Activity Factor: 100.00)
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment :	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 7	
NGS - Crusher House	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and A	associated Operating Method/Mode):
Crusher Operations - Petroleum Coke (Either/Or Application - Total Maximum 2,421,000)	O tons per year)
2. Source Classification Code (SCC): 305010	99
3. SCC Units: Tons Processed	
4. Maximum Hourly Rate: 1,400.00	5. Maximum Annual Rate: 2,421,000.00
6. Estimated Annual Activity Factor: 100.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 7	-	
NGS - Crusher House		
Segment Description and Rate: Segment 3		
1. Segment Description (Process/Fuel Type and A	Associated Operating Method/Mode):	
Crusher House - Limestone Transfer Point (Alternate 1 Only)		
2. Source Classification Code (SCC): 30501	099	
3. SCC Units: Tons Processed	·	
4. Maximum Hourly Rate: 1,500.00	5. Maximum Annual Rate : 1,445,400.00	
6. Estimated Annual Activity Factor:		
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:	
9. Million Btu per SCC Unit:		
10. Segment Comment:		

III. Part 8 - 3

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 7
NGS - Crusher House

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL
2 - PM10	018		EL

	nissions Unit Information Section 7 GS - Crusher House
<u>Po</u>	llutant Potential/Estimated Emissions: Pollutant 1
1.	Pollutant Emitted: PM
2.	Total Percent Efficiency of Control: 99.50 %
3.	Potential Emissions: 0.0460000 lb/hour 0.0610000 tons/year
4.	Synthetically Limited? [] Yes [X] No
5.	Range of Estimated Fugitive/Other Emissions: to tons/year
6.	Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.00148)
7.	Emissions Method Code: 3
8.	Calculations of Emissions:
	Emission Potentials reflect Alternate 1 See Calculation Sheet
9.	Pollutant Potential/Estimated Emissions Comment :
	Emission calculations are detailed in Appendix C of the PSD Report (Attachment F-9). Potential emissions based on tons processed.

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 7
NGS - Crusher House

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section7 NGS - Crusher House				
Pollutant Potential/Estimated Emissions: Pollutant 2				
1.	Pollutant Emitted: PM10			
2.	Total Percent Efficiency of Control: 99.50 %			
3.	Potential Emissions: 0.0220000 lb/hour 0.0280000 tons/year			
4.	Synthetically Limited? [] Yes [X] No			
5.	Range of Estimated Fugitive/Other Emissions: to tons/year			
6.	Emissions Factor 0 Units 1b/ton Reference: AP-42, (EF=0.0007)			
7.	Emissions Method Code: 3			
8.	Calculations of Emissions : Emission Potentials reflect Alternate 1			
9.	Pollutant Potential/Estimated Emissions Comment :			
	Emission calculations are detailed in Appendix C of the PSD report (Attachment F-9). Potential emissions based on tons processed.			

III. Part 9b - 3

DEP Form No. 62-210.900(1) - Form

Percent Opacity
tons/year

DEP Form No. 62-210.900(1) - Form

(0.046 lb/hr & 0.061 TPY)

Emissions Unit Information Section 7 NGS - Crusher House			
Po	lutant Information Section 2		
<u>Al</u>	owable Emissions 1		
1.	Basis for Allowable Emissions Code: RULE		
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002		
3.	Requested Allowable Emissions and Units: 5.00 percent opacity		
4.	Equivalent Allowable Emissions:		
	0.02 lb/hour 0.03 tons/year		
5.	Method of Compliance :		
ı	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.		
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):		
	BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity) Emissions. (0.022 lb/hr & 0.028 TPY)		

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

1. Visible Emissions Subtype:	05			
2. Basis for Allowable Opacity:	RULE			
3. Requested Allowable Opacity:				-
	Conditions: Conditions: ty Allowed:	5 100	% % min/hour	
4. Method of Compliance : Annual EPA Method 9				
5. Visible Emissions Comment: BACT was evaluated at 5% opacity (i.e. Maximum Period 2 hours in any 24-ho		ssions) for t	his operation.	

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Contin	uous Monitor
1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer: Model Number: Serial Number:	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment:	

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emi	ssions Unit Information Section 7					
NGS	NGS - Crusher House					
<u>PSC</u>	PSD Increment Consumption Determination					
1. I	ncrement Consuming for Particulate Matter or Sulfur Dioxide?					
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.					
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.					
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.					
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.					
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.					

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	crement Consu	ming for	· Nitroge	n Dioxid	le?				
[]		has und	ergone P					ew as part of this lioxide. If so, emission	ons
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.								
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.								
[]] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.								
[None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.									
3.	Ir	ncrement Consu	ming/Ex	panding	Code :					
		PM:	С	,	SO2:	U		NO2 :	U	
4.	В	aseline Emissio	ons :							
		PM : SO2 : NO2 :		0.0460	lb/hour lb/hour			0.0610	tons/year tons/year tons/year	
5.	-	SD Comment:	ent incres	nent cons	umption	values				-

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 7

NGS - Crusher House	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	F-6, EU029
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment:	E-2
4. Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	F-9
9. Other Information Required by Rule or Statue:	NA
Additional Supplemental Requirements for Category I Application	as Only
10. Alternative Methods of Operations:	
11. Alterntive Modes of Operation (Emissions Trading):	

III. Part 13 - 1

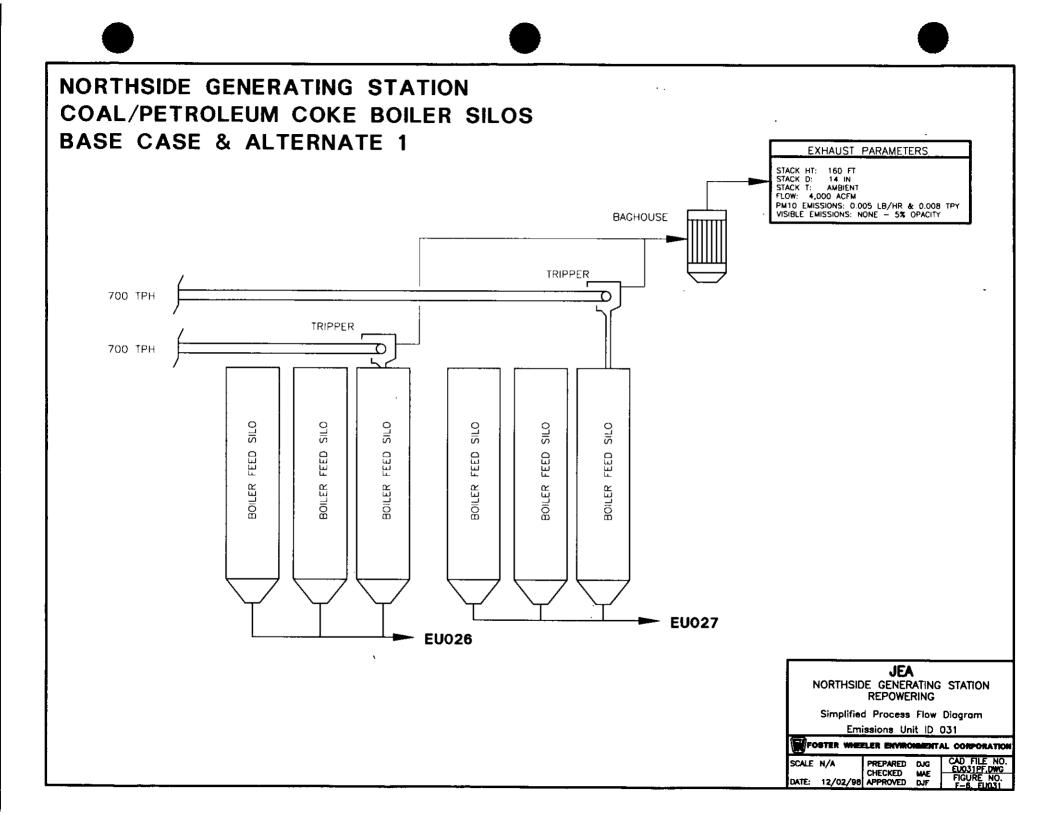
DEP Form No. 62-210.900(1) - Form

12.	2. Identification of Additional Applicable Requirements:				
	3. Compliance Assurance Monitoring Plan:				
14.	Acid Rain Application (Hard-copy Required):				
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))				
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)				
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)				
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)				

DEP Form No. 62-210.900(1) - Form

Emissions Unit 031

NGS - Boiler Fuel Silos



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissic	ons Unit Information Section 8
NGS - B	soiler Fuel Silos
Type of	Emissions Unit Addressed in This Section
1. Regu	alated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Singl	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent). This Emissions Unit Information Section addresses, as a single emissions unit, a group of
r 1	process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :					
NGS - Boiler Fuel Silos					
Emissions Unit Identification No Corresponding		Unknown			
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49			
6. Emissions Unit Comment:					
Emissions Unit consists of the six (6) Boiler Feed Silos and two tripper transfer points.					

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	8
NGS - Boiler Fuel Silos	
Emissions Unit Control Equipment	1
Description: Boiler Feed Silos are identical for the B Operations. Emissions are controlled by	sase Case and Alternate 1 Materials Handling and Storage value of a single baghouse.
2. Control Device or Method Code :	18

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

NGS - Boiler Fuel Silos	8	
Emissions Unit Details		
1. Initial Startup Date : 01	-Apr-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer :	-	Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity		
1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	1400	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment: Maximum rate corresponds to Emissions Unit 0	29, Crusher Hous	e.
Emissions Unit Operating Schedule	,	
Requested Maximum Operating Schedule:		_ , , .
24 hours/day 52 weeks/year		7 days/week 8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	8
NGS - Boiler Fuel Silos	

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300, Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60, Subpart Y - Standards of Performance for Coal Preparation Plants while processing coal.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Boiler Fuel Silos

List of Applicable Regulations

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-212.400(1), F.A.C., General Provisions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-204.800(7)(b).31, F.A.C., Adoption of 40 CFR Part 60 Subpart Y

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Boiler Fuel Silos

List of Applicable Regulations

Rule 62-210.350(1) & (2), F.A.C., Public Notice and Comment

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-297.401 (5) & (9)(c), F.A.C., EPA Methods 5 and 9, 40 CFR Part 60, Appendix A

40 CFR Part 60.7, Notification and Recordkeeping

40 CFR Part 60.8, Performance tests

40 CFR Part 60.11, Compliance with Standards and Maintenance Requirements

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.19, General Notifications and Reporting Requirements

40 CFR Part 60 Subpart Y - Standards of Performance for Coal Preparation Plants

III. Part 6b - 2

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NGS - Boiler Fuel Silos

List of Applicable Regulations

40 CFR Part 60.250(a), Applicability and Designation of Affected Facility

40 CFR Part 60.252(c), Standards for Particulate Matter

40 CFR Part 60.254(b)(2), Test Methods and Procedures

Rule 62-212.400(4), F.A.C., General Provisions

RUle 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Rule 2.201, Adoption of Chapter 62-204, F.A.C.

Rule 2.301, Adoption of Chapter 62-210, F.A.C.

Rule 2.401, Adoption of Chapter 62-212, F.A.C.

Rule 2.1101, Adoption of Chapter 62-297, F.A.C.

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C.

Rule 2.105, Maintenance of Air Pollution Control Devices

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 8		
NGS - Boiler Fuel Silos		
Emission Point Description and Type :		
1. Identification of Point on Plot Plan or Flow Diagram:	Boiler Feed S	Silos
2. Emission Point Type Code: 2		
3. Descriptions of Emission Points Comprising this Emiss (limit to 100 characters per point)	ions Unit for VI	E Tracking :
4. ID Numbers or Descriptions of Emission Units with this	s Emission Poin	nt in Common:
Six Boiler Feed Silos & Two Tripper Transfer Points		
5. Discharge Type Code:	V	
6. Stack Height:	160	feet
7. Exit Diameter :	1.2	feet
8. Exit Temperature :	68	°F
9. Actual Volumetric Flow Rate:	4000	acfm
10. Percent Water Vapor:	2.00	%
11. Maximum Dry Standard Flow Rate:	4000	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates:		
Zone: 17 East (km): 446.823	North (kı	m): 3365.073

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14. Emission Point Comment:

Attachments F-6, F-8, and F-9, contain additional information related to stack parameters and location.

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 8
NGS - Boiler Fuel Silos
Segment Description and Rate: Segment 1
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):
Coal (Either/Or Application - Total Maximum 2,421,000 tons per year)
2. Source Classification Code (SCC): 30501099
3. SCC Units: Tons Processed
4. Maximum Hourly Rate: 1,400.00 5. Maximum Annual Rate: 2,421,000.00
6. Estimated Annual Activity Factor: 100.00
7. Maximum Percent Sulfur: 8. Maximum Percent Ash:
9. Million Btu per SCC Unit:
10. Segment Comment:

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 8	
NGS - Boiler Fuel Silos	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and Ass	ociated Operating Method/Mode):
Petroleum Coke (Either/Or Application - Total Maximum 2,421,000 to	ons per year)
2. Source Classification Code (SCC): 30501099	
3. SCC Units: Tons Processed	
4. Maximum Hourly Rate: 1,400.00 5.	Maximum Annual Rate: 2,421,000.00
6. Estimated Annual Activity Factor: 100.00	
7. Maximum Percent Sulfur: 8.	Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section	8
NGS - Boiler Fuel Silos	

1. Pollutant Emitted	2. Primary Control Device Code	Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL
2 - PM10	018		EL

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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 8 NGS - Boiler Fuel Silos	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions: 0.0100000 lb/hour	0.0180000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.00148)	
7. Emissions Method Code: 3	
8. Calculations of Emissions: Emission calculations are detailed in Appendix C of the PSD Report (Attack)	hment F-9)
9. Pollutant Potential/Estimated Emissions Comment:	
Potential emissions based on tons processed.	

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 8 NGS - Boiler Fuel Silos	
Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions: 0.0050000 lb/hour	0.0080000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	to tons/year
6. Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.0007)	
7. Emissions Method Code: 3	
8. Calculations of Emissions : Emission Calculations are detailed in Appendix C of the PSD Report	(Attachment (F-9).
9. Pollutant Potential/Estimated Emissions Comment : Potential Emissions are based on tons processed.	

III. Part 9b - 2

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	missions Unit Information Section 8 GS - Boiler Fuel Silos	- -			
Po	ollutant Information Section1_				
<u>Al</u>	llowable Emissions 1				
1.	. Basis for Allowable Emissions Code :	RULE			
2.	. Future Effective Date of Allowable Emission	s: 01-Apr	-2002		
3.	. Requested Allowable Emissions and Units :	5.00		percent opacity	
4.	Equivalent Allowable Emissions:				
	0.01	lb/hour	0.02	tons/year	
5.	. Method of Compliance :				
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.			
6.	Pollutant Allowable Emissions Comment (De	esc. of Related	Operating	Method/Mode):	
	BACT was evaluated as 0.01 gr/dscf or less in ac Opacity). (Emissions 0.01 lb/hr & 0.018 TPY)	ldition to a no vi	sible emiss	sions limitation (5%	

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Emissions Unit Information Section NGS - Boiler Fuel Silos			•
Pollutant Information Section 2			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE		· p.
2. Future Effective Date of Allowable Emission	s: 01-Apr-20	02	7.4.4
3. Requested Allowable Emissions and Units :	5.00	percei	nt opacity
4. Equivalent Allowable Emissions:			
0.01	lb/hour	0.01	tons/year
5. Method of Compliance :			
Stack Test Waiver Requested Rule 62-297.310(7	()(c), F.A.C.		
6. Pollutant Allowable Emissions Comment (De	esc. of Related Op	erating Metho	od/Mode):
BACT was evaluated as 0.01 gr/dscf or less in ac (Emissions 0.005 lb/hr & 0.008 TPY)	ldition to a no visib	le emissions lir	mit (%5 Opacity)

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

NGS - Boiler Fuel Silos Visible Emissions Limitation: Visi		mitation	1	
1. Visible Emissions Subtype :	05			
2. Basis for Allowable Opacity:	RULE			
3. Requested Allowable Opacity:				
Norma	al Conditions:	5	%	
Exceptions	al Conditions:	100	%	
Maximum Period of Excess Opac	city Allowed:		min/hour	
4. Method of Compliance:				
Annual EPA Method 9				,
5. Visible Emissions Comment:				
BACT was evaluated at 5% Opacity (i.e., no visible emi	ssions) for	this operation.	
Excess Opacity - 2 hours in any 24-ho	our period			

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring	Continuous Monitor	
Parameter Code :	2. Pollutant(s):	
3. CMS Requirement		
4. Monitor Information Manufacturer: Model Number: Serial Number:		
5. Installation Date :		
6. Performance Specification Test	Date:	
7. Continuous Monitor Comment	:	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

ESTAT	SSIONS CHIL INTO MALION SECTION 6
NGS	S - Boiler Fuel Silos
<u>PSI</u>	Increment Consumption Determination
1. I	ncrement Consuming for Particulate Matter or Sulfur Dioxide?
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

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2.	. Increment Consuming for Nitrogen Dioxide?					
[]] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.				
[] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
ĺ] The facility addressed in this application is classified as an EPA major source, and the emission unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
[For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
[] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.					
3.	3. Increment Consuming/Expanding Code:					
		PM:	С	SO2 :	NO2:	
4.	В	aseline Emissic	ons :			
		PM : SO2 : NO2 :	0.010	00 lb/hour lb/hour	0.0180 tons/year tons/year tons/year	
5.	PS	SD Comment:				
	Unit emits only particulate matter.					

III. Part 12 - 2

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L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 8

NGS - Boiler Fuel Silos				
Supplemental Requirements for All Applications				
1. Process Flow Diagram:	F-6, EU031			
2. Fuel Analysis or Specification:	NA			
3. Detailed Description of Control Equipment :	E-2			
4. Description of Stack Sampling Facilities:	E-3			
5. Compliance Test Report :	NA			
6. Procedures for Startup and Shutdown:	NA			
7. Operation and Maintenance Plan:	NA			
8. Supplemental Information for Construction Permit Application :	F-9			
9. Other Information Required by Rule or Statue :	NA			
Additional Supplemental Requirements for Category I Application	ns Only			
10. Alternative Methods of Operations :				
11. Alterntive Modes of Operation (Emissions Trading):				

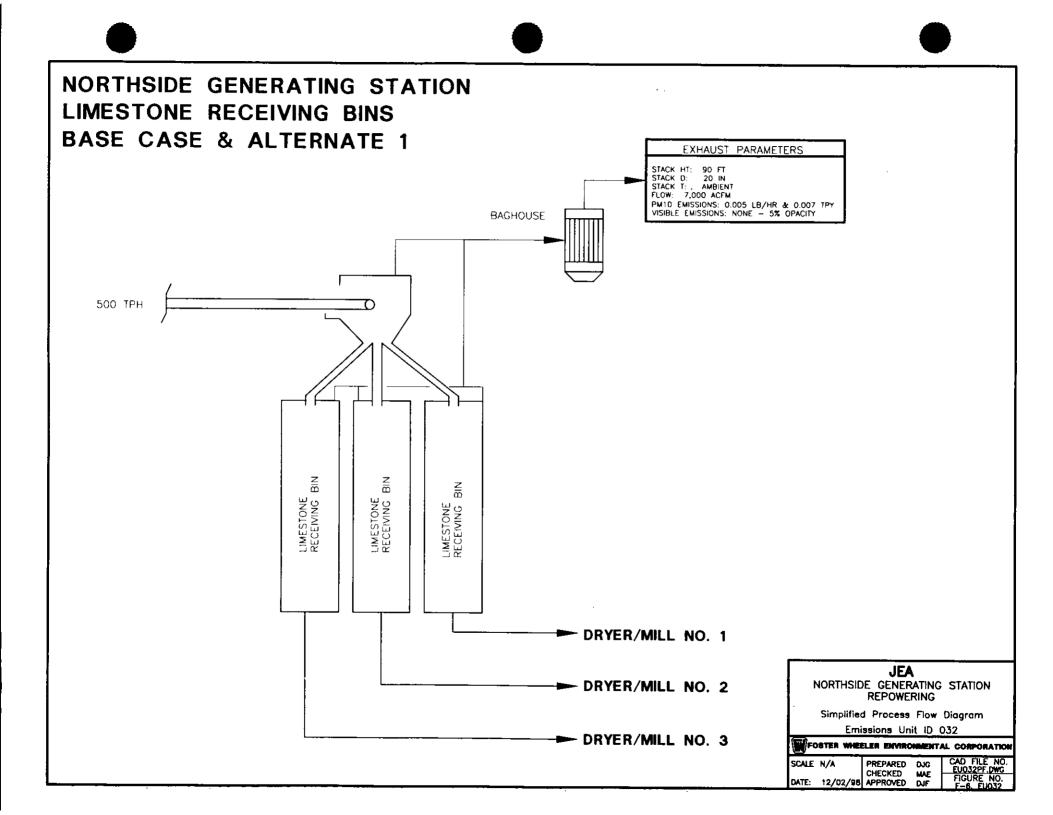
III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

2. Identification of Additional Applicable Requirements :				
13. Compliance Assurance Monitoring Plan:				
14. Acid Rain Application (Hard-copy Required):				
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))			
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)			
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)			
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)			

Emissions Unit 032

NGS - Limestone Receiving Bins



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 9					
NGS - Limestone Receiving Bins					
Type of Emissions Unit Addressed in This Section					
1. Regulated or Unregulated Emissions Unit? Check one:					
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.				
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.				
2. Single Process, Group of Processes, or Fugitive Only? Check one:					
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).				
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.				
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.				

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :								
NGS - Limestone Receiving Bir	NGS - Limestone Receiving Bins							
	· · · · · · · · · · · · · · · · · · ·							
2. Emissions Unit Identification Number: 032 [] No Corresponding ID [] Unknown								
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49						
6. Emissions Unit Comment:	Emissions Unit Comment:							
The emissions unit consists of three limestone receiving bins and a transfer point. A detailed description of the points is included in Attachment F-9, PSD Report (Appendix C).								

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Emissions Unit Information Section	9				
NGS - Limestone Receiving Bins					
Emissions Unit Control Equipment	1				
Description: Limestone Receiving Bins are identical for Storage Operations. Emissions will be co	or the Base Case and Alternate 1 Materials Handling and ntrolled by use of a baghouse.				
2. Control Device or Method Code:	18				

III. Part 3 - 1

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C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 9		
NGS - Limestone Receiving Bins		
Emissions Unit Details		
1. Initial Startup Date : 01-	Apr-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit:		
Manufacturer :		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:	· · · · · · · · · · · · · · · · · · ·	
Dwell Temperature:		Degrees Fahrenheit
Dwell Time :		Seconds
Incinerator Afterburner Temperature :		Degrees Fahrenheit
Emissions Unit Operating Capacity 1. Maximum Heat Input Rate: 0	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	500	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment: Maximum rate set by initial design criteria.		
Emissions Unit Operating Schedule	,	
Requested Maximum Operating Schedule:		
24 hours/day		7 days/week
52 weeks/year		8,760 hours/year

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D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	
NGS - Limestone Receiving Bins	

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300 Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic-Mineral Processing Plants.

IП. Part 6a - 1

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NGS - Limestone Receiving Bins

List of Applicable Regulations

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9)(c), F.A.C.

40 CFR Part 60.7, Notification and Recordkeeping Requirements

40 CFR Part 60.8, Performance Tests

40 CFR Part 60.11, Compliance with Standards and Maintenance Requirements (VE reduced to 1 hour)

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.19, General Notification and Reporting Requirements

40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic-Mineral Processing Plants

40 CFR Part 60.670(a)(1), (e), & (f), Applicability and Designation of Affected Facility

40 CFR Part 60.672(e), Standards for Particulate Matter

40 CFR Part 60.675, Test Methods and Procedures

40 CFR Part 60.676, Reporting and Recordkeeping

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

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NGS - Limestone Receiving Bins

List of Applicable Regulations

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution (As Noted)

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 62-204.800(7)(b).64, F.A.C., Adoption of 40 CFR Part 60 Subpart OOO (As Noted)

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

Rule 62-210.350(1) & (2), F.A.C., Public Notice and Comment

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NGS - Limestone Receiving Bins

List of Applicable Regulations

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

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Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

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Emissions Unit Information Section

NGS - Limestone Receiving Bins

List of Applicable Regulations

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

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E. EMISSION POINT (STACK/VENT) INFORMATION

NGS - Limestone Receiving Bins		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram	: EU032	
2. Emission Point Type Code: 2		
3. Descriptions of Emission Points Comprising this Em (limit to 100 characters per point)	issions Unit for V	E Tracking:
4. ID Numbers or Descriptions of Emission Units with a Conveyor Belt, Transfer Point, and Three Receiving Bins		nt in Common :
5. Discharge Type Code:	V	
6. Stack Height:	90	feet
7. Exit Diameter:	1.7	feet
8. Exit Temperature :	68	°F
9. Actual Volumetric Flow Rate:	7000	acfm
10. Percent Water Vapor:	2.00	%
11. Maximum Dry Standard Flow Rate:	7000	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates :		
Zone: 17 East (km): 446.726	North (k	m): 3365.245

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Emissions Unit Information Section

14. Emission Point Comment:

Attachments F-6, F-8, and F-9, contain additional information related to stack paramters and location.

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 9		
NGS - Limestone Receiving Bins		
Segment Description and Rate: Segment	1	
1. Segment Description (Process/Fuel Type and A	Associated Operating Method/Mode):	
Limestone		
2. Source Classification Code (SCC): 30501	099	
3. SCC Units: Tons Transferred Or Handled		
4. Maximum Hourly Rate: 500.00	5. Maximum Annual Rate : 1,445,400.00	
6. Estimated Annual Activity Factor: 0.00		
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:	
9. Million Btu per SCC Unit:		
10. Segment Comment:		

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 9
NGS - Limestone Receiving Bins

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM10	018		EL
2 - PM	018		EL

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Potential/Estimated Emissions: Pollutant 2
1. Pollutant Emitted: PM
2. Total Percent Efficiency of Control: 99.50 %
3. Potential Emissions :
0.0100000 lb/hour 0.0150000 tons/yea
4. Synthetically Limited? [] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions:
to tons/yea
6. Emissions Factor 0 Units 1b/ton Reference: AP-42, (EF=0.00102)
7. Emissions Method Code: 3
8. Calculations of Emissions:
Detailed emission calculations are in Appendix C of the PSD report (Attachment F-9).
9. Pollutant Potential/Estimated Emissions Comment:
Potential emissions based on tons processed.

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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 9 NGS - Limestone Receiving Bins	
Pollutant Potential/Estimated Emissions: Pollutant1	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions :	
0.0050000 lb/hour	0.0070000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.00048)	
7. Emissions Method Code: 3	
8. Calculations of Emissions :	
Emissions calculations are detailed in Appendic C of the PSD Report (Att	tachment F-9)
9. Pollutant Potential/Estimated Emissions Comment:	
Potential emissions based on tons processed.	

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Emissions Unit Information Section 9_NGS - Limestone Receiving Bins		
Po	ollutant Information Section 1	
<u>Al</u>	lowable Emissions 1	
1.	Basis for Allowable Emissions Code: RULE	
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002	
3.	Requested Allowable Emissions and Units: 5.00 percent opacity	
4.	Equivalent Allowable Emissions:	
	0.01 lb/hour 0.01 tons/year	
5.	Method of Compliance :	
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.	
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):	
	BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). (Emissions - 0.005 lb/hr & 0.007 TPY)	

III. Part 9c - 1

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Emissions Unit Information Section NGS - Limestone Receiving Bins		
Po	Illutant Information Section 2	
<u>Al</u>	lowable Emissions 1	
1.	Basis for Allowable Emissions Code: RULE	
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002	
3.	Requested Allowable Emissions and Units: 5.00 percent opacity	
4.	Equivalent Allowable Emissions :	
	0.01 lb/hour 0.02 tons/year	
5.	Method of Compliance :	
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.	
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):	
	BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). (Emissions - 0.01 lb/hr & 0.015 TPY)	

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

	NGS - Limestone Receiving Bins			
<u>V</u>	isible Emissions Limitation: Visible Emissions Limitation 1			
1.	. Visible Emissions Subtype : 05			
2.	Basis for Allowable Opacity: RULE			
3.	Requested Allowable Opacity:			
	Normal Conditions: 5 %			
	Exceptional Conditions: 100 %			
-	Maximum Period of Excess Opacity Allowed: min/hour			
4.	Method of Compliance :			
	Annual EPA Method 9			
5.	Visible Emissions Comment :			
į	BACT was evaluated as 5% opacity from the fabric filter. NSPS Subpart OOO places a no visible emissions limitation (0% Opacity) on the Building.			
	Excess Opacity - 2 hours in any 24-hour period			

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Continuous Monitor

1. Parameter Code :	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer: Model Number: Serial Number:	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment:	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 9			
NGS - Limestone Receiving Bins			
PSD Increment Consumption Determination			
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?			
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.		
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.		
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.		

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	ın	crement Consu	ming for Nitrog	en Dioxi	de?			
[]		has undergone				view as part of the dioxide. If so, e	
]] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
ĺ] The facility addressed in this application is classified as an EPA major source, and the emission unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.				h 28, 1988.			
Į] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.							
3.	In	crement Consu	ming/Expandin	g Code :				
		PM:	C	SO2 :	U	NO2	: U	
4.	В	aseline Emissio	ons :					
		PM : SO2 : NO2 :	0.0100	lb/hour lb/hour		0.015	tons/year tons/year tons/year	
5.	P.	SD Comment:						

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

Item 4 values present increment consumption values.

