

● Air Quality Permit Application



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Northside Repowering Project

● Circulating Fluidized Bed
Combustion Technology
Volume 2

February 1999

Emissions Unit 001

NGS Boiler No. 1

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 1

NGS Boiler No. 1

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 :

- [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

1. Description of Emissions Unit Addressed in This Section : NGS Boiler No. 1		
2. Emissions Unit Identification Number : 001 [] No Corresponding ID [] 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 : Existing Unit 1 will be repowered under the proposed modification with a new CFB Boiler. The project schedule calls for the repowering of Existing Unit 2 then Existing Unit 1. Repowered Unit 2, Existing Unit 1, and Existing Unit 3 will operate simultaneously for a period of time. The requested multi-unit emissions caps will be effective during this period. See Attachment F-10 for a detailed description.		

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 :		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 :	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. Maximum heat input while firing oil is 2767 mmBtu/hr	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1
NGS Boiler No. 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 NO_x

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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List of Applicable Regulations

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

40 CFR Part 75 Appendix E, Optional NO_x 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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Emissions Unit Information Section 1
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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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 1
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

Emissions Unit Information Section 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 :	1	
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 : 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 (km) : 3365.230

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14. Emission Point Comment :

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

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

NGS Boiler No. 1

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) : 10100401	
3. SCC Units : Thousand Gallons Burned (all 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 152 MBtu/kgal. Max rates vary with heat content. Unit has no fuel sulfur limit, only a max emission rate for SO ₂ 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 and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) :	
Natural Gas	
2. Source Classification Code (SCC) : 10100601	
3. SCC Units : Million Cubic Feet Burned (all 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 MBtu/MCF. Max Rates Vary with Heat Content Boiler co-fires natural gas, No. 6 Fuel Oil, and On-Spec. Used Oil.	

III. Part 8 - 2

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

NGS Boiler No. 1

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) : 10100401	
3. SCC Units : Thousand Gallons Burned (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	2. Primary Control Device Code	3. Secondary Control Device Code	4. 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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H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

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

Emissions Unit Information Section 1

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?		
	<input type="checkbox"/> Yes	<input type="checkbox"/> 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 :		

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

Emissions Unit Information Section 1

NGS Boiler No. 1

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

Emissions Unit Information Section 1

NGS Boiler No. 1

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

Emissions Unit Information Section 1

NGS Boiler No. 1

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?		
<input type="checkbox"/> Yes	<input type="checkbox"/> 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 :		

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

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?		
<input type="checkbox"/> Yes	<input type="checkbox"/> 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 :		

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

Emissions Unit Information Section 1

NGS Boiler No. 1

Pollutant Potential/Estimated Emissions : Pollutant 7

1. Pollutant Emitted : HAPS		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited?		
<input type="checkbox"/> Yes	<input type="checkbox"/> 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 :		

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

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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

Emissions Unit Information Section 1

NGS Boiler No. 1

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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

Emissions Unit Information Section 1

NGS Boiler No. 1

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

Emissions Unit Information Section 1
NGS Boiler No. 1

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 :	lb/mmBtu
4. Equivalent Allowable Emissions :	
	276.70 lb/hour 1,060.50 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) :	Existing Unit 1 emission limitation is set at 0.1 lb/mmBtu, not including excess emissions.

Emissions Unit Information Section 1
NGS Boiler No. 1

Pollutant Information Section 1

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	
4. Equivalent Allowable Emissions :	830.10	lb/hour	454.50 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) :	Existing Unit 1 excess emission limitation is set at 0.3 lb/mmBtu.		

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Emissions Unit Information Section 1
NGS Boiler No. 1

Pollutant Information Section 3

Allowable 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) :			

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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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Emissions Unit Information Section 1
NGS Boiler No. 1

Pollutant Information Section 4

Allowable 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

Emissions Unit Information Section 1
NGS Boiler No. 1

Pollutant Information Section 1

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 :	881.00	tons per year	
4. Equivalent Allowable Emissions :	lb/hour	881.00	tons/year
5. Method of Compliance :	Operating Records & Test Data		
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		

Emissions Unit Information Section 1
NGS Boiler No. 1

Pollutant Information Section 3

Allowable Emissions 2

1. 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/hour	tons/year
5. Method of Compliance :	Acid Rain CEM for SO2	
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	A limit of 0.143 lb/mmBtu (24-hour block average) is requested to ensure that Existing Unit 1 does not contribute to air quality violations following start-up of Repowered Unit 2.	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1

NGS Boiler No. 1

Visible Emissions Limitation : Visible Emissions Limitation 2

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 DEP Method 9 if firing oil for 400 hours or more
5. Visible Emissions Comment :	60% Opacity -Excess Emission during Soot Blowing and Load Changes >40% Opacity during Startup, Shutdown and Malfunctions

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1

NGS Boiler No. 1

Continuous Monitoring System Continuous Monitor 1

1. Parameter Code : CO2	2. Pollutant(s):
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 : FM	2. Pollutant(s): NOX
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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 : 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 Monitor 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-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 Monitor 4

1. Parameter Code : FLOW	2. Pollutant(s):
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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 Monitor 5

1. Parameter Code : VF	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	

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

Emissions Unit Information Section 1

NGS Boiler No. 1

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.

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 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 Consuming/Expanding Code :

PM : E SO2 : E NO2 : E

4. Baseline Emissions :

PM :	345.7000 lb/hour	694.0000 tons/year
SO2 :	5471.0000 lb/hour	10997.0000 tons/year
NO2 :		2193.0000 tons/year

5. PSD Comment :

Baseline as determined from Records for PSD Application Purposes

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1

NGS Boiler No. 1

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 :	7/6/98
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 Applications Only

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA

III. Part 13 - 1

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

Emissions Unit Information Section 2

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

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 :

[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

1. Description of Emissions Unit Addressed in This Section : NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)		
2. Emissions Unit Identification Number : 002 [] No Corresponding ID [] 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 : Existing Unit 2 will be repowered under the proposed modification with a new CFB Boier. Repowered Unit 2 will operate for a period with Existing Unit 1 and Existing Unit 3. The requested multi-unit emissions caps will be effective during this period. See Attachment F-10 for detailed discussion.		

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 2
 NGS Boiler No. 2 (Long-Term Reserve Shutdown - 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 Throughput 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

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

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

Rule Applicability Analysis

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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 77.3, Offset Plans

40 CFR Part 77.5(b), Deduction of Allowances

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

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 NO_x 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

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E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 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 :	1	
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 : 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 (km) : 3365.220

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14. Emission Point Comment :

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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)

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) : 10100401	
3. SCC Units : Thousand Gallons Burned (all 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 content of 152 mmBtu/kgal. Existing Unit 2 has no fuel sulfur limit, only a max emission rate for SO ₂ of 1.98 lb/mmBtu on a 24-hour basis.	

III. Part 8 - 1

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 2

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

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Natural Gas	
2. Source Classification Code (SCC) : 10100601	
3. SCC Units : Million Cubic Feet Burned (all 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.	

III. Part 8 - 2

**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	2. Primary Control Device Code	3. Secondary Control Device Code	4. 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

III. Part 9a - 1

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 Shutdown - 3/1/84)

Pollutant Potential/Estimated Emissions : 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 Emissions:	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 - 1

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 Shutdown - 3/1/84)

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : NOX		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited?		
<input type="checkbox"/> Yes	<input type="checkbox"/> 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 :		

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 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?		
	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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 lb/hr)(8760 hr/yr - (3hr/day)(365day/yr))+(705.9 lb/hr)(3hr/day)(365 day/yr)]/2000 = 1289.0 tons		
9. Pollutant Potential/Estimated Emissions Comment :		

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 Shutdown - 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.

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 Shutdown - 3/1/84)

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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 Shutdown - 3/1/84)

Pollutant Potential/Estimated Emissions : Pollutant 5

1. Pollutant Emitted : VOC		
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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 Shutdown - 3/1/84)

Pollutant Potential/Estimated Emissions : Pollutant 6

1. Pollutant Emitted : SAM		
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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 Shutdown - 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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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 Shutdown - 3/1/84)

Pollutant Potential/Estimated Emissions : Pollutant 8

1. Pollutant Emitted : H106		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited?		
<input type="checkbox"/> Yes	<input type="checkbox"/> 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 :		

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 Shutdown - 3/1/84)

Pollutant Potential/Estimated Emissions : Pollutant 9

1. Pollutant Emitted : H133		
2. Total Percent Efficiency of Control :	%	
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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 Shutdown - 3/1/84)

Pollutant Potential/Estimated Emissions : Pollutant 10

1. Pollutant Emitted : HAPS		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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 Shutdown - 3/1/84)

Pollutant Potential/Estimated Emissions : Pollutant 11

1. Pollutant Emitted : PM10		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited?		
	<input type="checkbox"/> Yes	<input type="checkbox"/> 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 :		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

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

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype : 40
2. Basis for Allowable Opacity : RULE
3. Requested Allowable Opacity : Normal Conditions : 40 % Exceptional Conditions : 100 % Maximum Period of Excess Opacity Allowed : 0 min/hour
4. Method of Compliance : Annual VE using EPA Method 9
5. Visible Emissions Comment :

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

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

Visible Emissions Limitation : Visible Emissions Limitation 2

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

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 :	

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

Emissions Unit Information Section 2

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

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

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 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 Consuming/Expanding Code :		
PM :	E	NO2 : U
SO2 :	E	
4. Baseline Emissions :		
PM :	292.6000 lb/hour	874.0000 tons/year
SO2 :	4635.6000 lb/hour	13839.0000 tons/year
NO2 :		0.0000 tons/year
5. PSD Comment :		
Baseline calculated using allowable and operating data for 73/74 for SO2 & PM and 86/87 data for NOx emissions.		

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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

Emissions Unit 003

NGS Boiler No. 3

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 3

NGS Boiler No. 3

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 :

- [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

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**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		
2. Emissions Unit Identification Number : 003 [] No Corresponding ID [] 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 : Following the successful performance testing of Repowered Unit 2, the requested multi-unit emissions caps for PM, SO2 and NOx will include emissions from Existing Unit 3. See Attachment F-10 for detailed discussion.		

Emissions Unit Information Section 3

NGS Boiler No. 3

Emissions Unit Control Equipment 1

1. Description :

This unit is equipped with low-NOx burners to reduce formation of NOx emissions.

2. Control Device or Method Code : 24

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

Emissions Unit Information Section

3

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	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 :	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 mmBtu/hr for gas firing & 5033 mmBtu/hr on oil.	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

**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.

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 NO_x

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

Emissions Unit Information Section

3

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 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 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)

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Emissions Unit Information Section 3
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

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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

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)

Emissions Unit Information Section 3

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

Emissions Unit Information Section 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 :	1	
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 :	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 (km) : 3365.210

III. Part 7a - 1

14. Emission Point Comment :

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

III. Part 7a - 2

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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) : 10100401	
3. SCC Units : Thousand Gallons Burned (all liquid 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 152 MBtu/kgal. Max rates vary with heat content. Unit has no fuel sulfur limit, only a max emission rate for SO2 of 1.98 lb/mmBtu on a 24-hour basis	

III. Part 8 - 1

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 3

NGS Boiler No. 3

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Natural Gas	
2. Source Classification Code (SCC) : 10100601	
3. SCC Units : Million Cubic Feet Burned (all gaseous 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/MCF. Actual Rates Vary with Heat Content Boiler co-fires natural gas, No. 6 Fuel Oil, and On-Spec. Used Oil.	

III. Part 8 - 2

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) : 10100401	
3. SCC Units : Thousand Gallons Burned (all liquid 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.	

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

Emissions Unit Information Section 3
NGS Boiler No. 3

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. 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

III. Part 9a - 1

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

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.

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

Emissions Unit Information Section 3

NGS Boiler No. 3

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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

Emissions Unit Information Section 3

NGS Boiler No. 3

Pollutant Potential/Estimated Emissions : Pollutant 3

1. Pollutant Emitted : SO2	
2. Total Percent Efficiency of Control :	%
3. Potential Emissions :	9,965.000000 lb/hour 43,648.200000 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:	to tons/year
6. Emissions Factor 2 Units lb/mmBtu Reference : Rule, (EF=1.98)	
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 9b - 4

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

Emissions Unit Information Section 3

NGS Boiler No. 3

III. Part 9b - 5

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

Emissions Unit Information Section 3

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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

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

Emissions Unit Information Section 3

NGS Boiler No. 3

III. Part 9b - 7

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

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 :		

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

Emissions Unit Information Section 3

NGS Boiler No. 3

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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

Emissions Unit Information Section 3

NGS Boiler No. 3

Pollutant Potential/Estimated Emissions : Pollutant 7

1. Pollutant Emitted : HAPS		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited?		
<input type="checkbox"/> Yes	<input type="checkbox"/> 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 :		

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

Emissions Unit Information Section 3

NGS Boiler No. 3

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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

Emissions Unit Information Section 3

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? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

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

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 :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input type="checkbox"/> 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 Comment :		

Emissions Unit Information Section 3
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.		

Emissions Unit Information Section
NGS Boiler No. 3

3

Pollutant Information Section

1

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
4. Equivalent Allowable Emissions :	1,509.90 lb/hour 826.70 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 excess emissions limitation is set at 0.3 lb/mmBtu.

III. Part 9c - 2

Emissions Unit Information Section

3

NGS Boiler No. 3

Pollutant Information Section

3

Allowable 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 :	9,965.00	lb/hour	43,648.00 tons/year
5. Method of Compliance :	EPA Methods 6, 6A, 6B, or 6C or Fuel Sampling		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :			

III. Part 9c - 3

Emissions Unit Information Section 3
NGS Boiler No. 3

Pollutant Information Section 4

Allowable Emissions 1

1. Basis for Allowable Emissions Code :	RULE		
2. Future Effective Date of Allowable Emissions :			
3. Requested Allowable Emissions and Units :	0.30	lb/mmBtu	
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 Comment (Desc. of Related Operating Method/Mode) :	Compliance based on 30-day rolling average.		

Emissions Unit Information Section
NGS Boiler No. 3

3

Pollutant Information Section

1

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 :	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 (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.		

III. Part 9c - 5

Emissions Unit Information Section 3
NGS Boiler No. 3

Pollutant Information Section 4

Allowable 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.		

Emissions Unit Information Section 3
NGS Boiler No. 3

Pollutant Information Section 3

Allowable Emissions 2

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) :	The multi-unit emissions cap is effective upon successful completion of performance testing for Repowered Unit 2. See Attachment F-10 for detailed discussion.		

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 3
NGS Boiler No. 3

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	20
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	Normal Conditions : 40 % Exceptional Conditions : 100 % Maximum Period of Excess Opacity Allowed : 0 min/hour
4. Method of Compliance :	Annual VE test using DEP Method 9, if >400 hours using oil
5. Visible Emissions Comment :	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 3
NGS Boiler No. 3

Visible Emissions Limitation : Visible Emissions Limitation 2

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 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

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 3

NGS Boiler No. 3

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 Monitor 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 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	

Continuous Monitoring System Continuous Monitor 5

1. Parameter Code : VF	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	

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

Emissions Unit Information Section 3

NGS Boiler No. 3

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.
- [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

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 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 Consuming/Expanding Code :					
PM :	E	SO2 :	E	NO2 :	E
4. Baseline Emissions :					
PM :	629.1300	lb/hour	2756.0000	tons/year	
SO2 :	9965.0000	lb/hour	43648.0000	tons/year	
NO2 :			1552.0000	tons/year	
5. PSD Comment :					
With respect to question 1. Unit is baseline since it "Commenced Construction" prior to January 6, 1975 (Rules 62-204.200(20) & 62-210.200(117), F.A.C.)					

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 3

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 Applications Only

10. Alternative Methods of Operations :	NA
11. Alternative Modes of Operation (Emissions Trading) :	NA

III. Part 13 - 1

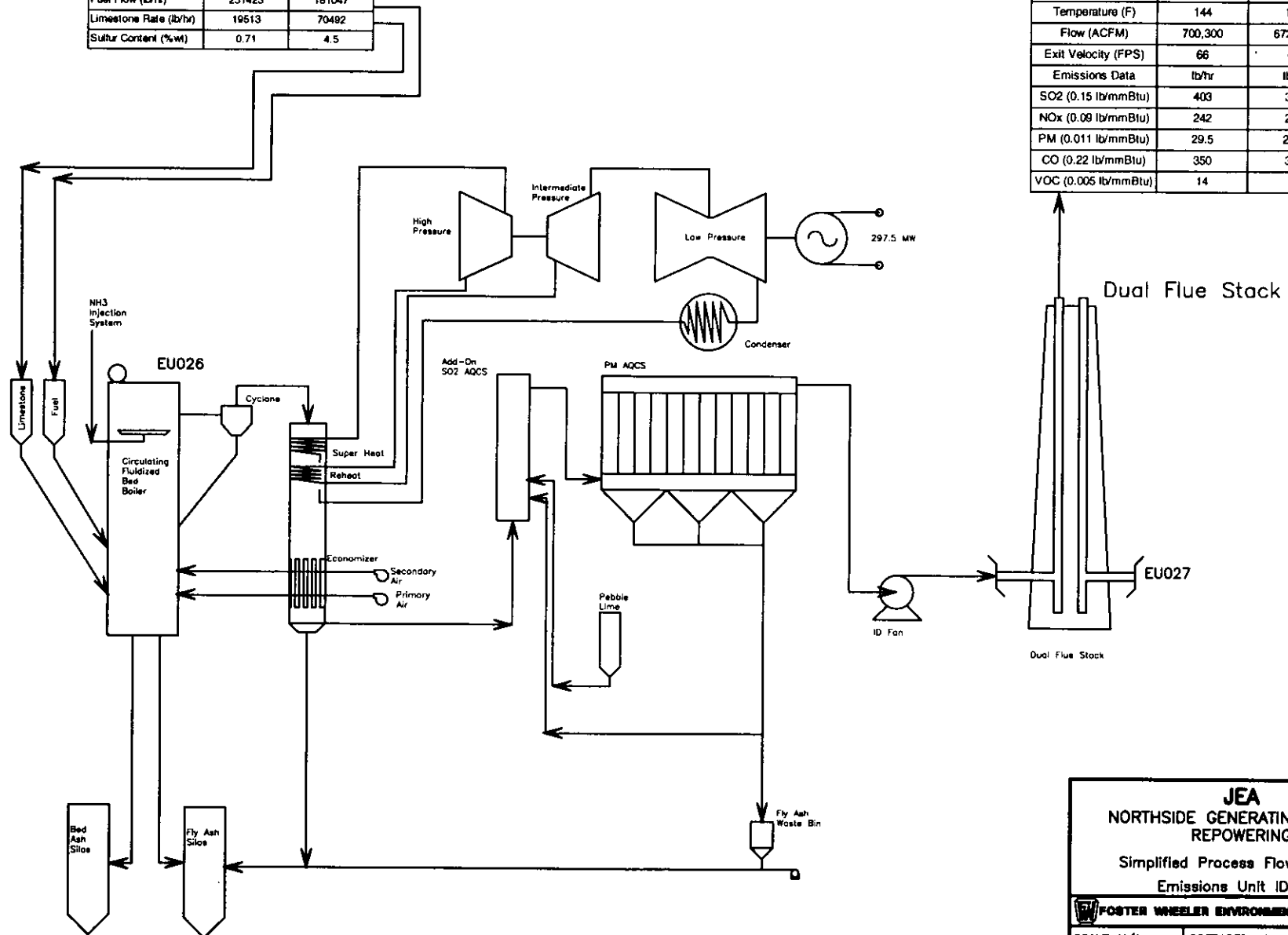
12. Identification of Additional Applicable Requirements :	NA
13. Compliance Assurance Monitoring Plan :	NA
14. Acid Rain Application (Hard-copy Required) : <div style="text-align: center;"> <p>Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))</p> <p>Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)</p> <p>New Unit Exemption (Form No. 62-210.900(1)(a)2.)</p> <p>Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)</p> </div>	

Emissions Unit 026

NGS - Circulating Fluidized Bed Boiler No. 2

Boiler Operations	Performance Fuel Specifications	
Parameter	Coal	Petroleum Coke
Boiler Load (%)	100	100
Heat Input (mmBtu/hr)	2684.51	2599.84
Heat Content (Btu/lb)	11800	14360
Fuel Flow (lb/hr)	231423	181047
Limestone Rate (lb/hr)	19513	70492
Sulfur Content (%wt)	0.71	4.5

Stack Parameters	Performance Fuel Specifications	
Parameter	Coal	Petroleum Coke
Height (ft)	495	495
Diameter (ft)	15	15
Temperature (F)	144	136
Flow (ACFM)	700,300	672,000
Exit Velocity (FPS)	66	63
Emissions Data	lb/hr	lb/hr
SO ₂ (0.15 lb/mmBtu)	403	390
NO _x (0.09 lb/mmBtu)	242	234
PM (0.011 lb/mmBtu)	29.5	29.6
CO (0.22 lb/mmBtu)	350	350
VOC (0.005 lb/mmBtu)	14	14



JEA
NORTHSIDE GENERATING STATION
REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 026

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU026PF.DWG
DATE: 01/26/99	CHECKED: MAE	FIGURE NO.: F-6, EU026
	APPROVED: DJF	

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.

2. 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

Effective : 3-21-96

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

Emissions Unit Description and Status

<p>1. Description of Emissions Unit Addressed in This Section :</p> <p>NGS - Circulating Fluidized Bed Boiler No. 2</p>		
<p>2. Emissions Unit Identification Number : 026 <input type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown</p>		
<p>3. Emissions Unit Status Code : C</p>	<p>4. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>5. Emissions Unit Major Group SIC Code : 49</p>
<p>6. Emissions Unit Comment :</p> <p>The proposed project includes the repowering of Existing Unit 2 at the Northside Generating Station. Existing Unit 2 will be repowered with a coal and petroleum coke fired circulating fluidized bed (CFB) boiler. Repowered Unit 2 will be assigned the Emissions Unit Identification Number EU026. Emissions Unit Identification Number EU002, which is used to track baseline data for Existing Unit 2 will no longer be an active point number.</p>		

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

Emissions Unit Control Equipment 1

1. Description : Oxides of Nitrogen will be controlled by the use of Selective Noncatalytic Reduction (SNCR).
--

2. Control Device or Method Code : 107

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

Emissions Unit Control Equipment 2

1. Description :

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

2. Control Device or Method Code : 41

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

Emissions Unit Control Equipment 3

1. Description :

Residual sulfur dioxide, acid gases, and some volatile metal emissions will be further controlled by an add-on air quality control system (AQCS) or polishing scrubber.

2. Control Device or Method Code : 13

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

Emissions Unit Control Equipment 4

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 : 10

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

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 : 16

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

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

Emissions Unit Details

1. Initial Startup Date :	01-Apr-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit :		
Manufacturer :	Foster Wheeler	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 :	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	7 days/week	
52 weeks/year	8,760 hours/year	

**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 NO_x, 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.

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 NO_x

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

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

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Emissions Unit Information Section 4
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

III. Part 6b - 3

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Emissions Unit Information Section 4
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)

III. Part 6b - 4

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

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E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section

4

NGS - Circulating Fluidized Bed Boiler No. 2

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Stack
2. Emission Point Type Code :	1
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 Repowered Unit 1. 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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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

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F. SEGMENT (PROCESS/FUEL) INFORMATION

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/Mode) : Bituminous Coal	
2. Source Classification Code (SCC) : 10100218	
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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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated 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 :	

III. Part 8 - 2

F. SEGMENT (PROCESS/FUEL) INFORMATION

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) : 10100299	
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	

III. Part 8 - 3

F. SEGMENT (PROCESS/FUEL) INFORMATION

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 Associated 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) : 10100299	
3. SCC Units : Thousand Gallons Burned (all liquid 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

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

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. 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

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

III. Part 9b - 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 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right;">to tons/year</div>	
6. Emissions Factor Reference : Manuf., (EF=2.61E-5)	Units lb/mmBtu
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 lb/hr) X (8,760 hr/yr) X (ton/2,000 lb) = 0.315	
9. Pollutant Potential/Estimated Emissions Comment : Appendix A of the PSD Report contains the vendor data on potential emissions. Appendix C of the PSD report contains detailed emissions calculations (Attachment F-9).	

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

III. Part 9b - 4

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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 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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 lb/hr) X (8,760 hr/yr) X (ton/2,000 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).		

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

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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 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right;">to tons/year</div>		
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 based on load and fuel type. Appendix C of the PSD report contains detailed emission calculations (Attachment F-9).		

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

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Effective : 3-21-96

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 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right;">to tons/year</div>		
6. Emissions Factor	0	Units lb/mmBtu
Reference : Manuf., (EF=0.011)		
7. Emissions Method Code : 0		
8. Calculations of Emissions : $lb/hr = (0.011 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 30.404$ $Tons/year = (30.404 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (ton/2,000 \text{ lb/hr}) = 133.17$		
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 calculation (Attachment F-9).		

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

III. Part 9b - 10

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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

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).

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

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 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 :		
$lb/hr = (0.0004 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 1.106$		
$Tons/year = (1.106 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{ton}/2,000 \text{ lb}) = 4.844$		
9. Pollutant Potential/Estimated Emissions Comment :		
Appendix C of the PSD report contains detailed emission calculations (Attachment F-9).		

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

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

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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 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 :		
	$\text{lb/hr} = (1.05\text{E-}5 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 0.029$	
	$\text{Tons/yr} = (0.029 \text{ lb/hr}) \times (8,760 \text{ hr.yr}) \times (\text{ton}/2000 \text{ lb}) = 0.127$	
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).	

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

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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 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?		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 :		

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 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? <input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right;">to tons/year</div>		
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. Appendix C of the PSD report (Attachment F-9) shows the emission factors used and the source of each factor for coal and pet coke.		
9. Pollutant Potential/Estimated Emissions Comment :		

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

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Effective : 3-21-96

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

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 :	350.00	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. of Related Operating Method/Mode) :	BACT is proposed at 350 lb/hr (24-hour average), excluding startup, shutdown and malfunction.		

III. Part 9c - 1

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

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 :	0.07	lb/hr	
4. Equivalent Allowable Emissions :	0.07	lb/hour	0.30 tons/year
5. Method of Compliance :	Initial & Renewal Stack Tests - EPA Methods 12 & 29		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	BACT is proposed at 0.07 lb/hr (as a 3-hour average), excluding startup, shutdown, and malfunction.		

III. Part 9c - 2

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

Pollutant Information Section 3

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 :	0.09	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 Related Operating Method/Mode) :	BACT is proposed at 0.09 lb/mmBtu based on a 30-day rolling average as BACT for NOx, excluding startup, shutdown and malfunction.		

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

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/hour	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 Operating Method/Mode) :	BACT is proposed at 0.011 lb/mmBtu based on a 3-hour average for TSP excluding startup, shutdown, and malfunction. All TSP is expected to be PM10.		

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

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/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.		

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

Pollutant Information Section 6

Allowable 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.		

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

Pollutant Information Section 6

Allowable Emissions 2

1. Basis for Allowable Emissions Code :	OTHER		
2. Future Effective Date of Allowable Emissions :	01-Apr-2002		
3. Requested Allowable Emissions and Units :	0.20	lb/mmBtu	
4. Equivalent Allowable Emissions :	552.80	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 24-hour block average, excluding startup, shutdown and malfunction.		

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

Pollutant Information Section 7

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 :	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 CO CEMS is proposed as a surrogate compliance method.

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

Pollutant Information Section 8

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 :	1.10	lb/hr	
4. Equivalent Allowable Emissions :	1.10	lb/hour	4.80 tons/year
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 4
NGS - Circulating Fluidized Bed Boiler No. 2

Pollutant Information Section 9

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 :	0.43	lb/hr	
4. Equivalent Allowable Emissions :	0.43	lb/hour	1.90 tons/year
5. Method of Compliance :	Initial and Renewal Stack Tests - EPA Methods 13A & 13B		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	BACT is proposed at 0.43 lb/hr (3-hour average), excluding startup, shutdown and malfunction.		