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 9				
NGS - Limestone Receiving Bins				
Supplemental Requirements for All Applications				
1. Process Flow Diagram:	F-6, EU032			
2. Fuel Analysis or Specification :	NA	<u> </u>		
3. Detailed Description of Control Equipment:	E-2			
4. Description of Stack Sampling Facilities :	E-3			
5. Compliance Test Report :	NA	<u> </u>		
6. Procedures for Startup and Shutdown:	NA			
7. Operation and Maintenance Plan:	NA ·			
8. Supplemental Information for Construction Permit Application :	F-9			
9. Other Information Required by Rule or Statue :	NA			
Additional Supplemental Requirements for Category I Application	s Only			
10. Alternative Methods of Operations:				
11. Alterntive Modes of Operation (Emissions Trading):				

III. Part 13 - 1

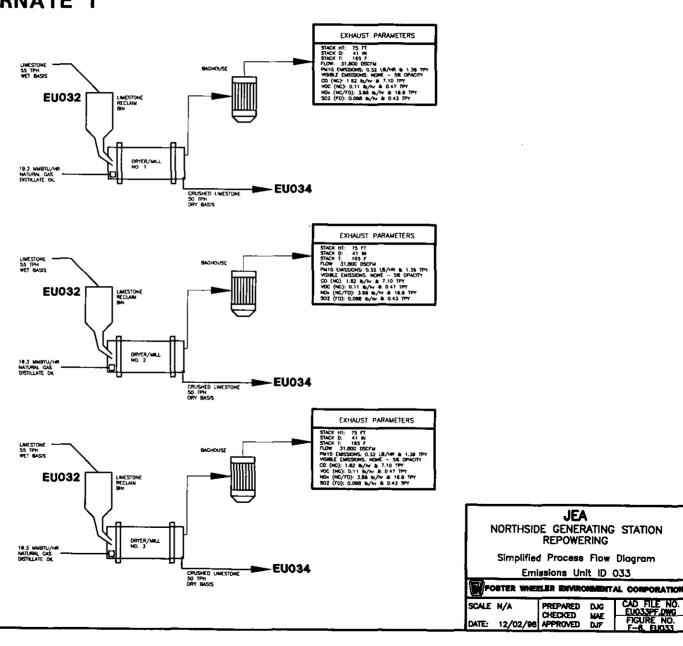
DEP Form No. 62-210.900(1) - Form Effective : 3-21-96

12. Identification of Additional Applicable Requirements :					
13. Compliance Assurance Monitoring Plan:					
14. Acid Rain Application (Hard-copy Required):					
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))				
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)				
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)				
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)				

Emissions Unit 033

NGS - Limestone Dryers/Mills

NORTHSIDE GENERATING STATION LIMESTONE DRYER/MILL NOS. 1, 2, & 3 BASE CASE & ALTERNATE 1



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 10				
NGS - L	imestone Dryers/Mills			
Type of	Emissions Unit Addressed in This Section			
1. Regu	lated or Unregulated Emissions Unit? Check one:			
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
2. Single Process, Group of Processes, or Fugitive Only? Check one:				
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions	Unit	Information Section	10
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B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1.	1. Description of Emissions Unit Addressed in This Section :					
	NGS - Limestone Dryers/Mills					
2.	2. Emissions Unit Identification Number: 033 [] No Corresponding ID [] Unknown					
3.	Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49			
6. Emissions Unit Comment: The emissions unit consists of three limestone dryers/mills. A detailed description of the points is included in Attachment F-9, PSD Report (Appendix C).						

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	10
NGS - Limestone Dryers/Mills	
Emissions Unit Control Equipment	1
Description: Limestone Dryers/Mills are identical for filter (PM & PM10) and good combustions.	r the Base Case and Alternate 1. Controls include a fabric on practices.
2. Control Device or Method Code:	18

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	
NGS - Limestone Dryers/Mills	
Emissions Unit Control Equipment	2
Description: Good Combustion Practices for CO, VC	OC, and NOx
2. Control Device or Method Code :	99

III. Part 3 -

2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	10
NGS - Limestone Dryers/Mills	
Emissions Unit Control Equipment	3

1. Description:

Natural Gas and Low Sulfur Distillate Oil (0.05% S by wt) as BACT for SO2 controls. Also SO2 control within the dryers/mills associated with contact with the crushed limestone.

2. Control Device or Method Code:

99

III. Part 3 -

3

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section NGS - Limestone Dryers/Mills	10	
Emissions Unit Details		
1. Initial Startup Date :	01-Apr-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer :		Model Number :
4. Generator Nameplate Rating :	MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature: Emissions Unit Operating Capacity		Degrees Fahrenheit Seconds Degrees Fahrenheit
1. Maximum Heat Input Rate: 60	mmBtu/h	r
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	165	tons per hour
4. Maximum Production Rate:		
 Operating Capacity Comment: Maximum Rate (Wet Basis) for all three dryer of 19.3 mmBtu/hr. 	s/mills. Each Drye	er/Mill has a maximum heat input rate
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule:	W4	
24 hours/day 52 weeks/ye		7 days/week 8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	10
NGS - Limestone Dryers/Mills	

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300 Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic-Mineral Processing Plants.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

10

NGS - Limestone Dryers/Mills

List of Applicable Regulations

Rule 62-204.800(7)(b).64, F.A.C., Adoption of 40 CFR Part 60 Subpart OOO (As Noted)

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-4.030, F.A.C., General Provisions

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Limestone Dryers/Mills

List of Applicable Regulations

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution, (As noted)

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 62-210.350(1) & (2), F.A.C., Public Notice and Comment

Rule 62-210.550, F.A.C., Stack Height Policy

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

NGS - Limestone Dryers/Mills

List of Applicable Regulations

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5), (7), (9), & (10), F.A.C., EPA Test Methods 5, 7, 9, and 10

40 CFR Part 60.7, Notification and Recordkeeping Requirements

40 CFR Part 60.8, Performance Tests

40 CFR Part 60.11, Compliance with Standards and Maintenance Requirements (VE reduced to 1 hour)

10

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.19, General Notification and Reporting Requirements

40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic-Mineral Processing Plants

40 CFR Part 60.670(a)(1), (e), & (f), Applicability and Designation of Affected Facility

40 CFR Part 60.672(e), Standards for Particulate Matter

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

List of Applicable Regulations

40 CFR Part 60.675, Test Methods and Procedures

40 CFR Part 60.676, Reporting and Recordkeeping

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DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

10

NGS - Limestone Dryers/Mills						
Emission Point Description and Type:						
1. Identification of Point on Plot Plan or Flow Diagram	: EU033					
2. Emission Point Type Code:	· · · · · · · · · · · · · · · · · · ·					
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: (limit to 100 characters per point)						
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: Three Dryers/Mills within a Building, each with a separate exhaust stack.						
5. Discharge Type Code:	V					
6. Stack Height:	75	feet				
7. Exit Diameter:	3.4	feet				
8. Exit Temperature :	165	°F				
9. Actual Volumetric Flow Rate:	49300	acfm				
10. Percent Water Vapor:	15.00	%				
11. Maximum Dry Standard Flow Rate:	31800	dscfm				
12. Nonstack Emission Point Height:	0	feet				
13. Emission Point UTM Coordinates:						
Zone: 17 East (km): 446.783 III. Part 7a - 19	North (ki	m): 3365.239				

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Emissions Unit Information Section

14. Emission Point Comment:

Attachments F-6, F-8, and F-9, contain additional information related to stack paramters and location.

III. Part 7a - 20

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F. SEGMENT (PROCESS/FUEL) INFORMATION

ing Method/Mode):
ing Method/Mode):
nual Rate : 1,445,400.00
cent Ash:

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 10	_
NGS - Limestone Dryers/Mills	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Natural Gas	
2. Source Classification Code (SCC): 10201	401
3. SCC Units: Million Cubic Feet Processed	
4. Maximum Hourly Rate: 57.90	5. Maximum Annual Rate: 507,204.00
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1,050	1
10. Segment Comment :	
Emission estimates based on firing Distillate Oil.	

III. Part 8 - 2

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section	10	
NGS - Limestone Dryers/Mills		
Segment Description and Rate: Segmen	it3	
1. Segment Description (Process/Fuel Type a	nd Associated Operating Method/M	(ode):
Low Sulfur Distillate Oil		
2. Source Classification Code (SCC): 10	201403	
3. SCC Units: Thousand Gallons Processed		
4. Maximum Hourly Rate: 0.41	5. Maximum Annual Rate:	3,623.00
6. Estimated Annual Activity Factor: 0.0	0	
7. Maximum Percent Sulfur: 0.05	8. Maximum Percent Ash:	0.00
9. Million Btu per SCC Unit: 19	1	
10. Segment Comment:		
Worst Case SO2 emissions are generated duri	ing fuel oil firing.	
Natural Gas sulfur content was assumed at 10) gr/100scf.	

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G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	Pollutant Regulatory Code
1 - PM10	018		EL
2 - PM	018		EL
3 - CO	099		EL
4 - VOC	099		EL
5 - NOX	099		EL
6 - SO2	099		EL

Emissions Unit Information Section10 NGS - Limestone Dryers/Mills	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.90 %	
3. Potential Emissions: 0.9600000 lb/hour	4.1700000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 10 Units lb/ton Reference: AP-42, (EF=9.609)	
7. Emissions Method Code: 3	
8. Calculations of Emissions: Emissions calculations are detailed in Appendic C of the PSD Report (Attac	hment F-9).
9. Pollutant Potential/Estimated Emissions Comment:	
Potential emissions for all the three dryers/mills. Emission factor is for unco dryer/mill has a separate fabric filter, with 99.94% removal.	entrolled emissions. Each

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NC	GS - Limestone Dryers/Mills			
Po	llutant Potential/Estimated Emissions: Pollu	tant2		
1.	Pollutant Emitted: PM			
2.	Total Percent Efficiency of Control: 99.90	%		
3.	Potential Emissions :			
	7.9200000 lb/hour		·	34.7100000 tons/year
4.	Synthetically Limited?			
	[] Yes [X] No			
5.	Range of Estimated Fugitive/Other Emissions:			
			to	tons/year
6.	Emissions Factor 80 Reference: AP-42, (EF=80.017)	Units lb/ton	_	
7.	Emissions Method Code: 3		_	
8.	Calculations of Emissions:			
	Detailed emission calculations are in Appendix C of t	he PSD report (A	Attachm	nent F-9).
9.	Pollutant Potential/Estimated Emissions Comment	:		
	Potential emissions for all three dryers/mills. Emissio dryer/mill has a separate fabric filter, with 99.94% remains a separate fabric filter.		ontrol	led emissions. Each

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Emissions Unit Information Section ____10__

N	JS - Limestone Dryers/Mills
<u>Po</u>	Ilutant Potential/Estimated Emissions: Pollutant 3
1.	Pollutant Emitted: CO
2.	Total Percent Efficiency of Control: %
3.	Potential Emissions: 4.8600000 lb/hour 21.3000000 tons/year
4.	Synthetically Limited? [] Yes [X] No
5.	Range of Estimated Fugitive/Other Emissions: to tons/year
6.	Emissions Factor 84 Units lb/mmCF Reference : AP-42
7.	Emissions Method Code: 3
8.	Calculations of Emissions:
	lb/hr = (3 units) X (19.3 mmBtu/unit) X (mmCF/1000 mmBtu) X (84 lb/mmCF) = 4.86 lb/hr
	TPY = (4.86 lb/hr) X (8760 hr/yr) X (ton/2000 lb) = 21.3 Tons
9.	Pollutant Potential/Estimated Emissions Comment :
	Worst Case Emissions are based on the firing of natural gas.

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III. Part 9b - 3

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Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

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Emissions Unit Information Section 10 NGS - Limestone Dryers/Mills	
Pollutant Potential/Estimated Emissions: Pollutant 4	
1. Pollutant Emitted: VOC	
2. Total Percent Efficiency of Control: %	
3. Potential Emissions:	
0.3200000 lb/hour	1.4000000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 6 Units lb/mmCF Reference : AP-42, (EF=5.5)	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
lb/hr = (3 Units) X (19.3 mmBtu/hr) X (mmCF/1000 mmBtu) X (5.5 lb/r	mmCF) = 0.32 lb/hr
TPY = $(0.32 \text{ lb/hr}) \text{ X } (8760 \text{ hr/yr}) \text{ X } (\text{ton/2000 lb}) = 1.4 \text{ tons}$	
9. Pollutant Potential/Estimated Emissions Comment:	
Worst case Emissions are based on the firing of natural gas.	

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Emissions Unit Information Section ____10

NGS - Limestone Dryers/Mills

III. Part 9b - 6

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 10_

NGS - Limestone Dryers/Mills

<u>Pol</u>	lutant Potential/Estimated Emissions: Pollutant 5
1.	Pollutant Emitted: NOX
2.	Total Percent Efficiency of Control: %
3.	Potential Emissions:
	11.6000000 lb/hour 50.7000000 tons/year
4.	Synthetically Limited? [] Yes [X] No
5.	Range of Estimated Fugitive/Other Emissions: to tons/year
6.	Emissions Factor 0 Units lb/mmBtu Reference: Vendor Data (EF=0.2)
7. 1	Emissions Method Code: 0
8.	Calculations of Emissions:
	lb/hr = (3 units) X (19.3 mmBtu/hr) X (0.2 lb/mmBtu) = 11.6 lb/hr
	TPY = (11.6 lb/hr) X (8760 hr/yr) X (ton/2000 lb) = 50.7 tons
9.]	Pollutant Potential/Estimated Emissions Comment:
	Worst Case Emissions are based on the firing either natural gas or fuel oil at allowable level.

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Emissions Unit Information Section 10
NGS - Limestone Dryers/Mills

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DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section ___10_

DEP Form No. 62-210.900(1) - Form

NGS - Limestone Dryers/Mills
Pollutant Potential/Estimated Emissions: Pollutant 6
1. Pollutant Emitted: SO2
2. Total Percent Efficiency of Control: 90.00 %
3. Potential Emissions: 0.2940000 lb/hour 1.2900000 tons/year
4. Synthetically Limited? [] Yes [] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 7 Units 1b/1000 gal Reference: AP-42, (EF=7.1)
7. Emissions Method Code: 3
8. Calculations of Emissions:
lb/hr = (3 units) X (19.3 mmBtu/hr) X (gal/0.14 mmBtu) X (kGal/1000 gal) X (7.1 lb/kGal) X (1-90/100) = 0.294 lb/hr
TPY = $(0.29 \text{ lb/hr}) \text{ X } (8760 \text{ hr/yr}) \text{ X } (\text{ton/2000 lb}) = 1.29 \text{ tons}$
9. Pollutant Potential/Estimated Emissions Comment:
Emission level is based on BACT which includes firing Natural Gas (10gr/100 scf) or Fuel Oil (0.05% S) and 90% removal of the SO2 within the process (Limestone dryer/mill).

Emissions Unit Information Section	10		
NGS - Limestone Dryers/Mills			
1			

III. Part 9b - 10

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Emissions Unit Information Section NGS - Limestone Dryers/Mills
Pollutant Information Section 1
Allowable Emissions 1
1. Basis for Allowable Emissions Code : RULE
2. Future Effective Date of Allowable Emissions : 01-Apr-2002
3. Requested Allowable Emissions and Units: 5.00 percent opacity
4. Equivalent Allowable Emissions :
0.96 lb/hour 4.17 tons/year
5. Method of Compliance :
Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
BACT was evaluated as 0.01 gr/dscf (per Fabric Filter) or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Testing.

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Emissions Unit Information NGS - Limestone Dryers/Mil		10		
Pollutant Information Secti	on <u>2</u>			
Allowable Emissions	1			
1. Basis for Allowable Emis	sions Code :	RULE		
2. Future Effective Date of A	Allowable Emis	ssions: 01-A _I	or-2002	
3. Requested Allowable Em	issions and Uni	its: 5.00	pe	rcent opacity
4. Equivalent Allowable Em	uissions :	-		
	7.92	lb/hour	34.71	tons/year
5. Method of Compliance :				
Stack Test Waiver Requeste	ed Rule 62-297.3	310(7)(c), F.A.C.		
6. Pollutant Allowable Emis BACT was evaluated as 0.0			-	

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Opacity). Initial and Annual VE Testing.

	Emissions Unit Information Section NGS - Limestone Dryers/Mills					
Po	llutant Information Section 3					
<u>Al</u>	lowable Emissions 1					
1.	Basis for Allowable Emissions Code: RULE					
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002					
3.	Requested Allowable Emissions and Units: 84.00 lb/mmCF					
4.	Equivalent Allowable Emissions:					
	4.86 lb/hour 21.30 tons/year					
5.	Method of Compliance :					
	EPA Method 10					
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):					
	Emission level is based on BACT which reflects good combustion practices while firing Natural Gas. Initial and Renewal Stack Testing.					

DEP Form No. 62-210.900(1) - Form

	missions Unit Information Section
Po	Illutant Information Section 4
<u>Al</u>	lowable Emissions 1
1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002
3.	Requested Allowable Emissions and Units: 0.32 lb/hr
4.	Equivalent Allowable Emissions :
	0.32 lb/hour 1.40 tons/year
5.	Method of Compliance :
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
	Emission level is based on BACT which reflects good combustion practices while firing Natural Gas. CO Testing as surrogate.

DEP Form No. 62-210.900(1) - Form

	tion 5			
Collutant Information Sec	tion <u>5</u>			
Allowable Emissions	<u>!</u>			
1. Basis for Allowable Em	issions Code:	RULE	3	
•				
2. Future Effective Date of	f Allowable Emi	ssions: 01-A	pr-2002	
			r. =vv=	
	<u></u>			
3. Requested Allowable E	missions and Un	its: 11.60	lb/	hr
. Equivalent Allowable E	missions:			
	11.60	lb/hour	50.70	tons/year
. Method of Compliance				
. Mediod of Compitance	•			
EPA Method 7				

DEP Form No. 62-210.900(1) - Form

	GS - Limestone Dryers/Mills
Po	llutant Information Section6_
<u>Al</u>	owable Emissions 1
1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002
3.	Requested Allowable Emissions and Units: 0.05 % Sulfur by wt
4.	Equivalent Allowable Emissions :
	0.29 lb/hour 1.29 tons/year
5.	Method of Compliance :
	Natural Gas and Fuel Oil Sampling
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
	Emission level is based on BACT while firing Fuel Oil. Sampling data to be provided by vendor.

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

NGS - Limestone Dryers/Mills				
Visible Emissions Limitation : Visib	ole Emissions Lin	nitation _	1	
1. Visible Emissions Subtype:	05			
2. Basis for Allowable Opacity:	RULE			
3. Requested Allowable Opacity:	<u>-</u>	<u> </u>		
Norma	l Conditions :	5	%	
Exceptiona	l Conditions:	100	%	
Maximum Period of Excess Opac	ity Allowed:		min/hour	
4. Method of Compliance:				
EPA Method 9				
5. Visible Emissions Comment:				
BACT was evaluated as 5% opacity from	om the fabric filte	r.		
Excess Emissions 2 hours in any 24-ho	our period			

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section NGS - Limestone Dryers/Mills	10			
Visible Emissions Limitation: Visib	le Emissions Lin	nitation _	2	
1. Visible Emissions Subtype :	0			
2. Basis for Allowable Opacity:	RULE			
3. Requested Allowable Opacity:				
Normal	Conditions:	0	%	
· -	Conditions:	100	%	
Maximum Period of Excess Opaci	ty Allowed:		min/hour	
4. Method of Compliance :				
EPA Method 22				
5. Visible Emissions Comment:				
NSPS Subpart OOO places a no visible Excess Emissions 2 hours in any 24-ho		ion (0% Op	acity) on the Building.	

III. Part 10 - 2

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitor Continuous Monitor				
1. Parameter Code :	2. Pollutant(s):			
3. CMS Requirement				
4. Monitor Information Manufacturer: Model Number: Serial Number:				
5. Installation Date :				
6. Performance Specification Test Date:				
7. Continuous Monitor Comment:				

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emi	Emissions Unit Information Section 10				
NGS	S - Limestone Dryers/Mills				
<u>PSI</u>	Increment Consumption Determination				
1. I	ncrement Consuming for Particulate Matter or Sulfur Dioxide?				
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.				
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.				
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.				
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.				
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.				

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	Increment	Consuming	for	Nitrogen	Dioxide?
----	-----------	-----------	-----	----------	----------

- [X] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- [] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
- [] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consu	. Increment Consuming/Expanding Code :				
PM :	C SO2: C	NO2: C			
4. Baseline Emissio	ns:				
PM:	7.9200 lb/hour	34.7100 tons/year			
SO2:	0.2940 lb/hour	1.2900 tons/year			
NO2:		50.7000 tons/year			
5. PSD Comment :					
Item 4 reflects con	suming increment values.				

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form



L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

10

NGS - Limestone Dryers/Mills	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	F-6, EU033
2. Fuel Analysis or Specification:	E-1
3. Detailed Description of Control Equipment:	E-2
4. Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan:	NA
8. Supplemental Information for Construction Permit Application:	F-9
9. Other Information Required by Rule or Statue :	NA
Additional Supplemental Requirements for Category I Application	<u>is Only</u>
10. Alternative Methods of Operations:	
11. Alterntive Modes of Operation (Emissions Trading):	
	<u> </u>

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

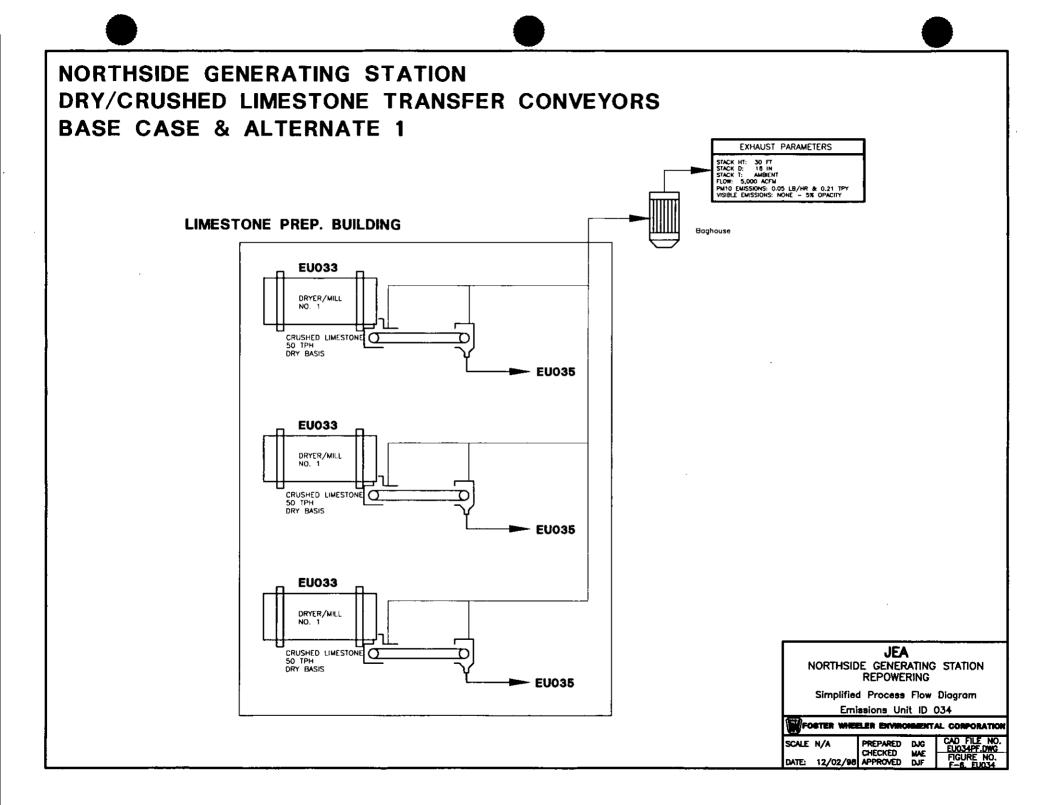
Emissions Unit Information Section

12.	dentification of Additional Applicable Requirements:			
13. Compliance Assurance Monitoring Plan:				
14.	Acid Rain Application (Hard-copy Required):			
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))			
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)			
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)			

Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 034

NGS - Limestone Crusher Conveyor Transfers



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 11				
NGS - L	imestone Crusher Conveyor Transfers			
Type of	Emissions Unit Addressed in This Section			
1. Regu	alated or Unregulated Emissions Unit? Check one:			
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
2. Sing.	le Process, Group of Processes, or Fugitive Only? Check one:			
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
[+]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :							
NGS - Limestone Crusher Co	onveyor Transfers						
2. Emissions Unit Identification Number: 034 [] No Corresponding ID [] Unknown							
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49					
6. Emissions Unit Comment	:						
limestone from the dryers/m	of three transfer conveyors (6-Transills to the pnuematic transfer systems for the propertion of the content of	nsfer Points) moving dry crushed em. A detailed description of the points					

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	<u>11</u>
NGS - Limestone Crusher Conveyor Transfer	rs
Emissions Unit Control Equipment	1
Description: Emissions from the limestone transfer contains.	nveyors will be controlled by use of a fabric filter.
2. Control Device or Method Code :	18

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

11

Emissions Unit Information Section

DEP Form No. 62-210.900(1) - Form

Effective: 3-21-96

NGS - Limestone Crusher Conveyor Transfers

1. Initial Startup Date :	01-Apr-2002	
2. Long-term Reserve Shutdown Date :	· · · · · · · · · · · · · · · · · · ·	
2. Long-term Reserve Shutdown Date :	· · · · · · · · · · · · · · · · · · ·	
3. Package Unit:		
Manufacturer:		Model Number :
4. Generator Nameplate Rating:	MW	
5. Incinerator Information :		
Dwell Temperature:		Degrees Fahrenheit
Dwell Time:		Seconds
Incinerator Afterburner Temperature :		Degrees Fahrenheit
Maximum Heat Input Rate: 0	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	150	tons per hour
4. Maximum Production Rate:		
 Operating Capacity Comment: Maximum rate reflects the total of the three udryers/mills. 	units and is set by initi	al design criteria for the
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule:		1 × 400
24 hours/da	y	7 days/week
52 weeks/ye	~~	8,760 hours/year

III. Part 4 - 1

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	11
NGS - Limestone Crusher Conveyor Transfer	'S

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300 Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic-Mineral Processing Plants.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Limestone Crusher Conveyor Transfers

List of Applicable Regulations

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

11

NGS - Limestone Crusher Conveyor Transfers

List of Applicable Regulations

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.19, General Notification and Reporting Requirements

40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic-Mineral Processing Plants

40 CFR Part 60.670(a)(1), (e), & (f), Applicability and Designation of Affected Facility

40 CFR Part 60.672(e), Standards for Particulate Matter

40 CFR Part 60.675, Test Methods and Procedures

40 CFR Part 60.676, Reporting and Recordkeeping

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Limestone Crusher Conveyor Transfers

List of Applicable Regulations

Rule 62-204.800(7)(b).64, F.A.C., Adoption of 40 CFR Part 60 Subpart OOO (As Noted)

11

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

Rule 62-210.350(1) & (2), F.A.C., Public Notice and Comment

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), &(6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Methods 5 and 9

40 CFR Part 60.7, Notification and Recordkeeping Requirements

40 CFR Part 60.8, Performance Tests

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 11

NGS - Limestone Crusher Conveyor Transfers

List of Applicable Regulations

40 CFR Part 60.11, Compliance with Standards and Maintenance Requirements (VE reduced to 1 hour)

40 CFR Part 60.12, Circumvention

E. EMISSION POINT (STACK/VENT) INFORMATION

__11

NGS - Limestone Crusher Conveyor Transfers					
Emission Point Description and Type:					
1. Identification of Point on Plot Plan or Flow Diagram:	EU034				
2. Emission Point Type Code: 2					
3. Descriptions of Emission Points Comprising this Emissio (limit to 100 characters per point)	ons Unit for VE	E Tracking:			
4. ID Numbers or Descriptions of Emission Units with this	Emission Poin	t in Common :			
Three Conveyor Belts and Six Transfer Points within a Build	ing.	,			
5. Discharge Type Code :	V				
6. Stack Height:	30	feet			
7. Exit Diameter :	1.3	feet			
8. Exit Temperature :	78	°F			
9. Actual Volumetric Flow Rate :	5000	acfm			
10. Percent Water Vapor :	2.00	%			
11. Maximum Dry Standard Flow Rate:	5000	dscfm			
12. Nonstack Emission Point Height:	0	feet			
13. Emission Point UTM Coordinates :					
Zone: 17 East (km): 446.750	North (kı	n): 3365.233			

III. Part 7a - 21

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

14. Emission Point Comment:

Attachments F-6, F-8, and F-9, contain additional information related to stack paramters and location.

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 11	_					
NGS - Limestone Crusher Conveyor Transfers						
Segment Description and Rate: Segment	1					
1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode):						
Limestone						
2. Source Classification Code (SCC): 30510	105					
3. SCC Units: Tons Transferred Or Handled						
4. Maximum Hourly Rate: 150.00	5. Maximum Annual Rate : 1,314,000.00					
6. Estimated Annual Activity Factor: 0.00						
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:					
9. Million Btu per SCC Unit:						
10. Segment Comment :						

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 11

NGS - Limestone Crusher Conveyor Transfers

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM10	018		EL
2 - PM	018		EL

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 11	
NGS - Limestone Crusher Conveyor Transfers	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.90 %	
3. Potential Emissions:	
0.0470000 lb/hour	0.2100000 tons/year
4. Synthetically Limited?	
[] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor 0 Units lb/ton	
Reference: AP-42, (EF=0.26)	
7. Emissions Method Code: 3	
8. Calculations of Emissions :	
lb/hr = (3 units) X (2 Transfer Points/unit) X (50 TPH/unit) X (0.26 lb/ton) lb/hr	X (1-99.94/100) = 0.047
TPY = $(0.047 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.21 \text{ tons}$	
9. Pollutant Potential/Estimated Emissions Comment:	
Potential emissions based on tons processed and 99.94% control.	
777 P 01	

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	11
NGS - Limestone Crusher Conveyor Transfers	

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

11

<u>Po</u>	llutant Potential/Estimated Emissions: Pollutant 2
1.	Pollutant Emitted: PM
2.	Total Percent Efficiency of Control: 99.90 %
3.	Potential Emissions: 0.4000000 lb/hour 1.7000000 tons/year
4.	Synthetically Limited? [] Yes [X] No
5.	Range of Estimated Fugitive/Other Emissions: to tons/year
6.	Emissions Factor 2 Units lb/ton Reference : AP-42, (EF=2.2)
7.	Emissions Method Code: 3
8.	Calculations of Emissions : lb/hr = (3 units) X (2 Transfer Points/unit) X (50 TPH/unit) X (2.2 lb/ton) X (1-99.94/100) = 0.4 lb/hr TPY = (0.4 lb/hr) X (8760 hr/yr) X (ton/2000 lb) = 1.7 tons
9.	Pollutant Potential/Estimated Emissions Comment : Potential emissions based on tons processed and 99.94% Control

III. Part 9b - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Limestone Crusher Conveyor Transfers

Emissions Unit Information Section ____11

NGS - Limestone Crusher Conveyor Transfers

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 11
NGS - Limestone Crusher Conveyor Transfers

Po	llutant Information Section	1			
<u>Al</u>	iowable Emissions 1	_			
1.	Basis for Allowable Emissio	ns Code :	RULE		
2.	Future Effective Date of Alle	owable Emissi	ons: 01-A _I	or-2002	
3.	Requested Allowable Emissi	ons and Units	: 5.00		percent opacity
4.	Equivalent Allowable Emiss	ions :			
		0.05	lb/hour	0.21	tons/year
5.	Method of Compliance :	··· -			
	Stack Test Waiver Requested	Rule 62-297.31	0(7)(c), F.A.C.		
6.	Pollutant Allowable Emission	ns Comment (Desc. of Relate	d Operating l	Method/Mode):
	BACT was evaluated as 0.01 g Opacity). Initial and Annual V				

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 11
NGS - Limestone Crusher Conveyor Transfers

Pollutant Information Sect <u>Allowable Emissions</u>	ion21				
1. Basis for Allowable Emi	ssions Code :	RUL	E		
2. Future Effective Date of	Allowable Emi	ssions: 01-A	Apr-2002		
3. Requested Allowable En	nissions and Un	its: 5.00	ŗ	percent opacity	
4. Equivalent Allowable Er	nissions :			<u> </u>	
}	0.40	lb/hour	1.70	tons/year	
5. Method of Compliance :					<u>,</u>
Stack Test Waiver Request	ted Rule 62-297.	310(7)(c), F.A.C.			
6. Pollutant Allowable Emi	ssions Commer	nt (Desc. of Relate	ed Operating N	/lethod/Mode):	
BACT was evaluated as 0. Opacity). Initial and Renev				ons limitation (5%	

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section NGS - Limestone Crusher Conveyor Transfers **<u>Visible Emissions Limitation</u>**: Visible Emissions Limitation 1. Visible Emissions Subtype: 05 2. Basis for Allowable Opacity: **RULE** 3. Requested Allowable Opacity: Normal Conditions: **Exceptional Conditions:** 100 % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: EPA Method 9 5. Visible Emissions Comment: BACT was evaluated as 5% opacity from the fabric filter. Excess Emissions allowed for 2 hours in any 24-hour period

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Continuous Monitor

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer: Model Number: Serial Number:	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment:	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

L	KIII:	ssions Unit Information Section 11
N	GS	- Limestone Crusher Conveyor Transfers
<u>P</u>	<u>SD</u>	Increment Consumption Determination
1.	Ir	ncrement Consuming for Particulate Matter or Sulfur Dioxide?
[2	K]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	crement Consur	ning for Nitroge	n Dioxid	de?			
[]] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.						
[]] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[]	unit began initi	-	r Februa	ry 8, 198	8, but before Ma	•	source, and the emissions 8, 1988. If so, baseline
[]			_		l begin) initial op unit consumes ir		on after March 28, 1988. ent.
[]] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.						
3.	Ir	crement Consu	ming/Expanding	g Code :				
		PM:	C	SO2:	U	NO	!: 1	U .
4.	4. Baseline Emissions:							
		PM : SO2 : NO2 :	0.4000	lb/hour lb/hour		1.73	, to	ons/year ons/year ons/year
5.	P	SD Comment :					- ···-	

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

Unit emits only particulate matter

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 11

NGS - Limestone Crusher Conveyor Transfers		
Supplemental Requirements for All Applications		
1. Process Flow Diagram:	F-6, EU034	
2. Fuel Analysis or Specification :	NA	
3. Detailed Description of Control Equipment:	E-2	
4. Description of Stack Sampling Facilities :	E-3	
5. Compliance Test Report :	NA	
6. Procedures for Startup and Shutdown:	NA	
7. Operation and Maintenance Plan:	NA	
8. Supplemental Information for Construction Permit Application :	F-9	
9. Other Information Required by Rule or Statue :	NA	
Additional Supplemental Requirements for Category I Application	us Only	
10. Alternative Methods of Operations:		
11. Alterntive Modes of Operation (Emissions Trading):		

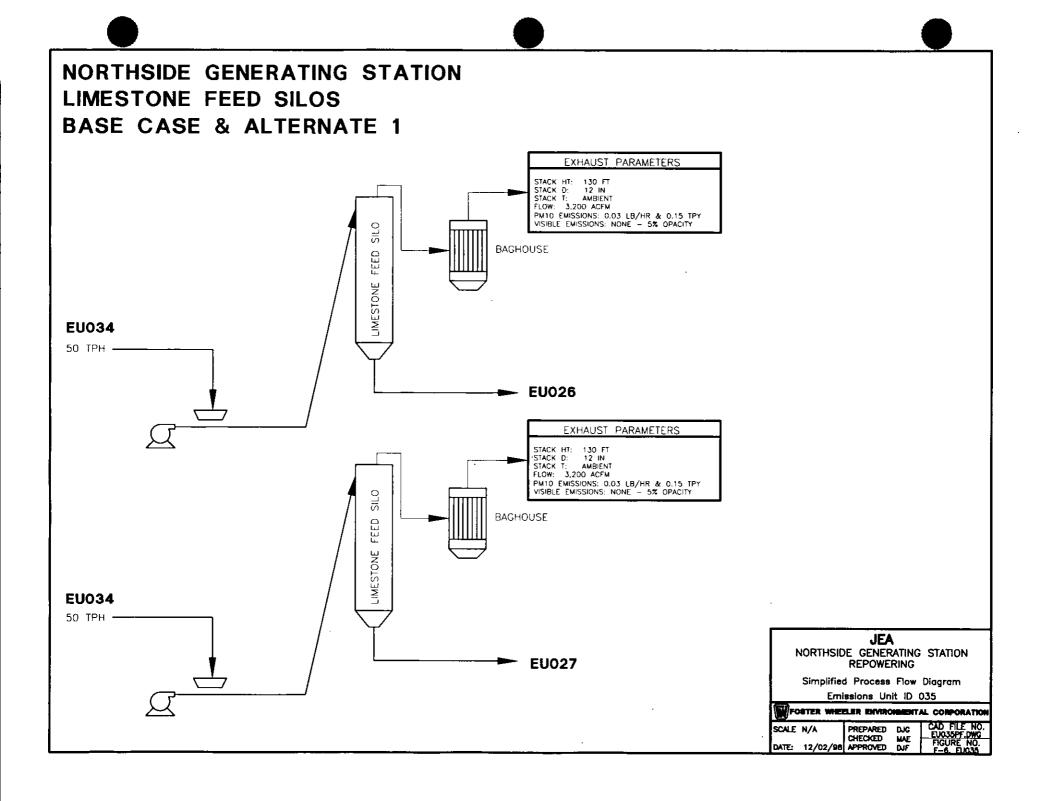
III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form Effective : 3-21-96

12. Identification of Additional Applicable Requirements :			
13. Compliance Assurance Monitoring Plan:			
14. Acid Rain Application (H	ard-copy Required):		
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))		
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)		
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)		
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)		

Emissions Unit 035

NGS - Limestone Feed Silos



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissio	ns Unit Information Section 12				
NGS - Li	imestone Feed Silos				
Type of	Type of Emissions Unit Addressed in This Section				
1. Regu	lated or Unregulated Emissions Unit? Check one:				
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.				
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.				
2. Singl	e Process, Group of Processes, or Fugitive Only? Check one:				
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).				
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.				
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.				

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	:2
---	----

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :			
NGS - Limestone Feed Silos			
2. Emissions Unit Identification Number: 035 [] No Corresponding ID [] Unknown			
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49	
6. Emissions Unit Comment:			
	f two limestone feed silos and the on of the points is included in Att	associated pnuematic transfer achment F-9, PSD Report (Appendix	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	
NGS - Limestone Feed Silos	
Emissions Unit Control Equipment	1
Description: Emissions from each Limestone Feed State	ilo will be controlled by a fabric filter.
2. Control Device or Method Code :	18

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 12 NGS - Limestone Feed Silos	
Emissions Unit Details	
1. Initial Startup Date : 01-Apr-	2002
2. Long-term Reserve Shutdown Date :	
3. Package Unit:	· · · · · · · · · · · · · · · · · · ·
Manufacturer:	Model Number:
4. Generator Nameplate Rating: MV	V
5. Incinerator Information:	
Dwell Temperature:	Degrees Fahrenheit
Dwell Time :	Seconds
Incinerator Afterburner Temperature :	Degrees Fahrenheit
1. Maximum Heat Input Rate: 0	mmBtu/hr
2. Maximum Incinerator Rate :	lb/hr tons/day
3. Maximum Process or Throughput Rate:	100 tons per hour
4. Maximum Production Rate:	
5. Operating Capacity Comment: Maximum rate reflects both trains which has been set	by initial design criteria.
Emissions Unit Operating Schedule	
Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	12
NGS - Limestone Feed Silos	

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300 Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic-Mineral Processing Plants.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

12

NGS - Limestone Feed Silos

List of Applicable Regulations

Rule 62-212.400(1), F.A,C., General Provisions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Limestone Feed Silos

List of Applicable Regulations

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 62-204.800(7)(b).64, F.A.C., Adoption of 40 CFR Part 60 Subpart OOO (As Noted)

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

Rule 62-210.350(1) & (2), F.A.C., Public Notice and Comment

Rule 62-210.550, F.A.C., Stack Height Policy

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

NGS - Limestone Feed Silos

List of Applicable Regulations

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Methods 5 and 9

40 CFR 60.7, Notification and Recordkeeping Requirements

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements (VE reduced to 1 hour)

12

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19, General Notification and Reporting Requirements

40 CFR 60 Subpart OOO - Standards of Performance for Nonmetallic-Mineral Processing Plants

40 CFR 60.670(a)(1), (e), & (f), Applicability and Designation of Affected Facility

40 CFR 60.672(e), Standards for Particulate Matter

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

<u>List of Applicable Regulations</u> 40 CFR 60.675, Test Methods and Procedures

40 CFR 60.676, Reporting and Recordkeeping

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions	Unit	Information Section	12

NGS - Limestone Feed Silos

Emission Point Description and Type:

1. Identification of Point on Plot Plan or Flow Diagram: EU035	
2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit:	
Two Feed Silos, identical in size and design, each controlled by a similar l	aghoue.
4. ID Numbers or Descriptions of Emission Units with this Emission P	oint in Common:
Identical Stacks	
5. Discharge Type Code:	V
6. Stack Height:	30 feet
7. Exit Diameter:	00 feet
8. Exit Temperature :	68 °F
9. Actual Volumetric Flow Rate : 3,2	00 acfm
10. Percent Water Vapor:	00 %
11. Maximum Dry Standard Flow Rate : 3,2	00 dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone: 17 East (km): 446.800 North	(km): 3,365.125
14. Emission Point Comment: Attachments F-6, F-8, and F-9, contain additional information related to	stack paramters and location.

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 12	· -				
NGS - Limestone Feed Silos					
Segment Description and Rate: Segment	Segment Description and Rate: Segment 1_				
1. Segment Description (Process/Fuel Type and .	Associated Operating Method/Mode):				
Limestone - EU026 Feed Silo					
2. Source Classification Code (SCC): 30510	105				
3. SCC Units: Tons Transferred Or Handled					
4. Maximum Hourly Rate: 50.00	5. Maximum Annual Rate: 438,000.00				
6. Estimated Annual Activity Factor: 0.00					
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:				
9. Million Btu per SCC Unit:					
10. Segment Comment:					

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 12					
NGS - Limestone Feed Silos					
Segment Description and Rate: Segment	Segment Description and Rate: Segment 2				
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):				
Limestone - EU027 Feed Silo					
2. Source Classification Code (SCC): 30510	0105				
3. SCC Units: Tons Transferred Or Handled					
4. Maximum Hourly Rate: 50.00	5. Maximum Annual Rate: 438,000.00				
6. Estimated Annual Activity Factor:					
7. Maximum Percent Sulfur :	8. Maximum Percent Ash:				
9. Million Btu per SCC Unit:	-1				
10. Segment Comment:					

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM10	018		EL
2 - PM	018		EL

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 12

NGS - Limestone Feed Silos Pollutant Potential/Estimated Emissions: Pollutant 1			
2.	Total Percent Efficiency of Control: 99.50 %		
3.	Potential Emissions: 0.0350000 lb/hour	0.1500000 tons/year	
4.	Synthetically Limited? [] Yes [X] No		
5.	Range of Estimated Fugitive/Other Emissions:	tons/year	
6.	Emissions Factor 0 Units 1b/ton Reference : AP-42, (EF=0.14)		
7.	Emissions Method Code: 3		
8.	Calculations of Emissions:		
	lb/hr = ((50 ton/hr) X (0.14 lb/ton) X (1-99.5/100) = 0.035 lb/hr		
	TPY = $(0.035 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.15 \text{ tons}$		
9.	Pollutant Potential/Estimated Emissions Comment:		
	Potential emissions based on tons transfered.	·	

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section ___12__

NGS - Limestone Feed Silos

<u>Po</u>	Ilutant Potential/Estimated Emissions: Pollutant 2	
1.	Pollutant Emitted: PM	
2.	Total Percent Efficiency of Control: 99.50 %	
3.	Potential Emissions: 0.0680000 lb/hour 0.3000000 tons/year	_
4.	Synthetically Limited? [] Yes [X] No	
5.	Range of Estimated Fugitive/Other Emissions: to tons/year	
6.	Emissions Factor 0 Units 1b/ton Reference: AP-42, (EF=0.27)	
7.	Emissions Method Code: 3	
8.	Calculations of Emissions : $ lb/hr = ((50 \text{ ton/hr}) \text{ X } (0.27 \text{ lb/ton}) \text{ X } (1-99.5/100) = 0.068 \text{ lb/hr} $ $ TPY = (0.067 \text{ lb/hr}) \text{ X } (8760 \text{ hr/yr}) \text{ X } (\text{ton/2000 lb}) = 0.3 \text{ tons} $	
9.	Pollutant Potential/Estimated Emissions Comment: Potential emissions based on tons transferred.	

III. Part 9b - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS - Limestone Feed Silos	12		
Pollutant Information Section	1		
Allowable Emissions 1			
1. Basis for Allowable Emissions Cod	le: RULE		
2. Future Effective Date of Allowable	Emissions: 01-A _I	or-2002	
3. Requested Allowable Emissions and	d Units : 5.00	p	ercent opacity
4. Equivalent Allowable Emissions:			•
0.04	lb/hour	0.15	tons/year
5. Method of Compliance:			
Stack Test Waiver Requested Rule 62	:-297.310(7)(c); F.A.C.		
6. Pollutant Allowable Emissions Con	nment (Desc. of Related	d Operating M	lethod/Mode):
BACT was evaluated as 0.01 gr/dscf o Opacity). Initial and Annual VE Tests.			ns limitation (5%

III. Part 9c - 1

DEP Form No. 62-210.900(1) - Form

	hissions Unit Information Section 12 SS - Limestone Feed Silos
Po	Ilutant Information Section 2
<u>Al</u>	owable Emissions 1
1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002
3.	Requested Allowable Emissions and Units: 5.00 percent opacity
4.	Equivalent Allowable Emissions:
	0.07 lb/hour 0.30 tons/year
5.	Method of Compliance :
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):
	BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Tests. (Emissions - 0.068 lb/hr & 0.3 TPY)

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 12 NGS - Limestone Feed Silos <u>Visible Emissions Limitation</u>: Visible Emissions Limitation 1. Visible Emissions Subtype: 05 2. Basis for Allowable Opacity: **RULE** 3. Requested Allowable Opacity: Normal Conditions: % **Exceptional Conditions:** 100 % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: EPA Method 9 5. Visible Emissions Comment: BACT was evaluated as 5% opacity from the fabric filter. Excess Emissions - 2 hours in any 24-hour period.

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section NGS - Limestone Feed Silos Visible Emissions Limitation: Visible	e Emissions Limitation 2
1. Visible Emissions Subtype:	0
2. Basis for Allowable Opacity:	RULE
3. Requested Allowable Opacity:	
Normal C	Conditions: 0 %
Exceptional C	
Maximum Period of Excess Opacity	y Allowed: min/hour
4. Method of Compliance:	
EPA Method 22	
5. Visible Emissions Comment :	
NSPS Subpart OOO places a no visible e Excess Emissions - 2 hours in any 24-hou	emissions limitation (0% Opacity) on the Building. our period.

III. Part 10 - 2

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitor Continuous Monitor				
Parameter Code :	2. Pollutant(s):			
3. CMS Requirement				
4. Monitor Information				
Manufacturer : Model Number : Serial Number :				
5. Installation Date :				
6. Performance Specification Test Date	•			
7. Continuous Monitor Comment:				

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Em	issions Unit Information Section 12
NGS	S - Limestone Feed Silos
<u>PSI</u>	DIncrement Consumption Determination
1. I	ncrement Consuming for Particulate Matter or Sulfur Dioxide?
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	icrement Consumi	ing for Nitroge	n Dioxi	de?			
[]		as undergone P			ndergoing PSD revi ously, for nitrogen o	•	
]]	paragraph (c) of the emissions unit	the definition of taddressed in	f "major this secti	source o	fied as an EPA maj of air pollution" in Connenced (or will connenced, and emissions	Chapter 62-213, I	F.A.C., and tion after
[]		operation after	r Februa	ry 8, 198	ified as an EPA maj 8, but before March increment.		
[]					l begin) initial opera unit consumes incre		28, 1988.
[]	case, additional a	malysis, beyon ions have occu	d the sco	ope of th	ons of the emissions is application, is need are after the baseline	eded to determine	whether
3.	In	ncrement Consum	ing/Expanding	Code:				
		PM : 0	C	SO2 :	U	NO2 :	U	
4.	В	aseline Emissions	3:					
		PM : SO2 : NO2 :	0.0600	lb/hour lb/hour		0.3000	tons/year tons/year tons/year	

DEP Form No. 62-210.900(1) - Form

Unit emits only particulate matter

Effective: 3-21-96

5. PSD Comment:

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 12

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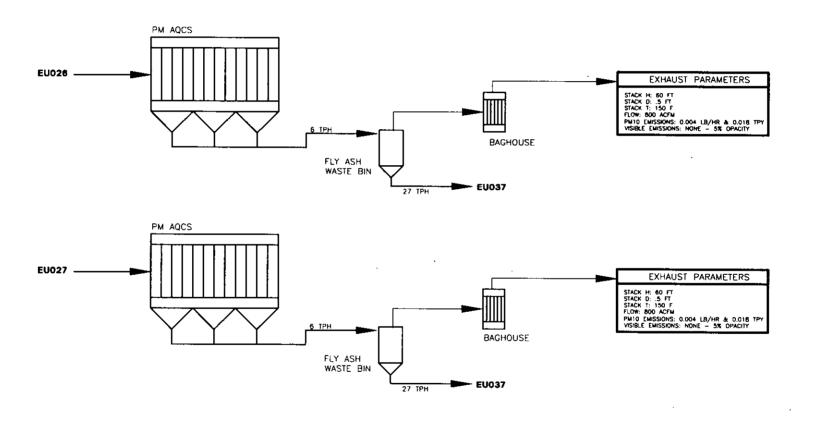
1. Process Flow Diagram:	F-6, EU035
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment:	E-2
4. Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan :	NA
3. Supplemental Information for Construction Permit Application:	F-9
Other Information Required by Rule or Statue :	NA
Additional Supplemental Requirements for Category I Application	ns Only
10. Alternative Methods of Operations:	
11. Alterntive Modes of Operation (Emissions Trading):	

12. Identification of Additional Applicable Requirements:				
13. Compliance Assurance Mo Plan :	onitoring			
14. Acid Rain Application (Ha	rd-copy Required):			
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))			
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)			
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)			
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)			

Emissions Unit 036

NGS - Fly Ash Waste Bins

NORTHSIDE GENERATING STATION FLY ASH WASTE BIN BASE CASE & ALTERNATE 1



JEA NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 036

FOSTER WHEELER ENVIRONMENTAL CORPORATION
--

SCALE	PREPARED	DJG	CAD FILE N EU036PF.DV
DATE:	APPROVED	MAE DJF	FIGURE NO

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissio	ons Unit Information Section 13
NGS - F	ly Ash Waste Bins
Type of	Emissions Unit Addressed in This Section
1. Regu	plated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 13	Emissions	ons Unit Information Section	13
---------------------------------------	------------------	------------------------------	----

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

•	Unit Addressed in This Section :	
NGS - Fly Ash Waste Bins		
Emissions Unit Identificat No Correspondi		Unknown
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
 Emissions Unit Comment Emissions Unit consists of the Boiler. 	: he Fly Ash Waste Bins associated v	with the PM AQCS for each CFB

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	13
NGS - Fly Ash Waste Bins	
Emissions Unit Control Equipment	1
1. Description: Fly Ash Waste Bins - Baghouse	
2. Control Device or Method Code :	17

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 13

NGS - Fly Ash Waste Bins		
Emissions Unit Details		
1. Initial Startup Date : 01-	Apr-2002	
2. Long-term Reserve Shutdown Date:	•	
3. Package Unit : Manufacturer :		Model Number :
4. Generator Nameplate Rating:	MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature: Emissions Unit Operating Capacity		Degrees Fahrenheit Seconds Degrees Fahrenheit
1. Maximum Heat Input Rate:	mmBtu/l	nr
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	6	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment: Each waste bin is designed to recieve a maximum	n of 6 tons per	hour of fly ash from the PM AQCS.
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule: 24 hours/day 52 weeks/year		7 days/week 8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	13
NGS - Fly Ash Waste Bins	-

Rule Applicability Analysis

The Fly Ash Waste Bins are subject to the Preconstruction Review Requirements of Chapters 62-210 and 62-212, F.A.C. Specifically, the operation is subject to 62-212.300 and 62-212.400 Prevention of Significant Deterioration for PM and PM10.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Fly Ash Waste Bins

List of Applicable Regulations

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.350(1) & (2), F.A.C, Public Notice and Comments

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Method 5 and 9

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Fly Ash Waste Bins

List of Applicable Regulations

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 2.1203, Air Pollution Nuisances Prohibited

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities.

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 13

NGS - Fly Ash Waste Bins

List of Applicable Regulations

Rule 62-4.030, F.A.C., General Prohibitions

Rule 62-4.130, F.A.C., Plant Operations - Problems

E. EMISSION POINT (STACK/VENT) INFORMATION

13

NGS - Fly Ash Waste Bins		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram	: EU036 - Fig	ure F-6
2. Emission Point Type Code:		
3. Descriptions of Emission Points Comprising this Em (limit to 100 characters per point)	issions Unit for V	E Tracking:
4. ID Numbers or Descriptions of Emission Units with t	this Emission Poir	nt in Common :
See detailed information is also in Attachment F-9, PSD	Report (Appendix (C).
5. Discharge Type Code:	V	
6. Stack Height:	60	feet
7. Exit Diameter:	0.5	feet
8. Exit Temperature :	150	°F
9. Actual Volumetric Flow Rate:	800	acfm
10. Percent Water Vapor :	0.50	%
11. Maximum Dry Standard Flow Rate:	800	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates:		
Zone: 17 East (km): 446.700 III. Part 7a - 1	North (k	m): 3365.100

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

14. Emission Point Comment:

Location of points and specific discharge information is detailed in Attachment F-8.

III. Part 7a - 2

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 13	-
NGS - Fly Ash Waste Bins	
Segment Description and Rate: Segment	1
1. Segment Description (Process/Fuel Type and A	Associated Operating Method/Mode):
Fly Ash Waste Bin Serving EU026	
2. Source Classification Code (SCC): 305012	222
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 6.00	5. Maximum Annual Rate: 52,560.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 13	-
NGS - Fly Ash Waste Bins	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Fly Ash Waste Bin Serving EU027	
2. Source Classification Code (SCC): 30501	222
:	
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 6.00	5. Maximum Annual Rate: 52,560.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment :	
	<u> </u>

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 13 NGS - Fly Ash Waste Bins

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL
2 - PM10	017		EL

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section ____13__

NGS - Fly Ash Waste Bins

DEP Form No. 62-210.900(1) - Form

Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions : 0.0080000 lb/hour 0.0350000 tor	s/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to tor	ıs/year
6. Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.27)	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
Short Term Emissions	
lb/hr = (6 tons/hr) X (0.27 lb/ton) X (1995) = 0.008 lb/hr	
Long Term Emissions	
TPY = $(0.008 \text{ lb/hr}) \text{ X } (8760 \text{ hr/yr}) \text{ X } (ton/2000 \text{ lb}) = 0.035 \text{ tons/yr}$	
9. Pollutant Potential/Estimated Emissions Comment:	

Emissions Unit Information Section 13	
NGS - Fly Ash Waste Bins	
Baghouse removal efficiency is based on PM10. Emissions per Fly Ash Waste Bin.	i

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section ___13__

NGS - Fly Ash Waste Bins
Pollutant Potential/Estimated Emissions: Pollutant 2
1. Pollutant Emitted: PM10
2. Total Percent Efficiency of Control: 99.50 %
3. Potential Emissions: 0.0040000 lb/hour 0.0180000 tons/year
4. Synthetically Limited? [] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.14)
7. Emissions Method Code: 3
8. Calculations of Emissions : Short Term Emissions
lb/hr = (6 tons/hr) X (0.14 lb/ton) X (1995) = 0.004 lb/hr Long Term Emissions
TPY = $(0.004 \text{ lb/hr}) \text{ X } (8760 \text{ hr/yr}) \text{ X } (\text{ton/2000 lb}) = 0.018 \text{ tons/yr}$
9. Pollutant Potential/Estimated Emissions Comment :

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section13	
NGS - Fly Ash Waste Bins	
Baghouse removal efficiency is based on PM10.	

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

	nissions Unit Information Section GS - Fly Ash Waste Bins					
Po	Pollutant Information Section 1					
<u>Al</u>	lowable Emissions 1					
1.	Basis for Allowable Emissions Code: RULE					
2	Future Effective Date of Allewalls Environments					
. 2.	Future Effective Date of Allowable Emissions: 01-Apr-2002					
3.	Requested Allowable Emissions and Units: 5.00 percent opacity					
4.	Equivalent Allowable Emissions:					
	0.01 lb/hour 0.04 tons/year					
5.	Method of Compliance :					
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.					
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):					
	BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Tests. (Emissions - 0.008 lb/hr & 0.035 TPY)					

III. Part 9c - 1

DEP Form No. 62-210.900(1) - Form

Pollutant Information Section 2						
Allowable Emissions	1					
1. Basis for Allowable Er	nissions Code:	RULE				
2. Future Effective Date of	of Allowable Em	issions: 01-A _l	pr-2002			
3. Requested Allowable E	Emissions and U	nits: 5.00	pe	ercent opacity		
4. Equivalent Allowable I	Emissions :					
	0.00	lb/hour	0.02	tons/year		
5. Method of Compliance	:			···· <u></u>		
Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.						
		ent (Desc. of Relate	10 > 6	10.6.1		

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 13

NGS - Fly Ash Waste Bins Visible Emissions Limitation: Visible Emissions Limitation 1. Visible Emissions Subtype: 05 2. Basis for Allowable Opacity: **RULE** 3. Requested Allowable Opacity: Normal Conditions: % **Exceptional Conditions:** 100 % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: EPA Method 9 5. Visible Emissions Comment: No visible emissions limit (5% opacity) has been evaluated as BACT. Excess Emissions based on 2 hours per 24-hour period

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring

Continuous Monitoring	Continuous Monitor
1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information	
Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test	Date :
7. Continuous Monitor Comment	:

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 13						
NGS - Fly Ash Waste Bins						
PSD Increment Consumption Determination						
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?						
The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.						
[] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.						
[] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.						
[] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.						
[] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.						

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	crement Consu	ming for Nitroge	en Dioxi	de?		
[]] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.					
[] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.						
3.	3. Increment Consuming/Expanding Code:						
		PM :	С	SO2 :	U	NO2:	U
4.	В	aseline Emissio	ons :				
		PM : SO2 : NO2 :	0.0160	lb/hour lb/hour		0.0700	tons/year tons/year tons/year
5.	5. PSD Comment :						

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form



L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

___13

Emissions Unit Information Section

DEP Form No. 62-210.900(1) - Form

Effective: 3-21-96

. Process Flow Diagram:	F-6, EU036
Fuel Analysis or Specification:	NA
Detailed Description of Control Equipment:	E-2
. Description of Stack Sampling Facilities :	E-3
. Compliance Test Report :	NA
. Procedures for Startup and Shutdown:	NA
. Operation and Maintenance Plan :	NA
Supplemental Information for Construction Permit Application :	F-9
. Other Information Required by Rule or Statue :	NA
dditional Supplemental Requirements for Category I Applicatio	ns Only
0. Alternative Methods of Operations:	

III. Part 13 - 1

12. Identification of Additional Applicable Requirements :	
--	--

13. Compliance Assurance Monitoring Plan:

14. Acid Rain Application (Hard-copy Required):

Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))

Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)

New Unit Exemption (Form No. 62-210.900(1)(a)2.)

Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

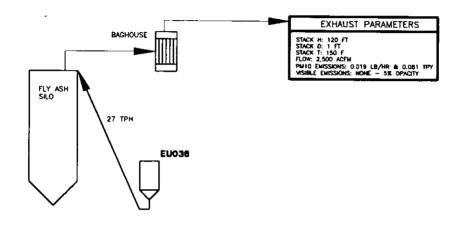
III. Part 13 - 2

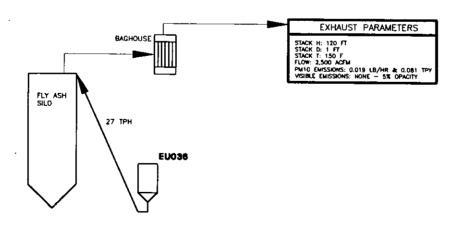
DEP Form No. 62-210.900(1) - Form

Emissions Unit 037

NGS - Fly Ash Transfer & Storage Systems

NORTHSIDE GENERATING STATION FLY ASH TRANSFER AND STORAGE SYSTEMS BASE CASE & ALTERNATE 1





JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 037

FOSTER	WEELER	ENVIRONMENTAL	CORPORATION

SCALE N/A PREPARED DJG CAD FILE NO.
EUG37PF.OWG
DATE: 01/28/99 APPROVED DJF F-5. EUG37
F-5. EUG37

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 14				
NGS - FI	y Ash Transfer & Storage Systems			
Type of	Emissions Unit Addressed in This Section			
1. Regu	lated or Unregulated Emissions Unit? Check one:			
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.			
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.			
2. Singl	e Process, Group of Processes, or Fugitive Only? Check one:			
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).			
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.			
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.			

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :						
NGS - Fly Ash Transfer &	Storage Systems					
2. Emissions Unit Identification Number: 037 [] No Corresponding ID [] Unknown						
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49				
6. Emissions Unit Comment:						
Emissions Unit consists of two storage silos. Each silo services a CFB Boiler.						
The emissions unit includes two emission points.						

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	14
NGS - Fly Ash Transfer & Storage Systems	
Emissions Unit Control Equipment	1
Description: Fly Ash Silo for EU026	
2. Control Device or Method Code:	17

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

Emissions out find mation section	
NGS - Fly Ash Transfer & Storage Systems	i
Emissions Unit Control Equipment	2
1. Description : Fly Ash Silo for EU027	
2. Control Device or Method Code :	17

III. Part 3 -

2

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section	
NGS - Fly Ash Transfer & Storage Systems	

Emissions Unit Details

1. Initial Startup Date:	01-Apr-2002		
2. Long-term Reserve Shutdown Date :			
3. Package Unit:			
Manufacturer:		Model Number:	
4. Generator Nameplate Rating:	MW		
5. Incinerator Information:			
Dwell Temperature:		Degrees Fahrenheit	
Dwell Time :		Seconds	
Incinerator Afterburner Temperature :		Degrees Fahrenheit	

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	0	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment: Fly Ash Silos receive at 27 TPH & 236520 TPY Emergency Silos receive at 250 TPH & 50000 T		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	14
NGS - Fly Ash Transfer & Storage Systems	

Rule Applicability Analysis

The Fly Ash Silos are subject to the Preconstruction Review Requirements of Chapters 62-210 and 62-212, F.A.C. Specifically, the operation is subject to 62-212.300 and 62-212.400 Prevention of Significant Deterioration for PM and PM10.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Fly Ash Transfer & Storage Systems

List of Applicable Regulations

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.350(1) & (2), F.A.C, Public Notice and Comments

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Methods 5 and 9

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities.

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

14

NGS - Fly Ash Transfer & Storage Systems

List of Applicable Regulations

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 2.1203, Air Pollution Nuisances Prohibitied

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-4.030, F.A.C. General Prohibition

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Rule 62-204.88(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 14
NGS - Fly Ash Transfer & Storage Systems

List of Applicable Regulations

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.105, Maintenance of Air Pollution Control Devices

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions	Unit	Information	Section	14

NGS - Fly Ash Transfer & Storage Systems

Emission Point Description and Type:

1. Identification of Point on Plot Plan or Flow Diag	gram: EU037 - Figur	re F-6
2. Emission Point Type Code: 3		
3. Descriptions of Emission Points Comprising this	s Emissions Unit :	
Two Discharge Points		
4. ID Numbers or Descriptions of Emission Units v	with this Emission Point	t in Common :
See detailed information in Attachment F-9, PSD Rep	port (Appendix C).	
5. Discharge Type Code:	V	
6. Stack Height:	120	feet
7. Exit Diameter :	1.00	feet
8. Exit Temperature :	150	°F
9. Actual Volumetric Flow Rate :	2,500	acfm
10. Percent Water Vapor:	0.50	%
11. Maximum Dry Standard Flow Rate:	2,500	dscfm
12. Nonstack Emission Point Height:		feet
13. Emission Point UTM Coordinates :		
Zone: 17 East (km): 446.70	00 North (km	3,365.100
 Emission Point Comment: Location of points is detailed in Attachment F-8. Se information. 	e Process Flow Diagram I	F-6, EU037 for additional

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 14	-
NGS - Fly Ash Transfer & Storage Systems	
Segment Description and Rate: Segment	1
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Fly Ash Silo - EU026	
2. Source Classification Code (SCC): 30501	222
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 27.00	5. Maximum Annual Rate: 236,520.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	·

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 14	
NGS - Fly Ash Transfer & Storage Systems	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and A	associated Operating Method/Mode):
Fly Ash Silo - EU027	
2. Source Classification Code (SCC): 305012	22
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 27.00	5. Maximum Annual Rate: 236,520.00
6. Estimated Annual Activity Factor:	-
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 14

NGS - Fly Ash Transfer & Storage Systems

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
ı - PM	017		EL
2 - PM10	017		EL

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

14

Emissions Unit Information Section

NGS - Fly Ash Transfer & Storage Systems

DEP Form No. 62-210.900(1) - Form

Effective: 3-21-96

1 P	ollutant Emitted: PM		
1. 1	Ondtant Emitted . Tivi		
2. T	otal Percent Efficiency of Control: 99.50	%	
3. Po	otential Emissions:		
	0.0360000 lb/hour		0.1600000 tons/year
4. S	ynthetically Limited?		
[] Yes [X] No		
5. R	ange of Estimated Fugitive/Other Emissions:		
		to	tons/year
6. E1	missions Factor 0	Units lb/ton	
	Reference: AP-42, (EF=0.27)		
7. Er	missions Method Code: 3		,
3. C	alculations of Emissions:		
S	Short Term Emissions		
11	b/hr = (27 tons/hr) X (0.27 lb/ton) X (1995) = 0.036	5 lb/hr	
L	Long Term Emissions		

III. Part 9b - 1

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section14	
NGS - Fly Ash Transfer & Storage Systems	
Baghouse removal efficiency is based on PM10. Emissions per Fly Ash Silo.	

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 14

DEP Form No. 62-210.900(1) - Form

NGS - Fly Ash Transfer & Storage Systems Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions:	
0.0190000 lb/hour	0.0810000 tons/year
4. Synthetically Limited?	
[] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor 0 Units 1b/ton Reference: AP-42, (EF=0.14)	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
Short Term Emissions	
lb/hr = (27 tons/hr) X (0.14 lb/ton) X (1995) = 0.019 lb/hr	
Long Term Emissions	
TPY = $(0.019 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.081 \text{ tons/yr}$	
9. Pollutant Potential/Estimated Emissions Comment:	
III. Part 9b - 3	,

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 14	
NGS - Fly Ash Transfer & Storage Systems	
Baghouse removal efficiency is based on PM10.	

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 14 NGS - Fly Ash Transfer & Storage Systems		
Pollutant Information Section 1		
Allowable Emissions 1		
1. Basis for Allowable Emissions Code:	RULE	
2. Future Effective Date of Allowable Emissions:	01-Apr-2002	
	·	
3. Requested Allowable Emissions and Units:	5.00	percent opacity
4. Equivalent Allowable Emissions:		
lb/h	our	tons/year
5. Method of Compliance :	<u>, </u>	
Stack Test Waiver Requested Rule 62-297.310(7)(c),	F.A.C.	

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):

· BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5%

Opacity). Initial and Annual VE Tests.

ronutant information Section	Pollutant Information Section 1					
Allowable Emissions 1						
1. Basis for Allowable Emission	ons Code :	RUI	LE			
2. Future Effective Date of All	owable Emi	ssions: 01-	Apr-2002			
3. Requested Allowable Emiss	sions and Un	its: 5.0	n .	percent opacity		
1			Υ ,	percent opacity		
4. Equivalent Allowable Emiss	sions :					
		11- (1	0.17			
	0.04	lb/hour	0.16	tons/year		
5. Method of Compliance:						
Stack Test Waiver Requested	Rule 62-297.	310(7)(c), F.A.C.				

III. Part 9c - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	
NGS - Fly Ash Transfer & Storage Systems	

Po	ollutant Information Section 2	-			
<u>Al</u>	llowable Emissions 1				
1.	Basis for Allowable Emissions Code:	RUL	E		
2.	Future Effective Date of Allowable Em	issions: 01-A	Apr-2002		· <u>-</u>
3.	Requested Allowable Emissions and Ur	nits: 5.00	1	percent opacity	
4.	Equivalent Allowable Emissions:				
	0.02	lb/hour	0.08	tons/year	
5.	Method of Compliance :				
	Stack Test Waiver Requested Rule 62-297.	.310(7)(c), F.A.C.			
6.	Pollutant Allowable Emissions Commer	nt (Desc. of Relate	ed Operating N	Method/Mode):	
	BACT was evaluated as 0.01 gr/dscf or les Opacity). Initial and Annual VE Tests. (En				

J. CONTINUOUS MONITOR INFORMATION

(Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Continuous Monitor

1. Parameter Code :	2. Pollutant(s):	
3. CMS Requirement		
4. Monitor Information Manufacturer: Model Number: Serial Number:		
5. Installation Date :		
6. Performance Specification Test Date :		
7. Continuous Monitor Comment:		

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Eı	mis	ssions Unit Information Section 14_		
NGS - Fly Ash Transfer & Storage Systems				
PSD Increment Consumption Determination				
1.	In	acrement Consuming for Particulate Matter or Sulfur Dioxide?		
[X	K]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.		
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.		
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.		
]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.		

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	2. Increment Consuming for Nitrogen Dioxide?						
[]] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.					
1] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.						
[None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.						
3.	In	crement Consu	ming/Expanding	g Code :		 -	
	_	PM :	C	SO2 :	U	NO2:	U
4.	В	aseline Emissio	ns:				
		PM : SO2 : NO2 :	0.0720	lb/hour lb/hour		0.3200	tons/year tons/year tons/year
5.	PS	SD Comment:					·

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

14

NGS - Fly Ash Transfer & Storage Systems Supplemental Requirements for All Applications	
1. Process Flow Diagram:	F-6, EU037
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment :	E-2
4. Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan :	NA
8. Supplemental Information for Construction Permit Application :	F-9
9. Other Information Required by Rule or Statue :	NA
Additional Supplemental Requirements for Category I Application	ns Only
10. Alternative Methods of Operations :	
11. Alterntive Modes of Operation (Emissions Trading):	

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

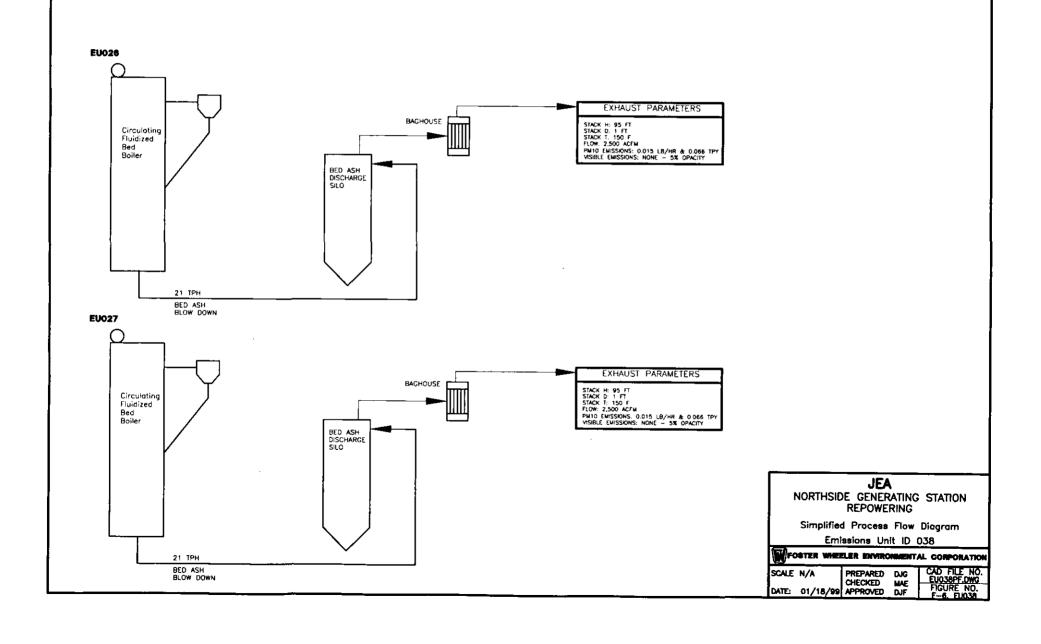
Emissions Unit Information Section

12. Identification of Additional	Applicable Requirements :
13. Compliance Assurance Mor Plan:	nitoring
14. Acid Rain Application (Hard	d-copy Required):
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 038

NGS - Bed Ash Transfer & Storage Systems

NORTHSIDE GENERATING STATION BED ASH TRANSFER AND STORAGE SYSTEMS BASE CASE & ALTERNATE 1



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section15
NGS - Bed Ash Transfer & Storage Systems
Type of Emissions Unit Addressed in This Section
1. Regulated or Unregulated Emissions Unit? Check one:
[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Single Process, Group of Processes, or Fugitive Only? Check one:
[] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions	Unit Information Section	15
------------------	---------------------------------	----

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

Description of Emissions Unit Addressed in This Section : NGS - Bed Ash Transfer & Storage Systems				
Emissions Unit Identificat No Correspondi		Unknown		
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49		
6. Emissions Unit Comment: Emissions Unit consists of two storage silos. Each silo services a CFB Boiler. The emissions unit includes two emission points.				

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	
NGS - Bed Ash Transfer & Storage Systems	3
Emissions Unit Control Equipment	1
1. Description: Bed Ash Silo for EU026	
2. Control Device or Method Code :	17

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	15
NGS - Bed Ash Transfer & Storage Systems	
Emissions Unit Control Equipment	2
1. Description: Bed Ash Silo for EU027	
2. Control Device or Method Code:	17

III. Part 3 -

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

15

Emissions Unit Details		
1. Initial Startup Date : 01	-Apr-2002	
2. Long-term Reserve Shutdown Date:		
3. Package Unit : Manufacturer :		Model Number :
4. Generator Nameplate Rating:	MW	
5. Incinerator Information : Dwell Temperature : Dwell Time : Incinerator Afterburner Temperature :		Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity		
1. Maximum Heat Input Rate:	mmBtu/hr	
2 Manimum I - i - D	lb/hr	tons/day
2. Maximum incinerator Rate:	10/111	tolis/day
	0	tons per hour
3. Maximum Process or Throughput Rate:	· · · · · · · · · · · · · · · · · · ·	
3. Maximum Process or Throughput Rate: 4. Maximum Production Rate:	· · · · · · · · · · · · · · · · · · ·	
 Maximum Incinerator Rate : Maximum Process or Throughput Rate : Maximum Production Rate : Operating Capacity Comment : Bed Ash Silos receive at 21TPH & 183960 TPY Emissions Unit Operating Schedule	· · · · · · · · · · · · · · · · · · ·	

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	15
NGS - Bed Ash Transfer & Storage Systems	

Rule Applicability Analysis

The Bed Ash Silos are subject to the Preconstruction Review Requirements of Chapters 62-210 and 62-212, F.A.C. Specifically, the operation is subject to 62-212.300 and 62-212.400 Prevention of Significant Deterioration for PM and PM10.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Bed Ash Transfer & Storage Systems

List of Applicable Regulations

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

15

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 2.1203, Air Pollution Nuisances Prohibitied

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.350(1) & (2), F.A.C, Public Notice and Comments

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Bed Ash Transfer & Storage Systems

List of Applicable Regulations

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Methods 5 and 9

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities.

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Bed Ash Transfer & Storage Systems

15

List of Applicable Regulations

Rule 62-4.030, F.A.C., General Prohibition

62-4.130, F.A.C., Plant Operations - Problems

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions	Unit	Information Section	15

NGS - Bed Ash Transfer & Storage Systems

Emission Point Description and Type:

1.	Identification of Point or	n Plot Plan or Fl	ow Diagram:	EU038 - Figu	re F-6	
2.	Emission Point Type Co	de: 3	3			
3.	Descriptions of Emission	n Points Compr	ising this Emiss	ions Unit :	•	
•	Two Discharge Points					
4.	ID Numbers or Descripti	ions of Emission	n Units with thi	s Emission Poin	t in C	ommon :
5	See detailed information in	Attachment F-9,	PSD Report (Ap	pendix C).		
			 _			
5.	Discharge Type Code:			V		
6.	Stack Height :			95	feet	
7. I	Exit Diameter:			1.00	feet	
8. I	Exit Temperature :		-	150	°F	
9. <i>I</i>	Actual Volumetric Flow	Rate:		2,500	acfm	
10.	Percent Water Vapor :			0.50	%	
11.	Maximum Dry Standard	Flow Rate:		2,500	dscfn	1
12.	Nonstack Emission Poin	t Height:			feet	
13.	Emission Point UTM Co	oordinates :				
	Zone: 17	East (km):	446.700	North (kn	n):	3,365.200
14.	Emission Point Commer Location of points is detail information.		nt F-8. See Proces	ss Flow Diagram	F-6, E	U038 for additional

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

1. Segment Description (Process/Fuel Type	and Associated Operating Method/Mode):
Bed Ash Silo - EU026	
2. Source Classification Code (SCC): 3	30501222
3. SCC Units: Tons Transferred Or Handle	ed ,
4. Maximum Hourly Rate: 21.00	5. Maximum Annual Rate: 183,960.00
5. Estimated Annual Activity Factor: 0.	.00
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
7. Maximum Percent Sulfur : 9. Million Btu per SCC Unit :	8. Maximum Percent Ash:

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 15	-
NGS - Bed Ash Transfer & Storage Systems	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Bed Ash Silo - EU027	
2. Source Classification Code (SCC): 30501	222
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 21.00	5. Maximum Annual Rate: 183,960.00
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 15 NGS - Bed Ash Transfer & Storage Systems

1. Pollutant Emitted	2. Primary Control Device Code	Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	017		EL
2 - PM10	017		EL

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

NGS - Bed Ash Transfer & Storage Systems	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions: 0.0300000 lb/hour	0.1200000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor 0 Units 1b/ton Reference: AP-42, (EF=0.27)	
7. Emissions Method Code: 3	
8. Calculations of Emissions :	
Short Term Emissions	
lb/hr = (21 tons/hr) X (0.27 lb/ton) X (1995) = 0.03 lb/hr	
Long Term Emissions	
TPY = $(0.03 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.12 \text{ tons/yr}$	
9. Pollutant Potential/Estimated Emissions Comment:	
III. Part 9b - 1	'

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 15	
NGS - Bed Ash Transfer & Storage Systems	
Baghouse removal efficiency is based on PM10. Emissions per Bed Ash Silo.	

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

15

Emissions Unit Information Section

NGS - Bed Ash Transfer & Storage Systems

DEP Form No. 62-210.900(1) - Form

Pollutant Potential/Estimated Emissions: Pollutant 2	•
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions: 0.0150000 lb/hour	0.0660000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 0 Units 1b/ton Reference: AP-42, (EF=0.14)	
7. Emissions Method Code: 3	
3. Calculations of Emissions:	
Short Term Emissions	
lb/hr = (21 tons/hr) X (0.14 lb/ton) X (1995) = 0.015 lb/hr	
Long Term Emissions	
TPY = $(0.01 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.066 \text{ tons/yr}$	
Pollutant Potential/Estimated Emissions Comment:	

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section15	
NGS - Bed Ash Transfer & Storage Systems	
Baghouse removal efficiency is based on PM10. Emission rates reflect each Bed Ash Silo.	

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

onuta	int Information Se	Pollutant Information Section 1					
llowa	ble Emissions	1					
l. Bas	is for Allowable E	missions Code:	RULE				
 2. Fut	ure Effective Date	of Allowable Em	issions: 01-A	pr-2002			
3. Rec	quested Allowable	Emissions and Ur	nits: 5.00	Pe	ercent Opacity		
1. Equ	ivalent Allowable	Emissions:	<u></u>				
		0.03	lb/hour	0.12	tons/year		
5. Met	thod of Compliance	e :					
Stac	ck Test Waiver Requ	ested Rule 62-297.	.310(7)(c), F.A.C.				
				<u> </u>	ethod/Mode):		

Emissions Unit Information Section 15
NGS - Bed Ash Transfer & Storage Systems

Pollutant Information Section 2	·	
Allowable Emissions 1		
1. Basis for Allowable Emissions Code:	RULE	
2. Future Effective Date of Allowable Emissions	: 01-Apr-2002	
3. Requested Allowable Emissions and Units:	5.00	percent opacity
4. Equivalent Allowable Emissions:		
0.02 lb	/hour 0.07	tons/year
5. Method of Compliance:		
Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.	
6. Pollutant Allowable Emissions Comment (Desc	c. of Related Operating	Method/Mode):
BACT was evaluated as 0.01 gr/dscf or less in additional Opacity). Initial and Annual VE Tests. (Emissions		

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

NGS - Bed Ash Transfer & Storage Systems **<u>Visible Emissions Limitation</u>**: Visible Emissions Limitation 1. Visible Emissions Subtype: 05 2. Basis for Allowable Opacity: **RULE** 3. Requested Allowable Opacity: Normal Conditions: 5 % **Exceptional Conditions:** % 100 Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: Initial & Annual EPA Method 9 5. Visible Emissions Comment: No visible emissions limit (5% opacity) has been evaluated as BACT for the Bed Ash Silos. No Testing Required for the Emergency Bed Ash Silos. Excess Emissions - 2 hours in any 24-hour period

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Continuo	ous Monitor
1. Parameter Code :	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer: Model Number: Serial Number:	
5. Installation Date :	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment :	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emi	ssions Unit Information Section 15
NGS	- Bed Ash Transfer & Storage Systems
<u>PSD</u>	Increment Consumption Determination
1. I	ncrement Consuming for Particulate Matter or Sulfur Dioxide?
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	crement Consur	ming for N	itrogei	n Dioxid	de?				
[]		has underg						ew as part of this lioxide. If so, emiss	sions
[]	paragraph (c) of the emissions u	of the defini init address	tion of	f "major his secti	source on com	of air pollutionmenced (or w	n" in C ill comi	or source pursuant to hapter 62-213, F.A. mence) construction unit consumes incre	.C., and
[]		ial operatio	n after	Februa	ry 8, 19	88, but before	_	or source, and the ender 28, 1988. If so, ba	
[]	For any facility If so, baseline							tion after March 28 ment.	, 1988.
[]	case, additiona	l analysis, issions have	beyond	d the sco	pe of t	his application	, is nee	unit are nonzero. Ir ded to determine wh date that may const	hether
							·			
3.	In	crement Consu	ming/Expa	nding	Code:					
		PM:	C	:	SO2:	U		NO2 :	U	
4.	В	aseline Emissio	ons:							
		PM : SO2 : NO2 :	0.	0300	lb/hour lb/hour			0.1200	tons/year tons/year tons/year	
5.	PS	SD Comment:							•	

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

15

NGS - Bed Ash Transfer & Storage Systems		
Supplemental Requirements for All Applications		
1. Process Flow Diagram:	F-6, EU038	
2. Fuel Analysis or Specification :	NA	
3. Detailed Description of Control Equipment:	E-2	
4. Description of Stack Sampling Facilities :	E-3	
5. Compliance Test Report :	NA	
6. Procedures for Startup and Shutdown:	NA	
7. Operation and Maintenance Plan:	NA	
8. Supplemental Information for Construction Permit Application :	F-9	
9. Other Information Required by Rule or Statue :	NA	
Additional Supplemental Requirements for Category I Application	as Only	
10. Alternative Methods of Operations:		
11. Alterntive Modes of Operation (Emissions Trading):		

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

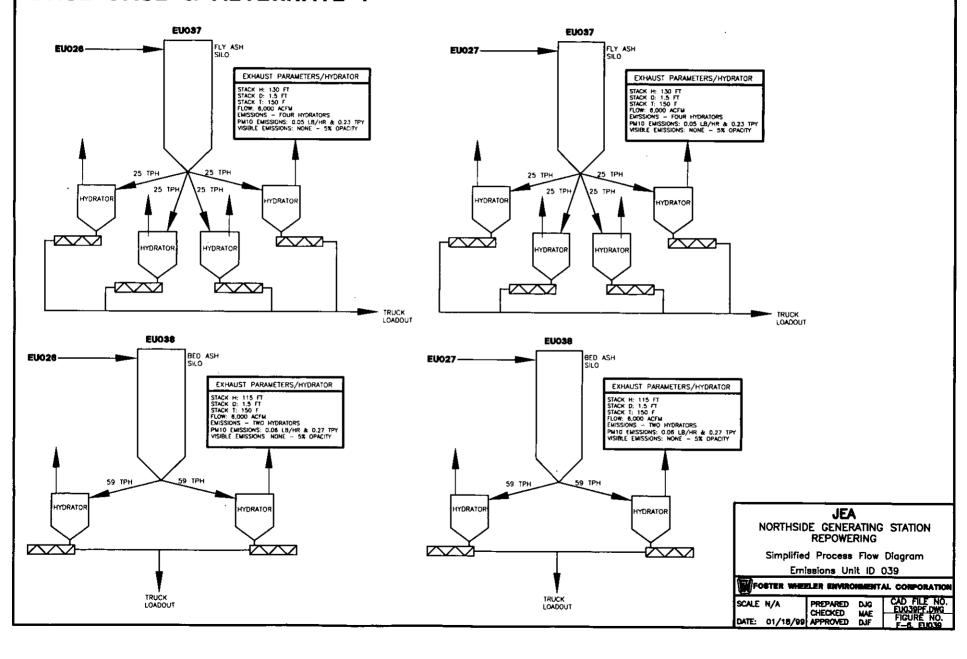
Emissions Unit Information Section

12. Identification of Additional	Applicable Requirements :
13. Compliance Assurance Mo Plan:	nitoring
14. Acid Rain Application (Har	rd-copy Required):
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)

Emissions Unit 039

NGS - Fly & Bed Ash Silo Hydrators

NORTHSIDE GENERATING STATION FLY & BED ASH SILO HYDRATORS BASE CASE & ALTERNATE 1



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissic	ons Unit Information Section 16
NGS - F	ly & Bed Ash Silo Hydrators
Type of	Emissions Unit Addressed in This Section
1. Regu	plated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1.	Description of Emissions Unit	Addressed in This Section :	
	NGS - Fly & Bed Ash Silo Hydra	ators	
2.	Emissions Unit Identification [] No Corresponding I		known
3.	Emissions Unit Status	4. Acid Rain Unit?	5. Emissions Unit Major
	Code: C	[] Yes [X] No	Group SIC Code: 49
6.	Emissions Unit Comment:		
	_	drators. The hydrators service the hydrators (25 tons/hr). Each Bed A	•
	The hydrators mix the ash by-pr	oducts with water for conditioning	prior to handling and storage.
	The emissions unit includes twe	lve emission points in two groups of	of four and two groups of two.
6.	Emissions Unit consists of 12 hy Fly Ash Silo is serviced by four hydartors (59 tons/hr). The hydrators mix the ash by-pressure of the service of the servi	hydrators (25 tons/hr). Each Bed A	ash Silo is serviced by two prior to handling and storage.