Emissions Unit Information Section 4
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 Emissions :	01-Apr-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 Method s 29 & 101A		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	BACT is proposed at 0.03 lb/hr (3-hour average), excluding startup, shutdown and malfunction.		

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

Pollutant Information Section 1

Allowable Emissions 2

1. Basis for Allowable Emissions Code :	OTHER		
2. Future Effective Date of Allowable Emissions :	01-Apr-2002		
3. Requested Allowable Emissions and Units :	1,533.00	Tons 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 (Desc. of Related Operating Method/Mode) :	Emissions cap for Repowered Unit 2.		

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

Pollutant Information Section 3

Allowable Emissions 2

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 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.		

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

Pollutant Information Section 4

Allowable Emissions 2

1. Basis for Allowable Emissions Code :	OTHER		
2. Future Effective Date of Allowable Emissions :	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 :	Annual Testing - EPA Methods 5 & 17		
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.		

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

Pollutant Information Section 6

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/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 for Existing Unit 1, Repowered Units 1 & 2, and existing Unit 3 is effective upon successful completion of initial performance testing of Repowered Unit 2.		

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

Pollutant Information Section 7

Allowable Emissions 2

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) :	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

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
4. Method of Compliance :	
	Opacity Monitor - EPA Method 9
5. Visible Emissions Comment :	
	BACT is proposed at 10 percent opacity. Excess emissions are discussed in detail in Attachment E-4 along with exceptional conditions limits required by the boilers.

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

Continuous Monitoring System Continuous Monitor 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 to initial start-up as part of the Acid Rain Monitoring Plan Revisions	

Continuous Monitoring System Continuous Monitor 2

1. Parameter Code : EM	2. Pollutant(s): NOX
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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 :	FM	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 :	FM	2. Pollutant(s):	CO
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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 :
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 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 to initial start-up as part of the Acid Rain Monitoring Plan Revisions.	

**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

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.

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 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 Consuming/Expanding Code :		
PM : C	SO2 : 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.		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

Supplemental Requirements for All Applications

1. Process Flow Diagram :	F-6, EU026
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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

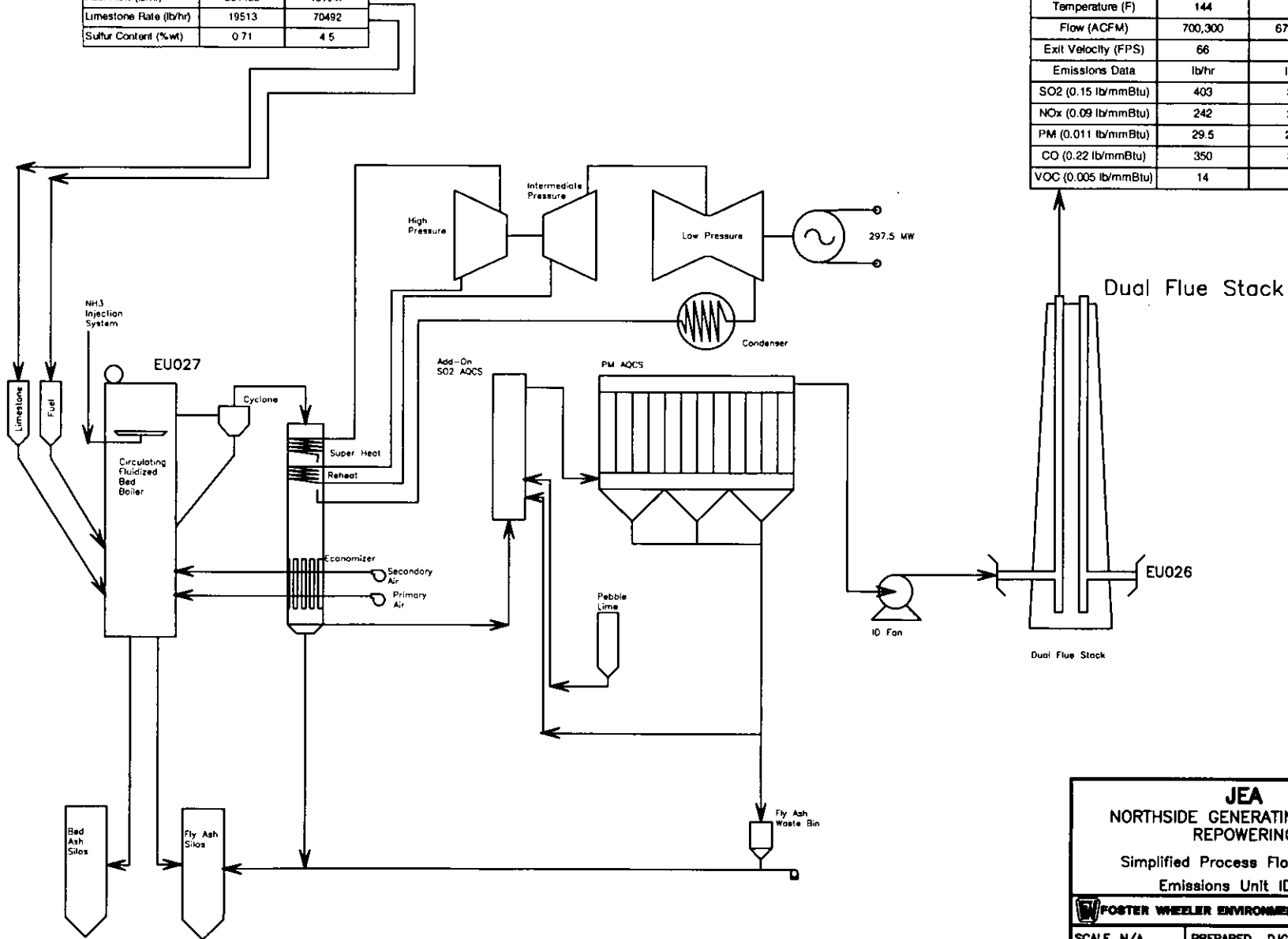
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 027

NGS - Circulating Fluidized Bed Boiler No. 1

Boiler Operations	Performance Fuel Specifications	
Parameter	Coal	Petroleum Coke
Boiler Load (%)	100	100
Heat Input (mmBtu/hr)	2684.51	2599.84
Heat Content (Btu/lb)	11600	14360
Fuel Flow (lb/hr)	231423	181047
Limestone Rate (lb/hr)	19513	70492
Sulfur Content (%wt)	0.71	4.5

Stack Parameters	Performance Fuel Specifications	
	Coal	Petroleum Coke
Height (ft)	495	495
Diameter (ft)	15	15
Temperature (F)	144	136
Flow (ACFM)	700,300	672,000
Exit Velocity (FPS)	66	63
Emissions Data	lb/hr	lb/hr
SO ₂ (0.15 lb/mmBtu)	403	390
NO _x (0.09 lb/mmBtu)	242	234
PM (0.011 lb/mmBtu)	29.5	29.6
CO (0.22 lb/mmBtu)	350	350
VOC (0.005 lb/mmBtu)	14	14



JEA
NORTHSIDE GENERATING STATION
REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 027

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DUG	CAD FILE NO.: EU027PF.DWG
DATE: 01/26/99	CHECKED: MAE	FIGURE NO.: F-8, EU027
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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 :

[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

1. Description of Emissions Unit Addressed in This Section : NGS - Circulating Fluidized Bed Boiler No. 1		
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
6. Emissions Unit Comment : The proposed project includes the repowering of Existing Unit 1 at the Northside Generating Station. Existing Unit 1 will be repowered with a coal and petroelum coke fired circulating fluidized bed (CFB) boiler. Repowered Unit 1 will be assigned the Emissions Unit Identification Number EU027. Emissions Unit Identification Number EU001, which is used to track baseline data for Existing Unit 1 will no longer be an active point number.		

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

Emissions Unit Control Equipment 1

1. Description : Oxides of Nitrogen will be controlled by the use of Selective Noncatalytic Reduction (SNCR).
--

2. Control Device or Method Code : 107

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

Emissions Unit Control Equipment 2

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

2. Control Device or Method Code : 41
--

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

Emissions Unit Control Equipment 3

1. Description :

Residual sulfur dioxide, acid gases, and some volatile metal emissions will be further controlled by an add-on air quality control system (AQCS) or polishing scrubber.

2. Control Device or Method Code : 13

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

Emissions Unit Control Equipment 4

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 : 10

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 : 16

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

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

Emissions Unit Details

1. Initial Startup Date :	01-Oct-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit :		
Manufacturer : Foster Wheeler	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 :	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	7 days/week	
52 weeks/year	8,760 hours/year	

**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.

Emissions Unit Information Section 5

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 Penalties for SO₂ and NO_x

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

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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

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Emissions Unit Information Section 5
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

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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

Emissions Unit Information Section 5
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 5

NGS - Circulating Fluidized Bed Boiler No. 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)

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E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Stack
2. Emission Point Type Code :	1
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 :	

III. Part 7a - 1

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.

F. SEGMENT (PROCESS/FUEL) INFORMATION

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 Associated Operating Method/Mode) : Bituminous Coal	
2. Source Classification Code (SCC) : 10100218	
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 :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated 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 :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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) : 10100299	
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	

III. Part 8 - 3

F. SEGMENT (PROCESS/FUEL) INFORMATION

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 Associated 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) : 10100299	
3. SCC Units : Thousand Gallons Burned (all liquid 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

**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	4. 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

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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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 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
6. Emissions Factor	Units lb/mmBtu	
Reference : Manuf., (EF=2.61E-5)		
7. Emissions Method Code : 2		
8. Calculations of Emissions :		
$\text{lb/hr} = (2.61\text{E-}5 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 0.072$ $\text{Tons/Year} = (0.072 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{ton}/2,000 \text{ lb}) = 0.315$		
9. Pollutant Potential/Estimated Emissions Comment :		
<p>Appendix A of the PSD Report contains the vendor data on potential emissions. Appendix C of the PSD report contains detailed emissions calculations (Attachment F-9).</p>		

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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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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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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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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 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?		
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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 :		
	$\text{lb/hr} = (0.011 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 30.404$	
	$\text{Tons/year} = (30.404 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{ton}/2,000 \text{ lb/hr}) = 133.17$	
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 calculation (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 5

NGS - Circulating Fluidized Bed Boiler No. 1

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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 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?		
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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 :		
$\text{lb/hr} = (0.2 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 552.8 \text{ (Short-Term, 24-Hour Maximum)}$		
$\text{lb/hr} = (0.15 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 414.60 \text{ lb/hr (Long-Term, 30-Day Rolling Average)}$		
$\text{Tons/year} = (414.60 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{Ton}/2,000 \text{ lb}) = 1815.95$		
9. Pollutant Potential/Estimated Emissions Comment :		

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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

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).

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 7

1. Pollutant Emitted : VOC		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	14.0000000 lb/hour	61.3200000 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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 lb/hr) X (8,760 hr/yr) X (ton/ 2,000 lb) = 61.32		
9. Pollutant Potential/Estimated Emissions Comment : The allowable emission limit is set at 14 lb/hr, excluding startup shutdown, and malfunction.		

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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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

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 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 :		
$lb/hr = (1.57E-4 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 0.434$		
$Tons/year = (0.434 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (ton/2,000 \text{ lb}) = 1.901$		
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).		

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

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 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 :	
$\text{lb/hr} = (1.05\text{E-}5 \text{ lb/mmBtu}) \times (2764 \text{ mmBtu/hr}) = 0.029$ $\text{Tons/yr} = (0.029 \text{ lb/hr}) \times (8,760 \text{ hr/yr}) \times (\text{ton}/2000 \text{ lb}) = 0.127$	
9. Pollutant Potential/Estimated Emissions Comment :	
<p>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).</p>	

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

III. Part 9b - 20

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

Effective : 3-21-96

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 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 Comment :		

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 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. Appendix C of the PSD report (Attachment F-9) shows the emission factors used and the source of each factor for coal and pet coke.		
9. Pollutant Potential/Estimated Emissions Comment :		
Emission calculations for hazardous air pollutants are contained in Appendix C of the PSD report (Attachment F-9).		

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

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. of Related Operating Method/Mode) :	BACT is proposed at 350 lb/hr (24-hour average), excluding startup, shutdown, and malfunction.		

III. Part 9c - 1

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 Emissions :	01-Oct-2002		
3. Requested Allowable Emissions and Units :	1,533.00	Tons 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 (Desc. of Related Operating Method/Mode) :	Emissions cap for Repowered Unit 1.		

III. Part 9c - 2

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

Pollutant Information Section 2

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 :	0.07 lb/hr
4. Equivalent Allowable Emissions :	0.07 lb/hour 0.32 tons/year
5. Method of Compliance :	Initial & Renewal Stack Tests - EPA Methods 12 & 29
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	BACT is proposed at 0.07 lb/hr (as a 3-hour average), excluding startup, shutdown, and malfunction.

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 :	RULE		
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 Related Operating Method/Mode) :	BACT is proposed at 0.09 lb/mmBtu based on a 30-day rolling average as BACT for NOx, excluding startup, shutdown, and malfunction.		

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.		

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

Pollutant Information Section 4

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 :	0.01	lb/mmBtu	
4. Equivalent Allowable Emissions :	30.40	lb/hour	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 Operating Method/Mode) :	BACT is proposed at 0.011 lb/mmBtu based on a 3-hour average for TSP, excluding startup, shutdown, and malfunction. All TSP is expected to be PM10.		

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

Pollutant Information Section 4

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 :	881.00	tons per year	
4. Equivalent Allowable Emissions :	lb/hour	881.00	tons/year
5. Method of Compliance :	Annual Testing - EPA Methods 5 & 17		
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.		

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

Pollutant Information Section 5

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 :	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.		

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 :	OTHER		
2. Future Effective Date of Allowable Emissions :	01-Oct-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 1 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.		

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

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/hour	tons/year
5. Method of Compliance :	Acid Rain CEMS		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Repowered Unit 1 is not subject to PSD Review and BACT for SO2. The emission limit is requested as a 24-hour block average, excluding startup, shutdown, and malfunction.		

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

Pollutant Information Section 6

Allowable Emissions 3

1. Basis for Allowable Emissions Code :	OTHER
2. Future Effective Date of Allowable Emissions :	01-Oct-2002
3. Requested Allowable Emissions and Units :	12,284.00 tons/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 for Repowered Units 1 & 2, and existing Unit 3 is effective upon successful completion of initial performance testing of Repowered Unit 2.

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

Pollutant Information Section 7

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 :	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 CO CEMS is proposed as a surrogate compliance method.		

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

Pollutant Information Section 8

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 :	1.10	lb/hr	
4. Equivalent Allowable Emissions :	1.10	lb/hour	4.80 tons/year
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 Code :	RULE		
2. Future Effective Date of Allowable Emissions :	01-Oct-2002		
3. Requested Allowable Emissions and Units :	0.43	lb/hr	
4. Equivalent Allowable Emissions :	0.40	lb/hour	1.90 tons/year
5. Method of Compliance :	Initial and Renewal Stack Tests - EPA Methods 13A & 13B		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	BACT is proposed at 0.4 lb/hr (3-hour average), excluding startup, shutdown, and malfunction.		

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

Pollutant Information Section 10

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 :	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 (Desc. of Related Operating Method/Mode) :	BACT is proposed at 0.03 lb/hr (6-hour average), excluding startup, shutdown, and malfunction.		

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

Pollutant Information Section 7

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 :	61.50 tons per year
4. Equivalent Allowable Emissions :	- lb/hour tons/year
5. Method of Compliance :	Initial & Renewal Stack Test. - EPA Method 25
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emissions Cap for Repowered Unit 1

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
4. Method of Compliance :	
	Opacity Monitor - EPA Method 9
5. Visible Emissions Comment :	
	BACT is proposed at 10 percent opacity. Excess emissions are discussed in detail in Attachment E-4 along with exceptional conditions limits required by the boilers.

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 4

NGS - Circulating Fluidized Bed Boiler No. 2

Continuous Monitoring System Continuous Monitor 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 to initial start-up as part of the Acid Rain Monitoring Plan Revisions	

Continuous Monitoring System Continuous Monitor 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 5

NGS - Circulating Fluidized Bed Boiler No. 1

Continuous Monitoring System Continuous Monitor 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 to initial start-up as part of the Acid Rain Monitoring Plan Revisions	

Continuous Monitoring System Continuous Monitor 2

1. Parameter Code : FM	2. Pollutant(s):
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.	

III. Part 11 - 1

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Effective : 3-21-96

J. CONTINUOUS MONITOR INFORMATION
(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 : FM	2. Pollutant(s):
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 : FM	2. Pollutant(s):
3. CMS Requirement OTHER	
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.	

III. Part 11 - 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 5

NGS - Circulating Fluidized Bed Boiler 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 to initial start-up as part of the Acid Rain Monitoring Plan Revisions.	

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

Emissions Unit Information Section 5

NGS - Circulating Fluidized Bed Boiler No. 1

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.

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 Consuming/Expanding Code :

PM : C SO2 : C NO2 : C

4. Baseline Emissions :

PM :	30.4000 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

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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

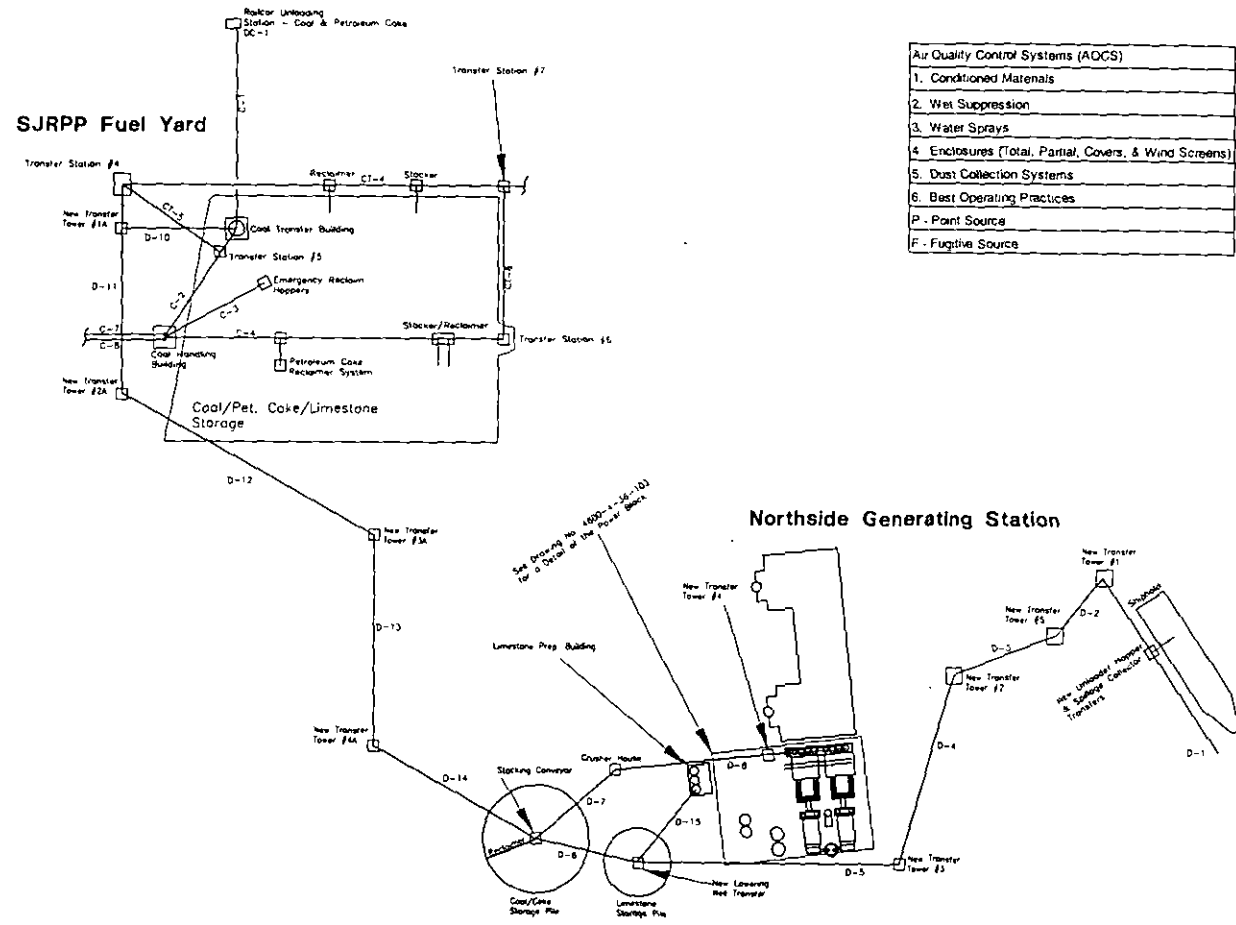
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

Emissions Unit 028

NGS - Materials Handling & Storage Operations

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



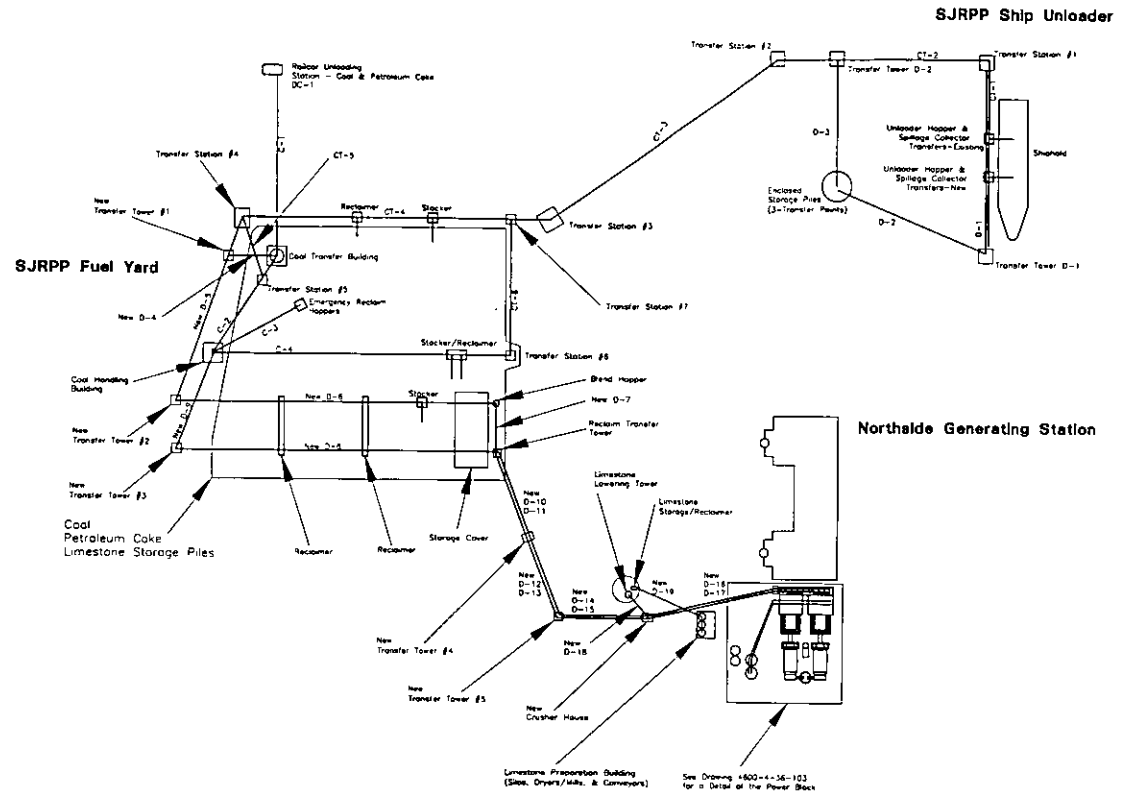
Air Quality Control Systems (AQCS)	
1.	Conditioned Materials
2.	Wet Suppression
3.	Water Sprays
4.	Enclosures (Total, Partial, Covers, & Wind Screens)
5.	Dust Collection Systems
6.	Best Operating Practices
P.	Point Source
F.	Fugitive Source

Fugitive Dust Sources
Bed Ash Silo Unit #1 Unloading - Hydrators
Bed Ash Silo Unit #2 Unloading - Hydrators
Coal & Coke Transfer and Stacking
Coal/Coke Reclaimer, Grab, Hopper, Hopper to Bed Transfer Point
Coal/Coke Storage Pile - Vehicle Activities
Coal/Coke Storage Pile - Vehicle Activities
Fly Ash Silo Unit #1 Unloading - Hydrators
Fly Ash Silo Unit #2 Unloading - Hydrators
Limestone Limestone Well & Coal/Coke Transfer
Limestone Storage Pile - Wind Erosion Factor
Limestone Storage Pile - Vehicle Activities
Limestone Reclaim Hopper
Shredder
Unloading Hopper & Spillage Collector Transfers
Transfer Tower No. 1A
Transfer Tower No. 2A
Transfer Tower No. 3A
Transfer Tower No. 4A
Transfer Tower No. 1
Transfer Tower No. 2
Transfer Tower No. 3
Transfer Tower No. 5
Transfer Tower No. 4
Unpaved Road, By Product Transport
Point Sources
Crusher House
Boiler Silos
Reclaim Rotary Dumper
Dust Collector DC-1 (Coal Unloading)
Dust Collector DC-2 (Coal Transfer Building/Emergency Stackrow)
Limestone Reclaim Bins
Dryer and Crusher No. 1
Dryer and Crusher No. 2
Dryer and Crusher No. 3
Limestone Chain Conveyor Transfer Tunnels 1, 2, & 3
Limestone Pneumatic Transfer System Train 1
Limestone Pneumatic Transfer System Train 2
Bed Ash Silo Loading Unit #1
Bed Ash Silo Loading Unit #2
Bed Ash Silo Emergency Discharge Unit #1
Bed Ash Silo Emergency Discharge Unit #2
Fly Ash Filter/Separator Transfer Point Unit #1
Fly Ash Filter/Separator Transfer Point Unit #2
Fly Ash Silo Loading Unit #1
Fly Ash Silo Loading Unit #2
Fly Ash Silo Emergency Discharge Unit #1
Fly Ash Silo Emergency Discharge Unit #2
Bed Ash Silo Hydrators Unit 1
Bed Ash Silo Hydrators Unit 2
Fly Ash Silo Hydrators Unit 1
Fly Ash Silo Hydrators Unit 2
Petroleum Lime Silo