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	16
NGS - Fly & Bed Ash Silo Hydrators	
Emissions Unit Control Equipment	1
Description: Four Hydrators for EU026 Fly Ash Silo	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	16		
NGS - Fly & Bed Ash Silo Hydrators			
Emissions Unit Control Equipment	2		
Description: Four Hydrators for EU027 Fly Ash Silo			
2 Control Daviss or Mathed Code:	52	 	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	16
NGS - Fly & Bed Ash Silo Hydrators	
Emissions Unit Control Equipment	3
Description: Two Hydrators for EU026 Bed Ash Silo	
2. Control Device or Method Code :	53

3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	16
NGS - Fly & Bed Ash Silo Hydrators	
Emissions Unit Control Equipment	4
Description: Two Hydrators for EU027 Bed Ash Silo	

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

NGS - Fly & Bed Ash Silo Hydrators	10	
Emissions Unit Details		
1. Initial Startup Date:	01-Apr-2002	·-
2. Long-term Reserve Shutdown Date	:	
3. Package Unit:		
Manufacturer:		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:		
Dwell Temperature		Degrees Fahrenheit
Dwell Time		Seconds
Incinerator Afterburner Temperature	:	Degrees Fahrenheit
1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput R	Rate: 0	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment: Fly Ash Hydrators receive materials at Bed Ash Hydrators receive materials a	*	•
Emissions Unit Operating Schedule		
	ule :	
Requested Maximum Operating Sched	u.o.	
24 ho	urs/day eeks/year	7 days/week 8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	16
NGS - Fly & Bed Ash Silo Hydrators	

Rule Applicability Analysis

The Hydrators are subject to the Preconstruction Review Requirements of Chapters 62-210 and 62-212, F.A.C. Specifically, the operation is subject to 62-212.300 and 62-212.400 Prevention of Significant Deterioration for PM and PM10.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Fly & Bed Ash Silo Hydrators

List of Applicable Regulations

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environemntal Protection Board, Rule 2 - Air Pollution

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Methods 5 and 9

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Fly & Bed Ash Silo Hydrators

List of Applicable Regulations

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

16

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 2.1203, Air Pollution Nuisances Prohibited

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.350(1) & (2), F.A.C, Public Notice and Comments

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Fly & Bed Ash Silo Hydrators

List of Applicable Regulations

Rule 62-4.030, F.A.C., General Prohibition

Rule 62-4.130, F.A.C., Plant Operations - Problems

16

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions	Unit	Information Section	16

NGS - Fly & Bed Ash Silo Hydrators

Emission Point Description and Type:

1. Identification of Point on Plot Plan or Flo	w Diagram :	EU039 - Figu	re F-6
2. Emission Point Type Code: 3			
3. Descriptions of Emission Points Comprising this Emissions Unit :			
Fly Ash Silo Hydrators - Four Units per Silo			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
Fly Ash Silo Hydrators - Stack Parameters: Code: V, Height: 130 FT, Diameter: 1.5 FT, Exit Temperature: 150 F, Flow: 6,000 ACFM			
Bed Ash Silo Hydrators - Stack Parameters Code: V, Height:115 FT, Diameter: 1.5 FT, Exit Temperature: 150 F, Flow: 6,000 ACFM			
5. Discharge Type Code:		v	
6. Stack Height:		130	feet
7. Exit Diameter :		1.50	feet
8. Exit Temperature :		150	°F
9. Actual Volumetric Flow Rate:		6,000	acfm
10. Percent Water Vapor:		0.00	%
11. Maximum Dry Standard Flow Rate:		0	dscfm
12. Nonstack Emission Point Height:			feet
13. Emission Point UTM Coordinates :			
Zone: 17 East (km):	446.700	North (kn	n): 3,365.100
14. Emission Point Comment:			

III. Part 7b - 1

DEP Form No. 62-210.900(1) - Form

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions	Unit	Information	Section	16

NGS - Fly & Bed Ash Silo Hydrators

Emission Point Description and Type:

1. Identification of Point on Plot Plan or Flo	w Diagram: EU039 - Figur	re F-6	
2. Emission Point Type Code: 3			
3. Descriptions of Emission Points Compris	ing this Emissions Unit:		
Bed Ash Silo Hydrators - Two Units per Silo			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
Fly Ash Silo Hydrators - Stack Parameters: Code: V, Height: 130 FT, Diameter: 1.5 FT, Exit Temperature: 150 F, Flow: 6,000 ACFM			
Bed Ash Silo Hydrators - Stack Parameters Code: V, Height:115 FT, Diameter: 1.5 FT, Exit Temperature: 150 F, Flow: 6,000 ACFM			
5. Discharge Type Code:	V		
6. Stack Height:	130	feet	
7. Exit Diameter :	1.50	feet	
8. Exit Temperature :	150	°F	
9. Actual Volumetric Flow Rate:	6,000	acfm	
10. Percent Water Vapor:	0.00	%	
11. Maximum Dry Standard Flow Rate:	0	dscfm	
12. Nonstack Emission Point Height:		feet	
13. Emission Point UTM Coordinates :			
Zone: 17 East (km):	446.700 North (kn	n): 3,365.100	
14. Emission Point Comment :			

III. Part 7b - 3

DEP Form No. 62-210.900(1) - Form

DEP Form No. 62-210.900(1) - Form

Emissions Chit and mation Section 10
NGS - Fly & Bed Ash Silo Hydrators
Segment Description and Rate: Segment 2
2. Source Classification Code (SCC): 30501222
3. SCC Units: Tons Transferred Or Handled
4. Maximum Hourly Rate: 100.00 5. Maximum Annual Rate: 876,000.00
6. Estimated Annual Activity Factor: 0.00
7. Maximum Percent Sulfur: 8. Maximum Percent Ash:
9. Million Btu per SCC Unit:
10. Segment Comment:

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 16	_
NGS - Fly & Bed Ash Silo Hydrators	
Segment Description and Rate: Segment	3
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Bed Ash Hydrators for EU026 Bed Ash Silo Two, each rated for 59 TPH	
2. Source Classification Code (SCC): 30501	222
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 118.00	5. Maximum Annual Rate: 1,033,680.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment :	

III. Part 8 - 3

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 16	· -
NGS - Fly & Bed Ash Silo Hydrators	
Segment Description and Rate: Segment	4
1. Segment Description (Process/Fuel Type and A	Associated Operating Method/Mode):
Bed Ash Hydrators for EU027 Bed Ash Silo Two, each rated for 59 TPH	·
2. Source Classification Code (SCC): 30501	222
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 118.00	5. Maximum Annual Rate : 1,033,680.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment :	· ·

III. Part 8 - 4

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section
NGS - Fly & Bed Ash Silo Hydrators

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	Pollutant Regulatory Code
1 - PM	053		EL
2 - PM10	053		EL

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 16

DEP Form No. 62-210.900(1) - Form

NGS - Fly & Bed Ash Silo Hydrators
Pollutant Potential/Estimated Emissions: Pollutant1
1. Pollutant Emitted: PM
2. Total Percent Efficiency of Control: 99.80 %
3. Potential Emissions: 1.9200000 lb/hour 8.4100000 tons/year
4. Synthetically Limited? [] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor 2 Units lb/ton Reference: AP-42, (EF=2.2)
7. Emissions Method Code: 3
8. Calculations of Emissions:
Short Term Emissions
lb/hr = (2*4*25 tons/hr + 2*2*59 tons/hr) X (2.2 lb/ton) X (1998) = 1.92 lb/hr
Long Term Emissions
TPY = $(1.92 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 8.41 \text{ tons/yr}$
9. Pollutant Potential/Estimated Emissions Comment:
III. Part 9b - 1

Emissions Unit Information Section	16	
NGS - Fly & Bed Ash Silo Hydrators		
Emission totals for all transfer points.		

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section16 NGS - Fly & Bed Ash Silo Hydrators	
Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.80 %	
3. Potential Emissions:	
0.2200000 lb/hour	0.9600000 tons/year
4. Synthetically Limited?	
[] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	
to	tons/year
6. Emissions Factor 0 Units 1b/ton Reference: AP-42, (EF=0.26)	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
Short Term Emissions	
lb/hr = $(2*4*25 \text{ tons/hr} + 2*2*59 \text{ tons/hr}) X (0.26 \text{ lb/ton}) X (1998) = 0.2$	22 lb/hr
Long Term Emissions	
TPY = $(0.22 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.96 \text{ tons/yr}$	
9. Pollutant Potential/Estimated Emissions Comment :	
III. Part 9b - 3	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	16
NGS - Fly & Bed Ash Silo Hydrators	
Baghouse removal efficiency is based on I	PM10.
Emission rates reflect each Bed Ash Silo.	

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	16
NGS - Fly & Bed Ash Silo Hydrators	-

Po	Ilutant Information Section 1				
<u>Al</u>	lowable Emissions 1				
1.	Basis for Allowable Emissions Code: RULE				
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002				
3.	Requested Allowable Emissions and Units: 5.00 percent opacity				
4.	Equivalent Allowable Emissions :				
:	l.92 lb/hour 8.41 tons/year				
5.	Method of Compliance :				
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.				
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):				
	BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Tests.				

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	16
NGS - Fly & Bed Ash Silo Hydrators	-

Pollutant Information Sec	tion 2	-			
Allowable Emissions	1				
1. Basis for Allowable Em	issions Code :	RUL	E		
2. Future Effective Date of	f Allowable Em	uissions: 01-A	Apr-2002		
3. Requested Allowable E	missions and U	nits: 5.00	ŗ	percent opacity	
4. Equivalent Allowable E	missions :				
	0.22	lb/hour	0.96	tons/year	
5. Method of Compliance	:				
Stack Test Waiver Reque	sted Rule 62-297	'.310(7)(c), F.A.C.			
6. Pollutant Allowable Em	issions Comme	ent (Desc. of Relat	ed Operating N	lethod/Mode):	
BACT was evaluated as Opacity). Initial and Annu		ss in addition to a no	o visible emissio	ns limitation (5%	

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form Effective: 3-21-96

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Continuous Mo	nitor
Parameter Code :	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information	
Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment:	
	•

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 16
NGS - Fly & Bed Ash Silo Hydrators
Type of Emissions Unit Addressed in This Section
1. Regulated or Unregulated Emissions Unit? Check one:
[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Single Process, Group of Processes, or Fugitive Only? Check one :
[] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	crement Consu	ming for	Nitrogen Di	oxi	de?			
[]		has unde	ergone PSD 1			_	_	ew as part of this dioxide. If so, emissions
[]	paragraph (c) of the emissions u	of the def unit addre	inition of "messed in this s	ajo: ect	r sourd ion co	ce of air po mmenced	ollution" in C (or will com	or source pursuant to hapter 62-213, F.A.C., and mence) construction after unit consumes increment.
ĺ]		ial operat	tion after Feb	rua	ry 8,	1988, but	before March	or source, and the emission 28, 1988. If so, baseline
[]	For any facility If so, baseline							ation after March 28, 1988. ement.
]]	case, additiona	al analysi issions ha	s, beyond the	sc	ope of	f this appli	cation, is nee	unit are nonzero. In such ded to determine whether date that may consume or
3.	Ir	ncrement Consu	ming/Ex	panding Cod	e :				
		PM:	C	SO2	:	U		NO2 :	U
4.	В	aseline Emissio	ons :				-		
		PM : SO2 : NO2 :		1.9200 lb/h lb/h				8.4100	tons/year tons/year tons/year
5.	P	SD Comment:							•

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

16____

NGS - Fly & Bed Ash Silo Hydrators Supplemental Requirements for All Applications	
1. Process Flow Diagram:	F-6, EU039
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment:	E-2
4. Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan:	NA
8. Supplemental Information for Construction Permit Application :	F-9
9. Other Information Required by Rule or Statue :	NA
Additional Supplemental Requirements for Category I Application	ns Only
10. Alternative Methods of Operations:	
11. Alterntive Modes of Operation (Emissions Trading):	

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

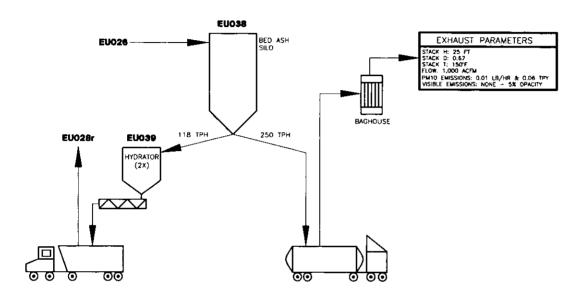
Emissions Unit Information Section

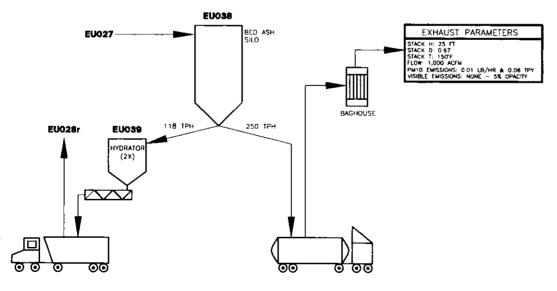
12. Identification of Additional Applicable Requirements :				
13. Compliance Assurance Monitoring Plan:				
14. Acid Rain Application (H	ard-copy Required):			
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))			
Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)				
New Unit Exemption (Form No. 62-210.900(1)(a)2.)				
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)				

Emissions Unit 040

NGS - Bed Ash Truck Loadout Systems

NORTHSIDE GENERATING STATION BED ASH TRUCK LOADOUT SYSTEMS BASE CASE & ALTERNATE 1





JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 040

FOSTER WHEELER ENVIRONMENTAL CORPORATION	ON
--	----

SCALE N/A PREPARED D.G CAD FILE NO. EU040PF.DWG. CHECKED MAE FIGURE NO. F.-6. E1040

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions	S Unit Information Section17
NGS - Bed	Ash Truck Loadout Systems
Type of E	missions Unit Addressed in This Section
1. Regula	ted or Unregulated Emissions Unit? Check one:
	The emissions unit addressed in this Emissions Unit Information Section is a regulated missions unit.
	The emissions unit addressed in this Emissions Unit Information Section is an unregulated missions unit.
2. Single	Process, Group of Processes, or Fugitive Only? Check one:
p	This Emissions Unit Information Section addresses, as a single emissions unit, a single rocess or production unit, or activity, which produces one or more air pollutants and which as at least one definable emission point (stack or vent).
p	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point stack or vent) but may also produce fugitive emissions.
	This Emissions Unit Information Section addresses, as a single emissions unit, one or more rocess or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :					
NGS - Bed Ash Truck Loadout Systems					
Emissions Unit Identification No Corresponding I		nknown			
3. Emissions Unit Status Code: C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49			
6. Emissions Unit Comment :					
Emissions Unit consists of the dry unloading systems for the bed ash storage silos (Emissions Units EU038).					
The emissions unit includes two emission points.					

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	<u>17</u>
NGS - Bed Ash Truck Loadout Systems	
Emissions Unit Control Equipment	1
Description: Bed Ash Truck Loadout for EU026 Store	age Silo
2. Control Device or Method Code :	17

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	<u> 17</u>	
NGS - Bed Ash Truck Loadout Systems		
Emissions Unit Control Equipment	2	
1. Description:		
Bed Ash Truck Loadout for EU027 Stor	rage Silo	

III. Part 3 - 2

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

17 _

Emissions Unit Details		
1. Initial Startup Date:	01-Apr-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer :		Model Number:
4. Generator Nameplate Rating :	MW	·
5. Incinerator Information:		
Dwell Temperature :		Degrees Fahrenheit
Dwell Time :		Seconds
Incinerator Afterburner Temperature :		Degrees Fahrenheit

Emissions Unit Operating Capacity

Emissions Unit Information Section

NGS - Bed Ash Truck Loadout Systems

1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	250	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment: Bed Ash Truck Loadout Systems operate at 250	ТРН	

Emissions Unit Operating Schedule

Requested Maximum C	Operating Schedule:	
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	17
NGS - Bed Ash Truck Loadout Systems	

Rule Applicability Analysis

The Bed Ash Truck Loadout Systems are subject to the Preconstruction Review Requirements of Chapters 62-210 and 62-212, F.A.C. Specifically, the operation is subject to 62-212.300 and 62-212.400 Prevention of Significant Deterioration for PM and PM10.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Bed Ash Truck Loadout Systems

List of Applicable Regulations

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

17

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 2.1203, Air Pollution Nuisances Prohibited

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.350(1) & (2), F.A.C, Public Notice and Comments

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Bed Ash Truck Loadout Systems

List of Applicable Regulations

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Methods 5 and 9

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Bed Ash Truck Loadout Systems

List of Applicable Regulations

Rule 62-4.030, F.A.C., General Prohibition

Rule 62-4.130, F.A.C., Plant Operations - Problems

17

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section	17

NGS - Bed Ash Truck Loadout Systems

Emission Point Description and Type:

1. Identification of Point on Plot Plan or Flow Diagram :	EU040 - Figu	re F-6
2. Emission Point Type Code: 3		
3. Descriptions of Emission Points Comprising this Emissi	ions Unit :	
Two Discharge Points - Baghouse Exhaust Stacks		
4. ID Numbers or Descriptions of Emission Units with this	Emission Poin	t in Common:
See detailed information in Attachment F-9, PSD Report (App	pendix C).	
5. Discharge Type Code:	V	
6. Stack Height:	25	feet
7. Exit Diameter:	0.67	feet
8. Exit Temperature :	150	°F
9. Actual Volumetric Flow Rate :	1,000	acfm
10. Percent Water Vapor :	0.50	%
11. Maximum Dry Standard Flow Rate:	1,000	dscfm
12. Nonstack Emission Point Height:		feet
13. Emission Point UTM Coordinates:		
Zone: 17 East (km): 446.700	North (kn	n): 3,365.160
 Emission Point Comment : Location of points is detailed in Attachment F-8. See Proces information. 	s Flow Diagram	F-6, EU040 for additional

DEP Form No. 62-210.900(1) - Form

· -
1
Associated Operating Method/Mode):
1222
5. Maximum Annual Rate : 2,190,000.00
8. Maximum Percent Ash:
· · · · · · · · · · · · · · · · · · ·

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 1 NGS - Bed Ash Truck Loadout Systems	<u>17</u>
Segment Description and Rate: Segment	<u> </u>
1. Segment Description (Process/Fuel Type ar	nd Associated Operating Method/Mode):
Bed Ash Truck Loadout for EU027	
2. Source Classification Code (SCC): 305	501222
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 250.00	5. Maximum Annual Rate : 2,190,000.00
6. Estimated Annual Activity Factor: 0.00	0
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section
NGS - Bed Ash Truck Loadout Systems

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	017		EL
2 - PM10	017		EL

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 17 NGS - Bed Ash Truck Loadout Systems	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions : 0.1100000 lb/hour	0.4800000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor 2 Units lb/ton Reference : AP-42, (EF=2.2)	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
Short Term Emissions	
lb/hr = (250 tons/hr) X (2.2 lb/ton) X (19998) = 0.11 lb/hr	
TPY = $(0.11 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.48 \text{ tons/yr}$	
9. Pollutant Potential/Estimated Emissions Comment:	

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 17 NGS - Bed Ash Truck Loadout Systems Baghouse removal efficiency is based on PM10. Emissions per Bed Ash Truck Loadout System.

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 17

NGS - Bed Ash Truck Loadout Systems	
Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions: 0.0100000 lb/hour	0.0600000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	tons/year
6. Emissions Factor 0 Units 1b/ton Reference : AP-42, (EF=0.26)	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
Short Term Emissions	
lb/hr = (250 tons/hr) X (0.26 lb/ton) X (19998) = 0.01 lb/hr	
Long Term Emissions	
TPY = $(0.01 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.06 \text{ tons/yr}$	
9. Pollutant Potential/Estimated Emissions Comment:	
III. Part 9b - 3	

Effective: 3-21-96

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section17	
NGS - Bed Ash Truck Loadout Systems	
Baghouse removal efficiency is based on PM10.	
Emission rates reflect each Bed Ash truck Loadout.	

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

	nissions Unit Information Section 17 GS - Bed Ash Truck Loadout Systems	
Po	llutant Information Section 1	
<u>Al</u>	owable Emissions 1	
1.	Basis for Allowable Emissions Code: RULE	
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002	_
3.	Requested Allowable Emissions and Units: 5.00 Percent Opacity	
4.	Equivalent Allowable Emissions:	
	0.11 lb/hour 0.48 tons/year	
5.	Method of Compliance : Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.	
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):	

BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Tests.

III. Part 9c - 1

DEP Form No. 62-210.900(1) - Form

	issions Unit Information Section 17 S - Bed Ash Truck Loadout Systems
Po	lutant Information Section 2
<u>Al</u>	owable Emissions 1
1.	Basis for Allowable Emissions Code: RULE
2.	Future Effective Date of Allowable Emissions: 01-Apr-2002
3.	Requested Allowable Emissions and Units: 5.00 Percent Opacity
4.	Equivalent Allowable Emissions :
	0.01 lb/hour 0.06 tons/year
5.	Method of Compliance :
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.
6.	Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):

BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Tests.

Requested Allowables 0.01 lb/hr & 0.06 TPY per Bed Ash Silo.

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 17 NGS - Bed Ash Truck Loadout Systems <u>Visible Emissions Limitation</u>: Visible Emissions Limitation 1. Visible Emissions Subtype: 05 2. Basis for Allowable Opacity: **RULE** 3. Requested Allowable Opacity: Normal Conditions: 5 % **Exceptional Conditions:** 100 % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: EPA Method 9 5. Visible Emissions Comment: No visible emissions limit (5% opacity) has been evaluated as BACT for the Bed Ash Truck Loadouts.

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

Excess Emissions - 2 hours in any 24-hour period

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Con	ntinuous Monitor
1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer: Model Number: Serial Number:	
5. Installation Date :	
6. Performance Specification Test Date	e:
7. Continuous Monitor Comment:	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Em	issions Unit Information Section 17
NGS	S - Bed Ash Truck Loadout Systems
<u>PSI</u>	Increment Consumption Determination
1. I	ncrement Consuming for Particulate Matter or Sulfur Dioxide?
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emission unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	crement Consumin	g for Nitrog	en Dioxi	de?			
[]	The emissions unit application, or has unit consumes inci	undergone l					
[]	The facility addres paragraph (c) of the emissions unit February 8, 1988.	e definition of addressed in	of "major this sect	source o	of air pollution" ir menced (or will co	Chapter 6 mmence)	2-213, F.A.C., and construction after
]]	The facility address unit began initial of emissions are zero	peration afte	r Februa	ry 8, 198	88, but before Ma		e, and the emissions 38. If so, baseline
[]	For any facility, the If so, baseline emissions.	e emissions ssions are ze	unit begaro, and e	ın (or wi missions	ll begin) initial op unit consumes in	eration afte crement.	er March 28, 1988.
[]	None of the above case, additional an changes in emissio expand increment.	alysis, beyor	nd the sco	ope of th	is application, is r	eeded to d	etermine whether
3.	In	ncrement Consumin	g/Expanding	g Code :				
		PM: C		SO2 :	U	NO2	: U	
4.	В	aseline Emissions:						
		PM : SO2 : NO2 :	0.1100	lb/hour lb/hour		0.06	00 tons/yea tons/yea tons/yea	ar
5		SD Comment:						

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

17

NGS - Bed Ash Truck Loadout Systems		
Supplemental Requirements for All Applications 1. Process Flow Diagram:	F-6, EU040	
2 Froi Analysis an Smariffaction		
2. Fuel Analysis or Specification :	NA	
3. Detailed Description of Control Equipment:	E-2	
4. Description of Stack Sampling Facilities :	E-3	
5. Compliance Test Report :	NA	
6. Procedures for Startup and Shutdown:	NA	
7. Operation and Maintenance Plan:	NA	
8. Supplemental Information for Construction Permit Application :	F-9	
9. Other Information Required by Rule or Statue :	NA	
Additional Supplemental Requirements for Category I Application	<u>is Only</u>	
10. Alternative Methods of Operations:		
11. Alterntive Modes of Operation (Emissions Trading):		

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

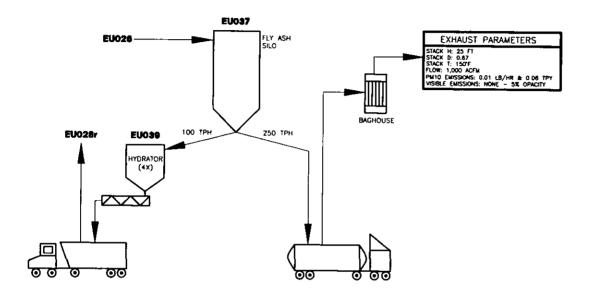
12. Identification of Additional	Applicable Requirements:
13. Compliance Assurance Mo Plan:	nitoring
14. Acid Rain Application (Har	rd-copy Required):
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

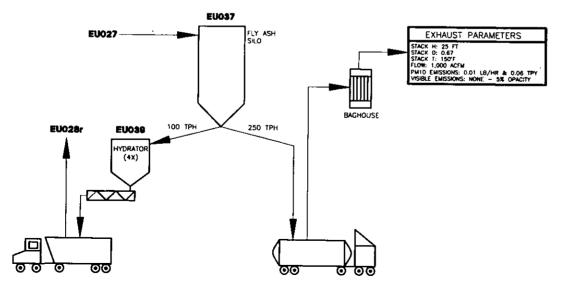
DEP Form No. 62-210.900(1) - Form

Emissions Unit 041

NGS - Fly Ash Truck Loadout Systems

NORTHSIDE GENERATING STATION FLY ASH TRUCK LOADOUT SYSTEMS **BASE CASE & ALTERNATE 1**





JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram Emissions Unit ID 041

SCALE N/A DATE: 01/27/99 APPROVED DUF

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissio	ons Unit Information Section 18
NGS - F	ly Ash Truck Loadout Systems
Type of	Emissions Unit Addressed in This Section
1. Regu	lated or Unregulated Emissions Unit? Check one:
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Single	le Process, Group of Processes, or Fugitive Only? Check one:
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions	Unit Information Section	ı 18
------------------	--------------------------	------

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :			
NGS - Fly Ash Truck Loadout S	Systems		
2. Emissions Unit Identification	Number: 041		
[] No Corresponding	ID []	Unknown	
3. Emissions Unit Status	4. Acid Rain Unit?	5. Emissions Unit Major	
Code: C	[] Yes [X] No	Group SIC Code: 49	
6. Emissions Unit Comment:			
Emissions Unit consists of the EU037).	dry unloading systems for the fly	ash storage silos (Emissions Units	
The emissions unit includes tw	o emission points.		

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	<u>18</u>
NGS - Fly Ash Truck Loadout Systems	
Emissions Unit Control Equipment	1
Description: Fly Ash Truck Loadout for EU026 Stora	ge Silo

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	18
NGS - Fly Ash Truck Loadout Systems	
Emissions Unit Control Equipment	2
Description: Fly Ash Truck Loadout for EU027 Stora	ge Silo
2. Control Device or Method Code:	17

III. Part 3 - 2

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

18

Emissions Unit Information Section

NGS - Fly Ash Truck Loadout Systems		
Emissions Unit Details		
1. Initial Startup Date:	01-Apr-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit:	-	
Manufacturer:		Model Number :
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:		
Dwell Temperature :		Degrees Fahrenheit
Dwell Time : Incinerator Afterburner Temperature :		Seconds
		Degrees Fahrenheit
Emissions Unit Operating Capacity 1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	250	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment: Fly Ash Truck Loadout Systems operate at 25	0 ТРН	
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule :		
		7 days/week 8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	18 ·
NGS - Fly Ash Truck Loadout Systems	

Rule Applicability Analysis

The Fly Ash Truck Loadout Systems are subject to the Preconstruction Review Requirements of Chapters 62-210 and 62-212, F.A.C. Specifically, the operation is subject to 62-212.300 and 62-212.400 Prevention of Significant Deterioration for PM and PM10.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Fly Ash Truck Loadout Systems

List of Applicable Regulations

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.350(1) & (2), F.A.C, Public Notice and Comments

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Methods 5 and 9

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

NGS - Fly Ash Truck Loadout Systems

List of Applicable Regulations

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

18

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-4.030, F.A.C., General Prohibition

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

NGS - Fly Ash Truck Loadout Systems

List of Applicable Regulations

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

18

Rule 2.1203, Air Pollution Nuisances Prohibited

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions	Unit	Information	Section	18

NGS - Fly Ash Truck Loadout Systems

Emission Point Description and Type:

1.	Identification of Point on Plot Plan or Flow Diag	gram: EU041 - Figu	re F-6
2.	Emission Point Type Code: 3		
3.	Descriptions of Emission Points Comprising this	s Emissions Unit:	
	Two Discharge Points - Baghouse Exhaust Stacks		
4.	ID Numbers or Descriptions of Emission Units v	vith this Emission Poin	t in Common:
į	See detailed information in Attachment F-9, PSD Rep	oort (Appendix C).	
5.	Discharge Type Code :	V	
6.	Stack Height:	25	feet
7.]	Exit Diameter :	0.67	feet
8.]	Exit Temperature :	150	°F
9	Actual Volumetric Flow Rate:	1,000	acfm
10.	Percent Water Vapor:	0.50	%
11.	Maximum Dry Standard Flow Rate:	1,000	dscfm
12.	Nonstack Emission Point Height:		feet
13.	Emission Point UTM Coordinates:		
	Zone: 17 East (km): 446.70	North (km	a): 3,365.130
14.	Emission Point Comment: Location of points is detailed in Attachment F-8. Sec information.	e Process Flow Diagram	F-6, EU041 for additional

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 18	Emissions Unit Information Section 18		
NGS - Fly Ash Truck Loadout Systems			
Segment Description and Rate: Segment	1		
1. Segment Description (Process/Fuel Type and A	ssociated Operating Method/Mode):		
Fly Ash Truck Loadout for EU026 Storage Silo (E	U037)		
2. Source Classification Code (SCC): 305012	22		
3. SCC Units: Tons Transferred Or Handled			
4. Maximum Hourly Rate: 250.00	5. Maximum Annual Rate : 2,190,000.00		
6. Estimated Annual Activity Factor: 0.00			
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:		
9. Million Btu per SCC Unit:	,		
10. Segment Comment :			

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 18	
NGS - Fly Ash Truck Loadout Systems	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and A	ssociated Operating Method/Mode):
Fly Ash Truck Loadout for EU027 Storage Silo (E	U037)
2. Source Classification Code (SCC): 305012	22
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 250.00	5. Maximum Annual Rate : 2,190,000.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 18

NGS - Fly Ash Truck Loadout Systems

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	017		EL
2 - PM10	017		EL

III. Part 9a - 1

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

18

NGS - Fly Ash Truck Loadout Systems				
Pollutant Potential/Estimated Emissions: Pollutant 1				
1. Pollutant Emitted: PM				
2. Total Percent Efficiency of Control: 99.50 %				
3. Potential Emissions : 0.1100000 lb/hour	0.4800000 tons/year			
4. Synthetically Limited? [] Yes [X] No				
5. Range of Estimated Fugitive/Other Emissions:	tons/year			
6. Emissions Factor 2 Units 1b/ton Reference: AP-42, (EF=2.2)	,			
7. Emissions Method Code: 3				
8. Calculations of Emissions:				
Short Term Emissions				
lb/hr = (250 tons/hr) X (2.2 lb/ton) X (19998) = 0.11 lb/hr				
TPY = $(0.11 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.48 \text{ tons/yr}$				
9. Pollutant Potential/Estimated Emissions Comment:				
III. Part 9b - 1				

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 18

NGS - Fly Ash Truck Loadout Systems

Baghouse removal efficiency is based on PM10.

Emissions per Fly Ash Truck Loadout System.

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

18

NGS - Fly Ash Truck Loadout Systems				
Pollutant Potential/Estimated Emissions: Pollutant 2				
1. Pollutant Emitted: PM10				
2. Total Percent Efficiency of Control: 99.50 %				
3. Potential Emissions : 0.0100000 lb/hour	0.0600000 tons/year			
4. Synthetically Limited? [] Yes [X] No				
5. Range of Estimated Fugitive/Other Emissions: to	tons/year			
6. Emissions Factor 0 Units 1b/ton Reference: AP-42, (EF=0.26)				
7. Emissions Method Code: 3				
8. Calculations of Emissions:				
Short Term Emissions				
lb/hr = (250 tons/hr) X (0.26 lb/ton) X (19998) = 0.01 lb/hr				
Long Term Emissions				
TPY = $(0.01 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.06 \text{ tons/yr}$				
9. Pollutant Potential/Estimated Emissions Comment:				
III. Part 9b - 3				

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section18	
NGS - Fly Ash Truck Loadout Systems	
Baghouse removal efficiency is based on PM10.	
Emission rates reflect each Fly Ash Truck Loadout.	