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

Fugitive Dust Sources	AQCS	Control Efficiency	PM10 (lb/yr)	PM10 (TPY)
Shiphold - New	1, 4, 8, 6	70.00%	0.257	0.385
Shiphold - Existing	1, 4, 8, 6	70.00%	0.257	0.385
Unloader Hopper and Spillage Collector Transfers - New Ship Unloader	1, 3, 4, 8, 6	85.00%	0.130	0.194
Unloader Hopper and Spillage Collector Transfers - Existing System	1, 3, 4, 8, 6	85.00%	0.130	0.194
Hopper Belt, Spillage Conveyors, and DC-1 Transfer Points - New Ship Unloader	1, 4, 8, 6	98.00%	0.063	0.094
Transfer Tower D-1	1, 2, 8, 4	98.00%	0.021	0.031
Enclosed Storage Pile - 3 Transfer Points	1, 3, 4, 8, 6	98.00%	0.063	0.094
Enclosed Pile - Vehicle Activities	1, 3, 4, 8, 6	98.00%	0.011	0.017
Transfer Tower D-2	1, 2, 8, 4	98.00%	0.021	0.031
Transfer Station No. 1	1, 2, 8, 4	98.00%	0.021	0.031
Transfer Station No. 2	1, 2, 8, 4	98.00%	0.021	0.031
Transfer Station No. 3	1, 2, 8, 4	98.00%	0.022	0.034
Transfer Station No. 4	1, 8, 4	98.00%	0.021	0.031
Coke Storage Pile - Active Pile Factor	1, 3, 4, 8	75.00%	0.495	0.744
Limestone Storage Pile - Active Pile Factor	1, 3, 4, 8	75.00%	0.495	0.744
Coke Storage Pile - Vehicle Activities	1, 3, 4, 8	75.00%	0.113	0.173
Limestone Storage Pile - Vehicle Activities	1, 3, 4, 8	75.00%	0.113	0.173
Limestone Reclaim Lowering Wall	1, 2, 8, 6	98.00%	0.014	0.021
Limestone Reclaim Hopper	1, 2, 8, 6	75.00%	0.121	0.175
New Transfer Tower #1-NGS	1, 2, 8, 4	98.00%	0.042	0.119
New Transfer Tower #2-NGS	1, 2, 8, 4	98.00%	0.042	0.119
New Band Hopper	1, 3, 8, 4	98.00%	0.064	0.095
New Stackler	1, 3, 8, 4	85.00%	0.314	0.790
SJRPP Reclaimer	1, 3, 8, 4	75.00%	0.244	1.788
New Transfer Tower #3-NGS	1, 2, 8, 4	98.00%	0.039	0.143
NGS Reclaimer	1, 3, 8, 4	75.00%	0.244	0.845
New Reclaim Transfer Tower	1, 2, 8, 4	98.00%	0.020	0.048
New Transfer Tower #4-NGS	1, 2, 8, 4	98.00%	0.029	0.048
New Transfer Tower #5-NGS	1, 2, 8, 4	98.00%	0.029	0.048
New Transfer Tower #6-NGS	1, 2, 8, 4	98.00%	0.029	0.048
Bed Ash Silo Unit #1 Unloading - Hydrators	1, 8, 8	0.00%	0.020	0.087
Bed Ash Silo Unit #2 Unloading - Hydrators	1, 8, 8	0.00%	0.020	0.087
Fly Ash Silo Unit #1 Unloading - Hydrators	1, 8, 8	0.00%	0.017	0.074
Fly Ash Silo Unit #2 Unloading - Hydrators	1, 8, 8	0.00%	0.017	0.074
Unreaped Road, By-Product Storage Area	1, 8, 8	75.00%	0.156	0.661

Point Sources	AQCS	Control Efficiency	PM10 (lb/yr)	PM10 (TPY)
Hopper Belt, Spillage Conveyors, and CT-1 Transfer Points - Existing Ship Unloader	1, 3, 4, 5, 8, 8	90.50%	0.016	0.023
Railcar Rotary Dumper	1, 3, 4, 8, 8	97.00%	0.089	0.065
Dust Collector DC-1 (Coal Unloading)	1, 4, 8, 5	99.50%	0.082	0.078
Dust Collector DC-2 (Coal Transfer Building/Emergency Stackout)	1, 4, 8, 5	99.50%	0.010	0.010
NGS Crusher House	1, 4, 8, 5	98.50%	0.022	0.029
NGS Boiler Silos	4, 8, 5	99.50%	0.005	0.008
Limestone Reclaim Bore	1, 4, 8, 5	99.50%	0.005	0.007
Dryer and Crusher No. 1	4, 8, 5	99.04%	0.317	1.360
Dryer and Crusher No. 2	4, 8, 5	99.94%	0.317	1.360
Dryer and Crusher No. 3	4, 8, 5	99.94%	0.317	1.360
Limestone Crusher Conveyor Transfer Train 1, 2, & 3	4, 8, 5	99.94%	0.048	0.206
Limestone Pneumatic Transfer System Train 1 (Feed Silo)	4, 8, 5	99.50%	0.034	0.151
Limestone Pneumatic Transfer System Train 2 (Feed Silo)	4, 8, 5	99.50%	0.034	0.151
Bed Ash Silo Loading Unit #1	4, 8, 5	99.50%	0.014	0.063
Bed Ash Silo Loading Unit #2	4, 8, 5	99.50%	0.014	0.063
Bed Ash Silo Emergency Discharge Unit #1	4, 8, 5	99.98%	0.013	0.058
Bed Ash Silo Emergency Discharge Unit #2	4, 8, 5	99.98%	0.013	0.058
Fly Ash Filter/Separator Transfer Point Unit #1 (Waste Bins)	4, 8, 5	99.50%	0.054	0.218
Fly Ash Filter/Separator Transfer Point Unit #2 (Waste Bins)	4, 8, 5	99.50%	0.054	0.218
Fly Ash Silo Loading Unit #1	4, 8, 5	99.50%	0.019	0.081
Fly Ash Silo Loading Unit #2	4, 8, 5	99.50%	0.019	0.081
Fly Ash Silo Emergency Discharge Unit #1	4, 8, 5	99.98%	0.013	0.054
Fly Ash Silo Emergency Discharge Unit #2	4, 8, 5	99.98%	0.013	0.054
Bed Ash Silo Hydrators Unit 1	4, 8, 5	99.80%	0.062	0.273
Bed Ash Silo Hydrators Unit 2	4, 8, 5	99.80%	0.062	0.273
Fly Ash Silo Hydrators Unit 1	4, 8, 5	99.80%	0.053	0.231
Fly Ash Silo Hydrators Unit 2	4, 8, 5	99.80%	0.053	0.231
Pebble Lime Silo	4, 8, 5	99.00%	0.014	0.060



Air Quality Control Systems (AQCS)
1. Conditioned Materials
2. Water Suppression
3. Water Sprays
4. Enclosures (Total, Partial, Covers, & Wind Screens)
5. Dust Collection Systems
6. Best Operating Practices
P - Point Source
F - Fugitive Source

JEA
NORTHSIDE GENERATING STATION
REPOWERING

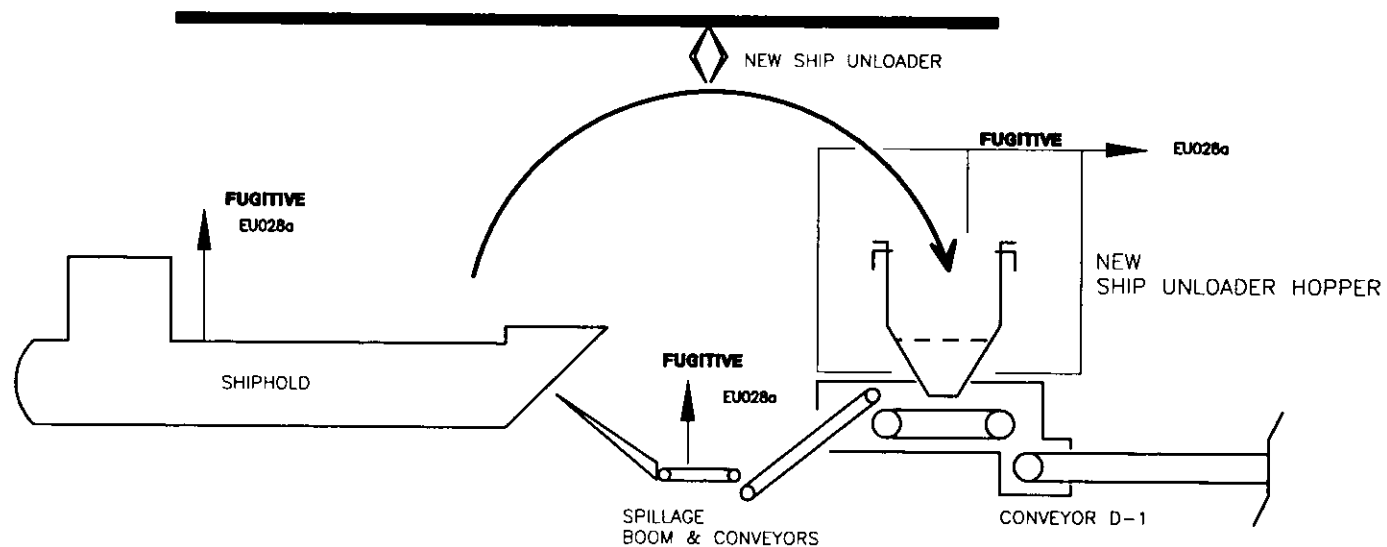
Materials Handling and Storage Operations
Equipment Layout - Alternate No. 1

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: NGSAtg.DWG
DATE: 02/08/99	CHECKED: MAE	FIGURE NO.: NGS - MHS_01
	APPROVED: DJF	

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: PM10 EMISSIONS: LIMESTONE: 0.18 LB/HR & 0.09 TPY COAL/PET. COKE: 0.26 LB/HR & 0.21 TPY VISIBLE EMISSIONS: 10% OPACITY
UNLOADING HOPPER/TRANSFER POINTS: PM10 EMISSIONS: LIMESTONE: 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			
FOSTER WHEELER ENVIRONMENTAL CORPORATION			
SCALE N/A	PREPARED	DJG	CAD FILE NO.
DATE: 12/10/98	CHECKED	MAE	EU028PF4.DWG
	APPROVED	DJF	FIGURE NO.
			F-8, EU028a

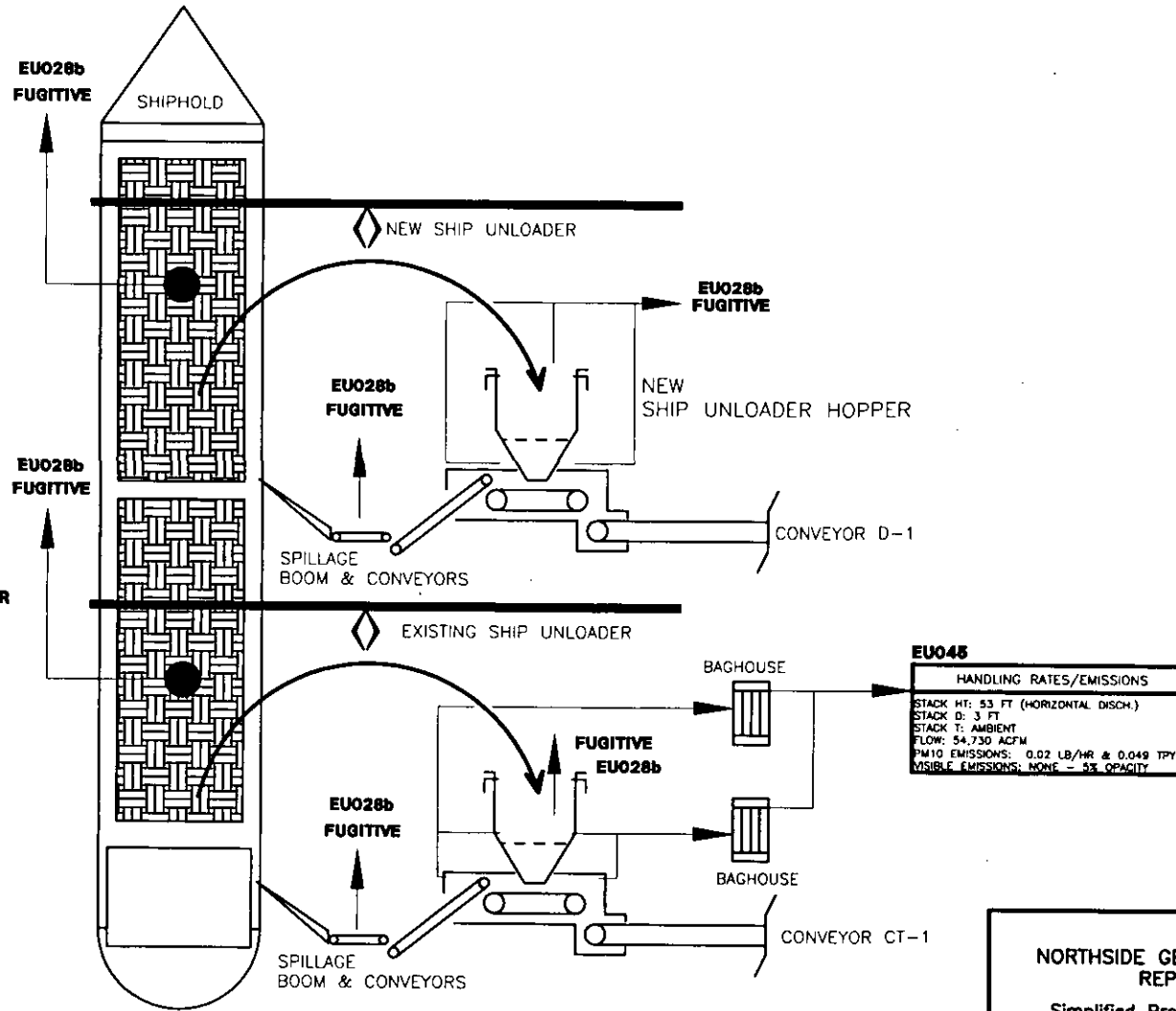
NORTHSIDE GENERATING STATION SHIP UNLOADING OPERATIONS ALTERNATE 1

NEW SHIP UNLOADER

HANDLING RATES/EMISSIONS
UNLOADING RATE: 1,500 TPH LIMESTONE: 1,022,700 TPY COAL/PET. COKE: 3,773,676 TPY
SHIPHOLD PM10 EMISSIONS: LIMESTONE: 0.18 LB/HR & 0.06 TPY COAL/PET. COKE: 0.26 LB/HR & 0.32 TPY VISIBLE EMISSIONS: 10% OPACITY
UNLOADING HOPPER/TRANSFER POINTS PM10 EMISSIONS: LIMESTONE: 0.133 LB/HR & 0.045 TPY COAL/PET. COKE: 0.19 LB/HR & 0.24 TPY VISIBLE EMISSIONS: 10% OPACITY

EXISTING SJRPP SHIP UNLOADER

HANDLING RATES/EMISSIONS
UNLOADING RATE: 1,500 TPH LIMESTONE: 1,022,700 TPY COAL/PET. COKE: 3,773,676 TPY
SHIPHOLD PM10 EMISSIONS: LIMESTONE: 0.18 LB/HR & 0.06 TPY COAL/PET. COKE: 0.26 LB/HR & 0.32 TPY VISIBLE EMISSIONS: 10% OPACITY
UNLOADING HOPPER/TRANSFER POINTS PM10 EMISSIONS: LIMESTONE: 0.11 LB/HR & 0.034 TPY COAL/PET. COKE: 0.15 LB/HR & 0.18 TPY VISIBLE EMISSIONS: 10% OPACITY



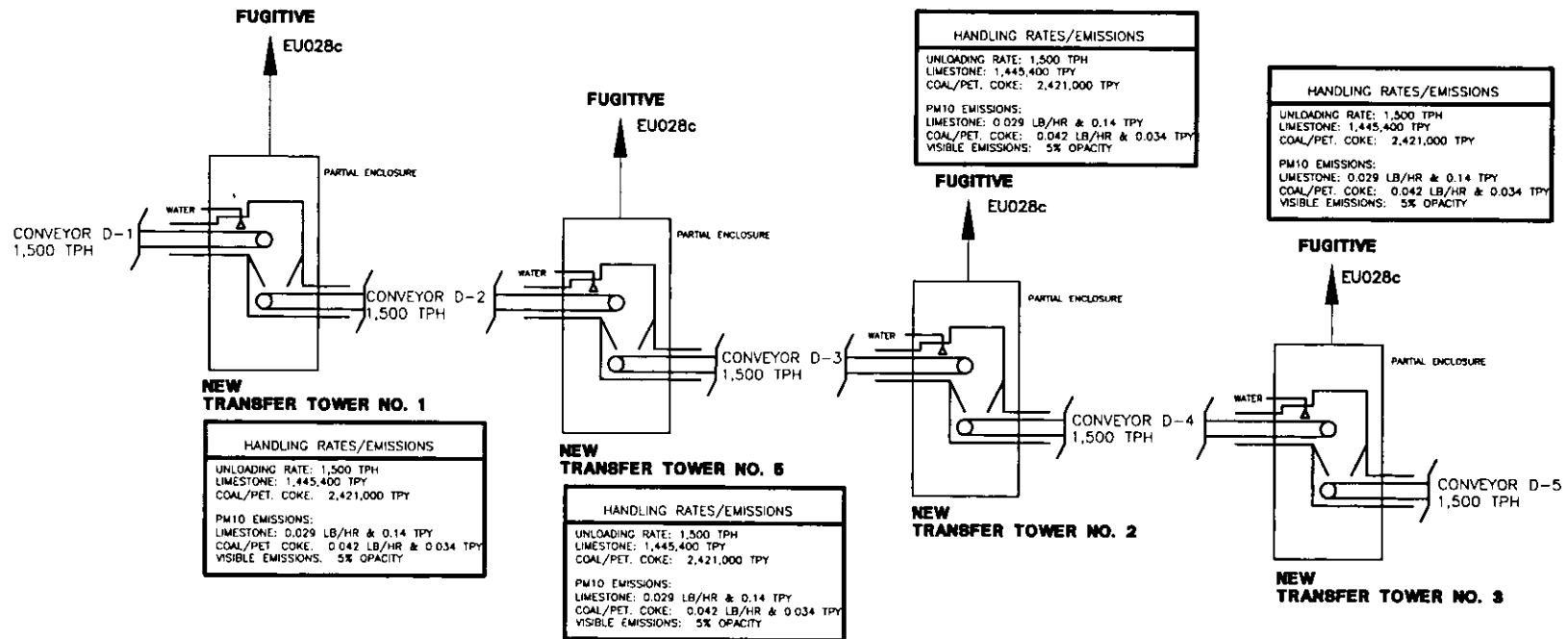
HANDLING RATES/EMISSIONS
STACK HT: 53 FT (HORIZONTAL DISCH.) STACK D: 3 FT STACK T: AMBIENT FLOW: 54,730 ACFM PM10 EMISSIONS: 0.02 LB/HR & 0.049 TPY VISIBLE EMISSIONS: NONE - 3% OPACITY

JEA
NORTHSIDE GENERATING STATION
REPOWERING
Simplified Process Flow Diagram
Emissions Unit ID 028

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU028PFB.DWG
DATE: 01/28/99	CHECKED: MAE	FIGURE NO.: F-5, EU028b
	APPROVED: DJF	

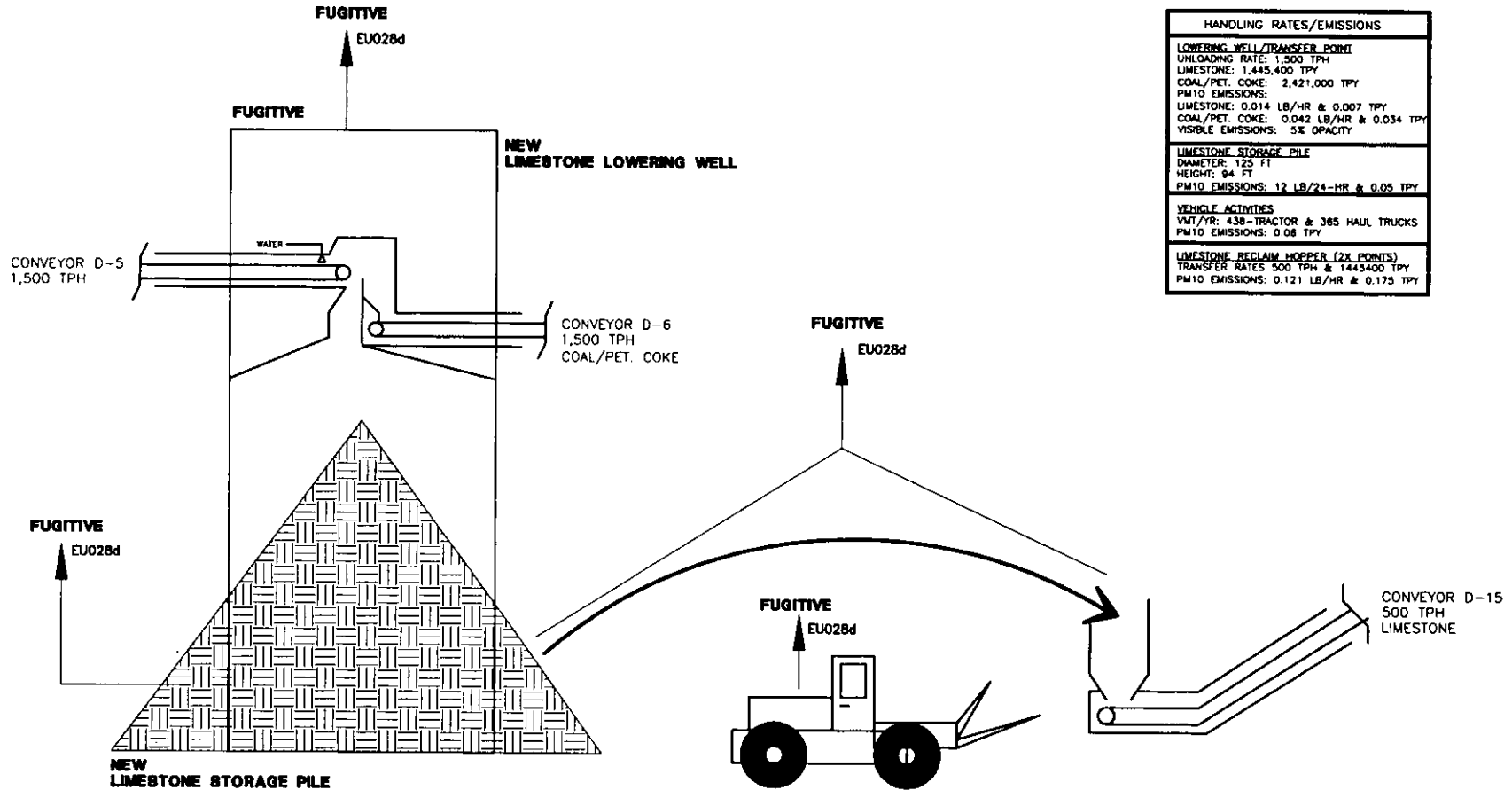
NORTHSIDE GENERATING STATION NEW SHIP UNLOADING TRANSFER TOWERS BASE CASE



NOTE: COVERS ON CONVEYORS

JEA			
NORTHSIDE GENERATING STATION REPOWERING			
Simplified Process Flow Diagram			
Emissions Unit ID 028			
POSTER WHEELER ENVIRONMENTAL CORPORATION			
SCALE N/A	PREPARED	DJG	CAD FILE NO.
DATE: 12/10/98	CHECKED	MAE	EU028PEC.DWG
	APPROVED	DJF	FIGURE NO.
			F-8, EU028c

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



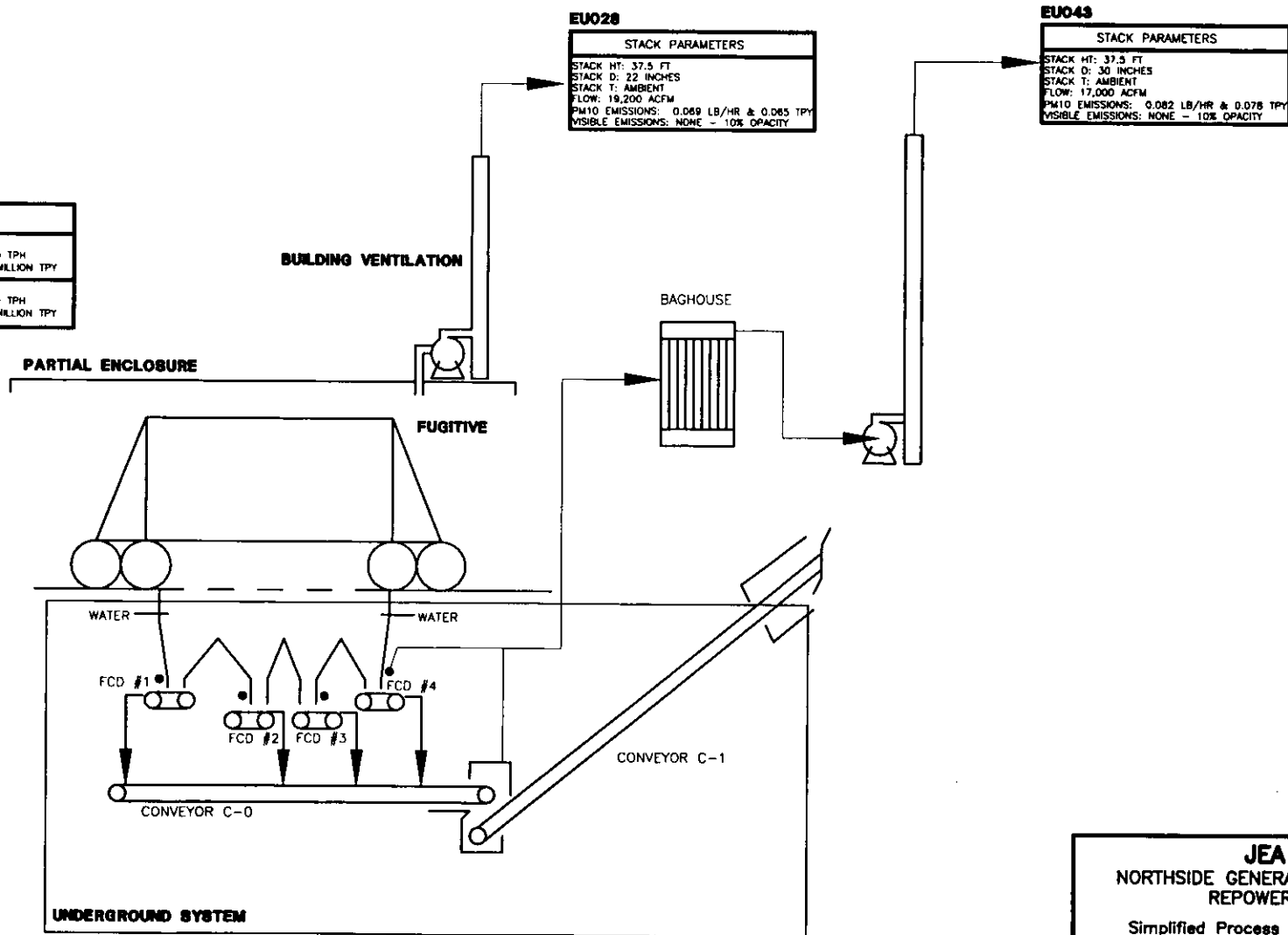
HANDLING RATES/EMISSIONS	
LOWERING WELL/TRANSFER POINT	
UNLOADING RATE:	1,500 TPH
LIMESTONE:	1,445,400 TPY
COAL/PET. COKE:	2,421,000 TPY
PM10 EMISSIONS:	
LIMESTONE:	0.014 LB/HR & 0.007 TPY
COAL/PET. COKE:	0.042 LB/HR & 0.034 TPY
VISIBLE EMISSIONS: 5% OPACITY	
LIMESTONE STORAGE PILE	
DIAMETER:	125 FT
HEIGHT:	94 FT
PM10 EMISSIONS: 12 LB/24-HR & 0.05 TPY	
VEHICLE ACTIVITIES	
VMT/YR:	438-TRACTOR & 365 HAUL TRUCKS
PM10 EMISSIONS: 0.08 TPY	
LIMESTONE RECLAIM HOPPER (2X POINTS)	
TRANSFER RATES:	500 TPH & 1445400 TPY
PM10 EMISSIONS: 0.121 LB/HR & 0.175 TPY	

NOTE: COVERS ON CONVEYORS

JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram		
Emissions Unit ID 028		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU028PEd.DWG
CHECKED: MAE	APPROVED: DJF	FIGURE NO. F-8, EU028d
DATE: 12/10/98		

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

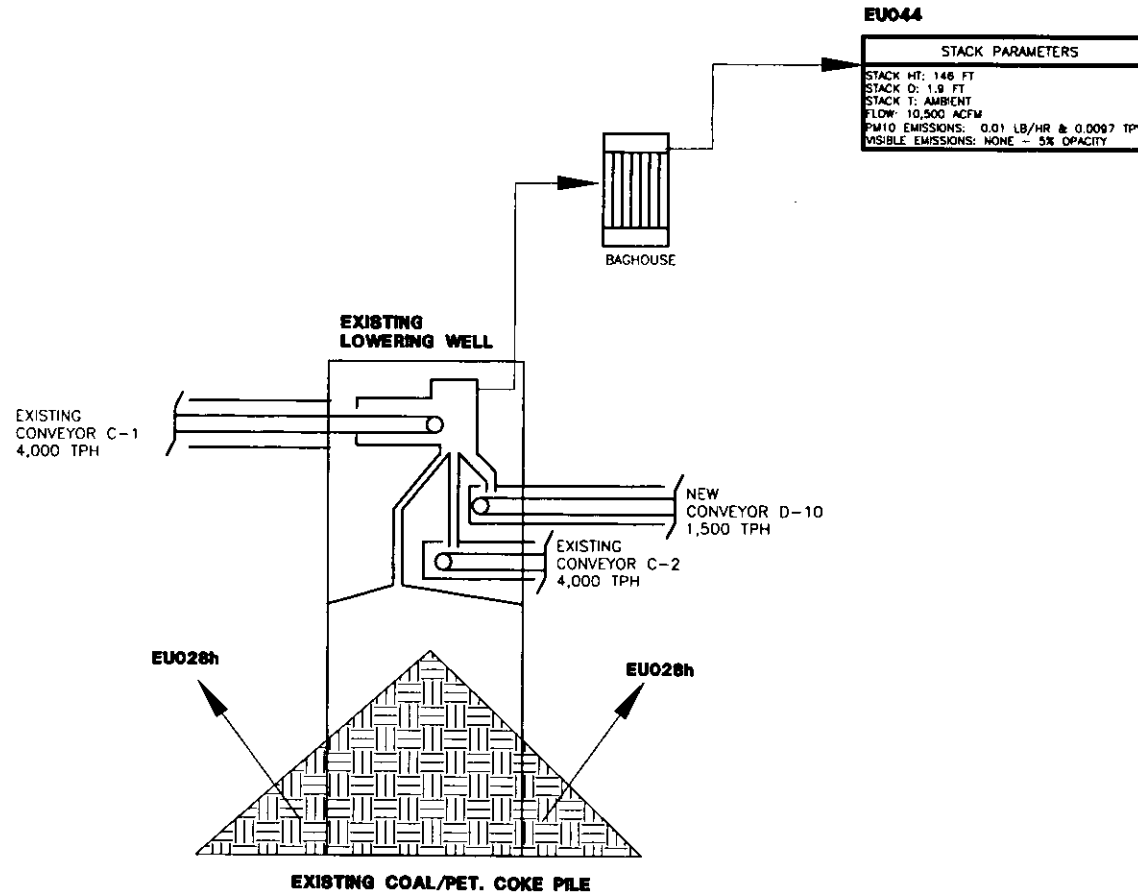
HANDLING RATES	
CURRENT ALLOWABLE	
UNLOADING RATE:	4,000 TPH
COAL/PET. COKE:	5.2 MILLION TPY
PROPOSED ALLOWABLE	
UNLOADING RATE:	4,000 TPH
COAL/PET. COKE:	7.5 MILLION TPY



NOTE: COVERS ON CONVEYORS

JEA			
NORTHSIDE GENERATING STATION REPOWERING			
Simplified Process Flow Diagram Emissions Unit ID 028			
POSTER WHEELER ENVIRONMENTAL CORPORATION			
SCALE N/A	PREPARED DJC	CAD FILE NO. EU028PP.dwg	
DATE: 01/28/99	CHECKED MAE	FIGURE NO. F-8. EU028a	
	APPROVED DJF		

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



EU044

STACK PARAMETERS	
STACK HT:	146 FT
STACK D:	1.9 FT
STACK T:	AMBIENT
FLOW:	10,500 ACFM
PM10 EMISSIONS:	0.01 LB/HR @ 0.0097 TPD
VISIBLE EMISSIONS:	NONE - 5% OPACITY

JEA
NORTHSIDE GENERATING STATION
REPOWERING

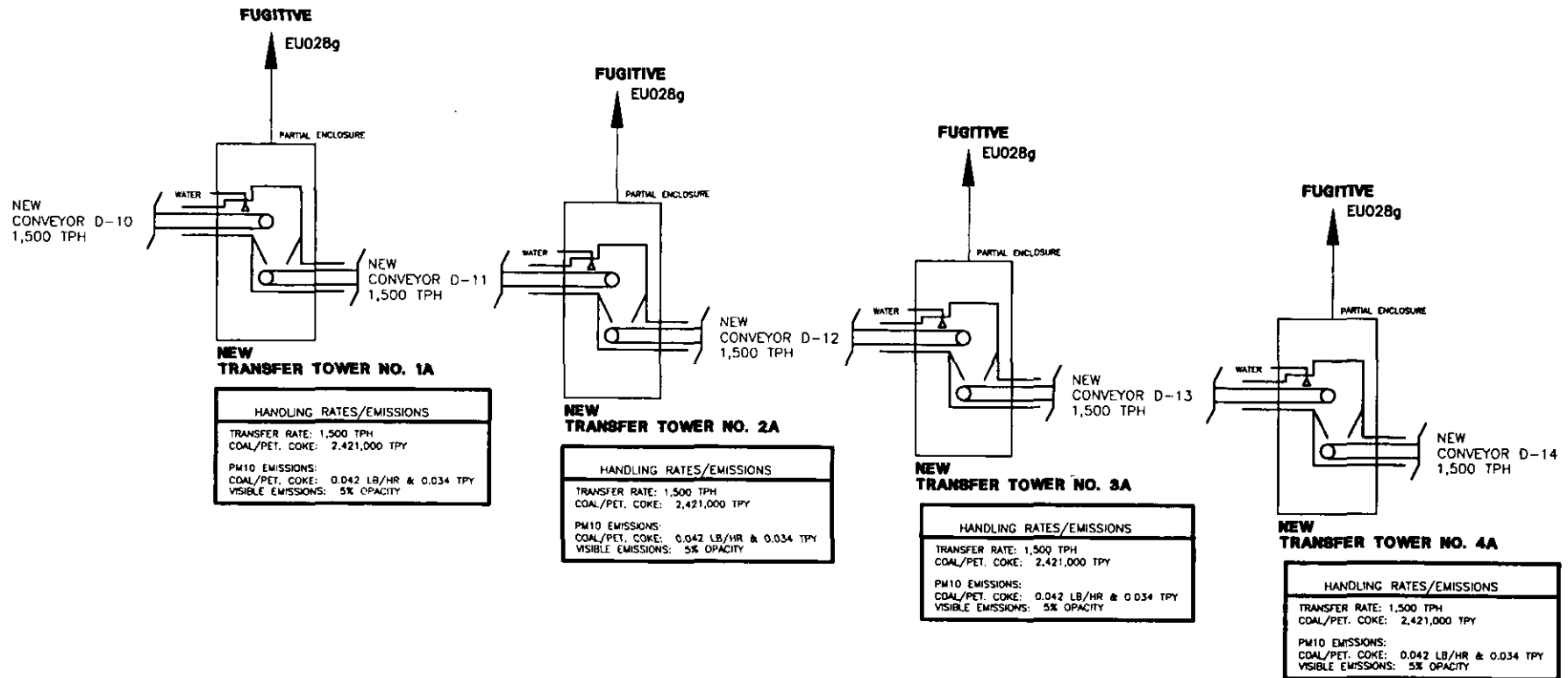
Simplified Process Flow Diagram
Emissions Unit ID 028

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU028PET.DWG
DATE: 12/10/08	CHECKED: MAE	FIGURE NO. F-8, EU028
	APPROVED: DJF	

NOTE: COVERS ON CONVEYORS

NORTHSIDE GENERATING STATION NEW TRANSFER TOWERS BASE CASE



NOTE: COVERS ON CONVEYORS

JEA
NORTHSIDE GENERATING STATION
REPOWERING

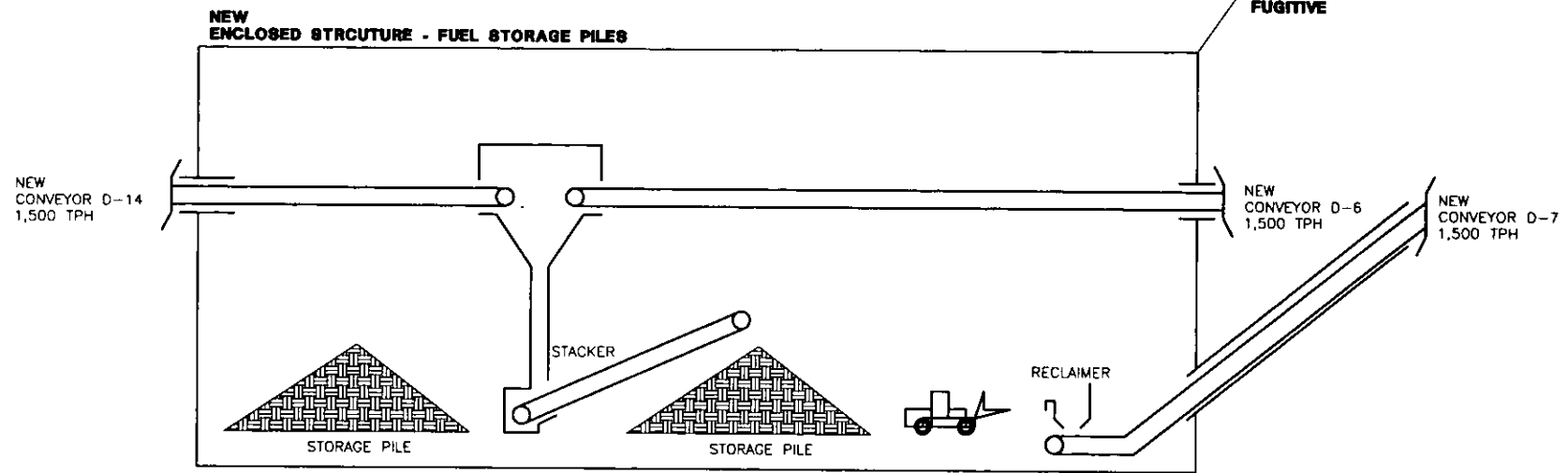
Simplified Process Flow Diagram
 Emissions Unit ID 028

POSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU028Pfg.DWG
DATE: 12/10/98	CHECKED: MAE	FIGURE NO.: F-6, EU028g
	APPROVED: DJF	

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

HANDLING RATES/EMISSIONS	
CONVEYORS D-6 & D-14	
TRANSFER RATE: 1,500 TPH	
COAL/PET. COKE: 2,421,000 TPY	
PM10 EMISSIONS:	
COAL/PET. COKE:	0.042 LB/HR & 0.034 TPY
VISIBLE EMISSIONS: 5% OPACITY	
FUEL RECLAIMER	
TRANSFER RATE: 700 TPH	
COAL/PET COKE: 2,421,000 TPY	
PM10 EMISSIONS:	
COAL/PET. COKE:	0.029 LB/HR & 0.051 TPY
VISIBLE EMISSIONS: 5% OPACITY	
VEHICLE ACTIVITIES	
VMT/YR: 2044-TRACTOR & 912-AUTOMOBILES	
PM10 EMISSIONS: 0.007 TPY	
VISIBLE EMISSIONS: 5% OPACITY	



NOTE: COVERS ON CONVEYORS

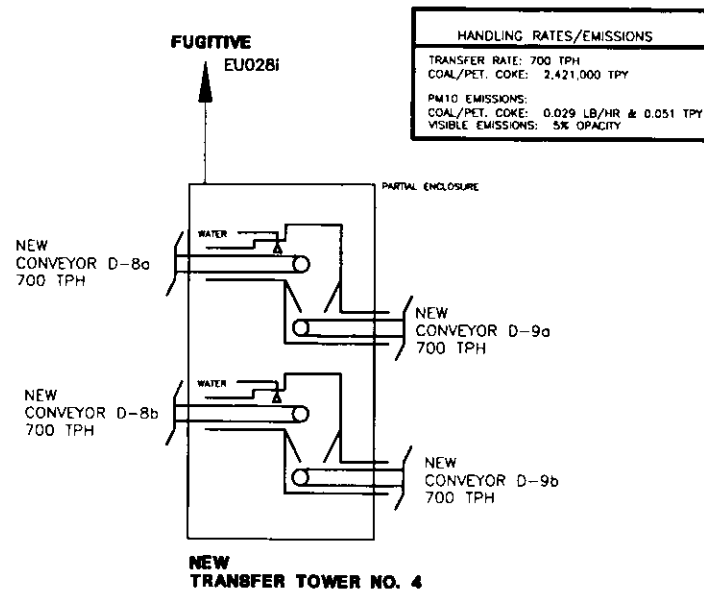
JEA
NORTHSIDE GENERATING STATION
REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 028

POSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A	PREPARED DJG	CAD FILE NO. EU028PFD.DWG
DATE: 12/10/98	CHECKED MAE	FIGURE NO. F-8, EU028h
	APPROVED DJF	

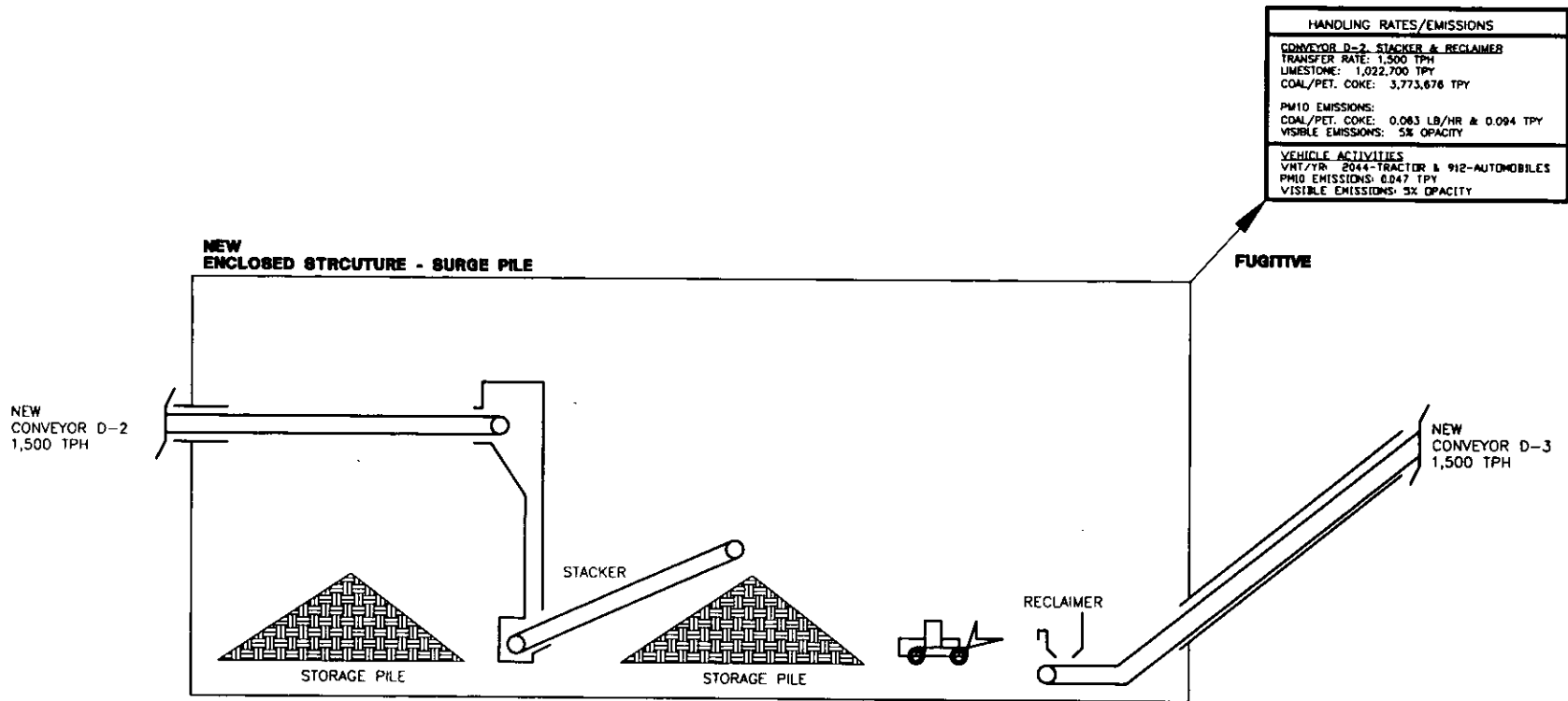
NORTHSIDE GENERATING STATION NEW TRANSFER TOWER NO. 4 BASE CASE



NOTE: COVERS ON CONVEYORS

JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram Emissions Unit ID 028		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU028PFI.DWG
DATE: 12/10/98	CHECKED: MAE	FIGURE NO. F-8_EU028i
	APPROVED: DJF	

NORTHSIDE GENERATING STATION NEW SURGE PILES ALTERNATE 1



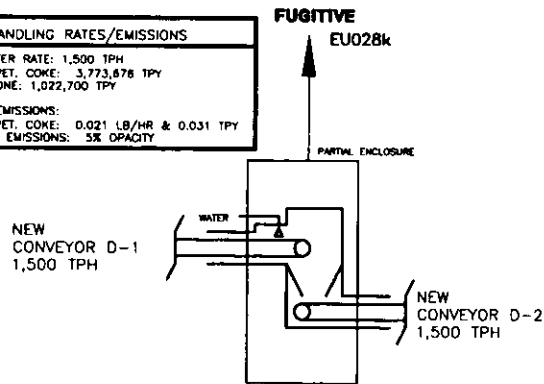
NOTE: COVERS ON CONVEYORS

JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram Emissions Unit ID 028		
POSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE N/A	PREPARED DJG	CAD FILE NO. EU028PFLD.WG
DATE: 12/10/98	CHECKED MAE	FIGURE NO. F-6, EU028
	APPROVED DJF	

NORTHSIDE GENERATING STATION NEW SHIP UNLOADING TRANSFER TOWERS ALTERNATE 1

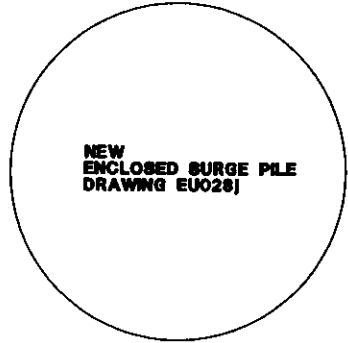
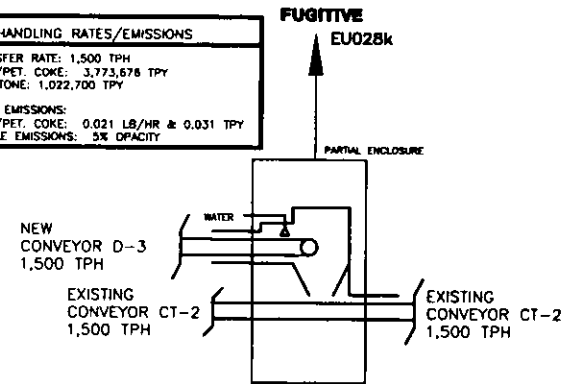
NEW TRANSFER TOWER NO. D1

HANDLING RATES/EMISSIONS
TRANSFER RATE: 1,500 TPH
COAL/PET. COKE: 3,773,676 TPY
LIMESTONE: 1,022,700 TPY
PM10 EMISSIONS: COAL/PET. COKE: 0.021 LB/HR & 0.031 TPY VISIBLE EMISSIONS: 5% OPACITY



NEW TRANSFER TOWER NO. D2

HANDLING RATES/EMISSIONS
TRANSFER RATE: 1,500 TPH
COAL/PET. COKE: 3,773,676 TPY
LIMESTONE: 1,022,700 TPY
PM10 EMISSIONS: COAL/PET. COKE: 0.021 LB/HR & 0.031 TPY VISIBLE EMISSIONS: 5% OPACITY



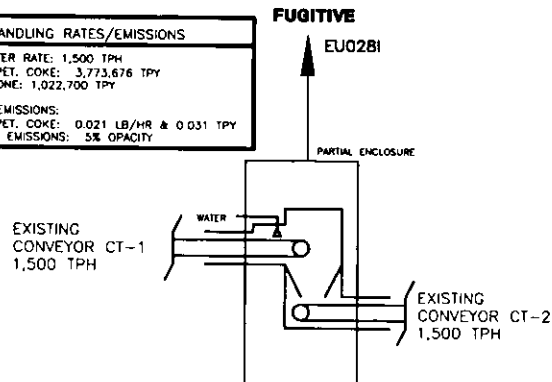
NOTE: COVERS ON CONVEYORS

JEA NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram Emissions Unit ID 028		
POSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE N/A	PREPARED DJG	CAD FILE NO. EU028PFL.DWG
DATE: 12/10/98	CHECKED MAE	FIGURE NO. F-8, EU028k
	APPROVED DJF	

NORTHSIDE GENERATING STATION SJRPP EXISTING TRANSFER STATIONS ALTERNATE 1

EXISTING TRANSFER STATION NO. 1

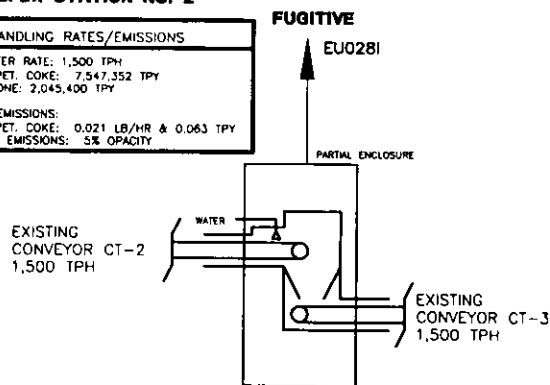
HANDLING RATES/EMISSIONS
TRANSFER RATE: 1,500 TPH
COAL/PET. COKE: 3,773,676 TPY
LIMESTONE: 1,022,700 TPY
PM10 EMISSIONS:
COAL/PET. COKE: 0.021 LB/HR & 0.031 TPY
VISIBLE EMISSIONS: 5% OPACITY



**NEW
TRANSFER TOWER NO. D-1
ADDS TO CT-2
DRAWING EU028k**

EXISTING TRANSFER STATION NO. 2

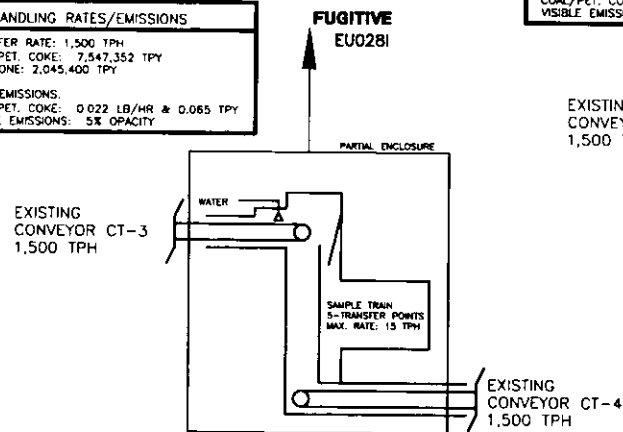
HANDLING RATES/EMISSIONS
TRANSFER RATE: 1,500 TPH
COAL/PET. COKE: 7,547,352 TPY
LIMESTONE: 2,045,400 TPY
PM10 EMISSIONS:
COAL/PET. COKE: 0.021 LB/HR & 0.063 TPY
VISIBLE EMISSIONS: 5% OPACITY



NOTE: COVERS ON CONVEYORS

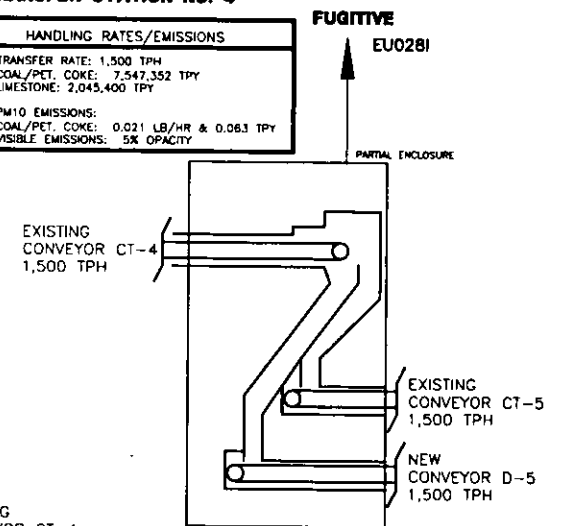
EXISTING TRANSFER STATION NO. 3

HANDLING RATES/EMISSIONS
TRANSFER RATE: 1,500 TPH
COAL/PET. COKE: 7,547,352 TPY
LIMESTONE: 2,045,400 TPY
PM10 EMISSIONS:
COAL/PET. COKE: 0.022 LB/HR & 0.065 TPY
VISIBLE EMISSIONS: 5% OPACITY



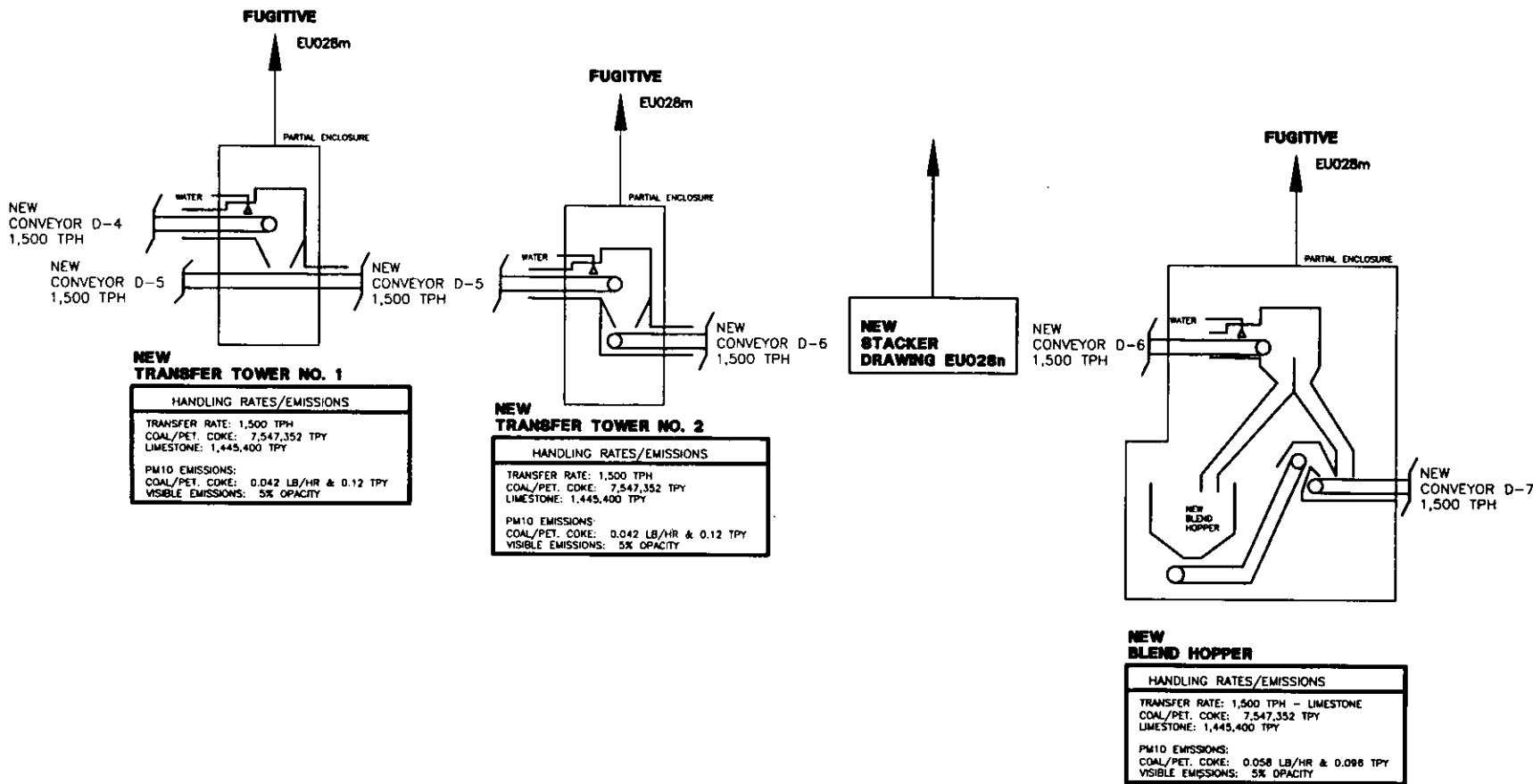
EXISTING TRANSFER STATION NO. 4

HANDLING RATES/EMISSIONS
TRANSFER RATE: 1,500 TPH
COAL/PET. COKE: 7,547,352 TPY
LIMESTONE: 2,045,400 TPY
PM10 EMISSIONS:
COAL/PET. COKE: 0.021 LB/HR & 0.063 TPY
VISIBLE EMISSIONS: 5% OPACITY