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

	Emissions Unit Information Section 18 NGS - Fly Ash Truck Loadout Systems					
Po	Pollutant Information Section 1					
<u>Al</u>	Allowable Emissions 1					
1.	1. Basis for Allowable Emissions Code:	RULE				
2.	2. Future Effective Date of Allowable Emissions :	01-Apr-2002				
3.	3. Requested Allowable Emissions and Units:	5.00	Percent Opacity			
4.	4. Equivalent Allowable Emissions:					
	0.11 lb/ho	ur 0.48	tons/year			
5.	5. Method of Compliance :					
	Stack Test Waiver Requested Rule 62-297.310(7)(c), I	F.A.C.				
6.	6. Pollutant Allowable Emissions Comment (Desc. o	f Related Operating	g Method/Mode):			
	BACT was evaluated as 0.01 gr/dscf or less in addition Opacity). Initial and Annual VE Tests.	n to a no visible emis	ssions limitation (5%			

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS - Fly Ash Truck Loadout Systems	_		
Pollutant Information Section 2			
Allowable Emissions 1			
1. Basis for Allowable Emissions Code:	RULE		
2. Future Effective Date of Allowable Emission	s: 01-Apr-	2002	
3. Requested Allowable Emissions and Units:	5.00	Pe	ercent Opacity
4. Equivalent Allowable Emissions:			
0.01	lb/hour	0.06	tons/year
5. Method of Compliance :			
Stack Test Waiver Requested Rule 62-297.310(7	()(c), F.A.C.		

6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):

BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Tests.

Requested Allowables 0.01 lb/hr & 0.06 TPY per Fly Ash Silo.

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section18 NGS - Fly Ash Truck Loadout Systems Visible Emissions Limitation: Visible Emissions Limitation 1			
			
1. Visible Emissions Subtype: 05			
2. Basis for Allowable Opacity: RULE			
3. Requested Allowable Opacity:			
Normal Conditions :	5	%	
Exceptional Conditions:	100	%	
Maximum Period of Excess Opacity Allowed:		min/hour	
4. Method of Compliance:			
EPA Method 9			
5. Visible Emissions Comment :	· · · · · · · · · · · · · · · · · · ·		
No visible emissions limit (5% opacity) has been evalua	ted as BA	CT for the Fly Ash Truck L	oadouts.
Excess Emissions - 2 hours in any 24-hour period			

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring	Continuous Monitor
Parameter Code :	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information	
Manufacturer : Model Number : Serial Number :	•
5. Installation Date :	
6. Performance Specification Test I	Date :
7. Continuous Monitor Comment :	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 18					
NGS - Fly Ash Truck Loadout Systems					
PSD Increment Consumption Determination					
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?					
[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.					
[] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.					
[] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.					
[] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.					
[] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.					

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	. Increment Consuming for Nitrogen Dioxide?						
[]		has undergone l			ndergoing PSD reviously, for nitrogen o	ew as part of this dioxide. If so, emissions
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.					
[]	unit began init		r Februa	гу 8, 198	8, but before March	or source, and the emissions 128, 1988. If so, baseline
[J					ll begin) initial opera unit consumes incre	ation after March 28, 1988.
[] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.						
3.	In	ncrement Consu	 ming/Expanding	g Code :		•	
		PM :	C	SO2 :	U	NO2:	U
4.	В	aseline Emission	ons :	- - -			
		PM : SO2 : NO2 :	0.1100	lb/hour lb/hour		0.4800	tons/year tons/year tons/year
5. PSD Comment :							

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form Effective : 3-21-96

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 18

NGS - Fly Ash Truck Loadout Systems		
Supplemental Requirements for All Applications		
1. Process Flow Diagram:	F-6, EU041	
2. Fuel Analysis or Specification:	NA	
3. Detailed Description of Control Equipment:	E-2	
4. Description of Stack Sampling Facilities :	E-3	
5. Compliance Test Report :	NA	
6. Procedures for Startup and Shutdown:	NA	
7. Operation and Maintenance Plan:	NA	
8. Supplemental Information for Construction Permit Application:	F-9	- -
9. Other Information Required by Rule or Statue :	NA	
Additional Supplemental Requirements for Category I Application	ns Only	
10. Alternative Methods of Operations:		
11. Alterntive Modes of Operation (Emissions Trading):		
		

III. Part 13 - 1

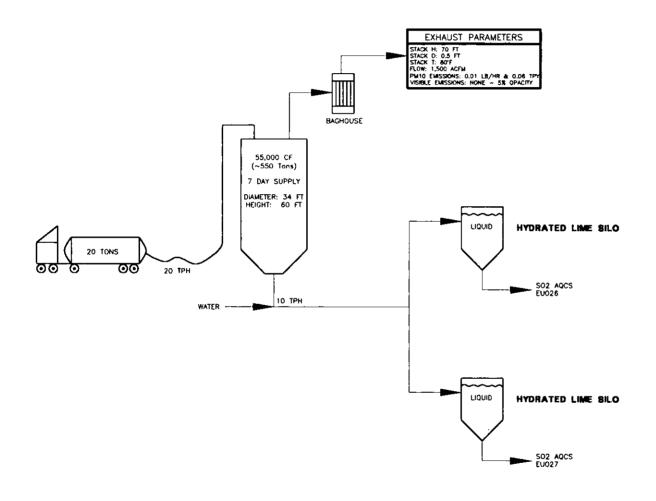
DEP Form No. 62-210.900(1) - Form

12. Identification of Additional	Applicable Requirements:
13. Compliance Assurance Mor Plan:	nitoring
14. Acid Rain Application (Har	d-copy Required):
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 042

NGS - Pebble Lime Silo

NORTHSIDE GENERATING STATION PEBBLE LIME SILO BASE CASE & ALTERNATE 1



JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 042

FOSTER WHEELER ENVIRONMENTAL CORPORATION	N
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SCALE N/A PREPARED DJG CAD FILE NO. EU042PF.DWG CHECKED MAE FIGURE NO. APPROVED DJF FIGURE NO. F-B. EU042

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

19

	— ——					
NGS - Pebble Lime Silo						
Type of	Type of Emissions Unit Addressed in This Section					
1. Regu	lated or Unregulated Emissions Unit? Check one:					
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.					
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.					
2. Single Process, Group of Processes, or Fugitive Only? Check one:						
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).					
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.					
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.					

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Emissions Unit Information Section	19	
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B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Un	it Addressed in This Section	1:
NGS - Pebble Lime Silo		
2. Emissions Unit Identification		
[] No Corresponding	ID [] Unknown
3. Emissions Unit Status	4. Acid Rain Unit?	5. Emissions Unit Major
Code: C	[] Yes [X] No	Group SIC Code: 49
6. Emissions Unit Comment:		
Emissions Unit consists of the	Pebble Lime Silo (Emissions U	Units EU042).
The emissions unit includes tw	o emission points.	

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	
NGS - Pebble Lime Silo	
Emissions Unit Control Equipment	1
Description: Pebble Lime Silo	
2. Control Device or Method Code :	18

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

19

NGS - Pebble Lime Silo		
Emissions Unit Details		
1. Initial Startup Date: 01	-Apr-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit : Manufacturer :		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		Degrees Fahrenheit Seconds Degrees Fahrenheit
Emissions Unit Operating Capacity		
1. Maximum Heat Input Rate:	mmBtu/h	r
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	20	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment: Pebble Lime Silo Loading System operates at 20	Э ТРН	
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule: 24 hours/day 52 weeks/year		7 days/week 8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	19
NGS - Pebble Lime Silo	

Rule Applicability Analysis

The Pebble Lime Silo is subject to the Preconstruction Review Requirements of Chapters 62-210 and 62-212, F.A.C. Specifically, the operation is subject to 62-212.300 and 62-212.400 Prevention of Significant Deterioration for PM and PM10.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

NGS - Pebble Lime Silo

List of Applicable Regulations

Rule 62-4.030, F.A.C., General Prohibition

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.105, Maintenance of Air Pollution Control Devices

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1301, Adoption of Chapter 62-4, F.A.C., (As Noted)

Rule 2.1203, Air Pollution Nuisances Prohibited

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

19

NGS - Pebble Lime Silo

List of Applicable Regulations

Rule 62-210.300(1), F.A.C., Air Construction Permits

Rule 62-210.350(1) & (2), F.A.C, Public Notice and Comments

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-297.401(5) & (9), F.A.C., EPA Methods 5 and 9

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-212.400(1), F.A.C., General Prohibitions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

NGS - Pebble Lime Silo

List of Applicable Regulations

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions	Unit	Information	Section	19

NGS - Pebble Lime Silo

Emission Point Description and Type:

1. Identification of Point on Plot Plan or Flow Diag	gram: EU042 - Figu	re F-6
2. Emission Point Type Code: 3		
3. Descriptions of Emission Points Comprising thi	s Emissions Unit:	
One Discharge Point - Baghouse Exhaust Stack		
4. ID Numbers or Descriptions of Emission Units	with this Emission Poin	t in Common:
See detailed information in Attachment F-9, PSD Re	port (Appendix C).	
5. Discharge Type Code:	V	
6. Stack Height:	70	feet
7. Exit Diameter :	0.50	feet
8. Exit Temperature :	80	°F
9. Actual Volumetric Flow Rate :	1,500	acfm
10. Percent Water Vapor :	0.50	%
11. Maximum Dry Standard Flow Rate :	1,500	dscfm
12. Nonstack Emission Point Height:		feet
13. Emission Point UTM Coordinates:		
Zone: 17 East (km): 446.76	North (kn	n): 3,365.200
 Emission Point Comment: Location of points is detailed in Attachment F-8. Se information. 	e Process Flow Diagram	F-6, EU042 for additional

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 19	_
NGS - Pebble Lime Silo	
Segment Description and Rate: Segment	1
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Pebble Lime	
2. Source Classification Code (SCC): 3050	1222
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 20.00	5. Maximum Annual Rate: 175,200.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	,
10. Segment Comment:	

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 19
NGS - Pebble Lime Silo

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	017		EL
2 - PM10	017		EL

III. Part 9a - 1

DEP Form No. 62-210.900(1) - Form

19

NGS - Pebble Lime Silo	
Pollutant Potential/Estimated Emissions: Pollutant 1	
1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions : 0.0270000 lb/hour	0.1180000 tons/year
4. Synthetically Limited? [] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions: to	tons/year
6. Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.27)	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
Short Term Emissions lb/hr = (20 tons/hr) X (0.27 lb/ton) X (1995) = 0.027 lb/hr	
TPY = $(0.027 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (ton/2000 \text{ lb}) = 0.118 tons/yr$	
9. Pollutant Potential/Estimated Emissions Comment:	
Baghouse removal efficiency is based on PM10. III. Part 9b - 1	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Emissions Unit Information Section	19	
NGS - Pebble Lime Silo		
1		

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 19

NGS - Pebble Lime Silo		
Pollutant Potential/Estimated Emissions: Pollut	ant <u>2</u>	
1. Pollutant Emitted: PM10		
2. Total Percent Efficiency of Control: 99.50	%	
3. Potential Emissions :		
0.0138000 lb/hour		0.0060000 tons/year
4. Synthetically Limited? [] Yes [X] No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor 0 Reference: AP-42, (EF=0.14)	Units lb/ton	
7. Emissions Method Code: 3		
8. Calculations of Emissions:		
Short Term Emissions		
lb/hr = (20 tons/hr) X (0.14 lb/ton) X (1998) = 0.013	38 lb/hr	
Long Term Emissions		
TPY = $(0.0138 \text{ lb/hr}) \text{ X} (8760 \text{ hr/yr}) \text{ X} (\text{ton/2000 lb})$	= 0.060 tons/yr	
9. Pollutant Potential/Estimated Emissions Comment	:	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	19
NGS - Pebble Lime Silo	
Baghouse removal efficiency is based on PM	10.

III. Part 9b - 4

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS - Pebble Lime Silo			
Pollutant Information Section 1			
Allowable Emissions 1			
Basis for Allowable Emissions Code : RULE			
2. Future Effective Date of Allowable Emissions: 01-Apr-2002			
3. Requested Allowable Emissions and Units: 5.00 Percent Opacity	•		
4. Equivalent Allowable Emissions:	-		
0.03 lb/hour 0.12 tons/year			
5. Method of Compliance :			
Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.			
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):			
BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Tests.			

III. Part 9c - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section NGS - Pebble Lime Silo				
Pollutant Information Section 2				
Allowable Emissions 1				
1. Basis for Allowable Emissions Code : RULE				
2. Future Effective Date of Allowable Emissions: 01-Apr-2002				
3. Requested Allowable Emissions and Units: 5.00 Percent Opacity				
4. Equivalent Allowable Emissions :				
lb/hour tons/year				
5. Method of Compliance :				
Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.				
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode):				
BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitation (5% Opacity). Initial and Annual VE Tests. Requested Allowables 0.01 lb/hr & 0.06 TPY per Pebble Lime Silo.				

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 19 NGS - Pebble Lime Silo <u>Visible Emissions Limitation</u>: Visible Emissions Limitation 1. Visible Emissions Subtype: 05 2. Basis for Allowable Opacity: RULE 3. Requested Allowable Opacity: Normal Conditions: % **Exceptional Conditions:** 100 % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: EPA Method 9 5. Visible Emissions Comment: No visible emissions limit (5% opacity) has been evaluated as BACT for the Pebble Lime Silo. Excess Emissions - 2 hours in any 24-hour period

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

Continuous Monitoring Continuous Mon	nitor
1. Parameter Code :	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information	
Manufacturer: Model Number: Serial Number:	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment:	

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 19			
NGS - Pebble Lime Silo			
PSD Increment Consumption Determination			
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?			
[X] The emissions unit is undergoing PSD review as part of this application, or has undergone Psi review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.			
[] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.			
[] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
[] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.			
[] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.			

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	2. Increment Consuming for Nitrogen Dioxide?							
[]] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.						
]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[] The facility addressed in this application is classified as an EPA major source, and the emission unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.							
[None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.							
3.	In	crement Consu	ming/Ex	panding Code:				
		PM:	C	SO2:	U	NC	2 :	U
4.	В	aseline Emissio	ns:		_			
		PM : SO2 : NO2 :		0.0270 lb/hour lb/hour		0.1	20 0	tons/year tons/year tons/year
5.	PS	SD Comment:	-		-			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

19___

NGS - Pebble Lime Silo				
Supplemental Requirements for All Applications				
1. Process Flow Diagram:	F-6, EU042			
2. Fuel Analysis or Specification :	NA			
3. Detailed Description of Control Equipment:	E-2			
4. Description of Stack Sampling Facilities :	E-3			
5. Compliance Test Report :	NA			
6. Procedures for Startup and Shutdown:	NA			
7. Operation and Maintenance Plan:	NA			
8. Supplemental Information for Construction Permit Application:	F-9			
9. Other Information Required by Rule or Statue :	NA			
Additional Supplemental Requirements for Category I Application	ns Only			
10. Alternative Methods of Operations:				
11. Alterntive Modes of Operation (Emissions Trading):				

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

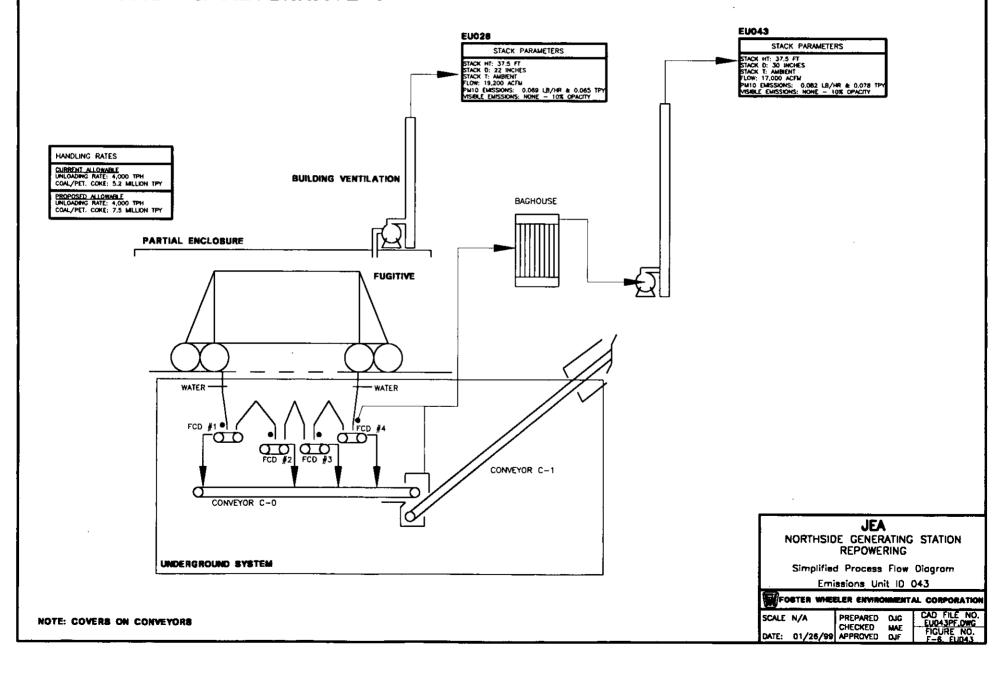
12. Identification of Additional Applicable Requirements:				
13. Compliance Assurance Monitoring Plan:				
14. Acid Rain Application (Hard-copy Required):				
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))			
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)			
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)			

Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 043

SJRPP - Rotary Railcar Dumper, Transfer Points

NORTHSIDE GENERATING STATION EXISTING SJRPP RAIL CAR UNLOADING SYSTEM BASE CASE & ALTERNATE 1



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emi	ssio	ons Unit Information Section20
SJRP	P -	Rotary Railcar Dumper, Transfer Points
Турс	e of	Emissions Unit Addressed in This Section
1. R	egu	lated or Unregulated Emissions Unit? Check one:
[]	()	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.
2. Si	ngl	e Process, Group of Processes, or Fugitive Only? Check one:
[}	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section :					
SJRPP - Rotary Railcar Dumper, Transfer Points					
2. Emissions Unit Identification	2. Emissions Unit Identification Number: 043				
[] No Corresponding ID [] Unknown					
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49			
6. Emissions Unit Comment :					
Emissions Unit consists of the transfer points associated with the Railcar Unloading System. (See Figure No. F-6, EU043)					

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	20
SJRPP - Rotary Railcar Dumper, Transfer Po	pints .
Emissions Unit Control Equipment	1
Description: SJRPP Rail Car Unloading System is ide	entical for the Base Case and Alternate 1 Materials

SJRPP Rail Car Unloading System is identical for the Base Case and Alternate 1 Materials Handling and Storage Operations. Emissions are controlled by use of a single baghouse.

2. Control Device or Method Code: 18

III. Part 3 -

1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section	20		
SJRPP - Rotary Railcar Dumper, Transfer Points			
Emissions Unit Details			
1. Initial Startup Date :	01-Jan-1986		
2. Long-term Reserve Shutdown Date:			
3. Package Unit:			
Manufacturer:		Model Number:	
4. Generator Nameplate Rating:	MW		
5. Incinerator Information:			
Dwell Temperature:		Degrees Fahrenheit	
Dwell Time :		Seconds	
Incinerator Afterburner Temperature :		Degrees Fahrenheit	
Emissions Unit Operating Capacity			
1. Maximum Heat Input Rate:	mmBtu/hr		
2. Maximum Incinerator Rate :	lb/hr	tons/day	
3. Maximum Process or Throughput Rate:	4000	tons per hour	
4. Maximum Production Rate:			
5. Operating Capacity Comment:			
Emissions Unit Operating Schedule			
Requested Maximum Operating Schedule :			
24 hours/da	y	7 days/week	
52 weeks/ye	-	8,760 hours/year	

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	20
SJRPP - Rotary Railcar Dumper, Transfer Po	ints

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300, Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60, Subpart Y - Standards of Performance for Coal Preparation Plants while processing coal.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

SJRPP - Rotary Railcar Dumper, Transfer Points

List of Applicable Regulations

Rule 62-204.800(7)(b).31, F.A.C., Adoption of 40 CFR Part 60 Subpart Y

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

Rule 62-210.350(1) & (2), F.A.C., Public Notice and Comment

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-297.401 (5) & (9)(c), F.A.C., EPA Methods 5 and 9, 40 CFR Part 60, Appendix A

40 CFR Part 60.7, Notification and Recordkeeping

40 CFR Part 60.8, Performance Tests

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

SJRPP - Rotary Railcar Dumper, Transfer Points

List of Applicable Regulations

40 CFR Part 60.11, Compliance with Standards and Maintenance Requirements

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.19, General Notifications and Reporting Requirements

40 CFR Part 60 Subpart Y - Standards of Performance for Coal Preparation Plants

40 CFR Part 60.250(a), Applicability and Designation of Affected Facility

40 CFR Part 60.252(c), Standards for Particulate Matter

40 CFR Part 60.254(b)(2), Test Methods and Procedures

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-212.400(1), F.A.C., General Provisions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

20

SJRPP - Rotary Railcar Dumper, Transfer Points

List of Applicable Regulations

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Rule 2.201, Adoption of Chapter 62-204, F.A.C.

Rule 2.301, Adoption of Chapter 62-210, F.A.C.

Rule 2.401, Adoption of Chapter 62-212, F.A.C.

Rule 2.1101, Adoption of Chapter 62-297, F.A.C.

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C.

Rule 2.105, Maintenance of Air Pollution Control Devices

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section	20
SJRPP - Rotary Railcar Dumper, Transfer Poi	nts

Emission Point Description and Type:

1. Identification of Point on Plot Plan or Flow Diagra	m: Rail Car Unl	loading
2. Emission Point Type Code: 2		
3. Descriptions of Emission Points Comprising this E (limit to 100 characters per point)	missions Unit for V	E Tracking:
4. ID Numbers or Descriptions of Emission Units wit	h this Emission Poir	nt in Common:
SJRPP Rail Car Unloading System		
5. Discharge Type Code:	V	
6. Stack Height:	38	feet
7. Exit Diameter :	2.5	feet
8. Exit Temperature :	68	°F
9. Actual Volumetric Flow Rate:	17000	acfm
10. Percent Water Vapor :	2.00	%
11. Maximum Dry Standard Flow Rate:	17000	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates:		
Zone: 17 East (km): 447.500	North (ki	m): 3366.500

III. Part 7a - 1

DEP Form No. 62-210.900(1) - Form

14. Emission Point Comment:

Attachments F-6, F-8, and F-9, contain additional information related to stack parameters and location.

III. Part 7a - 2

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 20			
SJRPP - Rotary Railcar Dumper, Transfer Points			
Segment Description and Rate: Segment 1			
1. Segment Description (Process/Fuel Type and A	Associated Operating Method/Mode):		
Coal (Total Maximum 2,421,000 tons per year)			
2. Source Classification Code (SCC): 305010)99		
3. SCC Units: Tons Processed			
4. Maximum Hourly Rate: 4,000.00	5. Maximum Annual Rate: 7,500,000.00		
6. Estimated Annual Activity Factor: 0.00			
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:		
9. Million Btu per SCC Unit:			
10. Segment Comment :			

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 20				
SJRPP - Rotary Railcar Dumper, Transfer Points Segment Description and Rate: Segment 2				
Petroleum Coke (Total Maximum 2,421,000 tons per year)				
2. Source Classification Code (SCC): 30501	099			
3. SCC Units: Tons Processed				
4. Maximum Hourly Rate: 4,000.00	5. Maximum Annual Rate: 7,500,000.00			
6. Estimated Annual Activity Factor: 0.00				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit:				
10. Segment Comment :				

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 20

SJRPP - Rotary Railcar Dumper, Transfer Points

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	Pollutant Regulatory Code
1 - PM	018		EL
2 - PM10	018		EL

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only) - Emissions Limited Pollutants Only)

Emissions Unit Information Section 20 SJRPP - Rotary Railcar Dumper, Transfer Points **Pollutant Potential/Estimated Emissions:** Pollutant 1. Pollutant Emitted: PM 2. Total Percent Efficiency of Control: 99.50 % 3. Potential Emissions: 0.1740000 lb/hour 0.1640000 tons/year 4. Synthetically Limited? [] Yes [X] No 5. Range of Estimated Fugitive/Other Emissions: to tons/year 6. Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.0011) 7. Emissions Method Code: 3 8. Calculations of Emissions: Emission calculations are detailed in Appendix C of the PSD Report (Attachment F-9) 9. Pollutant Potential/Estimated Emissions Comment: Potential emissions based on tons processed.

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

20

SJRPP - Rotary Railcar Dumper, Transfer Points **Pollutant Potential/Estimated Emissions:** Pollutant 1. Pollutant Emitted: PM10 % 2. Total Percent Efficiency of Control: 99.50 3. Potential Emissions: 0.0820000 lb/hour 0.0780000 tons/year 4. Synthetically Limited? [] Yes [X] No 5. Range of Estimated Fugitive/Other Emissions: tons/year to 6. Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.0005) 7. Emissions Method Code: 3 8. Calculations of Emissions: Emission Calculations are detailed in Appendix C of the PSD Report (Attachment (F-9). 9. Pollutant Potential/Estimated Emissions Comment: Potential Emissions are based on tons processed.

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Emissions Unit Information Section 20 SJRPP - Rotary Railcar Dumper, Transfer Points

Po	llutant Information Se	ction 1	-			
<u>Al</u>	lowable Emissions	1				
1.	Basis for Allowable En	nissions Code:	RUL	E		
2.	Future Effective Date of	of Allowable Em	issions: 01-A	pr-2002		
3.	Requested Allowable I	Emissions and Ur	nits: 5.00	p	ercent opacity	
4.	Equivalent Allowable	Emissions :				
		0.17	lb/hour	0.16	tons/year	
5.	Method of Compliance	:	-			
	Stack Test Waiver Requ	ested Rule 62-297.	.310(7)(c), F.A.C.			i
6.	Pollutant Allowable Er	nissions Comme	nt (Desc. of Relate	ed Operating M	lethod/Mode):	
	BACT was evaluated as Opacity).	0.01 gr/dscf or les	s in addition to a no	visible emissio	ns limitation (5%	

III. Part 9c - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 20 SJRPP - Rotary Railcar Dumper, Transfer Points

Pollutant Information Section	2		
Allowable Emissions 1			
1. Basis for Allowable Emissions Code	3 :	RULE	
2. Future Effective Date of Allowable	Emissions:	01-Apr-2002	
3. Requested Allowable Emissions and	l Units :	5.00	percent opacity
4. Equivalent Allowable Emissions:			· .
0.08	lb/hour	0.08	tons/year
5. Method of Compliance :			
Stack Test Waiver Requested Rule 62-2	297.310(7)(c), F.A	A.C.	
6. Pollutant Allowable Emissions Com	ment (Desc. of I	Related Operation	ng Method/Mode):
BACT was evaluated as 0.01 gr/dscf or	r less in addition t	o a no visible em	issions limit (%5 Opacity)

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 20
SJRPP - Rotary Railcar Dumper, Transfer Points

<u>Vi</u>	sible Emissions Limitation: Visible Emissions Lin	mitation	1	
1.	Visible Emissions Subtype: 05			
2.	Basis for Allowable Opacity: RULE			
3.	Requested Allowable Opacity:			·
	Normal Conditions:	5	%	
İ	Exceptional Conditions:	100	%	
	Maximum Period of Excess Opacity Allowed:	100	min/hour	
4.	Method of Compliance :			
	EPA Method 9			
5.	Visible Emissions Comment:			
	BACT was evaluated at 5% Opacity (i.e., no visible emi	ssions) for	this operation.	
	Excess Opacity - 2 hours in any 24-hour period			

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

E	mis	sions Unit Information Section 20
S.	IRP:	P - Rotary Railcar Dumper, Transfer Points
<u>P</u>	<u>SD</u>	Increment Consumption Determination
1.	In	crement Consuming for Particulate Matter or Sulfur Dioxide?
[]	X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

__ 20

SJRPP - Rotary Railcar Dumper, Transfer Points	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	F-6, EU043
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment:	E-2
4. Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan:	NA
8. Supplemental Information for Construction Permit Application:	F-9
9. Other Information Required by Rule or Statue:	NA
Additional Supplemental Requirements for Category I Application	as Only
10. Alternative Methods of Operations:	
11. Alterntive Modes of Operation (Emissions Trading):	
	

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

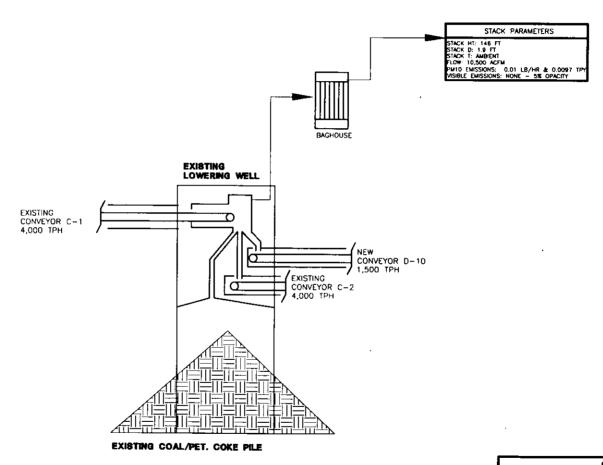
Emissions Unit Information Section

12. Identification of	Additional Applicable Requirements :
13. Compliance Assi Plan:	urance Monitoring
14. Acid Rain Appli	cation (Hard-copy Required) :
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)
	Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 044

SJRPP - Coal Transfer Building

NORTHSIDE GENERATING STATION COAL TRANSFER BUILDING BASE CASE & ALTERNATE 1



JEA NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 044

POSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A PREPARED DIG CAD ELION CHECKED MAE FIGURED DIF FIGURE FIGURED DIF FIGURE FIG

NOTE: COVERS ON CONVEYORS

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions	Unit Information Section 21
SJRPP - Co	oal Transfer Building
Type of E	missions Unit Addressed in This Section
1. Regulat	ted or Unregulated Emissions Unit? Check one:
_ _	The emissions unit addressed in this Emissions Unit Information Section is a regulated missions unit.
	he emissions unit addressed in this Emissions Unit Information Section is an unregulated missions unit.
[] T pr ha [X] T pr (s	Process, Group of Processes, or Fugitive Only? Check one: his Emissions Unit Information Section addresses, as a single emissions unit, a single rocess or production unit, or activity, which produces one or more air pollutants and which as at least one definable emission point (stack or vent). his Emissions Unit Information Section addresses, as a single emissions unit, a group of rocess or production units and activities which has at least one definable emission point stack or vent) but may also produce fugitive emissions. his Emissions Unit Information Section addresses, as a single emissions unit, one or more rocess or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 21	
--	--

B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

1. Description of Emissions Ur	it Addressed in This Section:	
SJRPP - Coal Transfer Buildin	g	
Emissions Unit Identificatio No Corresponding		Unknown
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment: Emissions Unit consists of the (Conveyor C-1 to Conveyor D	-	uilding and a new Transfer Point

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	
SJRPP - Coal Transfer Building	
Emissions Unit Control Equipment	1
f — — — — — — — — — — — — — — — — — — —	entical for the Base Case and Alternate 1 Materials sions are controlled by use of a single baghouse.
2. Control Device or Method Code:	18

III. Part 3 - 1

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

SJRPP - Coal Transfer Building	<u> </u>	
Emissions Unit Details		
Initial Startup Date: 0	1-Jan-1986	
2. Long-term Reserve Shutdown Date :		
3. Package Unit:		
Manufacturer:		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:		
Dwell Temperature :		Degrees Fahrenheit
Dwell Time :		Seconds
Incinerator Afterburner Temperature :		Degrees Fahrenheit
Emissions Unit Operating Capacity 1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	4000	tons per hour
4. Maximum Production Rate:		
5. Operating Capacity Comment:		
Emissions Unit Operating Schedule		
 	<u> </u>	
Requested Maximum Operating Schedule:		
Requested Maximum Operating Schedule: 24 hours/day		7 days/week

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section	21 -
SJRPP - Coal Transfer Building	

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300, Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60, Subpart Y - Standards of Performance for Coal Preparation Plants while processing coal.