JEA NORTHSIDE GENERATING STATION REPOWERING			
Simplified Process Flow Diagram			
Emissions Unit ID 028			
FOSTER WHEELER ENVIRONMENTAL CORPORATION			
SCALE N/A	PREPARED DJG	CAD FILE NO. EU028PFL.DWG	FIGURE NO. 2-B EU028
DATE: 12/10/98	CHECKED MAE	APPROVED DJF	

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



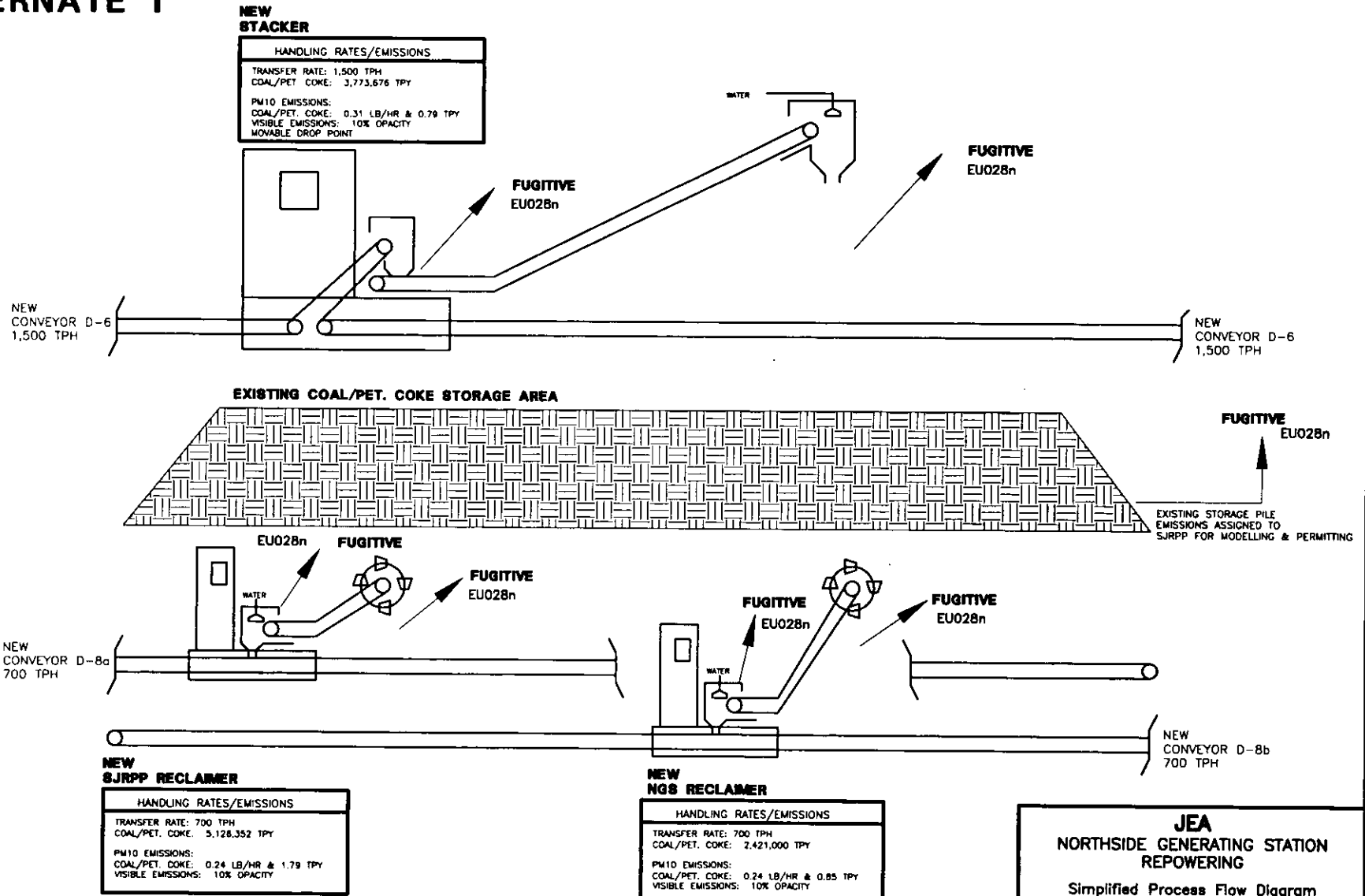
NOTE: COVERS ON CONVEYORS

JEA
NORTHSIDE GENERATING STATION
REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 028

FOSTER WHEELER ENVIRONMENTAL CORPORATION			
SCALE N/A	PREPARED DJG	CAD FILE NO. EU028PFm.DWG	FIGURE NO. F-6, EU028m
DATE: 12/10/98	CHECKED MAE		
	APPROVED DJF		

NORTHSIDE GENERATING STATION NEW STACKER & RECLAIMERS (SJRPP & NGS) - STORAGE AREA ALTERNATE 1



NOTE: COVERS ON CONVEYORS

JEA
NORTHSIDE GENERATING STATION
REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 028

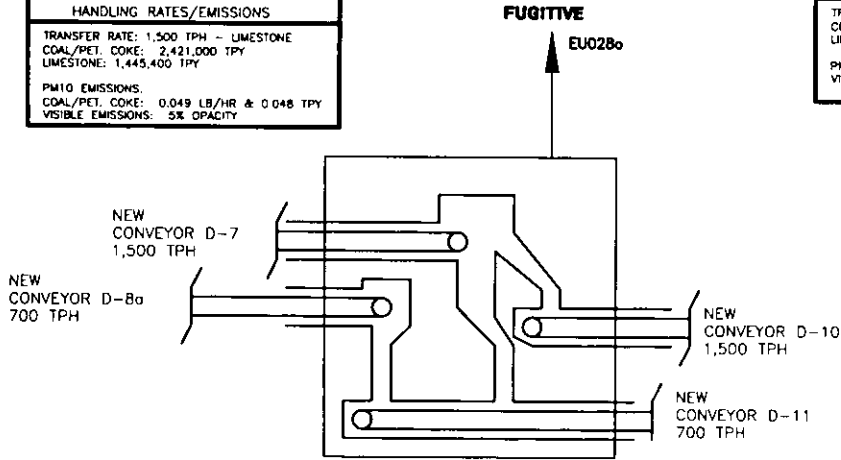
FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A	PREPARED DJG	CAD FILE NO. EU028PTn.DWG
DATE: 12/10/98	CHECKED MAE	FIGURE NO. F-8, EU028n
	APPROVED DJF	

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

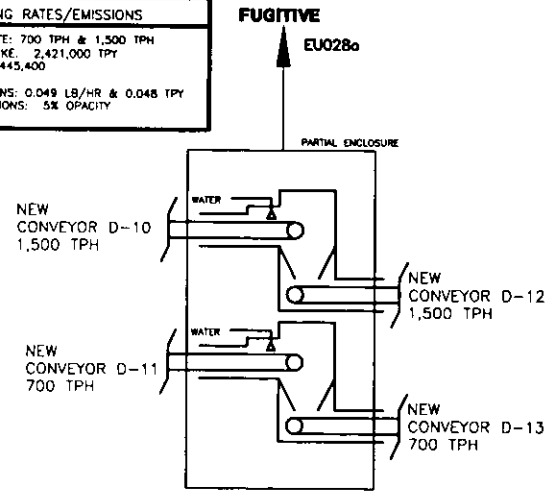
NEW RECLAIM/TRANSFER TOWER

HANDLING RATES/EMISSIONS
TRANSFER RATE: 1,500 TPH - LIMESTONE
COAL/PET. COKE: 2,421,000 TPY
LIMESTONE: 1,445,400 TPY
PM10 EMISSIONS:
COAL/PET. COKE: 0.049 LB/HR & 0.048 TPY
VISIBLE EMISSIONS: 5% OPACITY



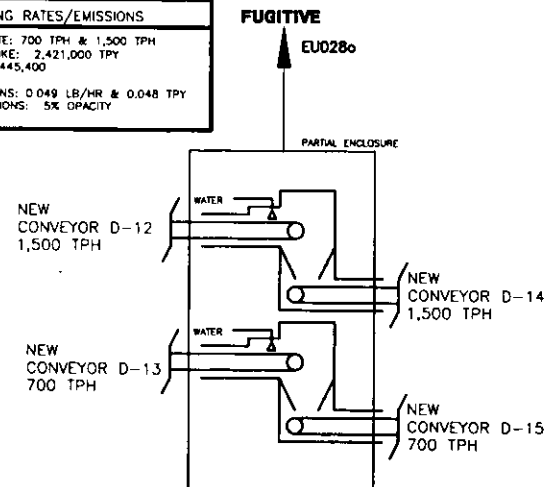
NEW TRANSFER TOWER NO. 4

HANDLING RATES/EMISSIONS
TRANSFER RATE: 700 TPH & 1,500 TPH
COAL/PET. COKE: 2,421,000 TPY
LIMESTONE: 1,445,400
PM10 EMISSIONS: 0.049 LB/HR & 0.048 TPY
VISIBLE EMISSIONS: 5% OPACITY



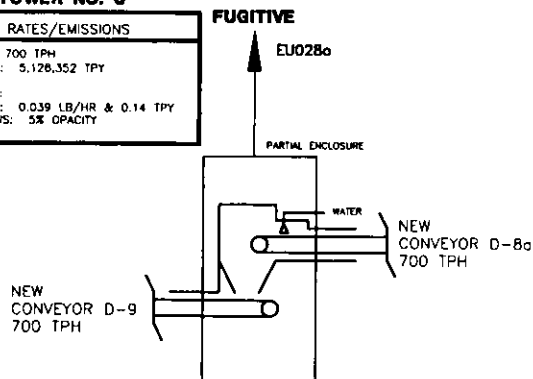
NEW TRANSFER TOWER NO. 5

HANDLING RATES/EMISSIONS
TRANSFER RATE: 700 TPH & 1,500 TPH
COAL/PET. COKE: 2,421,000 TPY
LIMESTONE: 1,445,400
PM10 EMISSIONS: 0.049 LB/HR & 0.048 TPY
VISIBLE EMISSIONS: 5% OPACITY



NEW TRANSFER TOWER NO. 3

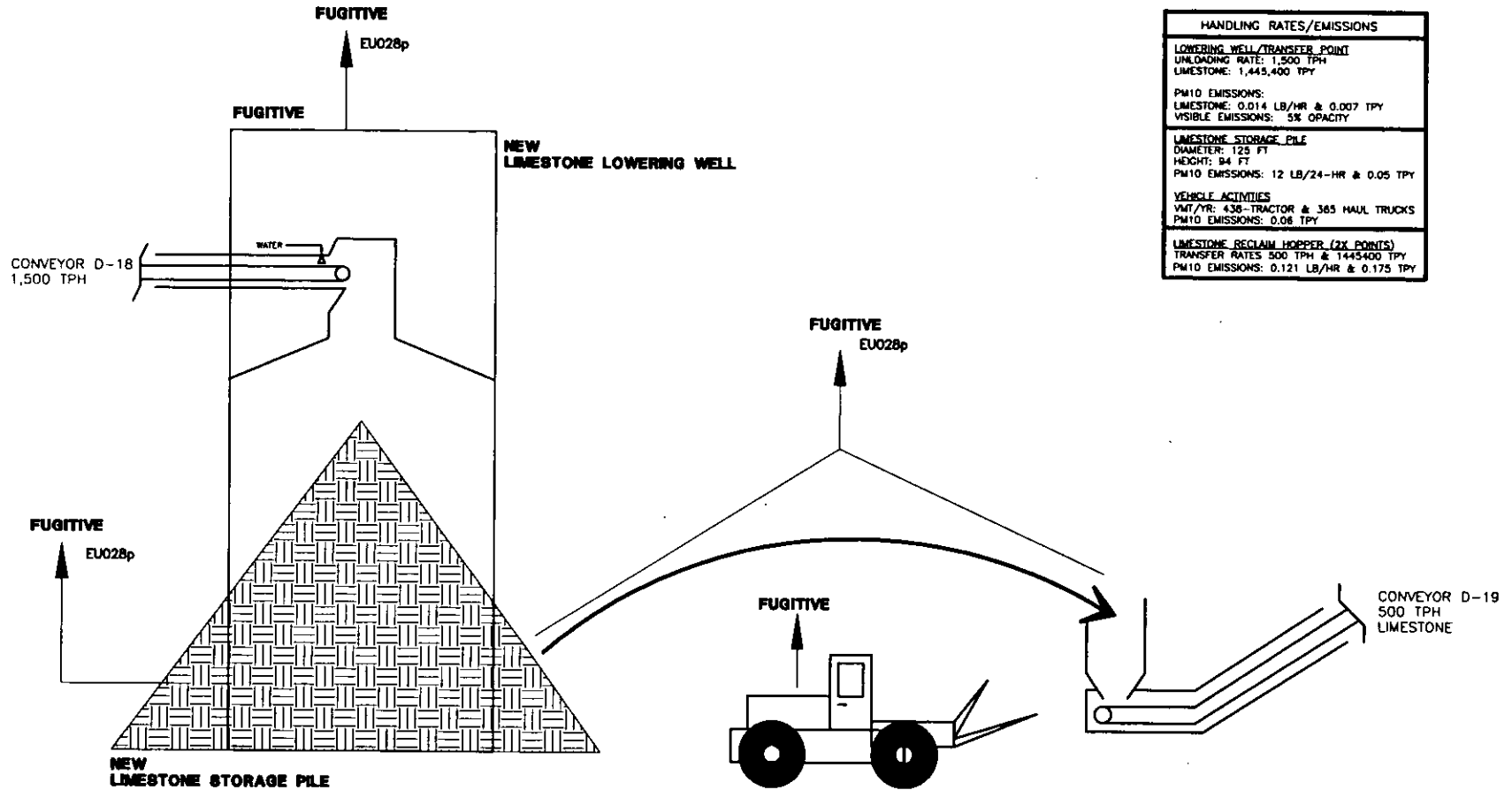
HANDLING RATES/EMISSIONS
TRANSFER RATE: 700 TPH
COAL/PET. COKE: 5,126,352 TPY
PM10 EMISSIONS:
COAL/PET. COKE: 0.039 LB/HR & 0.14 TPY
VISIBLE EMISSIONS: 5% OPACITY



NOTE: COVERS ON CONVEYORS

JEA			
NORTHSIDE GENERATING STATION REPOWERING			
Simplified Process Flow Diagram			
Emissions Unit ID 028			
FOSTER WHEELER ENVIRONMENTAL CORPORATION			
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU028Pfg.DWG	
DATE: 12/10/98	CHECKED: MAE	FIGURE NO.: F-8	EU028o
	APPROVED: DJF		

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



HANDLING RATES/EMISSIONS
LOWERING WELL/TRANSFER POINT UNLOADING RATE: 1,500 TPH LIMESTONE: 1,445,400 TPY
PM10 EMISSIONS: LIMESTONE: 0.014 LB/HR & 0.007 TPY VISIBLE EMISSIONS: 5% OPACITY
LIMESTONE STORAGE PILE DIAMETER: 125 FT HEIGHT: 94 FT PM10 EMISSIONS: 12 LB/24-HR & 0.05 TPY
VEHICLE ACTIVITIES VMT/YR: 438-TRACTOR & 385 MAUL TRUCKS PM10 EMISSIONS: 0.08 TPY
LIMESTONE RECLAIM HOPPER (2X POINTS) TRANSFER RATES 500 TPH & 1445400 TPY PM10 EMISSIONS: 0.121 LB/HR & 0.175 TPY

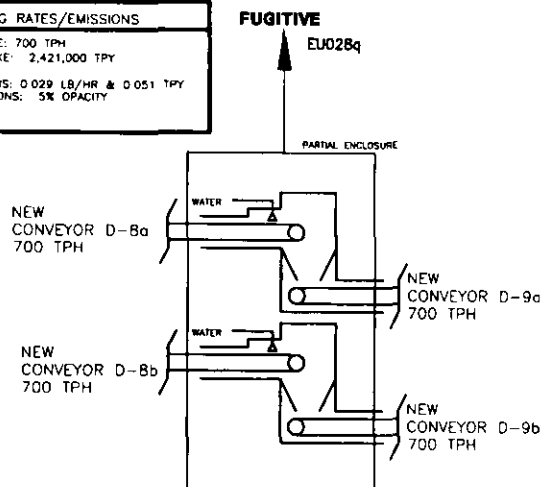
NOTE: COVERS ON CONVEYORS

JEA NORTHSIDE GENERATING STATION REPOWERING			
Simplified Process Flow Diagram Emissions Unit ID 028			
FOSTER WHEELER ENVIRONMENTAL CORPORATION			
SCALE N/A	PREPARED	DJG	CAD FILE NO.
DATE: 12/10/98	CHECKED	MAE	EU028PEP.DWG
	APPROVED	DJF	FIGURE NO.
			F-8, EU028p

NORTHSIDE GENERATING STATION NEW TRANSFER TOWERS BASE CASE & ALTERNATE 1

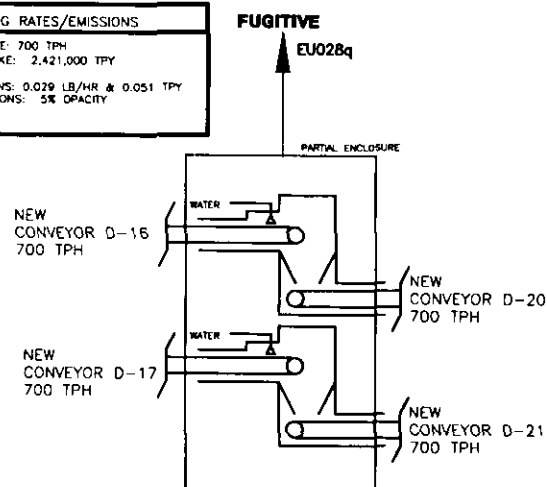
NEW - BASE CASE TRANSFER TOWER NO. 4

HANDLING RATES/EMISSIONS
TRANSFER RATE: 700 TPH
COAL/PET. COKE: 2,421,000 TPY
PM10 EMISSIONS: 0.029 LB/HR & 0.051 TPY
VISIBLE EMISSIONS: 5% OPACITY



NEW - ALTERNATE 1 TRANSFER TOWER NO. 8

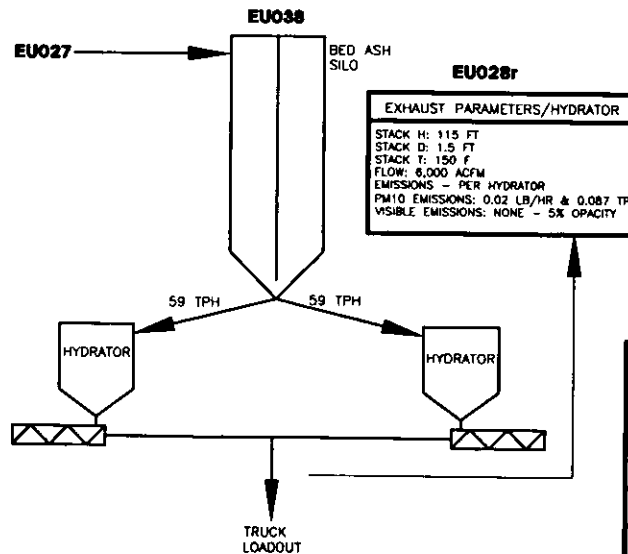
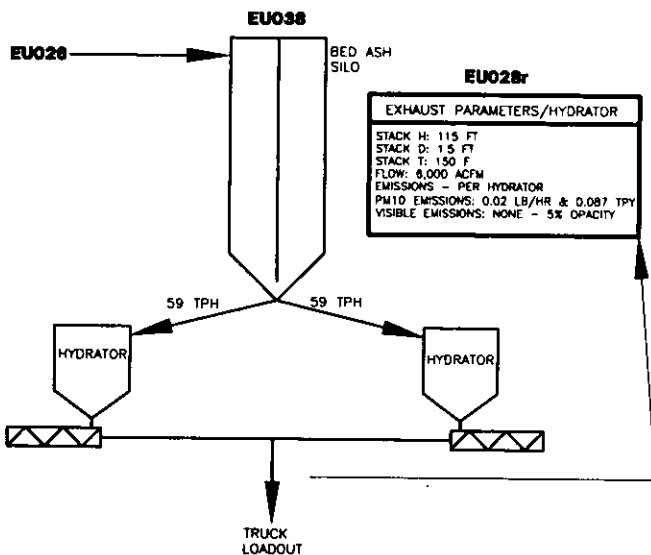
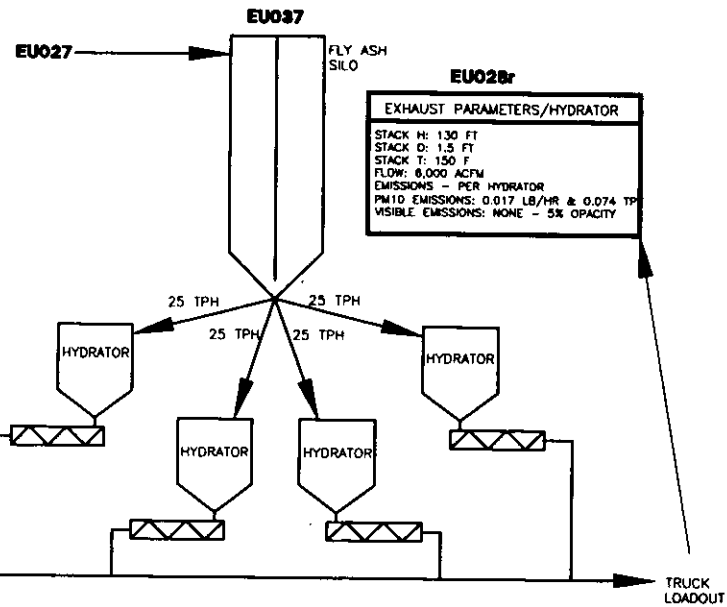
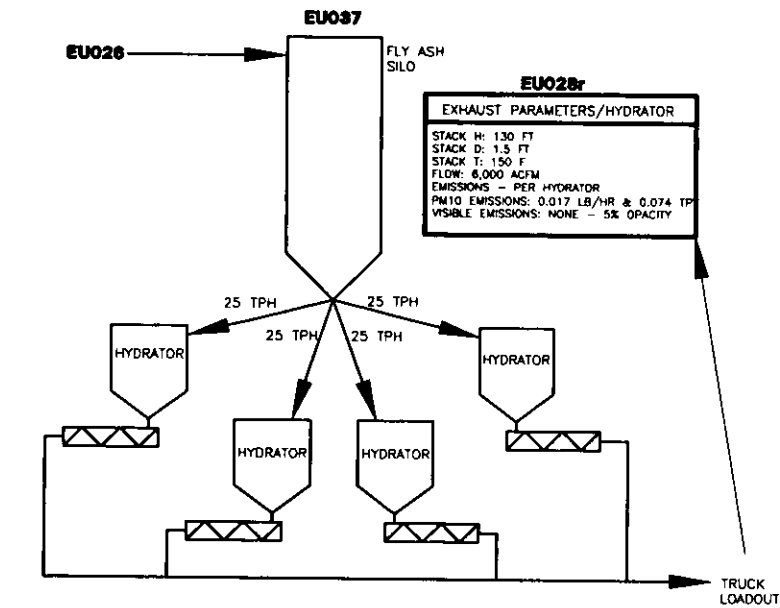
HANDLING RATES/EMISSIONS
TRANSFER RATE: 700 TPH
COAL/PET. COKE: 2,421,000 TPY
PM10 EMISSIONS: 0.029 LB/HR & 0.051 TPY
VISIBLE EMISSIONS: 5% OPACITY



NOTE: COVERS ON CONVEYORS

JEA			
NORTHSIDE GENERATING STATION REPOWERING			
Simplified Process Flow Diagram			
Emissions Unit ID 028			
FOSTER WHEELER ENVIRONMENTAL CORPORATION			
SCALE N/A	PREPARED DJG	CAD FILE NO. EU028PEg.DWG	
DATE: 12/10/88	CHECKED MAE	FIGURE NO. F-8, EU028g	
	APPROVED DJF		

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



JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram Emissions Unit ID 028		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE N/A	PREPARED DJG	CAD FILE NO. EU028PPT.DWG
DATE: 11/18/98	CHECKED MAE	FIGURE NO. F-8, EU028r
	APPROVED DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

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).
- [] 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

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**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

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

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 the open storage piles) which is also a Visible Emissions Limitation but less stringent than that proposed as BACT.

III. Part 6a - 1

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Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 1

1. Description :

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

2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

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 :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

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 :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 4

1. Description :
 SJRPP Coal Transfer Building - Both Cases, Existing & New
 Conditioned Materials
 Figure EU028f

2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

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 :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

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 :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

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 :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 8

1. Description :

Coal/Pet. Coke Piles - Base Case, New
Partial Enclosure & Conditioned Materials
Figure EU028h

2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

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 :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 10

1. Description :

Stacker and Reclaimers - Alternate 1, New
Conditioned Materials & Water Sprays
Figure EU028n

2. Control Device or Method Code :

Emissions Unit Information Section 6

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
2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 12

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

2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 13

1. Description :

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

2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 14

1. Description :

Transfer Conveyors - Both Cases, New & Existing
Conditioned Materials & Covers

2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 15

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

2. Control Device or Method Code :

**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

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

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

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 the open storage piles) which is also a Visible Emissions Limitation but less stringent than that proposed as BACT.

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

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List of Applicable Regulations

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 Extent 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

Emissions Unit Information Section 6
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

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Emissions Unit Information Section 6
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

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	NGS-MHS-BC & A1
2. Emission Point Type Code :	4
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 :	See Figures NGS-MHS-BC & NGS-MHS-A1 along with other process flow diagrams associated EU028.
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

Zone : 17

East (km) : 466.820

North (km) : 3364.975

14. Emission Point Comment :

III. Part 7a - 2

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Segment Description and Rate : Segment 1

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) : 30501099	
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 - 1

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 Case and Alternate 1 (Based on Proposed Levels for SJRPP)	
2. Source Classification Code (SCC) : 30501099	
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 - 2

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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 Associated Operating Method/Mode) : Transfer Towers and Stations Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates for the Base Case and Alternate 1 (Based on Proposed Levels for SJRPP)	
2. Source Classification Code (SCC) : 30501099	
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

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Segment Description and Rate : Segment 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Lowering Wells, Stackers, Storage Piles & Reclaimers Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates for the Base Case and Alternate 1 (Based on Proposed Levels for SJRPP)	
2. Source Classification Code (SCC) : 30501099	
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

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Segment Description and Rate: Segment 5

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Conveyors Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates for the Base Case and Alternate 1 (Based on Proposed Levels for SJRPP)	
2. Source Classification Code (SCC) : 30501099	
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

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Segment Description and Rate : Segment 6

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Ash Hydrator Loadouts Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates for the Base Case and Alternate 1	
2. Source Classification Code (SCC) : 30501099	
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

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
1 - PM10			WP
2 - PM			WP

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

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : PM10		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 Comment : See Appendix C of the PSD Application for detailed calculations and control efficiencies.		

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

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : PM		
2. Total Percent Efficiency of Control :		%
3. Potential Emissions :	lb/hour	tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:	to	tons/year
6. Emissions Factor Reference :	Units	
7. Emissions Method Code : 3		
8. Calculations of Emissions :		
9. Pollutant Potential/Estimated Emissions Comment : See Appendix C of the PSD Application for detailed calculations and control efficiencies.		

III. Part 9b - 2

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

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

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
4. Method of Compliance :	Annual VE Test using EPA Method 9
5. Visible Emissions Comment :	Ship Unloading Operations - Shiphold & Receiving Hoppers Existing Rail Car Unloading Operation - Building Existing Coal Transfer Building - Building Existing Storage Piles

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 :	

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

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

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.

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 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 Consuming/Expanding Code :			
PM :	C	SO2 :	NO2 :
4. Baseline Emissions :			
PM :	lb/hour		tons/year
SO2 :	lb/hour		tons/year
NO2 :			tons/year
5. PSD Comment :			

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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

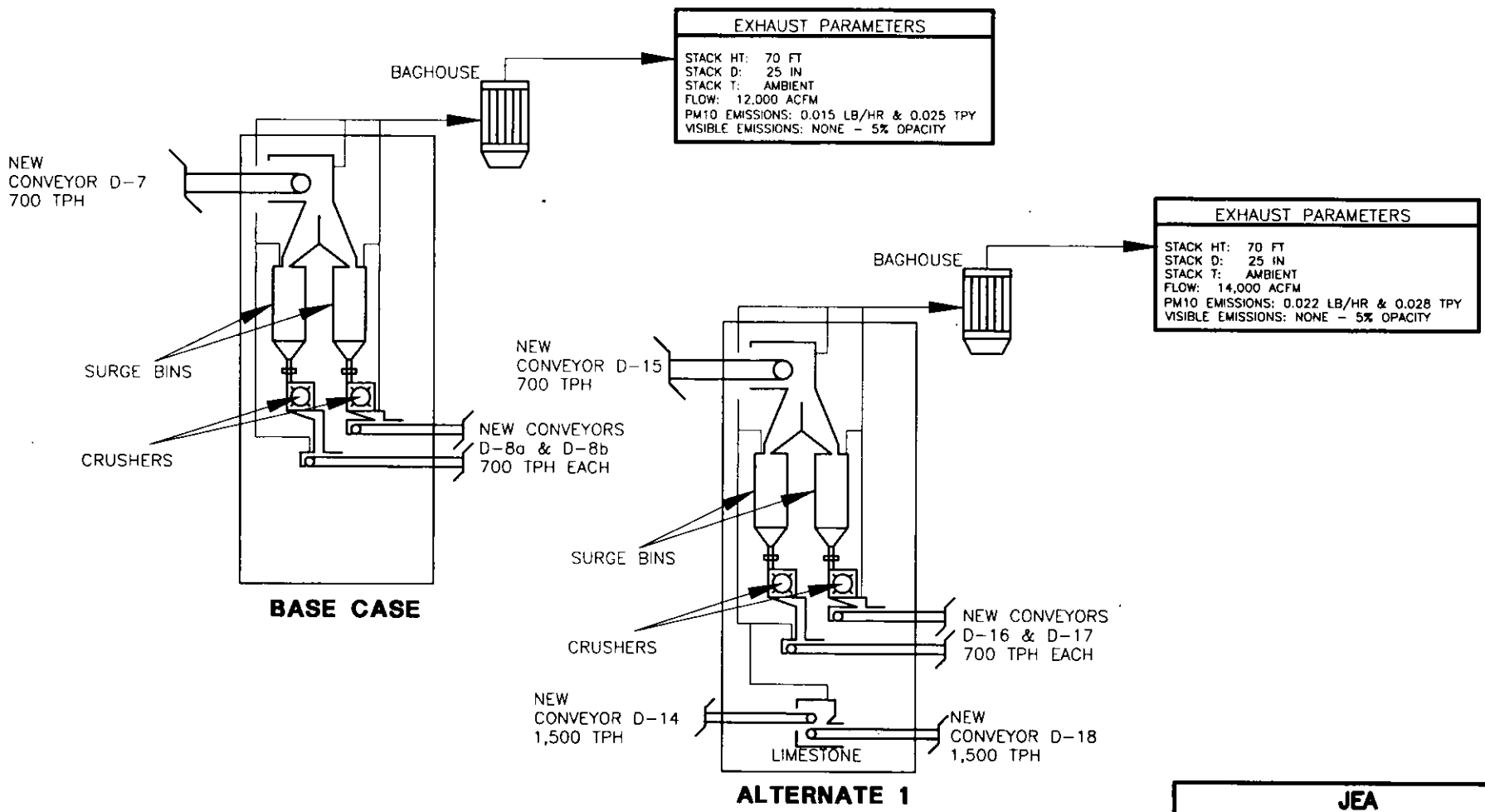
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

Emissions Unit 029

NGS - Crusher House

NORTHSIDE GENERATING STATION COAL/PETROLEUM COKE CRUSHER HOUSE BASE CASE & ALTERNATE 1



JEA
NORTHSIDE GENERATING STATION
REPOWERING

Simplified Process Flow Diagram
 Emissions Unit ID 029

POSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A	PREPARED DJG	CAD FILE NO. EU029PF.DWG
DATE: 12/02/98	CHECKED MAE	FIGURE NO. F-6 EU029
	APPROVED DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 7

NGS - Crusher House

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

Effective : 3-21-96

**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 - Crusher House		
2. Emissions Unit Identification Number : 029 [] 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 : This emissions unit consists of the crushing operations for coal and pet coke. Detailed description of points included are located in Attachment F-9, PSD Report (Appendix C).		

Emissions Unit Information Section 7

NGS - Crusher House

Emissions Unit Control Equipment 1

1. Description :

Application Forms reflect "Worst Case Scenario" for the Crusher House as described under Alternate No. 1. This scenario includes one additional transfer point associated with the Limestone Conveyor.

2. Control Device or Method Code : 18

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

Emissions Unit Information Section 7
NGS - Crusher House

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 :	1400	tons/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment :	Throughput rate is for both crushers and 6 transfer points. Detailed rate information is in Attachment F-9, PSD Report (Appendix C).	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year

**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).

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

Effective : 3-21-96

Emissions Unit Information Section

7

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

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Effective : 3-21-96

List of Applicable Regulations

40 CFR Part 60.676, Reporting and Recordkeeping

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 2.1101, 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

Emissions Unit Information Section

7

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 000, Nonmetallic-Mineral Processing Plants

III. Part 6b - 4

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

Effective : 3-21-96

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section

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 :	1
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 :	The Crusher House (Base Case & Alternate 1) transfer points are controlled by a fabric filter. Figure F-16, EU029 identifies stack parameters for both cases. (Alternate 1 - Presented)
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

Effective : 3-21-96

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.

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 7

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 2,421,000 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 :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 7

NGS - Crusher House

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Crusher Operations - Petroleum Coke (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 :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 7

NGS - Crusher House

Segment Description and Rate : Segment 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Crusher House - Limestone Transfer Point (Alternate 1 Only)	
2. Source Classification Code (SCC) : 30501099	
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

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

Emissions Unit Information Section 7
NGS - Crusher House

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

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

Emissions Unit Information Section 7

NGS - Crusher House

Pollutant 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <p align="right">to tons/year</p>		
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

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

Emissions Unit Information Section 7

NGS - Crusher House

III. Part 9b - 2

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

Emissions Unit Information Section
NGS - Crusher House

7

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 :	0.05 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 emission limit (5% opacity). (0.046 lb/hr & 0.061 TPY)

III. Part 9c - 1

Emissions Unit Information Section
NGS - Crusher House

7

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 0.03 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. (0.022 lb/hr & 0.028 TPY)

III. Part 9c - 2

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 7
NGS - Crusher House

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 :	
	Annual EPA Method 9
5. Visible Emissions Comment :	
	BACT was evaluated at 5% opacity (i.e., no visible emissions) for this operation.
	Maximum Period 2 hours in any 24-hour period

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 :	

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

Emissions Unit Information Section 7

NGS - Crusher House

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.

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 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 Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	0.0460 lb/hour	0.0610 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Item 4 values present increment consumption values		

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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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))

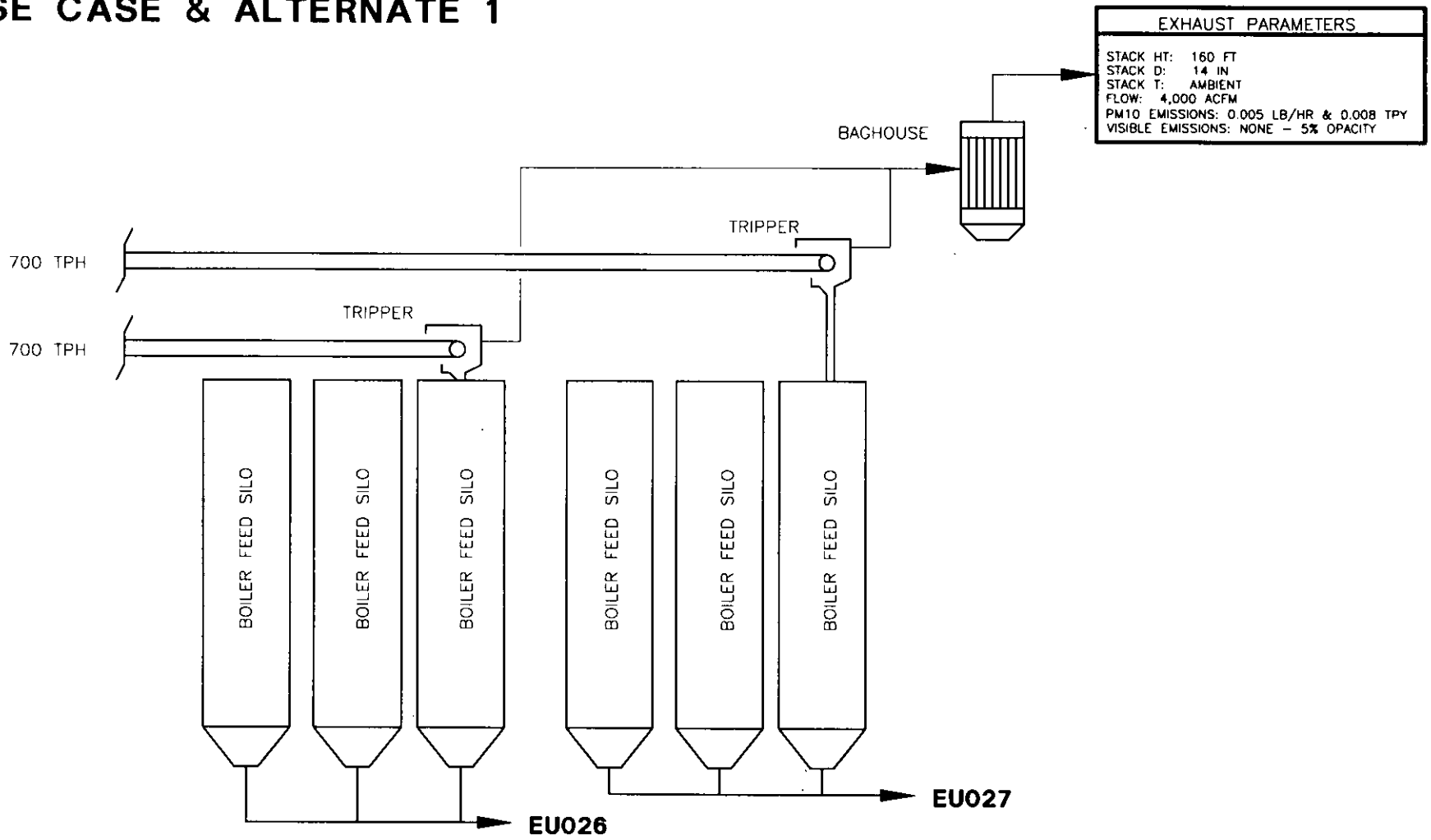
Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)

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

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

Emissions Unit 031
NGS - Boiler Fuel Silos

NORTHSIDE GENERATING STATION COAL/PETROLEUM COKE BOILER SILOS BASE CASE & ALTERNATE 1



JEA
NORTHSIDE GENERATING STATION
REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 031

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU031PF.DWG
DATE: 12/02/98	CHECKED: MAE	FIGURE NO.: F-8, EU031
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 8

NGS - Boiler Fuel Silos

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

Effective : 3-21-96

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		
2. Emissions Unit Identification Number : 031 [] 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 the six (6) Boiler Feed Silos and two tripper transfer points.		

Emissions Unit Information Section 8

NGS - Boiler Fuel Silos

Emissions Unit Control Equipment 1

1. Description :

Boiler Feed Silos are 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

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

Emissions Unit Information Section 8
NGS - Boiler Fuel 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 :	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 :	1400 tons per hour
4. Maximum Production Rate :	
5. Operating Capacity Comment :	
Maximum rate corresponds to Emissions Unit 029, Crusher House.	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

**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
Effective : 3-21-96

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

Effective : 3-21-96

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

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

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
Effective : 3-21-96

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 Silos	
2. Emission Point Type Code :	2	
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 :	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 (km) : 3365.073

III. Part 7a - 15

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Effective : 3-21-96

14. Emission Point Comment :

Attachments F-6, F-8, and F-9, contain additional information related to stack parameters and location.

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

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 Associated Operating Method/Mode) : Petroleum Coke (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 - 2

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	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL
2 - PM10	018		EL

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

Emissions Unit Information Section

8

NGS - Boiler Fuel Silos

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 :	0.01 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 & 0.018 TPY)

Emissions Unit Information Section

8

NGS - Boiler Fuel Silos

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 :	0.01 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 limit (%5 Opacity) (Emissions 0.005 lb/hr & 0.008 TPY)

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 8
NGS - Boiler Fuel Silos

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 :	
	Annual 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

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 :	

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

Emissions Unit Information Section 8

NGS - Boiler Fuel Silos

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

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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.
-] 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 Consuming/Expanding Code :			
PM :	C	SO2 :	NO2 :
4. Baseline Emissions :			
PM :	0.0100	lb/hour	0.0180 tons/year
SO2 :		lb/hour	tons/year
NO2 :			tons/year
5. PSD Comment :			
Unit emits only particulate matter.			

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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

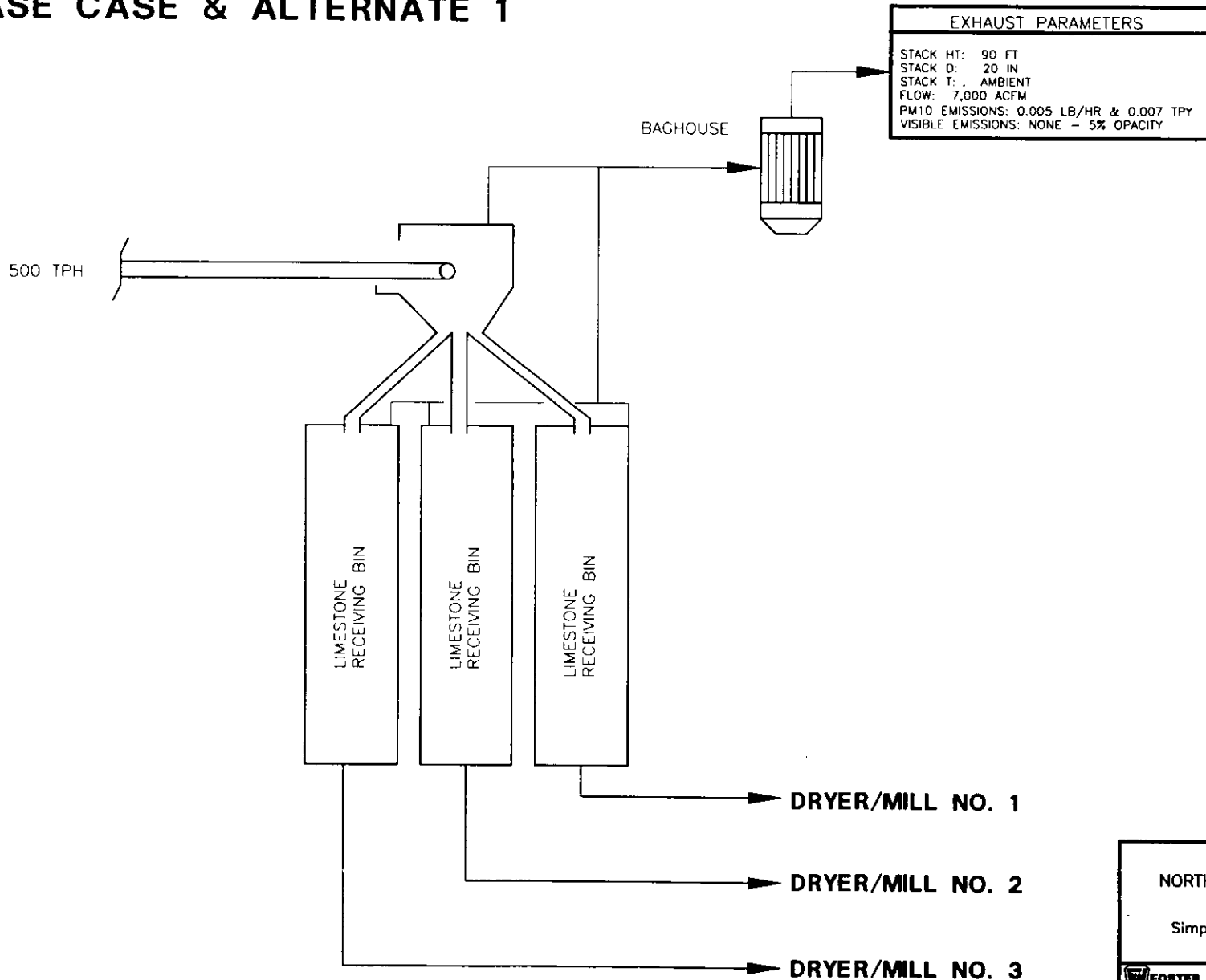
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

Emissions Unit 032

NGS - Limestone Receiving Bins

NORTHSIDE GENERATING STATION LIMESTONE RECEIVING BINS BASE CASE & ALTERNATE 1



EXHAUST PARAMETERS
STACK HT: 90 FT
STACK D: 20 IN
STACK T: AMBIENT
FLOW: 7,000 ACFM
PM10 EMISSIONS: 0.005 LB/HR & 0.007 TPY
VISIBLE EMISSIONS: NONE - 5% OPACITY

JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram Emissions Unit ID 032		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU032PF.DWG
DATE: 12/02/98	CHECKED: MAE	FIGURE NO.: F-8, EU032
	APPROVED: DJF	

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

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Effective : 3-21-96

**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 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 : 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).		

Emissions Unit Information Section 9

NGS - Limestone Receiving Bins

Emissions Unit Control Equipment 1

1. Description :

Limestone Receiving Bins are identical for the Base Case and Alternate 1 Materials Handling and Storage Operations. Emissions will be controlled by use of a baghouse.

2. Control Device or Method Code : 18

**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

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section 9
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.

III. Part 6a - 1

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

III. Part 6b - 1

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

Effective : 3-21-96

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

III. Part 6b - 2

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

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

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, 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

Emissions Unit Information Section

9

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

III. Part 6b - 4

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

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section

9

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 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 : Conveyor Belt, Transfer Point, and Three Receiving Bins within a Building.	
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 (km) : 3365.245

III. Part 7a - 17

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

Effective : 3-21-96

14. Emission Point Comment :

Attachments F-6, F-8, and F-9, contain additional information related to stack parameters and location.

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 Associated Operating Method/Mode) : Limestone	
2. Source Classification Code (SCC) : 30501099	
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

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

Emissions Unit Information Section 9
NGS - Limestone Receiving Bins

1. Pollutant Emitted	2. Primary Control Device Code	3. 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 9

NGS - Limestone Receiving Bins

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/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
6. Emissions Factor	0	Units lb/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.		

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 : Pollutant 1

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 (Attachment F-9)		
9. Pollutant Potential/Estimated Emissions Comment :		
Potential emissions based on tons processed.		

Emissions Unit Information Section 9
 NGS - Limestone Receiving Bins

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 :	0.01	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)		

Emissions Unit Information Section
NGS - Limestone Receiving Bins

9

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 :	0.01 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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 9
NGS - Limestone Receiving Bins

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 :	Annual EPA Method 9
5. Visible Emissions Comment :	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

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 :	

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?

- 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

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 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 Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	0.0100 lb/hour	0.0150 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
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
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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

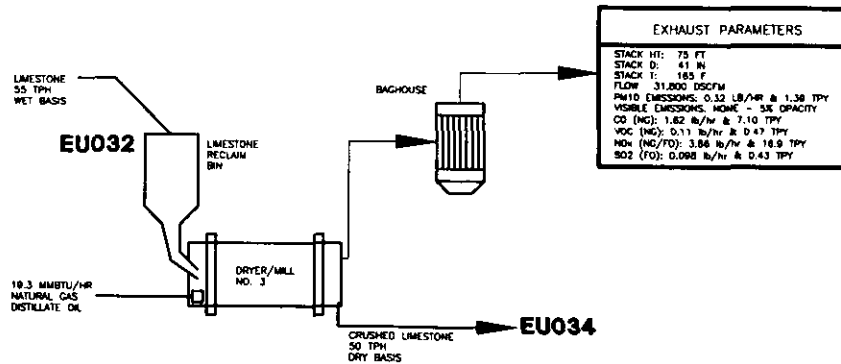
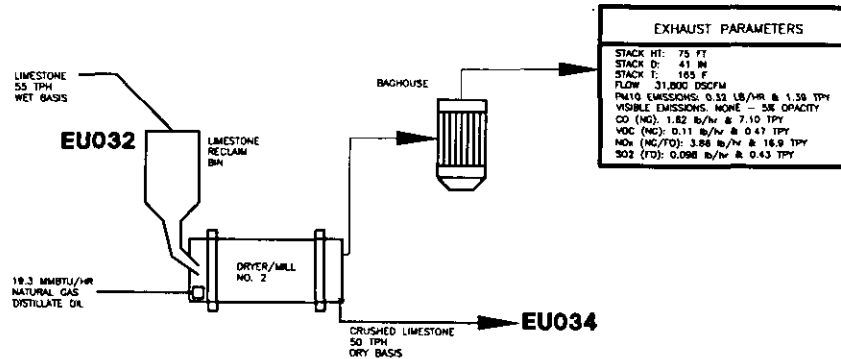
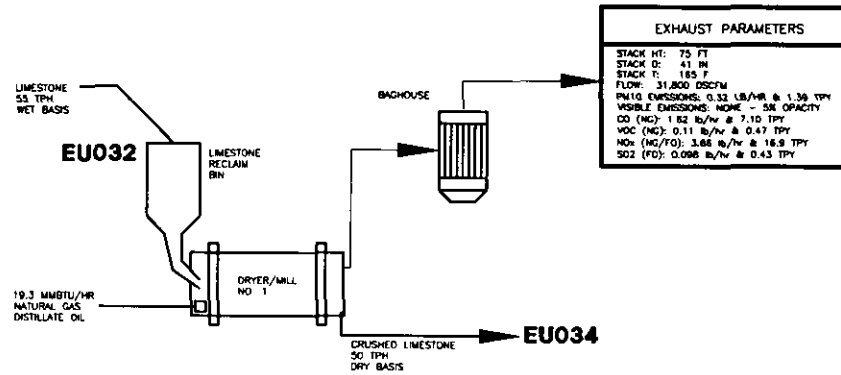
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

Emissions Unit 033

NGS - Limestone Dryers/Mills

NORTHSIDE GENERATING STATION LIMESTONE DRYER/MILL NOS. 1, 2, & 3 BASE CASE & ALTERNATE 1



JEA
NORTHSIDE GENERATING STATION
REPOWERING
Simplified Process Flow Diagram
Emissions Unit ID 033

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU033PF.DWG
DATE: 12/02/98	CHECKED: MAE	FIGURE NO.: F-8, EU033
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

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

Effective : 3-21-96

**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 Dryers/Mills		
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).		

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

Emissions Unit Control Equipment 1

1. Description :

Limestone Dryers/Mills are identical for the Base Case and Alternate 1. Controls include a fabric filter (PM & PM10) and good combustion practices.

2. Control Device or Method Code : 18

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

Emissions Unit Control Equipment 2

1. Description : Good Combustion Practices for CO, VOC, and NOx
--

2. Control Device or Method Code : 99
--

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

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

Emissions Unit Information Section 10
NGS - Limestone Dryers/Mills

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 :	60	mmBtu/hr
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	165	tons per hour
4. Maximum Production Rate :		
5. Operating Capacity Comment :		
Maximum Rate (Wet Basis) for all three dryers/mills. Each Dryer/Mill has a maximum heat input rate of 19.3 mmBtu/hr.		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
24 hours/day		7 days/week
52 weeks/year		8,760 hours/year

**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
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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

Effective : 3-21-96

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
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Emissions Unit Information Section

10

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)

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

Effective : 3-21-96

List of Applicable Regulations

40 CFR Part 60.675, Test Methods and Procedures

40 CFR Part 60.676, Reporting and Recordkeeping

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 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 :	1				
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	North (km) :	3365.239

III. Part 7a - 19

14. Emission Point Comment :

Attachments F-6, F-8, and F-9, contain additional information related to stack parameters and location.

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Limestone - Wet Basis	
2. Source Classification Code (SCC) : 30501099	
3. SCC Units : Tons Processed	
4. Maximum Hourly Rate : 165.00	5. Maximum Annual Rate : 1,445,400.00
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

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) : 10201401	
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	
10. Segment Comment : Emission estimates based on firing Distillate Oil.	

III. Part 8 - 2

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

Segment Description and Rate : Segment 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Low Sulfur Distillate Oil	
2. Source Classification Code (SCC) : 10201403	
3. SCC Units : Thousand Gallons Processed	
4. Maximum Hourly Rate : 0.41	5. Maximum Annual Rate : 3,623.00
6. Estimated Annual Activity Factor : 0.00	
7. Maximum Percent Sulfur : 0.05	8. Maximum Percent Ash : 0.00
9. Million Btu per SCC Unit : 19	
10. Segment Comment : Worst Case SO2 emissions are generated during fuel oil firing. Natural Gas sulfur content was assumed at 10 gr/100scf.	

III. Part 8 - 3

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

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. 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

III. Part 9a - 1

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

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

III. Part 9b - 4

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

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?		
<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No
5. Range of Estimated Fugitive/Other Emissions:		
		to tons/year
6. Emissions Factor 6 Units lb/mmCF		
Reference : AP-42, (EF=5.5)		
7. Emissions Method Code : 3		
8. Calculations of Emissions :		
$\text{lb/hr} = (3 \text{ Units}) \times (19.3 \text{ mmBtu/hr}) \times (\text{mmCF}/1000 \text{ mmBtu}) \times (5.5 \text{ lb/mmCF}) = 0.32 \text{ lb/hr}$ $\text{TPY} = (0.32 \text{ lb/hr}) \times (8760 \text{ hr/yr}) \times (\text{ton}/2000 \text{ lb}) = 1.4 \text{ tons}$		
9. Pollutant Potential/Estimated Emissions Comment :		
Worst case Emissions are based on the firing of natural gas.		

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

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

III. Part 9b - 6

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

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

III. Part 9b - 8

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

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

III. Part 9b - 10

Emissions Unit Information Section 10
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.		

Emissions Unit Information Section 10
NGS - Limestone Dryers/Mills

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 :	7.92	lb/hour	34.71 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 Testing.		

Emissions Unit Information Section
NGS - Limestone Dryers/Mills

10

Pollutant Information Section

3

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 :	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.