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

SJRPP - Coal Transfer Building

List of Applicable Regulations

Rule 62-204.800(7)(b).31, F.A.C., Adoption of 40 CFR Part 60 Subpart Y

21

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

Rule 62-210.350(1) & (2), F.A.C., Public Notice and Comment

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), & (6), F.A.C., Excess Emissions

Rule 62-297.310, F.A.C., General Test Requirements

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-297.401 (5) & (9)(c), F.A.C., EPA Methods 5 and 9, 40 CFR Part 60, Appendix A

40 CFR Part 60.7, Notification and Recordkeeping

40 CFR Part 60.8, Performance Tests

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

SJRPP - Coal Transfer Building

List of Applicable Regulations

40 CFR Part 60.11, Compliance with Standards and Maintenance Requirements

21

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.19, General Notifications and Reporting Requirements

40 CFR Part 60 Subpart Y - Standards of Performance for Coal Preparation Plants

40 CFR Part 60.250(a), Applicability and Designation of Affected Facility

40 CFR Part 60.252(c), Standards for Particulate Matter

40 CFR Part 60.254(b)(2), Test Methods and Procedures

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-212.400(1), F.A.C., General Provisions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Facilities

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

SJRPP - Coal Transfer Building

List of Applicable Regulations

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

21

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-212.400(4), F.A.C., General Provisions

RUle 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Rule 2.201, Adoption of Chapter 62-204, F.A.C.

Rule 2.301, Adoption of Chapter 62-210, F.A.C.

Rule 2.401, Adoption of Chapter 62-212, F.A.C.

Rule 2.1101, Adoption of Chapter 62-297, F.A.C.

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4, F.A.C.

Rule 2.105, Maintenance of Air Pollution Control Devices

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

21

SJRPP - Coal Transfer Building		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram:	SJRPP-CTB	
2. Emission Point Type Code: 2		
3. Descriptions of Emission Points Comprising this Emissic (limit to 100 characters per point)	ons Unit for V	E Tracking:
4. ID Numbers or Descriptions of Emission Units with this	Emission Poir	nt in Common :
Coal Transfer Building including the Existing Lower Well, ar to Conveyor C-2), and a New Transfer Point (Conveyor C-1 t		
5. Discharge Type Code:	V	
6. Stack Height:	146	feet
7. Exit Diameter:	1.9	feet
8. Exit Temperature :	68	°F
9. Actual Volumetric Flow Rate :	10500	acfm
10. Percent Water Vapor:	2.00	%
11. Maximum Dry Standard Flow Rate:	10500	dscfm
12. Nonstack Emission Point Height :	0	feet
13. Emission Point UTM Coordinates :		

III. Part 7a - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

Zone: 17 East (km): 447.200 North (km): 3366.400

14. Emission Point Comment:

Attachments F-6, F-8, and F-9, contain additional information related to stack parameters and location.

III. Part 7a - 2

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 21	_	
SJRPP - Coal Transfer Building		
Segment Description and Rate: Segment	1	
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mo	ode):
Coal (Either/Or Application - Total Maximum 2,421,0	00 tons per year)	
2. Source Classification Code (SCC): 30501	099	
3. SCC Units: Tons Processed		
4. Maximum Hourly Rate: 4,000.00	5. Maximum Annual Rate:	7,500,000.00
6. Estimated Annual Activity Factor: 0.00	!	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:	
9. Million Btu per SCC Unit :		
10. Segment Comment :		

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 21	_
SJRPP - Coal Transfer Building	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Petroleum Coke (Either/Or Application - Total Maximum 2,421,0	00 tons per year)
2. Source Classification Code (SCC): 30501	099
3. SCC Units: Tons Processed	
4. Maximum Hourly Rate: 4,000.00	5. Maximum Annual Rate: 7,500,000.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	•
10. Segment Comment:	

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 21 · SJRPP - Coal Transfer Building

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL
2 - PM10	018		EL

III. Part 9a - 1

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

21

SJRPP - Coal Transfer Building			
Pollutant Potential/Estimated Emissions	: Pollutant	1	
1. Pollutant Emitted: PM			
2. Total Percent Efficiency of Control:	99.50	%	
3. Potential Emissions : 0.0220000	lb/hour		0.0206000 tons/year
4. Synthetically Limited? [] Yes [X] No			
5. Range of Estimated Fugitive/Other Emi	issions:	to	tons/year
6. Emissions Factor 0 Reference : AP-42, (EF=0.0011)	Uni	ts lb/ton	
7. Emissions Method Code: 3			
8. Calculations of Emissions: Emission calculations are detailed in App	endix C of the PS	D Report (Attac	chment F-9)
9. Pollutant Potential/Estimated Emissions Potential emissions based on tons process			

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 21

SJRPP - Coal Transfer Building	
Pollutant Potential/Estimated Emissions: Pollutant 2	
1. Pollutant Emitted: PM10	
2. Total Percent Efficiency of Control: 99.50 %	
3. Potential Emissions:	
0.0100000 lb/hour	0.0090000 tons/year
4. Synthetically Limited?	
[] Yes [X] No	
5. Range of Estimated Fugitive/Other Emissions:	
	to tons/year
6. Emissions Factor 0 Units lb/ton	
Reference: AP-42, (EF=0.0005)	
7. Emissions Method Code: 3	
8. Calculations of Emissions:	
Emission Calculations are detailed in Appendix C of the PSD Report (Attachment (F-9).
9. Pollutant Potential/Estimated Emissions Comment:	
Potential Emissions are based on tons processed.	

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section 21 SJRPP - Coal Transfer Building		
Pollutant Information Section 1		
Allowable Emissions 1		
1. Basis for Allowable Emissions Code:	RULE	
2. Future Effective Date of Allowable Emissions:	01-Apr-2002	
3. Requested Allowable Emissions and Units:	5.00	percent opacity
4. Equivalent Allowable Emissions:		
0.02 lb/ho	our 0.02	tons/year
5. Method of Compliance:		
Stack Test Waiver Requested Rule 62-297.310(7)(c),	F.A.C.	
6. Pollutant Allowable Emissions Comment (Desc. of BACT was evaluated as 0.01 gr/dscf or less in addition Opacity).		

III. Part 9c - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	21
SJRPP - Coal Transfer Building	

Pollutant Information Section 2

Allowable Emissions	
	"

1.	Basis for Allowable Emissions Code:	RULI	3		
2.	Future Effective Date of Allowable Emission	ns: 01-A	pr-2002		
3.	Requested Allowable Emissions and Units:	5.00		percent opacity	
4.	Equivalent Allowable Emissions:			-	
	0.01	lb/hour	0.01	tons/year	
5.	Method of Compliance :	<u> </u>			
	Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.			
6.	Pollutant Allowable Emissions Comment (D	esc. of Relate	d Operating 1	Method/Mode):	
	BACT was evaluated as 0.01 gr/dscf or less in a	ddition to a no	visible emissi	ons limit (%5 Opacity)	

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 21 SJRPP - Coal Transfer Building <u>Visible Emissions Limitation</u>: Visible Emissions Limitation 1. Visible Emissions Subtype: 05 2. Basis for Allowable Opacity: **RULE** 3. Requested Allowable Opacity: Normal Conditions: 5 % **Exceptional Conditions:** 100 % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: EPA Method 9 5. Visible Emissions Comment: BACT was evaluated at 5% Opacity (i.e., no visible emissions) for this operation. Excess Opacity - 2 hours in any 24-hour period

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Em	issions Unit Information Section 21
SJR	PP - Coal Transfer Building
<u>PSI</u>	O Increment Consumption Determination
1.]	Increment Consuming for Particulate Matter or Sulfur Dioxide?
[X]	The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[]	None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2.	In	crement Consu	ming for Nitroge	en Dioxide?					
[] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.								
[] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.								
[] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.								
[] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.								
[] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.								
3.	Ir	ncrement Consu	ming/Expanding	Code:					
		PM:	С	SO2 :	NO2 :				
4.	В	aseline Emissio	ns:						
		PM : SO2 : NO2 :	0.0220	lb/hour lb/hour	0.0206 tons/year tons/year tons/year				
5.	P	SD Comment:							

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

21

Emissions Unit Information Section

DEP Form No. 62-210.900(1) - Form

Effective: 3-21-96

SJRPP - Coal Transfer Building		
Supplemental Requirements for All Applications		
1. Process Flow Diagram:	F-6, EU044	
2. Fuel Analysis or Specification:	NA	
3. Detailed Description of Control Equipment:	E-2	<u>.</u>
4. Description of Stack Sampling Facilities:	E-3	
5. Compliance Test Report :	NA	
6. Procedures for Startup and Shutdown:	NA	
7. Operation and Maintenance Plan:	NA	
8. Supplemental Information for Construction Permit Application :	F-9	
9. Other Information Required by Rule or Statue :	NA	
Additional Supplemental Requirements for Category I Application	ns Only	
10. Alternative Methods of Operations :		
11. Alterntive Modes of Operation (Emissions Trading):		

III. Part 13 - 1

12.	Identification of Additional Applicable Requirements:	

13. Compliance Assurance Monitoring Plan:

14. Acid Rain Application (Hard-copy Required):

Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))

Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)

New Unit Exemption (Form No. 62-210.900(1)(a)2.)

Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

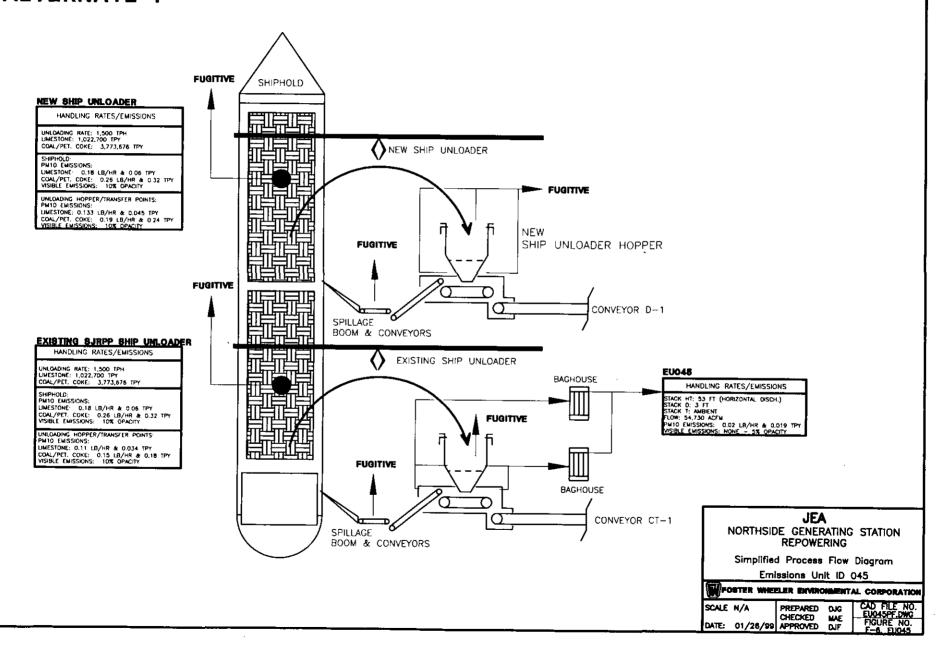
III. Part 13 - 2

DEP Form No. 62-210.900(1) - Form

Emissions Unit 045

SJRPP - Ship Unloader

NORTHSIDE GENERATING STATION SHIP UNLOADING OPERATIONS ALTERNATE 1



III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissi	ons Unit Information Section 22	
SJRPP - Ship Unloader		
Type of	f Emissions Unit Addressed in This Section	
1. Regi	ulated or Unregulated Emissions Unit? Check one:	
[X]	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.	
[]	The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.	
2. Sing	le Process, Group of Processes, or Fugitive Only? Check one:	
[]	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).	
[X]	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.	
[]	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.	

III. Part 1 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Informat	tion Section	22
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B. GENERAL EMISSIONS UNIT INFORMATION (Regulated and Unregulated Emissions Units)

Emissions Unit Description and Status

Description of Emissions U SJRPP - Ship Unloader	Jnit Addressed in This Section:	
Emissions Unit Identificati No Correspondir		Unknown
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment This emissions unit consists controlled by use of a dust co	of the existing SJRPP Ship Unload	ling Operation transfer points

III. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section	
SJRPP - Ship Unloader	
Emissions Unit Control Equipment	1
Description: Application Forms reflect "Worst Case includes one additional transfer point as	Scenario" as described under Alternate No. 1. This scenario sociated with the Limestone Conveyor.

2. Control Device or Method Code: 18

III. Part 3 -

DEP Form No. 62-210.900(1) - Form

C. EMISSIONS UNIT DETAIL INFORMATION (Regulated Emissions Units Only)

22

SJRPP - Ship Unloader		
Emissions Unit Details		
1. Initial Startup Date:	01-Dec-1986	

1. Initial Startup Date:	01-Dec-1986	
2. Long-term Reserve Shutdown Date:		
3. Package Unit : Manufacturer :		Model Number :
4. Generator Nameplate Rating:	MW	
5. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

Emissions Unit Information Section

Maximum Heat Input Rate: 0	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	1500	tons/hr
4. Maximum Production Rate:		
5. Operating Capacity Comment: Detailed rate information is in Attachment F-9, I	PSD Report (Appendi	x C).

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

III. Part 4 - 1

DEP Form No. 62-210.900(1) - Form

D. EMISSIONS UNIT REGULATIONS (Regulated Emissions Units Only)

Emissions Unit Information Section		22 ·
SJRPP - Ship Unloader	_	

Rule Applicability Analysis

Unit is subject to the Preconstruction Review Requirements of Chapters 62-210.300, Permits Required, 62-212.300 General Requirements and 62-212.400 Prevention of Significant Deterioration for PM and PM10. Unit is also subject to 40 CFR Part 60, Subpart Y - Standards of Performance for Coal Preparation Plants while processing coal and 40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (Alternate 1 - Limestone Transfer Point).

III. Part 6a - 1

DEP Form No. 62-210.900(1) - Form

saions Out into mation Section

SJRPP - Ship Unloader

List of Applicable Regulations

40 CFR Part 60.7, Notification and Recordkeeping

40 CFR Part 60.8, Performance Tests

40 CFR Part 60.11, Compliance with Standards and Maintenance Requirements

22

40 CFR Part 60.12, Circumvention

40 CFR Part 60.13, Monitoring Requirements

40 CFR Part 60.19, General Notifications and Reporting Requirements

Rule 62-204.800(7)(b).31, F.A.C., Adoption of 40 CFR Part 60 Subpart Y

Rule 62-210.650, F.A.C., Circumvention

Rule 62-210.700(1), (4), & (6), F.A.C,. Excess Emissions

Rule 62-297.310, F.A.C., General Test Requirements

40 CFR Part 60, Subpart Y, Standards of Performance for Coal Preparation Plants

60 CFR Part 60.250 (a), Applicability and Designation of Affected Facility

40 CFR Part 60.252 (c), Standards for Particulate Matter

40 CFR Part 60.254(b)(2), Test Methods and Procedures

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form

SJRPP - Ship Unloader

List of Applicable Regulations

Rule 62-204.800(7)(c), F.A.C., NSPS Controlling Standards

Rule 62-204.800(7)(d), F.A.C., Adoption of the General Provisions (As Noted)

22

Rule 62-204.800(7)(e), F.A.C., Adoption of the NSPS Appendices (As Noted)

Rule 62-210.300(1), F.A.C., Air Construction Permit

Rule 62-210.350(1) & (2), F.A.C., Public Notice & Comment

Rule 62-210.550, F.A.C., Stack Height Policy

Rule 62-297.401 (5) & (9)(c), F.A.C., EPA Methods 5 and 9, 40 CFR Part 60, Appendix A

Rule 62-212.300, F.A.C., General Preconstruction Review Requirements

Rule 62-4.030, F.A.C., General Provisions

Rule 62-4.130, F.A.C., Plant Operations - Problems

Rule 62-212.400(1), F.A.C., General Provisions

Rule 62-212.400(2)(d)4., F.A.C., Applicability - Modifications to Major Sources

Rule 62-212.400(2)(e), F.A.C., Applicability - Emission Increases

Rule 62-212.400(2)(f), F.A.C., Applicability - Pollutants Subject to PSD Preconstruction Review

III. Part 6b - 2

DEP Form No. 62-210.900(1) - Form

SJRPP - Ship Unloader

List of Applicable Regulations

Rule 62-212.400(4), F.A.C., General Provisions

Rule 62-212.400(5)(e), F.A.C., Preconstruction Review Requirements - Additional Impact Analyses

Rule 62-212.400(5)(b), F.A.C., Preconstruction Review Requirements - Technology Review

Rule 62-212.400(5)(c), F.A.C., Preconstruction Review Requirements - BACT

Rule 62-210.300(5), F.A.C., Notification of Start-up

Rule 62-210.900(1), F.A.C., Forms and Instructions

Rule 62-4.040(1), F.A.C., Exemptions

Rule 62-204.800(7)(b)64., F.A.C., Adoption of 40 CFR Part OOO, Nonmetalic-Mineral Processing Plants

40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic-Mineral Processing Plants

40 CFR Part 60.679(a)(1), (e), & (f), Applicability and Designation of Affected Facility

40 CFR Part 60.672(e), Standards for Particulate Matter

40 CFR Part 60.675, Test Methods and Procedures

40 CFR Part 60.676, Reporting and Recordkeeping

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution (As Noted)

III. Part 6b - 3

DEP Form No. 62-210.900(1) - Form

SJRPP - Ship Unloader

List of Applicable Regulations

Rule 2.201, Adoption of Chapter 62-204, F.A.C., (As Noted)

Rule 2.301, Adoption of Chapter 62-210, F.A.C., (As Noted)

Rule 2.401, Adoption of Chapter 62-212, F.A.C., (As Noted)

Rule 2.1101, Adoption of Chapter 62-297, F.A.C., (As Noted)

Rule 2.1203, E., Air Pollution Nuisances Prohibited

Rule 2.1301, Adoption of Chapter 62-4. F.A.C., (As Noted)

Rule 2.105, Maintenance of Air Pollution Control Devices

III. Part 6b - 4

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

SJRPP - Snip Unioader		
Emission Point Description and Type:		
1. Identification of Point on Plot Plan or Flow Diagram:	SJRPP - SU	
2. Emission Point Type Code: 1		
3. Descriptions of Emission Points Comprising this Emis (limit to 100 characters per point)	sions Unit for V	E Tracking:
4. ID Numbers or Descriptions of Emission Units with the	is Emission Poir	at in Common:
The existing SJRPP Ship Unloader includes a dust collection	on system.	•
5. Discharge Type Code:	V	,
6. Stack Height:	53	feet
7. Exit Diameter :	3.0	feet
8. Exit Temperature :	68	°F
9. Actual Volumetric Flow Rate :	54730	acfm
10. Percent Water Vapor :	2.00	%
11. Maximum Dry Standard Flow Rate:	54730	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates :		
Zone: 17 East (km): 448.800 III. Part 7a - 1	North (ki	m): 3362.200

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

14. Emission Point Comment:

Attachments F-6, F-8, and F-9 contain additional information related to stack parameters and location.

III. Part 7a - 2

DEP Form No. 62-210.900(1) - Form

E. EMISSION POINT (STACK/VENT) INFORMATION

22

SJRPP - Ship Unloader		
Emission Point Description and Type:		
Identification of Point on Plot Plan or Flow Diagram: SJR	RPP - SU	
2. Emission Point Type Code: 1		
3. Descriptions of Emission Points Comprising this Emissions Un (limit to 100 characters per point)	nit for VE	Tracking:
4. ID Numbers or Descriptions of Emission Units with this Emiss	sion Point	in Common :
The existing SJRPP Ship Unloader includes a dust collection system	n.	
5. Discharge Type Code:	v	
6. Stack Height:	53	feet
7. Exit Diameter :	3.0	feet
8. Exit Temperature :	68	°F
9. Actual Volumetric Flow Rate :	54730	acfm
10. Percent Water Vapor:	2.00	%
11. Maximum Dry Standard Flow Rate:	54730	dscfm
12. Nonstack Emission Point Height:	0	feet
13. Emission Point UTM Coordinates :	-	
Zone: 17 East (km): 0.000	North (kn	n): 0.000

III. Part 7a - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

14. Emission Point Comment:

Attachments F-6, F-8, and F-9 contain additional information related to stack parameters and location.

III. Part 7a - 2

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 22			
SJRPP - Ship Unloader			
Segment Description and Rate: Segment	1		
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):		
Coal			
2. Source Classification Code (SCC): 3050	1099		
3. SCC Units: Tons Processed			
4. Maximum Hourly Rate: 150.00	5. Maximum Annual Rate : 3,774,000.00		
6. Estimated Annual Activity Factor: 0.00			
7. Maximum Percent Sulfur :	8. Maximum Percent Ash:		
9. Million Btu per SCC Unit:			
10. Segment Comment:			

III. Part 8 - 1

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 22	_
SJRPP - Ship Unloader	
Segment Description and Rate: Segment	2
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):
Petroleum Coke	
2. Source Classification Code (SCC): 30501	099 .
3. SCC Units: Tons Processed	
4. Maximum Hourly Rate: 1,500.00	5. Maximum Annual Rate : 3,774,000.00
6. Estimated Annual Activity Factor: 0.00	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment:	

III. Part 8 - 2

DEP Form No. 62-210.900(1) - Form

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 22				
SJRPP - Ship Unloader				
Segment Description and Rate: Segment	3			
1. Segment Description (Process/Fuel Type and	Associated Operating Method/Mode):			
Limestone				
2. Source Classification Code (SCC): 30501	099			
3. SCC Units: Tons Processed				
4. Maximum Hourly Rate: 1,500.00	5. Maximum Annual Rate : 1,022,700.00			
6. Estimated Annual Activity Factor:				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:			
9. Million Btu per SCC Unit:				
10. Segment Comment:				

III. Part 8 - 3

DEP Form No. 62-210.900(1) - Form

G. EMISSIONS UNIT POLLUTANTS (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 22
SJRPP - Ship Unloader

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL
2 - PM10	018		EL

III. Part 9a - 1

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 22

SJRP	P - Ship Unloader					
<u>Pollu</u>	tant Potential/Estimate	ed Emissions	: Pollut	ant <u>1</u>		
1. P	ollutant Emitted: PM					
2. T	otal Percent Efficiency o	f Control:	99,50	 %	-	
3. Po	otential Emissions:	0.0332000	lb/hour			0.0500000 tons/year
4. S	ynthetically Limited?] Yes [X] N	0				
5. R	ange of Estimated Fugiti	ve/Other Emi	ssions:		to	tons/year
6. E	missions Factor Reference: AP-42,	0 (EF=0.00148)		Units lb/t	on	
7. Ei	nissions Method Code:	3				
8. C	alculations of Emissions	:				
	Emission Potentials reflect See Calculation Sheet	Alternate 1				
9. Po	ollutant Potential/Estimat	ted Emissions	Comment	:		
	Emission calculations are d missions based on tons pro		endix C of t	he PSD Rep	ort (Attacl	hment F-9). Potential

III. Part 9b - 1

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 22
SJRPP - Ship Unloader

III. Part 9b - 2

DEP Form No. 62-210.900(1) - Form

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION (Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 22

SJF	RPP - Ship Unloader
<u>Pol</u>	lutant Potential/Estimated Emissions: Pollutant 2
1.	Pollutant Emitted: PM10
2.	Total Percent Efficiency of Control: 99.50 %
3.	Potential Emissions: 0.0160000 lb/hour 0.0230000 tons/year
4.	Synthetically Limited? [] Yes [X] No
5.	Range of Estimated Fugitive/Other Emissions: to tons/year
6.	Emissions Factor 0 Units lb/ton Reference: AP-42, (EF=0.0007)
7.	Emissions Method Code: 3
8.	Calculations of Emissions:
	Emission Potentials reflect Alternate 1
9.	Pollutant Potential/Estimated Emissions Comment:
	Emission calculations are detailed in Appendix C of the PSD report (Attachment F-9). Potential emissions based on tons processed.

III. Part 9b - 3

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Emissions Unit Information Section	22
SJRPP - Ship Unloader	

Po	ollutant Information Section 1				
<u>Al</u>	llowable Emissions 1				
1.	. Basis for Allowable Emissions Code :	RULE			
2.	. Future Effective Date of Allowable Emissions :	01-Apr	-2002		
3.	. Requested Allowable Emissions and Units :	5.00	P	ercent Opacity	
4.	Equivalent Allowable Emissions:				
	0.03 lb/h	our	0.05	tons/year	
5.	Method of Compliance :				
	Stack Test Waiver Requested Rule 62-297.310(7)(c),	, F.A.C.			
6.	Pollutant Allowable Emissions Comment (Desc.	of Related	Operating M	ethod/Mode):	
	BACT was evaluated as 0.01 gr/dscf or less in addition	on to a no vi	sible emissior	n limit (5% opacity).	

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section SJRPP - Ship Unloader	
Pollutant Information Section 2	
Allowable Emissions 1	
Basis for Allowable Emissions Code: RULE	
2. Future Effective Date of Allowable Emissions: 01-Apr-2002	
3. Requested Allowable Emissions and Units: 5.00 percent op	acity
4. Equivalent Allowable Emissions:	
0.02 lb/hour 0.02 ton	ıs/year
5. Method of Compliance :	•
Stack Test Waiver Requested Rule 62-297.310(7)(c), F.A.C.	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/M	ode):
BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limitat Opacity) Emissions.	ion (5%

III. Part 9c - 2

DEP Form No. 62-210.900(1) - Form

I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 22
SJRPP - Ship Unloader

Visible Emissions Limitation: Visible Emissions Limitation 1

1. Visible Emissions Subtype: 05

2. Basis for Allowable Opacity: RULE

Normal Conditions: 5 %
Exceptional Conditions: 100 %
Maximum Period of Excess Opacity Allowed: min/hour

BACT was evaluated at 5% opacity (i.e., no visible emissions) for this operation.

III. Part 10 - 1

DEP Form No. 62-210.900(1) - Form

4. Method of Compliance:

5. Visible Emissions Comment:

Maximum Period 2 hours in any 24-hour period

EPA Method 9

J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form

K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT TRACKING INFORMATION

Emissions Unit Information Section 22
SJRPP - Ship Unloader
PSD Increment Consumption Determination
1. Increment Consuming for Particulate Matter or Sulfur Dioxide?
[X] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

DEP Form No. 62-210.900(1) - Form

2. I	ncrement Consu	ming for Nitroge	en Dioxi	de?			
[]	•	has undergone I			• •		ew as part of this lioxide. If so, emissions
[]	paragraph (c) of the emissions in	of the definition of the addressed in	of "major this secti	source o	f air pollution nenced (or wi	" in C	or source pursuant to hapter 62-213, F.A.C., and mence) construction after unit consumes increment.
[]	unit began init		r Februa	ry 8, 198	8, but before		or source, and the emissions 28, 1988. If so, baseline
[]		y, the emissions emissions are ze				_	ation after March 28, 1988.
[]	case, additiona	al analysis, beyor issions have occ	nd the sco	ope of thi	s application,	is nee	unit are nonzero. In such ded to determine whether date that may consume or
3. I	ncrement Consu	ıming/Expanding	g Code :	· · · · · · · · · · · · · · · · · · ·			
	PM:	С	SO2 :	U	N	102 :	U
4. 1	Baseline Emission	ons :		-			
	PM : SO2 : NO2 :	0.0332	lb/hour lb/hour		().0500	tons/year tons/year tons/year
	PSD Comment :	ent increment con	sumption	values			

III. Part 12 - 2

DEP Form No. 62-210.900(1) - Form

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

___22__

SJRPP - Ship Unloader	
Supplemental Requirements for All Applications	
1. Process Flow Diagram:	F-6, EU045
2. Fuel Analysis or Specification:	NA
3. Detailed Description of Control Equipment:	E-2
4. Description of Stack Sampling Facilities :	E-3
5. Compliance Test Report :	NA
6. Procedures for Startup and Shutdown:	NA
7. Operation and Maintenance Plan:	NA
8. Supplemental Information for Construction Permit Application:	F-9
9. Other Information Required by Rule or Statue :	NA
Additional Supplemental Requirements for Category I Application	s Only
10. Alternative Methods of Operations:	
11. Alterntive Modes of Operation (Emissions Trading):	

III. Part 13 - 1

DEP Form No. 62-210.900(1) - Form

Emissions Unit Information Section

12. Identification of Additional Applicable Requirements :				
13. Compliance Assurance Mon Plan:	itoring			
14. Acid Rain Application (Hard	d-copy Required):			
	Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))			
	Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)			
	New Unit Exemption (Form No. 62-210.900(1)(a)2.)			

Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

ATTACHMENT E-1

Fuel Analyses

File: NGS Attach E-1.doc

Revision 0.0

NORTHSIDE REPOWERING PROJECT

TABLE 2-6 TYPICAL NATURAL GAS ANALYSIS ⁽¹⁾			
Analysis	Gravimetric Breakdown (%)		
Ultimate Analysis			
Carbon	64.84 - 75.25		
Hydrogen	20.85 - 23,53		
Oxygen	0 - 1.58		
Nitrogen	0.76 - 12.90		
Sulfur ⁽²⁾	0 - 0.34		
Ash	0.0		
Proximate Analysis			
Volatile Matter	99.65 - 100.0		
Fixed Carbon	0.0		
Moisture	0.0 - 0.00138		
Ash	0.0		

(1) Heating value (HHV): 964 - 1129 Btu/ft³
(2) Total sulfur (maximum): 10 grains/100 SCF

Source: Babcock & Wilcox, 1992 and RE&C, 1997

TABLE 2-7 TYPICAL NO. 2 FUEL OIL ANALYSIS ⁽¹⁾			
Analysis	Gravimetric Breakdown (%)		
Ultimate Analysis			
Carbon	86.1 - 88.2		
Hydrogen	11.8 - 13.9		
Oxygen	0.0		
Nitrogen	0.0 - 0.1		
Sulfur ⁽²⁾	0.0 - 0.05		
Ash	0.0 - 0.05		
Proximate Analysis			
Volatile Matter	99.05 - 99.5		
Fixed Carbon	0.25 - 1.0		
Moisture	0.0 - 0.1		
Ash	0.0 - 0.05		
45)			

⁽¹⁾ Heating value (HHV): 19,170 - 19,750 Btu/lb (2) Total sulfur (maximum) 0.05%

Source: Babcock & Wilcox, 1992 and RE&C, 1997

NORTHSIDE REPOWERING PROJECT

TABLE 2-4 FUEL CHARACTERISTICS - BITUMINOUS COAL				
		Maximum	Performance	
Fuel Specification				
Heat Content, Btu/lb (HHV)	10,000	N/A	11,600	
Hardgrove Grindability	35	80	50	
Particle Size (inches)	0	4	N/A	
Proximate Analysis (%)				
Volatile Matter	20.0	40.0	33.0	
Fixed Carbon	37.0	N/A	46.85	
Sulfur	0.5	4,5	0.71	
Moisture	N/A	15.0	12.0	
Ash	7.0	15.0	8.15	
Ultimate Analysis (%)				
Carbon	49.3	86.0	65,2	
Hydrogen	3.2	6.0	4.58	
Nitrogen	0.4	1.9	1.3	
Oxygen	3.0	9.8	8.02	
Chlorine	N/A	0.3	0.04	
N/A = Not Applicable Source: JEA, 1998				

TABLE 2-5 FUEL CHARACTERISTICS - DELAYED PETROLEUM COKE				
	Minimum	Maximum	Performance	
Fuel Specification				
Heat Content, Btu/lb (HHV)	13,000	N/A	14,360	
Hardgrove Grindability	25	80	38	
Particle Size (inches)	0	4	N/A	
Proximate Analysis (%)				
Volatile Matter	7.0	N/A	9.0	
Fixed Carbon	71.0	88.0	79.9	
Sulfur	3.0	8.0	4.5	
Moisture	N/A	15.0	6.2	
Ash	N/A	3.0	0.4	
Ultimate Analysis (%)				
Carbon	78.0	89.0	83.0	
Hydrogen	3.2	5.8	3.7	
Nitrogen	0.4	2.0	1.7	
Oxygen	0.1	1.8	0.5	
Vanadium (ppm)	N/A	3,500	1,850	
Nickel (ppm)	N/A	600	500	
N/A = Not Applicable Source: JEA, 1998				

ATTACHMENT E-2

Control Equipment Descriptions

File: NGS Attach E-2.doc

Revision 0.0

JEA

NORTHSIDE GENERATING STATION REPOWERING POLISHING SCRUBBER EQUIPMENT DESCRIPTION

A polishing scrubber will be installed downstream of each of the new CFB boilers to reduce sulfur dioxide (SO₂) and particulate emissions to acceptable levels. The system will include an absorber vessel followed by an electrostatic precipitator or fabric filter depending upon the specific supplier's design. Draft for the system, which will be approximately 10 iwc, will be provided by an induced draft fan located downstream of the polishing scrubber system.

SCRUBBER

The scrubbing process will be a semi-dry process using calcium products as the reagent for removing sulfur dioxide (SO₂) from the flue gas. Flue gas entering the scrubber at approximately 280 °F will be humidified to within 30 - 42 °F of adiabatic saturation. Sulfur dioxide (SO₂) will be absorbed and reacted with the alkaline sorbent to form calcium sulfite (C_aSO₃) and calcium sulfate (C_aSO₄) byproducts. The scrubber system will be designed to provide 93 % removal efficiency which, in combination with the sulfur dioxide (SO₂) removal efficiency in the CFB boiler, will achieve the allowable sulfur dioxide (SO₂) emission rate.

The source of reagent will be a combination of calcium oxide (C_aO) in the fly ash from the CFB boiler, recirculated fly ash from the particulate collector and fresh reagent prepared from pebble lime. Fresh reagent will be prepared as calcium hydroxide $(C_a(OH)_2)$ or as a lime slurry depending upon the specific manufacturers design. Calcium hydroxide $(C_a(OH)_2)$ will be prepared in a hydrator and will be provided with a wet scrubber to reduce particulate emissions. Lime slurry will be prepared in a slaker.

The scrubber system including the particulate collector will be procured from one of the following or equal suppliers:

- ABB Environmental Systems
- B & W / Joy
- Brandt Filtration Group
- Environmental Elements Corporation
- Marsulex Environmental Technologies
- Wheelabrator Air Pollution Control Inc.

FABRIC FILTER

The polishing scrubber manufacturer may choose to provide a fabric filter for control of particulate matter. The particulate collector would be a pulse jet fabric filter with an expected flow rate of 762,000 ACFM and using high pressure low volume compressed air as the cleaning medium. Flue gas from the polishing scrubber containing calcium sulfite (C₂SO₃), calcium sulfate (C₂SO₄), calcium oxide (C₂O), fuel ash and inert material would enter the fabric filter at a temperature of approximately 150 - 155 °F. The fabric filter would have a minimum of eight (8) compartments with a maximum inlet velocity of 1800 fpm. Sufficient cloth area would be included to provide a maximum filtration velocity of 3.5 fpm with one compartment out of service for maintenance. Filter media would be manufactured of Ryton with a nominal 6" diameter by 18 - 20 ft long bag. A minimum spacing between bags within a compartment would be 2 inches. Bag cleaning would be performed on line and would be initiated to limit the pressure drop across the fabric filter to a maximum 6 iwc. The overall particulate removal efficiency would be approximately 99.99%. Particulate matter collected in the hopper would be conveyed by a negative pressure pneumatic system to the fly ash silo or recirculated back to the polishing scrubber.

ELECTROSTATIC PRECIPITATOR

An electrostatic precipitator may be installed to reduce particulate emissions depending upon the polishing scrubber manufacturer's specific design. An ESP would only be allowed with a design similar to Environmental Elements circulating dry scrubber where a fluidized bed scrubber precedes the ESP. The ESP would be sized for 762,000 ACFM with an SCA of 515, an aspect ratio of 1.45 and a velocity of 3.52 fps. The total active collecting surface would be 392,850 square feet using 50 ft high collecting plates. A total of fifty-four (54) gas passages with 16 inch spacing would be provided in two separate chambers. Each gas passage would contain 48 ridged tube discharge electrodes. Twelve (12) electrical fields parallel to the direction of gas flow with two (2) bus sections per field would be provided. Primary and secondary voltage would be 480 v and 70,000 v, and primary and secondary current will be 210 amps and 1,000 milli amps respectively. Spark rates will vary between 50 and 100 sparks per minute. Based upon the inlet loading from the polishing scrubber, the particulate removal efficiency would be approximately 99.99%. Solids collected in the ESP hopper would be transported to the fly ash silo via a negative pressure pneumatic conveying system or recirculated to the polishing scrubber.

JEA

NORTHSIDE GENERATING STATION REPOWERING DUST COLLECTION & DUST SUPPRESSION

Dust Collection and Dust Suppression shall be furnished throughout the system at various transfer points. There will be either Dust Collection or Dust Suppression at the points.

DUST COLLECTION

Dust laden air enters the collector via ductwork under suction. The diffuser absorbs the impact of the high velocity dust particles and distributes the flow of the incoming air. The dust laden air travels upward and through the filtration bag. The exterior of the bag filters the air from the particulate.

The collector housing is dust tight and is divided by a cell plate/tubesheet into two plenums. The lower section/dirty air plenum contains the filter bags, discharge hopper, and inlet. The discharge hopper is fitted with an air lock to enable continuous discharge of dust to the conveyed material main stream.

The filter bags fit around and are supported by wire cages. A pulse pipe with multiple orifices is located above each row of filter bags so an orifice is directly above the throat of each venturi in that row.

The upper/clean air plenum houses the blow pipes and supports the air header, solenoid valves, diaphragm valves and provides an exhaust outlet for the filtered air stream to the atmosphere.

The cleaning sequence is as follows:

The cycle timer actuates the normally closed solenoid valve causing it to open. The diaphragm valve opens, as a result of the decrease in pressure from the opening of the solenoid valve. A momentary inrush of high pressure clean and dry compressed air flows from the header to the pulse pipe, down through each venturi, and into each filter bag. Thus all the bags in a single row are cleaned simultaneously. This cleaning process is repeated for each row of bags. The time between pulses and the duration of the pulse is adjustable. A magnehelic gauge shows the pressure drop across the collector and is a good indication of the collector performance. A differential pressure switch will initiate the cleaning sequence based upon the pressure drop of the dust collector.

DUST SUPPRESSION

The chemical/water spray is applied to the conveyed material stream. The conveyed materials are dampened to eliminate dust producing characteristics.

The system shall consist of the following components:

The proportioner mixes the chemical and water in the appropriate ratio.

The spray jet controller governs the flow of mixed solution, supplied by the proportioner, to the spray manifold assemblies.

The spray manifold assemblies, are a series of jets that actually apply the solution to the conveyed material.

The automatic sequencing control panel to provided adjustment of the spraying sequence.

The proportioner and pumping system automatically mixes the chemical solution and water in a preselected ratio, and supplies the mixture to the spray locations. The system shall include a proportioner, a chemical injection pump, inlet water pressure regulator, solution pump, motor drives, control panel, and other necessary equipment.

The material flow switches will activate only when the presence of material is detected. Thus activating the spray flow controllers. The spray flow controllers will control the flow of spray solution to the spray manifold assemblies at the application points.

The spray manifold assemblies are made up of multiple spray housing and strainer assembly with jet nozzles for location in chutes and loading skirts as design requires. The location is such that the water solution is contained in the chute/loading skirt housing.

Stack Sampling Facilities Descriptions

File: NGS Attach E-3.doc

Revision 0.0

STACK SAMPLING FACILITIES DESCRIPTION

Pursuant to Rule 62-297.310(6), F.A.C. JEA will ensure that the required stack sampling facilities for the proposed new emissions units include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

Pursuant to Rule 62-297.310(6)(a), F.A.C., JEA will install and maintain permanent test facilities for the proposed new emissions units for which a compliance test, other than a visible emissions test, is required on at least an annual basis

Pursuant to Rule 62-297.310(6)(b), F.A.C., JEA will use either permanent or temporary stack sampling facilities for any proposed new emissions unit that is not required to conduct a compliance test on at least an annual basis may use. When electing to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, JEA will install the temporary facilities on the emissions unit within 5 days of a request by the Department. The temporary sampling facilities will remain on the emissions unit until the test is completed.

Pursuant to Rule 62-297.310(6)(c), F.A.C., JEA will ensure that, through design specifications, all sampling ports will have a minimum inside diameter of 3 inches, be capable of being sealed when not in use, be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance. In addition, JEA will specify that at least two sampling ports, 90 degrees apart, be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less and for stacks with larger diameters, four sampling ports, each 90 degrees apart, be installed. For horizontal circular ducts, JEA will specify that the ports be located so that a probe can enter the stack vertically, horizontally or at a 45 degree angle. For rectangular ducts, JEA will ensure that, through design specifications, all sampling ports will allow access to each sampling point so that the probe can be inserted perpendicular and that the sampling points will be identified in accordance with EPA Method 1.

Pursuant to Rule 62-297.310(6)(d), F.A.C., JEA will ensure that, through design specifications, all work platforms will have a minimum size of 24 square feet in area and be at least 3 feet wide. JEA will include specifications that for circular stacks with 2 sampling ports, the platform will extend at least 110 degrees around the stack and for circular stacks with more than two sampling ports, the work platform will extend 360 degrees around the stack. JEA will specify that all platforms be equipped with an adequate safety rail and that roping is not considered adequate, a toeboard, and a hinged floor-opening cover if ladder access is used to reach the platform. JEA will also specify that the safety rail directly in line with the sampling ports will be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

Pursuant to Rule 62-297.310(6)(e), F.A.C., JEA will ensure that ladders to each work platform exceeding 15 feet in length are equipped with safety cages or fall arresters and will maintain at

least 3 compatible safety harnesses available for use by sampling personnel. JEA will also ensure that all walkways over free-fall areas are equipped with safety rails and toeboards.

Pursuant to Rule 62-297.310(6)(f), F.A.C., JEA will provide electrical power and ensure that as a minimum two 120-volt AC, 20-amp outlets are available at the sampling platform and that either the power outlets are within 20 feet of each sampling port or that extension cords will be available immediately upon request by sampling personnel.

Pursuant to Rule 62-297.310(6)(g), F.A.C., JEA will ensure that, through design specifications, adequate sampling equipment support is provided and includes either a three-quarter inch eyebolt and an angle bracket attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts; a complete monorail or dualrail arrangement; or for sample ports located in the top of a horizontal duct, a frame above the port to allow the sample probe to be secured during the test. JEA will specify that all brackets be a standard 3 inch x 3 inch x one-quarter inch equal-legs bracket which is 1 and one-half inches wide and that a onehalf inch in diameter hole be drilled through the exact center of the horizontal portion of the bracket. JEA will specify that the horizontal portion of any bracket be located 14 inches above the centerline of the sampling port. JEA may also specify that a three-eighth inch bolt protruding 2 inches from the stack in-lieu of a bracket and that the bolt be located 15 and one-half inches above the centerline of the sampling port. JEA will further specify that any three-quarter inch eyebolt be capable of supporting a 500 pound working load. For stacks which are less than 12 feet in diameter, JEA will specify that the eyebolt be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, JEA will specify that the eyebolt be located 60 inches above the horizontal portion of the angle bracket. For any the eyebolt that is more than 120 inches above the platform, JEA will specify that a length of chain be attached to it or available to bring the free end of the chain to within safe reach from the platform.

Startup and Shutdown Procedures

File: NGS Attach E-4.doc

Revision 0.0

STARTUP AND SHUTDOWN PROCEDURES

Pursuant to Rule 62-210.700(5), F.A.C., JEA is requesting that the Department consider the operational variations of the Circulating Fluidized Bed Boilers affected by 62-210.700(5), F.A.C., and adjust the maximum allowed hours for excess emissions associated with startup, shutdown, or malfunction in any 24 hour period. A 12 hour excess emissions duration is requested.

The attached information presents a typical cold startup scenario and projected emissions which include the application of reasonable and practical emission controls. It is not anticipated that these emission rates will become permit limits.

STARTUP EMISSIONS

The section describes the emissions from the Northside repowered units 1 and 2 during plant startup. For the purposes of this description, startup is defined as the period during which the CFB boiler load is raised from 0 to 50 percent MCR and during which the CFB boiler is expected to exceed the requested emission limits. The description assumes startup on the following fuels:

- No. 2 fuel oil¹ (Sulfur Content = 0.05 %, Heating Value = 138,000 Btu/gallon)
- Petroleum Coke (Sulfur Content = 8.0%, heating Value = 13000 Btu/lb)

The startup of each CFB boiler may be divided into three distinct phases.

PHASE 1: An initial seven (7) hour heat up period during which fuel oil, fired in oil burners, is used to heat the furnace to approximately 900 °F after which petroleum coke feed may be commenced. Over the first three hours of this seven hour period, the fuel oil flow rate to the startup burners is gradually increased until the heat input associated with the fuel oil flow is approximately 15 percent of the total CFB boiler heat input at full load. The flow rate of fuel oil to the startup burners is then kept constant at this rate for the next four hours as the unit continues to heat up.

PHASE 2: A transition period during which the feed rate of petroleum coke is gradually increased and that of fuel oil is gradually decreased until the CFB boiler is operating entirely on petroleum coke. This transition takes approximately four hours. At the end of the transition period, the CFB boiler is operating entirely on petroleum coke at approximately 40 percent MCR.

¹ The primary start up fuel is natural gas, with No. 2 fuel oil serving as the back up fuel. For the purpose of addressing the worst case scenario, however, start up on No. 2 fuel oil is assumed.

PHASE 3: An increase in CFB boiler load from 40 to 50 percent MCR accomplished by increasing the petroleum coke feed rate.

PHASE 1 - HEAT UP ON FUEL OIL (0 - 15% MCR, 7 HOURS)

The time required to raise the furnace temperature from ambient temperature to 900 °F is dictated by the rate at which the bed of solids in the furnace can be heated up with the startup burners and by the rate at which various components of the boiler can be heated up without subjecting them to thermal stress related damage. Emissions during this phase are governed by the combustion of the startup fuel oil and are expected to be as follows:

Sulfur Dioxide

The sulfur dioxide emission rate at the stack during this phase will be approximately 0.06 lb/MMBtu. This will be below the requested permit level of 0.15 lb/MMBtu and represents the total amount of sulfur dioxide produced when burning the fuel oil. During this phase of the startup no significant sulfur capture is expected as:

- the temperature in the furnace will be too low for any limestone present in the furnace to calcine², and
- the total gas flow through the scrubber will be too low for it to be brought into operation³.

$NO_{\underline{x}}$

The NO_x emission rate at the stack during this phase may be as high as 0.45 lb/MMBtu. This is above the requested permit level of 0.09 lb/MMBtu. This level of NO_x emission results from the combustion of the fuel oil in the startup burners. The circulating fluidized bed combustor is equipped with a Selective Non Catalytic Reduction (SNCR)

² Sulfur capture via limestone occurs through the calcination of the limestone to calcium oxide and the subsequent reaction of the calcium oxide with sulfur dioxide to produce calcium sulfate.

³ The CDS scrubber being considered for use on the boiler requires a minimum flue gas flow before it can be brought online. This threshold gas flow rate will not be met below 50 percent MCR.

system that will be used to maintain the level of the NO_x emission below the requested permit level of 0.09 lb/MMBtu during normal operation (50 to 100 percent MCR). This system will be ineffective during this phase of the startup as the temperature at the cyclone inlet (the location where ammonia is injected into the flue gas) will be below 1350 °F, the temperature above which ammonia injection is effective.

CO

The CO emissions during this phase of the startup may be as high as 0.55 lb/MMBtu. This is above the requested permit level of 0.22 lb/MMBtu. The high CO emission level is related to the low temperature in the furnace during startup and to the smoldering of fuel particles that may be present in the bed.

VOC

The VOC emissions during this phase of the startup may be as high as 0.25 lb/MMBtu. This is above the requested permit level of 0.01 lb/MMBtu. As is the case with the CO emission, this high VOC emission level (relative to the requested permit level of 0.01 lb/MMBtu) is a result of the low furnace temperature and to the smoldering of fuel particles that may be present in the bed.

<u>Particulate</u>

Particulate emissions during startup will depend on whether an Electrostatic Precipitator (ESP) or a Fabric Filter is chosen as the final particulate collection device.

Particulate Emissions with an ESP

During this phase of the startup cool flue gas passes through the precipitator and there will be some moisture and, possibly, some acid condensation in the ESP until it has warmed up. If the precipitator is clean, as in an initial startup, this condensation will eventually evaporate. If the ESP is covered with ash (clinging to its surfaces as a result of its being charged), as in subsequent startups, the condensation may result in the formation of crusty deposits, thereby, adversely impacting the efficiency of the ESP in the post

startup period, that is, during normal operation. In addition, poor initial combustion of the fuel oil may result in soot deposition in the ESP. An ignition failure in the boiler may result in a combustible mixture of fuel and air entering the precipitator. A spark in the precipitator under these conditions might ignite this mixture, causing an explosion, thereby, seriously damaging the ESP. Even if an explosion is avoided, collection of combustible carbonaceous material on the collecting plates creates ideal conditions for a flash fire in the presence of oxygen.

For the above mentioned reasons, the ESP will not be energized until the temperature within the furnace is high enough to sustain stable combustion and the temperature of the flue gas within the ESP is high enough to prevent condensation. The point in time when these conditions are met coincides with that when it is safe to introduce solid fuel into the furnace and, consequently, the ESP will not be energized until solid fuel feed is commenced. During this phase of the startup, therefore, the boiler will be operating without the ESP energized and particulate emission limits may be exceeded. It should be noted, however, that the low velocities in the duct work, scrubber vessel and ESP during startup will allow particulate matter to drop out of the gas stream prior to being discharged from the stack and consequently particulate emissions during this phase are not expected to be excessive.

Particulate Emissions with a Fabric Filter

A fabric filter may be provided as the particulate collector for the AQCS depending upon the system suppliers design. Prior to boiler operation the bags will be pre-coated with calcium based material or diatomaceous earth. This is necessary to prevent blinding of the fabric material due to heavy moisture and/or oil droplets in the flue gas as a result of firing startup fuels. All of the flue gas during startup will pass through the filter media. During this initial period of operation particulate emission limits may be exceeded until sufficient filter cake has deposited on the bags.

PHASE 2 - TRANSITION TO PETROLEUM COKE (15 - 40% MCR, 4 HOURS)

Phase 2, the transition from fuel oil to petroleum coke, will last approximately 4 hours. Over this period of time, emissions will be governed by the co-firing of fuel oil and petroleum coke.

Sulfur Dioxide

As petroleum coke is introduced into the furnace, the sulfur dioxide emission level will increase as a result of the higher sulfur content of the petroleum coke. At this point in time, with the furnace at 900 °F, very little, if any, limestone will calcine and consequently, no significant amount of sulfur capture will occur within the furnace. In the initial period following the introduction of petroleum coke into the furnace, therefore, the sulfur dioxide emission level may be as high as 5.0 lb/MMBtu. As the furnace heats up, more and more limestone calcines, the extent of sulfur capture within the furnace increases, and the sulfur dioxide emission level will decrease to approximately 1.25 lb/MMBtu at the end of this phase of the startup.

\underline{NO}_{x}

As petroleum coke is introduced into the furnace, the NO_x emission level will start decreasing from its value of 0.45 lb/MMBtu on fuel oil alone and is expected to be approximately 0.2 lb/MMBtu at the end of the transition to petroleum coke. At this point in time, the temperature at the cyclone inlet will be approximately 1350 °F and there is a possibility that the SNCR system could be used to control the NO_x emission level to below the requested permit level of 0.09 lb/MMBtu. Given the uncertainty, however, in the predicted cyclone inlet temperature and the fact that ammonia injection is effective only above 1350 °F, it is difficult to predict exactly how effective ammonia injection will prove to be at the end of the transition to petcoke.

CO

As petroleum coke is introduced into the furnace and as the temperature in the furnace continues to increase, the CO emission level will continue to decrease and it is estimated

that the CO emission level at the end of the transition from fuel oil to petroleum coke will be approximately 0.25 lb/MMBtu.

VOC

As petroleum coke is introduced into the furnace and as the temperature in the furnace continues to increase, the VOC emission level will decrease and it is estimated that the VOC emission level at the end of the transition to petcoke will be approximately 0.012 lb/MMBtu.

Particulate Emissions

The beginning of the transition to petroleum coke marks the energizing of the ESP and particulate emissions will be effectively controlled to below the requested permit level. Should a fabric filter be used instead of an ESP it is anticipated that particulate emissions will be below the requested permit level at some point in time slightly before or after the beginning of the transition to petroleum coke.

PHASE 3 - RAMP UP ON PETROLEUM COKE (40 - 50% MCR, 30 MINUTES)

The ramp up of the CFB boiler from 40 to 50 percent MCR is accomplished by increasing the petroleum coke feed rate and occurs over a relatively short period of approximately 30 minutes.

Sulfur Dioxide

As the boiler load approaches 50 percent MCR, the flue gas flow rate will be sufficient to bring the scrubber online. As the scrubber is brought online, the sulfur dioxide emission level will drop from 1.25 lb/MMBtu to below the requested permit level of 0.15 lb/MMBtu.

$NO_{\underline{x}}$

As CFB boiler load is increased beyond 40 percent, the temperature at the cyclone inlet will continue to increase until at 50 % load it is estimated that the cyclone inlet

temperature will be approximately 1450 °F. At this point in time it can be said with certainty that the ammonia injection system will be effective in controlling the NO_x emission level to below the requested permit level of 0.09 lb/MMBtu and that it can do so while also being below the requested ammonia slip limit of 40 ppmv.

CO

As the CFB boiler load is increased to 50 percent MCR, the furnace temperature will increase and CO emission level is expected to be below the requested permit level of 0.22 lb/MMBtu.

VOC

As the CFB boiler load is increased to 50 percent MCR, the furnace temperature will increase and the VOC emission level is expected to decrease to below the requested permit level of 0.01 lb/MMBtu.

As described in the preceding discussion, the transition from 0 to 50 percent MCR is expected to take approximately 12 hours and there are periods during startup when the emissions will exceed the requested permit levels. As more experience is gained operating the CFB boiler, the extent to which the permit levels are exceeded and duration over which the permit levels are exceeded may be reduced. It is conceivable, for instance, that the total time required for startup could be reduced to as little as 8 hours. With that said, the process of startup is by definition transient in nature and is somewhat less predictable than steady state operation. Consequently, it is requested that the permit provide for relief from the requested emission limits during startup and that it allow for a 12 hour start up period. It is worthwhile to clarify that relief is sought only from short term emission limits and not from the requested annual emission limits.

JEA Northside Repowering Project Predicted Start Up Emissions - Firing 0.05% by weight max. Sulfur #2 Oil and 8% by weight Sulfur Petcoke													
PHASE 1 (Oil Only, 0 - 15 % MCR)	1	192	0.06	12	0.45	86	0.55	106	0.250	48	0.011	2.1	Ö
	2	275	0.06	17	0.45	124	0.55	151	0.250	69	0.011	3.0	C
	3	359	0.06	22	0.45	162	0.55	197	0.250	90	0.011	3.9	0
	4	400	0.06	24	0.45	180	0.55	220	0.250	100	0.011	4.4	1 0
	5	400	0.06	24	0.45	180	0.55	220	0.250	100	0.011	4.4	0
	6	400	0.06	24	0.45	180	0.55	220	0.250	100	0.011	4.4	0
	7	400	0.06	24	0.45	180	0.55	220	0.250	100	0.011	4.4	0
PHASE 2 (Oil + Petcoke, 15 - 40 % MC	8	488	5.00	2440	0.39	189	0.48	232	0.191	93	0.011	5.4	٥
	9	638	4.00	2552	0.33	207	0.40	255	0.131	B4	0.011	7.0	ı ŏ
	10	813	3.00	2439	0.26	213	0.33	264	0.072	58	0.011	8.9	l ŏ
	11	1013	1.25	1266	0.20	203	0.25	253	0.012	12	0.011	11.1	Ō
PHASE 3 (Petcoke Only, 40 - 50 % MC	11.5	1810	1.25	2263	0.20	362	0.24	425	0.011	20	0.011	19.9	0
END OF STARTUP 100% MCR	12	2210	0.15	332	0.09	199	0.22	486	0.010	22	0.011	24.3	40

Note: These predictions are based on information given in the latest customer specification dated 1/15/99

Rev 2 Date 2/11/99

Requested Test Frequencies

File: NGS Attach E-4.doc

Revision 0.0

Requested Test Frequencies

The following testing frequencies are requested based on the application of BACT:

Emissions Unit EU026 & EU027 - CFB Boilers

- Continuous Emissions Monitoring Visible Emissions, Oxides of Nitrogen, Sulfur Dioxide, and Carbon Monoxide.
- Initial Testing Only Sulfuric Acid Mist, Lead, Total Fluorides, and Mercury.
- Initial Testing Volatile Organic Compounds and Particulate Matter (both TSP & PM₁₀).
- Annual Testing Particulate Matter (both TSP & PM₁₀).
- Renewal Testing Volatile Organic Compounds.

Emissions Units EU033 - NGS Limestone Dryers/Mills

- Initial Testing Visible Emissions (All Dryers/Mills), Fuel Sulfur Content (Vendor Data), Oxides of Nitrogen, and Carbon Monoxide On a Representative Dryer/Mill.
- Renewal Testing Visible Emissions.

Emissions Unit EU028 - NGS Materials Handling Operations

- Initial Testing Visible emissions All Transfer Points, Storage Piles, and Conveyors.
- Renewal Testing Visible emissions Storage Piles and Representative Transfer Points.

Emissions Units EU029 - NGS Crusher House

Emissions Units EU031 - NGS Boiler Fuel Silos

Emissions Units EU032 - NGS Limestone Receiving Bins

Emissions Units EU034 - NGS Limestone Crusher Conveyor Transfer

Emissions Units EU035 - NGS Limestone Feed Silos

Emissions Units EU036 - NGS Fly Ash Waste Bins

Emissions Units EU037 - NGS Fly Ash Transfer and Storage Systems

Emissions Units EU038 - NGS Bed Ash Transfer and Storage Systems

Emissions Units EU039 - NGS Fly Ash and Bed Ash Hydrators

Emissions Units EU040 - NGS Bed Ash Truck Loadout Systems

Emissions Units EU041 - NGS Fly Ash Truck Loadout Systems

Emissions Units EU042 - NGS Pebble Lime Silo

- Initial Testing Visible emissions All Baghouses and Representative Hydrators.
- Renewal Testing Visible emissions All Baghouses and Representative Hydrators.