III. Part 9c - 3

Emissions Unit Information Section 10
NGS - Limestone Dryers/Mills

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 :	0.32	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.		

Emissions Unit Information Section 10
NGS - Limestone Dryers/Mills

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 :	11.60	lb/hr	
4. Equivalent Allowable Emissions :	11.60	lb/hour	50.70 tons/year
5. Method of Compliance :	EPA Method 7		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) :	Emission level is based on BACT which reflects good combustion practices while firing Fuel Oil. Emission rate reflects total of all three dryers. Initial and Renewal Stack Testing.		

Emissions Unit Information Section 10
NGS - Limestone Dryers/Mills

Pollutant Information Section 6

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 :	0.05	% 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.		

III. Part 9c - 6

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I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 10
NGS - Limestone Dryers/Mills

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 :	BACT was evaluated as 5% opacity from the fabric filter. Excess Emissions 2 hours in any 24-hour period

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 :	

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

Emissions Unit Information Section 10

NGS - Limestone Dryers/Mills

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.

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 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 Consuming/Expanding Code :		
PM :	C	NO2 : C
SO2 :	C	
4. Baseline Emissions :		
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 consuming increment values.		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

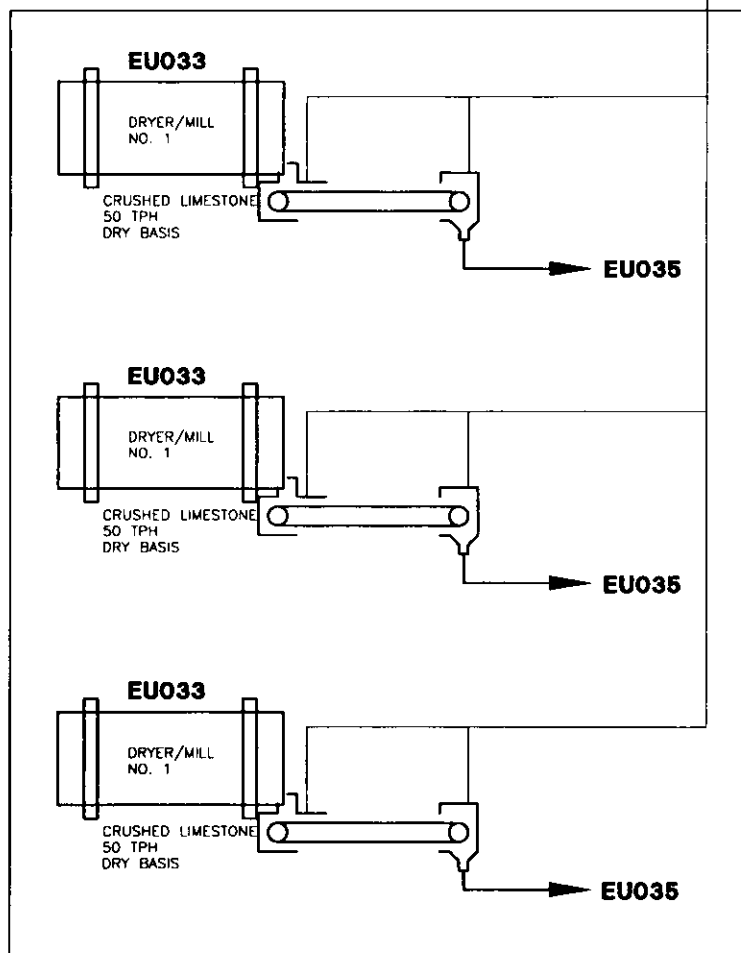
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 034

NGS - Limestone Crusher Conveyor Transfers

NORTHSIDE GENERATING STATION DRY/CRUSHED LIMESTONE TRANSFER CONVEYORS BASE CASE & ALTERNATE 1

LIMESTONE PREP. BUILDING



EXHAUST PARAMETERS	
STACK HT:	30 FT
STACK D:	18 IN
STACK T:	AMBIENT
FLOW:	5,000 ACFM
PM10 EMISSIONS:	0.05 LB/HR & 0.21 TPY
VISIBLE EMISSIONS:	NONE - 5% OPACITY

Baghouse

JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram Emissions Unit ID 034		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU034PF.DWG
DATE: 12/02/98	CHECKED: MAE	FIGURE NO.: F-6 EU034
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 11

NGS - Limestone Crusher Conveyor Transfers

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

Effective : 3-21-96

Emissions Unit Information Section 11

NGS - Limestone Crusher Conveyor Transfers

Emissions Unit Control Equipment 1

1. Description :

Emissions from the limestone transfer conveyors will be controlled by use of a fabric filter.

2. Control Device or Method Code : 18

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

Emissions Unit Information Section 11
 NGS - Limestone Crusher Conveyor Transfers

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 :	150	tons per hour
4. Maximum Production Rate :		
5. Operating Capacity Comment :	Maximum rate reflects the total of the three units and is set by initial design criteria for the dryers/mills.	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section 11
NGS - Limestone Crusher Conveyor Transfers

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.

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

Effective : 3-21-96

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
Effective : 3-21-96

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 62-210.350(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

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

Emissions Unit Information Section 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 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 Conveyor Belts and Six Transfer Points within a Building.
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 (km) :	3365.233

III. Part 7a - 21

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

Effective : 3-21-96

14. Emission Point Comment :

Attachments F-6, F-8, and F-9, contain additional information related to stack parameters 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) : 30510105	
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

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

Emissions Unit Information Section 11
NGS - Limestone Crusher Conveyor Transfers

1. Pollutant Emitted	2. Primary Control Device Code	3. 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

III. Part 9b - 2

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

Effective : 3-21-96

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

Emissions Unit Information Section 11

NGS - Limestone Crusher Conveyor Transfers

III. Part 9b - 4

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

Effective : 3-21-96

Emissions Unit Information Section 11
NGS - Limestone Crusher Conveyor Transfers

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 :	0.05	lb/hour	0.21 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 - 0.047 lb/hr & 0.21 TPY)		

III. Part 9c - 1

Emissions Unit Information Section 11
NGS - Limestone Crusher Conveyor Transfers

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 :	0.40 lb/hour 1.70 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 Renewal Stack Tests. (Emissions - 0.4 lb/hr & 1.7 TPY)

III. Part 9c - 2

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 11
NGS - Limestone Crusher Conveyor Transfers

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 :	BACT was evaluated as 5% opacity from the fabric filter. Excess Emissions allowed for 2 hours in any 24-hour period

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 :	

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

Emissions Unit Information Section 11

NGS - Limestone Crusher Conveyor Transfers

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

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 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 Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	0.4000 lb/hour	1.7300 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

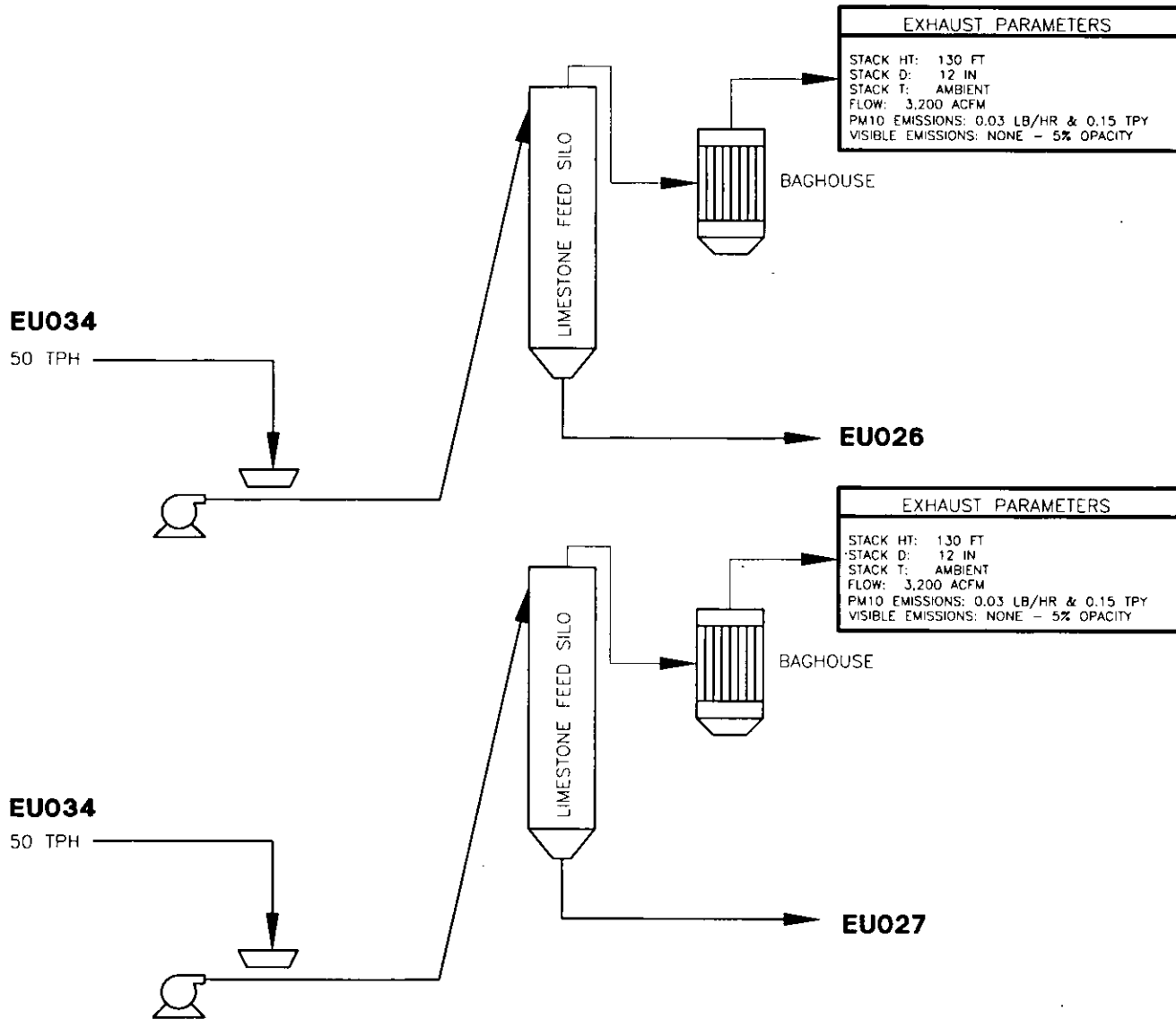
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

Emissions Unit 035

NGS - Limestone Feed Silos

NORTHSIDE GENERATING STATION LIMESTONE FEED SILOS BASE CASE & ALTERNATE 1



JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram		
Emissions Unit ID 035		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE N/A	PREPARED DJG	CAD FILE NO. EU035PF.DWG
DATE: 12/02/98	CHECKED MAE	FIGURE NO. F-6 EU035
	APPROVED DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

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

Effective : 3-21-96

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

Emissions Unit Control Equipment 1

1. Description :

Emissions from each Limestone Feed Silo will be controlled by a fabric filter.

2. Control Device or Method Code : 18

**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 :	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 :	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	

**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
Effective : 3-21-96

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

Effective : 3-21-96

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
Effective : 3-21-96

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)

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

Effective : 3-21-96

Emissions Unit Information Section

12

NGS - Limestone Feed Silos

List of Applicable Regulations

40 CFR 60.675, Test Methods and Procedures

40 CFR 60.676, Reporting and Recordkeeping

III. Part 6b - 4

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

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 baghouse.
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	Identical Stacks
5. Discharge Type Code :	V
6. Stack Height :	130 feet
7. Exit Diameter :	1.00 feet
8. Exit Temperature :	68 °F
9. Actual Volumetric Flow Rate :	3,200 acfm
10. Percent Water Vapor :	1.00 %
11. Maximum Dry Standard Flow Rate :	3,200 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 parameters and location.

III. Part 7b - 1

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

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

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) : 30510105	
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 :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

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) : 30510105	
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 :	
10. Segment Comment :	

III. Part 8 - 2

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

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM10	018		EL
2 - PM	018		EL

III. Part 9a - 1

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

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

III. Part 9b - 2

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

Effective : 3-21-96

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

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

Pollutant 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right;">to tons/year</div>		
6. Emissions Factor	0	Units lb/ton
Reference : AP-42, (EF=0.27)		
7. Emissions Method Code : 3		
8. Calculations of Emissions : lb/hr = ((50 ton/hr) X (0.27 lb/ton) X (1-99.5/100)) = 0.068 lb/hr TPY = (0.067 lb/hr) X (8760 hr/yr) X (ton/2000 lb) = 0.3 tons		
9. Pollutant Potential/Estimated Emissions Comment : Potential emissions based on tons transferred.		

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

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

III. Part 9b - 4

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

Emissions Unit Information Section
NGS - Limestone Feed Silos

12

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 :	0.04 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 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 - 0.035 lb/hr & 0.15 TPY)

III. Part 9c - 1

Emissions Unit Information Section
NGS - Limestone Feed Silos

12

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 :	0.07 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)

III. Part 9c - 2

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

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 :	BACT was evaluated as 5% opacity from the fabric filter. Excess Emissions - 2 hours in any 24-hour period.

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 12
NGS - Limestone Feed Silos

Visible Emissions Limitation : Visible Emissions Limitation 2

1. Visible Emissions Subtype :	0
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : 0 %
	Exceptional Conditions : 100 %
Maximum Period of Excess Opacity Allowed :	min/hour
4. Method of Compliance :	
	EPA Method 22
5. Visible Emissions Comment :	
	NSPS Subpart OOO places a no visible emissions limitation (0% Opacity) on the Building. Excess Emissions - 2 hours in any 24-hour period.

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 :	

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

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

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

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 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 Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	0.0600 lb/hour	0.3000 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Unit emits only particulate matter		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 12

NGS - Limestone Feed Silos

Supplemental Requirements for All Applications

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
8. Supplemental Information for Construction Permit Application :	F-9
9. Other Information Required by Rule or Statue :	NA

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

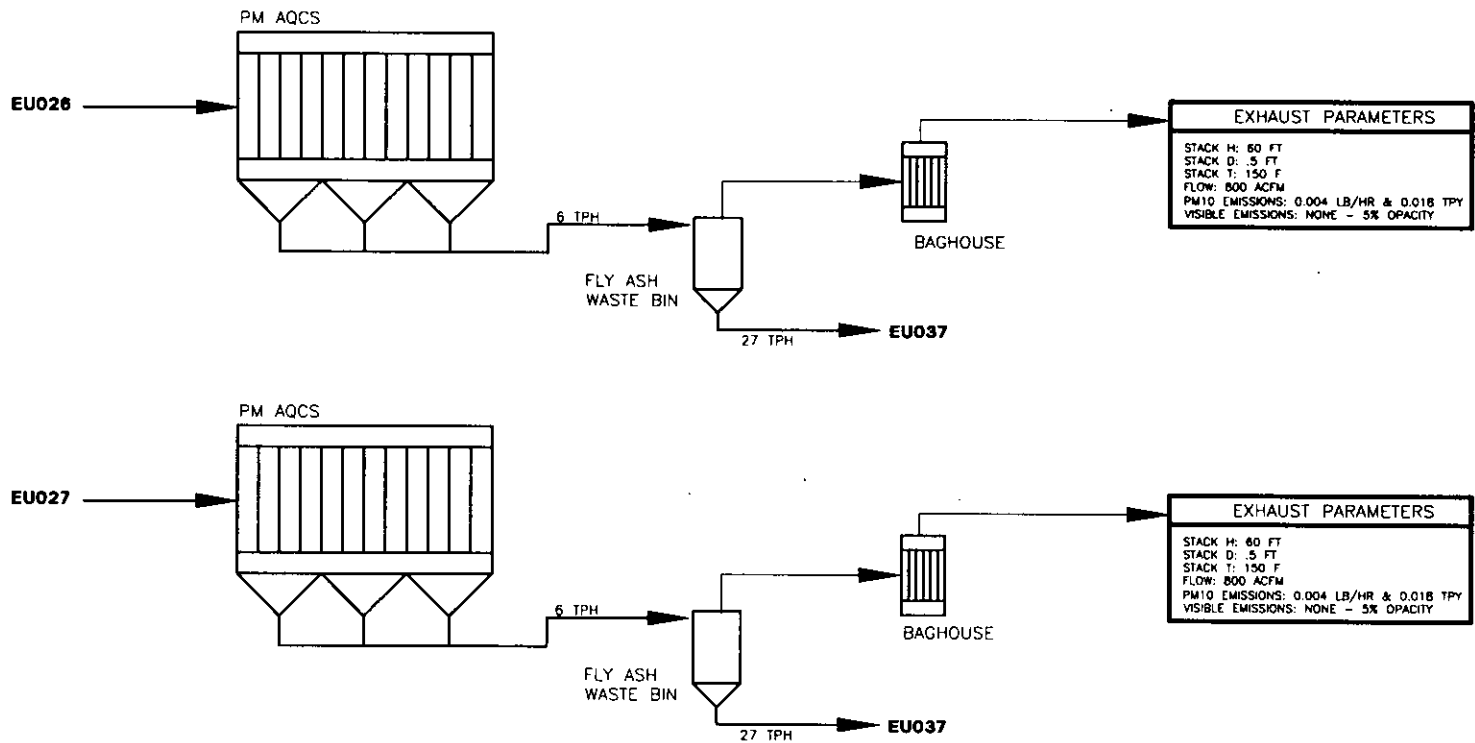
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

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

F FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A	PREPARED DJG	CAD FILE NO. EU036PF.DWG
DATE: 12/02/98	CHECKED MAE	FIGURE NO. F-6, EU036
	APPROVED DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 13

NGS - Fly Ash Waste 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

Effective : 3-21-96

**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 Waste Bins		
2. Emissions Unit Identification Number : 036 [] 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 the Fly Ash Waste Bins associated with the PM AQCS for each CFB Boiler.		

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

**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 :	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 :	6	tons per hour
4. Maximum Production Rate :		
5. Operating Capacity Comment :	Each waste bin is designed to receive a maximum of 6 tons per hour of fly ash from the PM AQCS.	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
24 hours/day	7 days/week	
52 weeks/year	8,760 hours/year	

**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
Effective : 3-21-96

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

Effective : 3-21-96

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
Effective : 3-21-96

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

Emissions Unit Information Section 13

NGS - Fly Ash Waste Bins

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	EU036 - Figure F-6	
2. Emission Point Type Code :	1	
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 :	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
		North (km) : 3365.100

III. Part 7a - 1

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

Effective : 3-21-96

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 Associated Operating Method/Mode) : Fly Ash Waste Bin Serving EU026	
2. Source Classification Code (SCC) : 30501222	
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

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) : 30501222	
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 - 2

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

Emissions Unit Information Section 13

NGS - Fly Ash Waste Bins

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	018		EL
2 - PM10	017		EL

III. Part 9a - 1

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

Emissions Unit Information Section 13

NGS - Fly Ash Waste Bins

Baghouse removal efficiency is based on PM10.
Emissions per Fly Ash Waste Bin.

III. Part 9b - 2

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

Emissions Unit Information Section 13

NGS - Fly Ash Waste Bins

Baghouse removal efficiency is based on PM10.

III. Part 9b - 4

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

Emissions Unit Information Section
NGS - Fly Ash Waste Bins

13

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 :	0.01 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

Emissions Unit Information Section
NGS - Fly Ash Waste Bins

13

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 :	0.00 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). Initial and Annual VE Tests. (Emissions - 0.004 lb/hr & 0.018 TPY)

III. Part 9c - 2

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

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.
	Excess Emissions based on 2 hours per 24-hour period

III. Part 10 - 1

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 :	

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?

- [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

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 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 Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	0.0160 lb/hour	0.0700 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 13

NGS - Fly Ash Waste Bins

Supplemental Requirements for All Applications

1. Process Flow Diagram :	F-6, EU036
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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

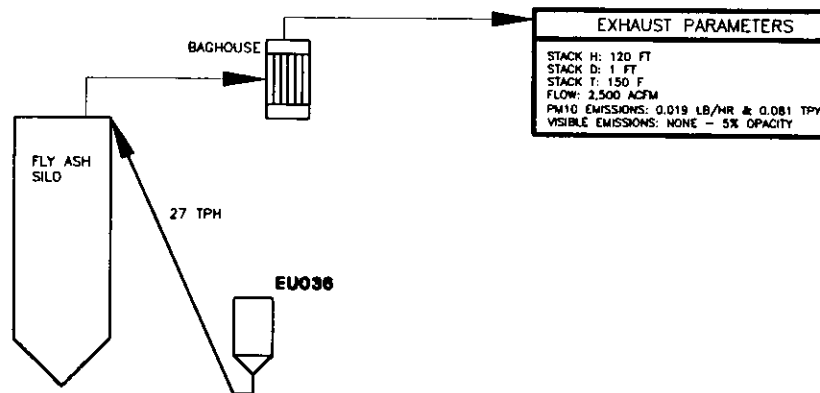
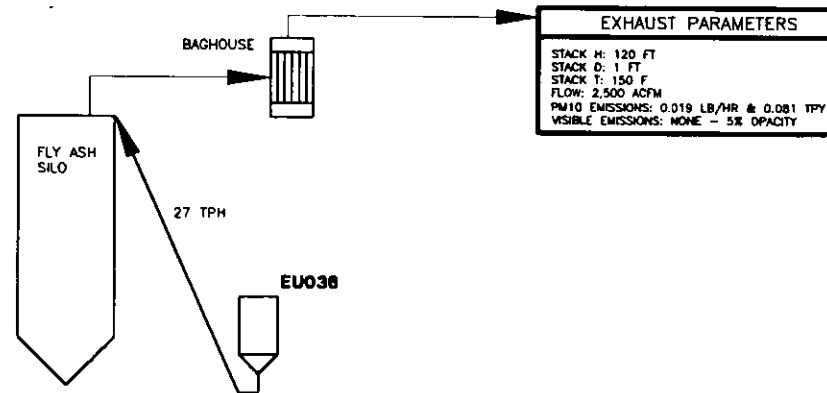
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

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 WHEELER ENVIRONMENTAL CORPORATION			
SCALE N/A	PREPARED DJG	CAD FILE NO. EU037PE.DWG	
DATE: 01/28/99	CHECKED MAE	FIGURE NO. F-6 EU037	
	APPROVED DJF		

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 14

NGS - Fly 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

Effective : 3-21-96

**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.		

Emissions Unit Information Section 14

NGS - Fly Ash Transfer & Storage Systems

Emissions Unit Control Equipment 1

1. Description :	
Fly Ash Silo for EU026	
2. Control Device or Method Code :	17

Emissions Unit Information Section 14

NGS - Fly Ash Transfer & Storage Systems

Emissions Unit Control Equipment 2

1. Description :	
Fly Ash Silo for EU027	
2. Control Device or Method Code :	17

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

Emissions Unit Information Section
NGS - Fly Ash Transfer & Storage Systems

14

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 (Limited to less by EU037)	
Emergency Silos receive at 250 TPH & 50000 TPY (Based on 8 hr/yr)	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

**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
Effective : 3-21-96

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
Effective : 3-21-96

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 Prohibited

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
Effective : 3-21-96

List of Applicable Regulations

Jacksonville Environmental Protection Board, Rule 2 - Air Pollution

Rule 2.105, Maintenance of Air Pollution Control Devices

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 Diagram :	EU037 - Figure F-6
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	Two Discharge Points
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	See detailed information in Attachment F-9, PSD Report (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) : 446.700 North (km) : 3,365.100	
14. Emission Point Comment :	Location of points is detailed in Attachment F-8. See Process Flow Diagram F-6, EU037 for additional information.

III. Part 7b - 1

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) : 30501222	
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

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 Associated Operating Method/Mode) : Fly Ash Silo - EU027	
2. Source Classification Code (SCC) : 30501222	
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

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

Emissions Unit Information Section 14
NGS - Fly Ash Transfer & Storage Systems

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

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

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : PM		
2. Total Percent Efficiency of Control :	99.50	%
3. Potential Emissions :	0.0360000 lb/hour	0.1600000 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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		
$lb/hr = (27 \text{ tons/hr}) \times (0.27 \text{ lb/ton}) \times (1-.995) = 0.036 \text{ lb/hr}$		
Long Term Emissions		
$TPY = (0.036 \text{ lb/hr}) \times (8760 \text{ hr/yr}) \times (\text{ton}/2000 \text{ lb}) = 0.16 \text{ tons/yr}$		
9. Pollutant Potential/Estimated Emissions Comment :		

III. Part 9b - 1

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.
Emissions per Fly Ash Silo.

III. Part 9b - 2

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

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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		
$lb/hr = (27 \text{ tons/hr}) \times (0.14 \text{ lb/ton}) \times (1-.995) = 0.019 \text{ lb/hr}$		
Long Term Emissions		
$TPY = (0.019 \text{ lb/hr}) \times (8760 \text{ hr/yr}) \times (\text{ton}/2000 \text{ lb}) = 0.081 \text{ tons/yr}$		
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

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/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.

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 :	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.
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 - 0.036 lb/hr & 0.16 TPY per Fly Ash Silo)

Emissions Unit Information Section 14
NGS - Fly 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 0.08 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 0.019 lb/hr & 0.081 TPY per Fly Ash Silo)

III. Part 9c - 2

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 :	

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

Emissions Unit Information Section 14

NGS - Fly Ash Transfer & Storage 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

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 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 Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	0.0720 lb/hour	0.3200 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

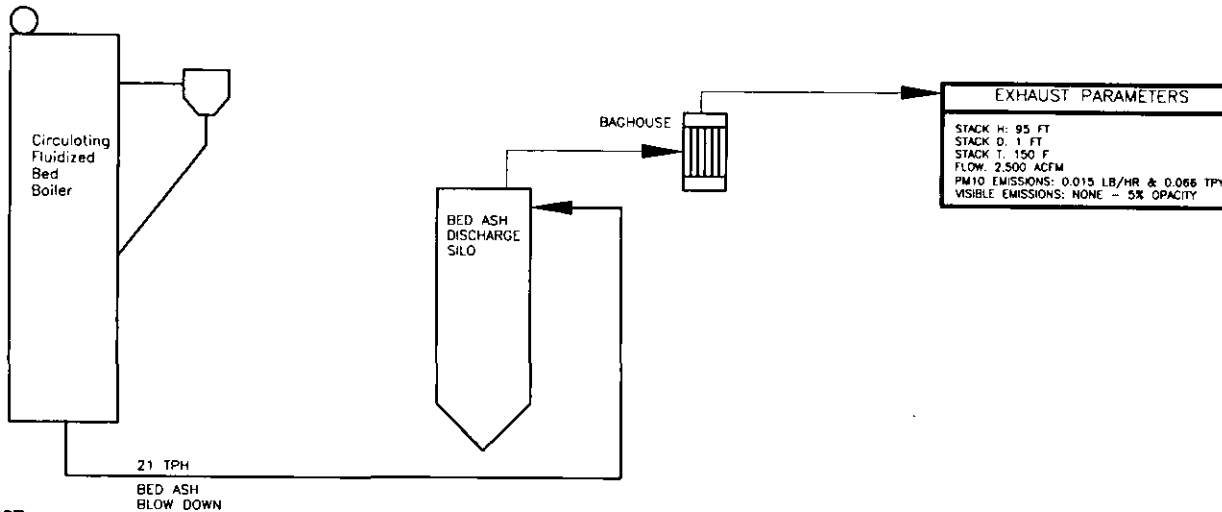
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 038

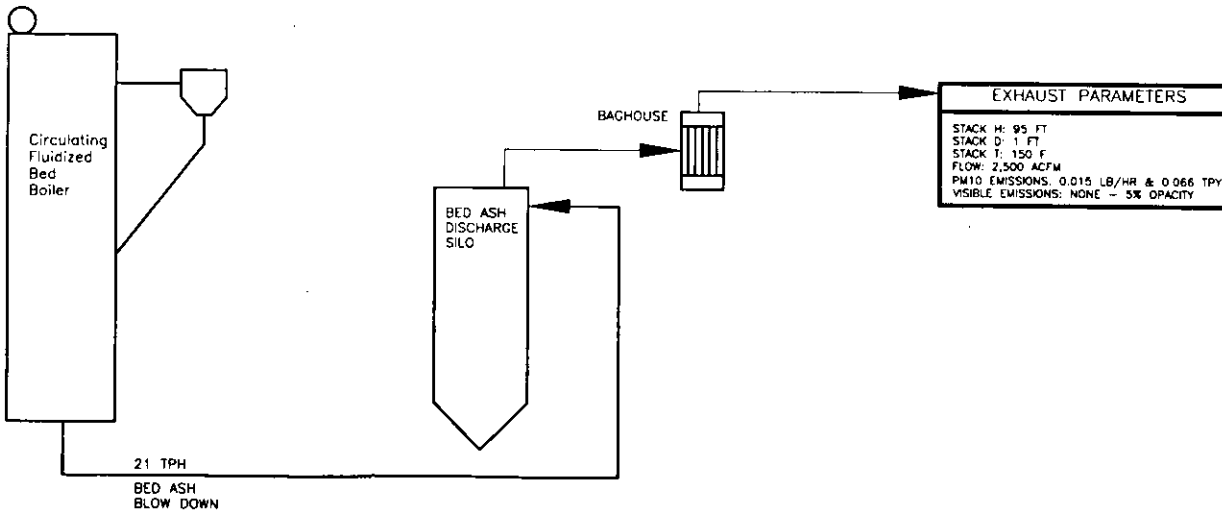
NGS - Bed Ash Transfer & Storage Systems

NORTHSIDE GENERATING STATION BED ASH TRANSFER AND STORAGE SYSTEMS BASE CASE & ALTERNATE 1

EU026



EU027



JEA
 NORTHSIDE GENERATING STATION
 REPOWERING

Simplified Process Flow Diagram
 Emissions Unit ID 038

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU038PF.DWG
DATE: 01/18/99	CHECKED: MAE	FIGURE NO. F-6 EU038
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 15

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

Effective : 3-21-96

**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 Transfer & Storage Systems		
2. Emissions Unit Identification Number : 038 [] 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.		

Emissions Unit Information Section 15

NGS - Bed Ash Transfer & Storage Systems

Emissions Unit Control Equipment 1

1. Description :	
Bed Ash Silo for EU026	
2. Control Device or Method Code :	17

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

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

Emissions Unit Information Section 15
 NGS - Bed 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 :	
Bed Ash Silos receive at 21TPH & 183960 TPY	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

**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
Effective : 3-21-96

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 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
Effective : 3-21-96

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
Effective : 3-21-96

Emissions Unit Information Section 15
NGS - Bed Ash Transfer & Storage Systems

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
Effective : 3-21-96

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 on Plot Plan or Flow Diagram :	EU038 - Figure F-6				
2. Emission Point Type Code :	3				
3. Descriptions of Emission Points Comprising this Emissions Unit :	Two Discharge Points				
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	See detailed information in Attachment F-9, PSD Report (Appendix C).				
5. Discharge Type Code :	V				
6. Stack Height :	95 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) :	446.700	North (km) :	3,365.200
14. Emission Point Comment :	Location of points is detailed in Attachment F-8. See Process Flow Diagram F-6, EU038 for additional information.				

III. Part 7b - 1

III. Part 7b - 2

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

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 15

NGS - Bed Ash Transfer & Storage Systems

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Bed Ash Silo - EU026	
2. Source Classification Code (SCC) : 30501222	
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 : 0.00	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment :	

III. Part 8 - 1

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) : 30501222	
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

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	3. 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)

Emissions Unit Information Section 15

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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 = (21 tons/hr) X (0.27 lb/ton) X (1-.995) = 0.03 lb/hr		
Long Term Emissions		
TPY = (0.03 lb/hr) X (8760 hr/yr) X (ton/2000 lb) = 0.12 tons/yr		
9. Pollutant Potential/Estimated Emissions Comment :		

III. Part 9b - 1

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

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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.

Emission rates reflect each Bed Ash Silo.

Emissions Unit Information Section 15
NGS - Bed 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 :	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. (Emissions - 0.03 lb/hr & 0.12 TPY per Bed Ash Silo)

III. Part 9c - 1

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. 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 - 0.01 lb/hr & 0.06 TPY per Bed Ash Silo.)

III. Part 9c - 2

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 15
NGS - Bed Ash Transfer & Storage 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 :	
	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

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 :	

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

Emissions Unit Information Section 15

NGS - Bed Ash Transfer & Storage 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

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 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 Consuming/Expanding Code :					
PM :	C	SO2 :	U	NO2 :	U
4. Baseline Emissions :					
PM :	0.0300	lb/hour	0.1200	tons/year	
SO2 :		lb/hour		tons/year	
NO2 :				tons/year	
5. PSD Comment :					

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

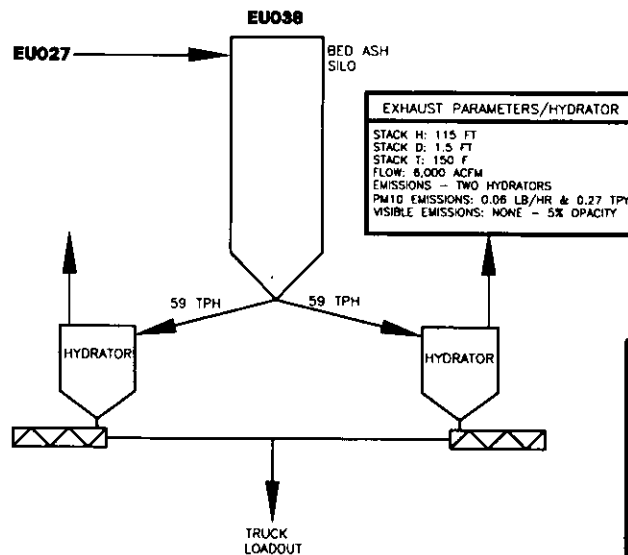
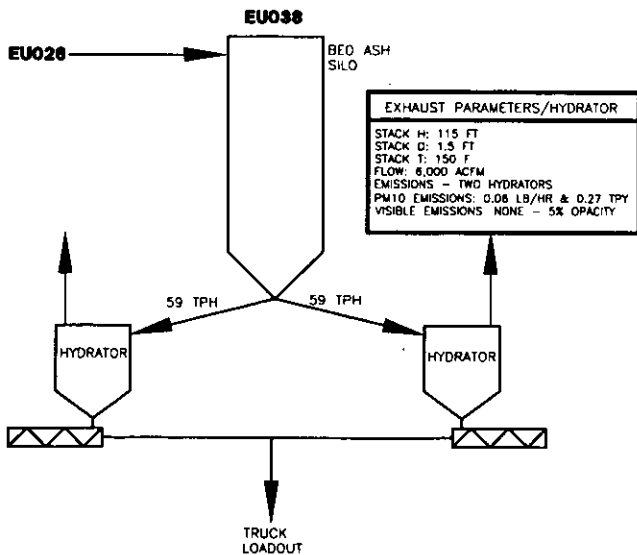
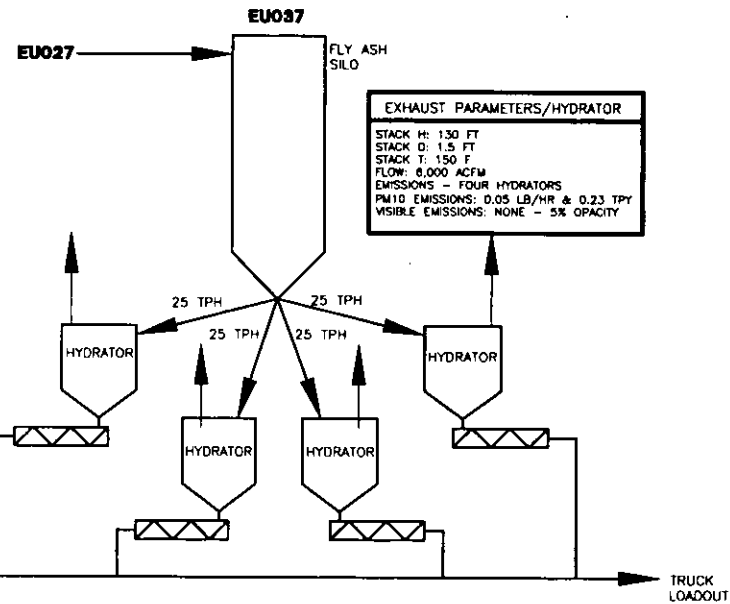
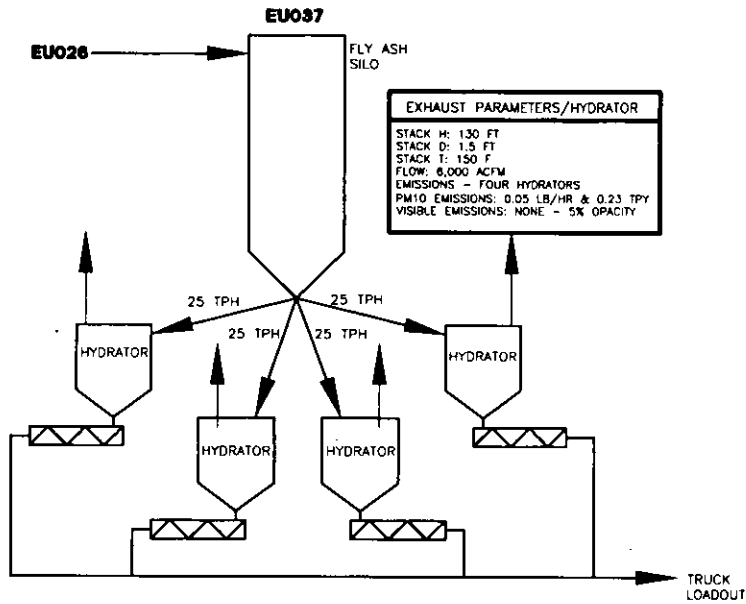
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

Emissions Unit 039

NGS - Fly & Bed Ash Silo Hydrators

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



JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram Emissions Unit ID 039		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU038PF.DWG
DATE: 01/18/99	CHECKED: MAE	FIGURE NO.: F-6 EU038
	APPROVED: DJF	

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

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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 Hydrators		
2. Emissions Unit Identification Number : 039 [] 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 12 hydrators. The hydrators service the Fly Ash and Bed Ash Silos. Each Fly Ash Silo is serviced by four hydrators (25 tons/hr). Each Bed Ash Silo is serviced by two hydrators (59 tons/hr). The hydrators mix the ash by-products with water for conditioning prior to handling and storage. The emissions unit includes twelve emission points in two groups of four and two groups of two.		

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Emissions Unit Control Equipment 1

1. Description : Four Hydrators for EU026 Fly Ash Silo

2. Control Device or Method Code : 53
--

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Emissions Unit Control Equipment 2

1. Description : Four Hydrators for EU027 Fly Ash Silo

2. Control Device or Method Code : 53
--

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Emissions Unit Control Equipment 3

1. Description : Two Hydrators for EU026 Bed Ash Silo
--

2. Control Device or Method Code : 53
--

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Emissions Unit Control Equipment 4

1. Description :	
Two Hydrators for EU027 Bed Ash Silo	
2. Control Device or Method Code :	53

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

Emissions Unit Information Section 16
 NGS - Fly & Bed Ash Silo Hydrators

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 Hydrators receive materials at 25 TPH & 219000 TPY (Dry Basis)		
Bed Ash Hydrators receive materials at 59 TPH & 516840 TPY (Dry Basis)		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
24 hours/day	7 days/week	
52 weeks/year	8,760 hours/year	

**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.

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 Environmental 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

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List of Applicable Regulations

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 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

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Emissions Unit Information Section

16

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

III. Part 6b - 3

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

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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 Flow Diagram :	EU039 - Figure 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 (km) : 3,365.100
14. Emission Point Comment :	

III. Part 7b - 1

Location of points is detailed in Attachment F-8.

III. Part 7b - 2

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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 Flow Diagram :	EU039 - Figure F-6
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising 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 (km) : 3,365.100
14. Emission Point Comment :	

III. Part 7b - 3

Location of points is detailed in Attachment F-8.

III. Part 7b - 4

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F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Fly Ash Hydrators for EU027 Fly Ash Silo Four, each rated for 25 TPH	
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

F. SEGMENT (PROCESS/FUEL) INFORMATION

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) : 30501222	
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

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Segment Description and Rate : Segment 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Bed Ash Hydrators for EU027 Bed Ash Silo Two, each rated for 59 TPH	
2. Source Classification Code (SCC) : 30501222	
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

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

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM	053		EL
2 - PM10	053		EL

III. Part 9a - 1

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

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Pollutant Potential/Estimated Emissions : Pollutant 1

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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		
$lb/hr = (2*4*25 \text{ tons/hr} + 2*2*59 \text{ tons/hr}) \times (2.2 \text{ lb/ton}) \times (1-.998) = 1.92 \text{ lb/hr}$		
Long Term Emissions		
$TPY = (1.92 \text{ lb/hr}) \times (8760 \text{ hr/yr}) \times (\text{ton}/2000 \text{ lb}) = 8.41 \text{ tons/yr}$		
9. Pollutant Potential/Estimated Emissions Comment :		

III. Part 9b - 1

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

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Emission totals for all transfer points.

III. Part 9b - 2

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

Emissions Unit Information Section 16

NGS - Fly & Bed Ash Silo Hydrators

Baghouse removal efficiency is based on PM10.

Emission rates reflect each Bed Ash Silo.

Emissions Unit Information Section
NGS - Fly & Bed Ash Silo Hydrators

16

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 :	1.92 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.

III. Part 9c - 1

Emissions Unit Information Section
NGS - Fly & Bed Ash Silo Hydrators

16

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 :	0.22 lb/hour 0.96 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 - 2

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. 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

Effective : 3-21-96

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 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 Consuming/Expanding Code :		
PM :	C	NO2 : U
SO2 :	U	
4. Baseline Emissions :		
PM :	1.9200 lb/hour	8.4100 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

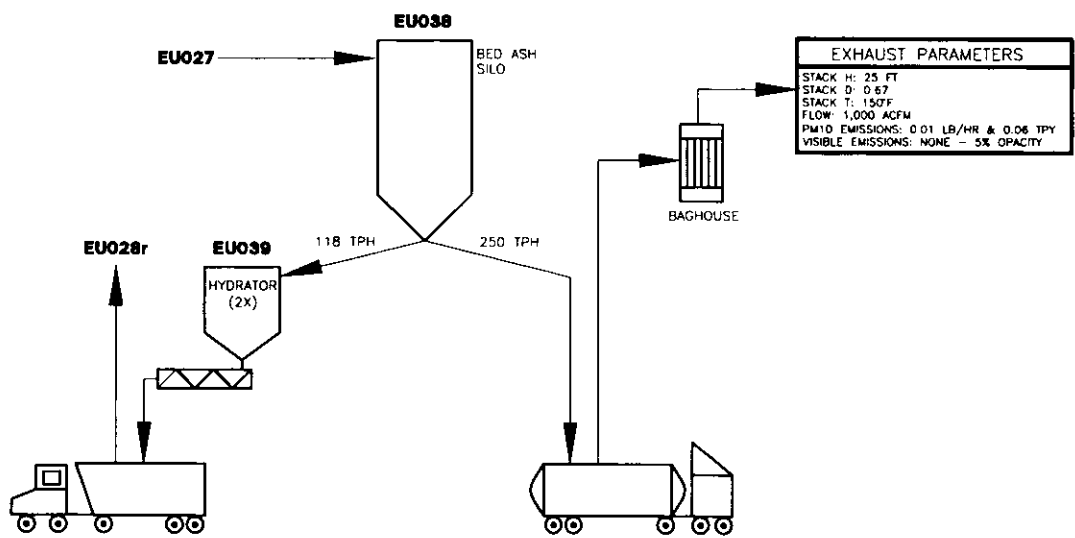
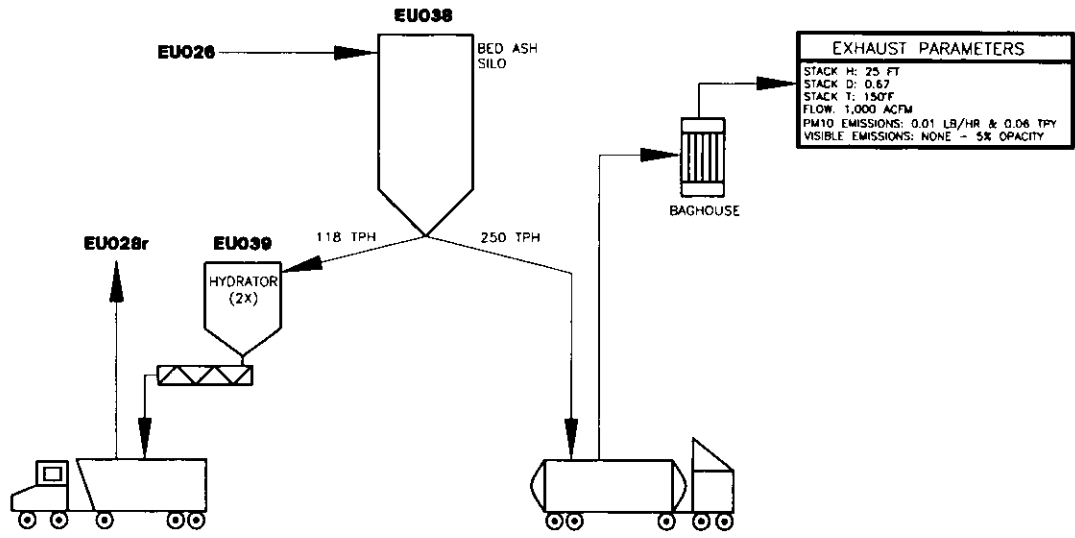
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. Part 13 - 2

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		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU040PF.DWG
DATE: 01/27/99	CHECKED: MAE	FIGURE NO.: F-6, EU040
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 17

NGS - Bed Ash Truck Loadout 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

Effective : 3-21-96

**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		
2. Emissions Unit Identification Number : 040 [] 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 the dry unloading systems for the bed ash storage silos (Emissions Units EU038). The emissions unit includes two emission points.		

Emissions Unit Information Section 17

NGS - Bed Ash Truck Loadout Systems

Emissions Unit Control Equipment 1

1. Description : Bed Ash Truck Loadout for EU026 Storage Silo
2. Control Device or Method Code : 17

Emissions Unit Information Section 17

NGS - Bed Ash Truck Loadout Systems

Emissions Unit Control Equipment 2

1. Description : Bed Ash Truck Loadout for EU027 Storage Silo
--

2. Control Device or Method Code : 17
--

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

Emissions Unit Information Section
NGS - Bed Ash Truck Loadout Systems

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

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 TPH	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

**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.

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 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
Effective : 3-21-96

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

Emissions Unit Information Section
NGS - Bed Ash Truck Loadout Systems

17

List of Applicable Regulations

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

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

III. Part 6b - 3

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

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 - Figure F-6
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	Two Discharge Points - Baghouse Exhaust Stacks
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	See detailed information in Attachment F-9, PSD Report (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) :	446.700
North (km) :	3,365.160
14. Emission Point Comment :	Location of points is detailed in Attachment F-8. See Process Flow Diagram F-6, EU040 for additional information.

III. Part 7b - 1

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 17

NGS - Bed Ash Truck Loadout Systems

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Bed Ash Truck Loadout for EU026	
2. Source Classification Code (SCC) : 30501222	
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

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 17

NGS - Bed Ash Truck Loadout Systems

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Bed Ash Truck Loadout for EU027	
2. Source Classification Code (SCC) : 30501222	
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

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

Emissions Unit Information Section 17
NGS - Bed Ash Truck Loadout Systems

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

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

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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 (1-.9998) = 0.11 lb/hr TPY = (0.11 lb/hr) X (8760 hr/yr) X (ton/2000 lb) = 0.48 tons/yr		
9. Pollutant Potential/Estimated Emissions Comment :		

III. Part 9b - 1

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

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.

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

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
6. Emissions Factor	0	Units lb/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 (1-.9998) = 0.01 lb/hr		
Long Term Emissions		
TPY = (0.01 lb/hr) X (8760 hr/yr) X (ton/2000 lb) = 0.06 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 17

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

Effective : 3-21-96

Emissions Unit Information Section
NGS - Bed Ash Truck Loadout Systems

17

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 :	0.11 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

Emissions Unit Information Section
NGS - Bed Ash Truck Loadout Systems

17

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 :	0.01 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.

III. Part 9c - 2

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 17
NGS - Bed 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 evaluated as BACT for the Bed Ash Truck Loadouts.
	Excess Emissions - 2 hours in any 24-hour period

III. Part 10 - 1

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 :	

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

Emissions Unit Information Section 17

NGS - Bed 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.

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 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 Consuming/Expanding Code :		
PM :	C	NO2 : U
SO2 :	U	
4. Baseline Emissions :		
PM :	0.1100 lb/hour	0.0600 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 17

NGS - Bed Ash Truck Loadout Systems

Supplemental Requirements for All Applications

1. Process Flow Diagram :	F-6, EU040
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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

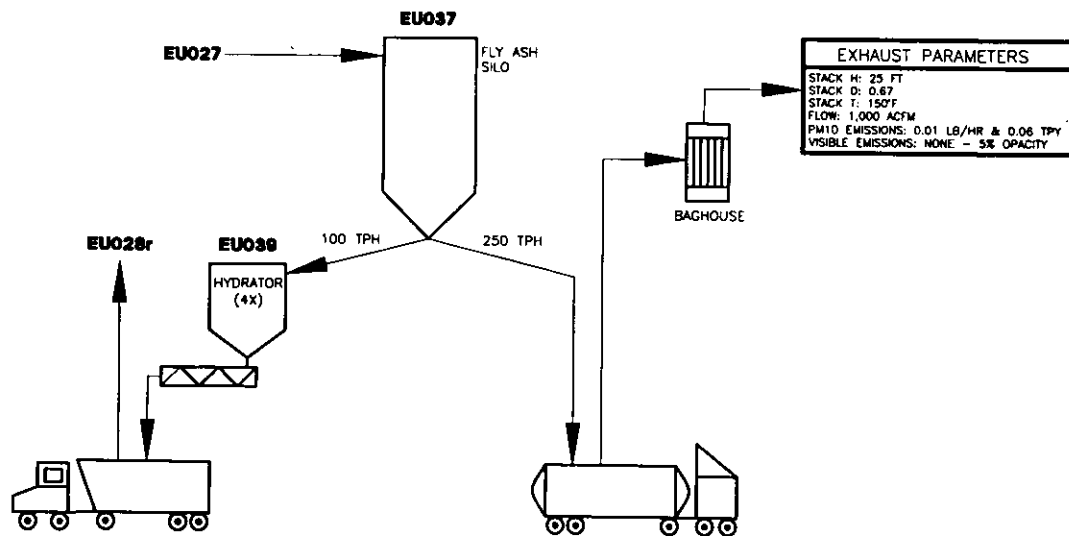
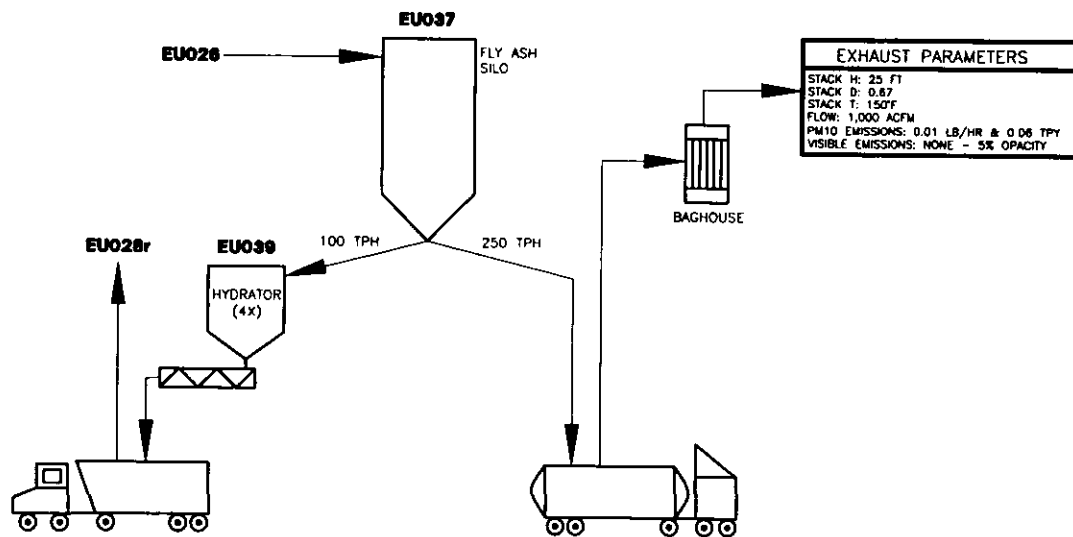
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

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		
POSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU041PF.DWG
DATE: 01/27/99	CHECKED: MAE	FIGURE NO.: F-8, EU041
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 18

NGS - Fly Ash Truck Loadout 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

Effective : 3-21-96

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 Systems		
2. Emissions Unit Identification Number : 041 [] 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 the dry unloading systems for the fly ash storage silos (Emissions Units EU037). The emissions unit includes two emission points.		

Emissions Unit Information Section 18

NGS - Fly Ash Truck Loadout Systems

Emissions Unit Control Equipment 1

1. Description :	
Fly Ash Truck Loadout for EU026 Storage Silo	
2. Control Device or Method Code :	17

Emissions Unit Information Section 18

NGS - Fly Ash Truck Loadout Systems

Emissions Unit Control Equipment 2

1. Description : Fly Ash Truck Loadout for EU027 Storage Silo
2. Control Device or Method Code : 17

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

Emissions Unit Information Section 18
 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 :	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 :	250 tons per hour
4. Maximum Production Rate :	
5. Operating Capacity Comment :	
Fly Ash Truck Loadout Systems operate at 250 TPH	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :	
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

**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.

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
Effective : 3-21-96

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

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
Effective : 3-21-96

List of Applicable Regulations

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

Rule 2.1203, Air Pollution Nuisances Prohibited

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 Diagram :	EU041 - Figure F-6
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	Two Discharge Points - Baghouse Exhaust Stacks
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	See detailed information in Attachment F-9, PSD Report (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) :	446.700
North (km) :	3,365.130
14. Emission Point Comment :	Location of points is detailed in Attachment F-8. See Process Flow Diagram F-6, EU041 for additional information.

III. Part 7b - 1

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 18

NGS - Fly Ash Truck Loadout Systems

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Fly Ash Truck Loadout for EU026 Storage Silo (EU037)	
2. Source Classification Code (SCC) : 30501222	
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 :	

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 Associated Operating Method/Mode) : Fly Ash Truck Loadout for EU027 Storage Silo (EU037)	
2. Source Classification Code (SCC) : 30501222	
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

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

Emissions Unit Information Section 18
NGS - Fly Ash Truck Loadout Systems

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

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

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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 (1-.9998) = 0.11 lb/hr TPY = (0.11 lb/hr) X (8760 hr/yr) X (ton/2000 lb) = 0.48 tons/yr		
9. Pollutant Potential/Estimated Emissions Comment :		

III. Part 9b - 1

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.

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.

Emission rates reflect each Fly Ash Truck Loadout.

III. Part 9b - 4

Emissions Unit Information Section 18
NGS - Fly Ash Truck Loadout 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 :	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.		

Emissions Unit Information Section
NGS - Fly Ash Truck Loadout Systems

18

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 :	0.01 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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 18
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 evaluated as BACT for the Fly Ash Truck Loadouts.
	Excess Emissions - 2 hours in any 24-hour period

III. Part 10 - 1

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 :	

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

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 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 Consuming/Expanding Code :		
PM :	C	NO2 : U
SO2 :	U	
4. Baseline Emissions :		
PM :	0.1100 lb/hour	0.4800 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

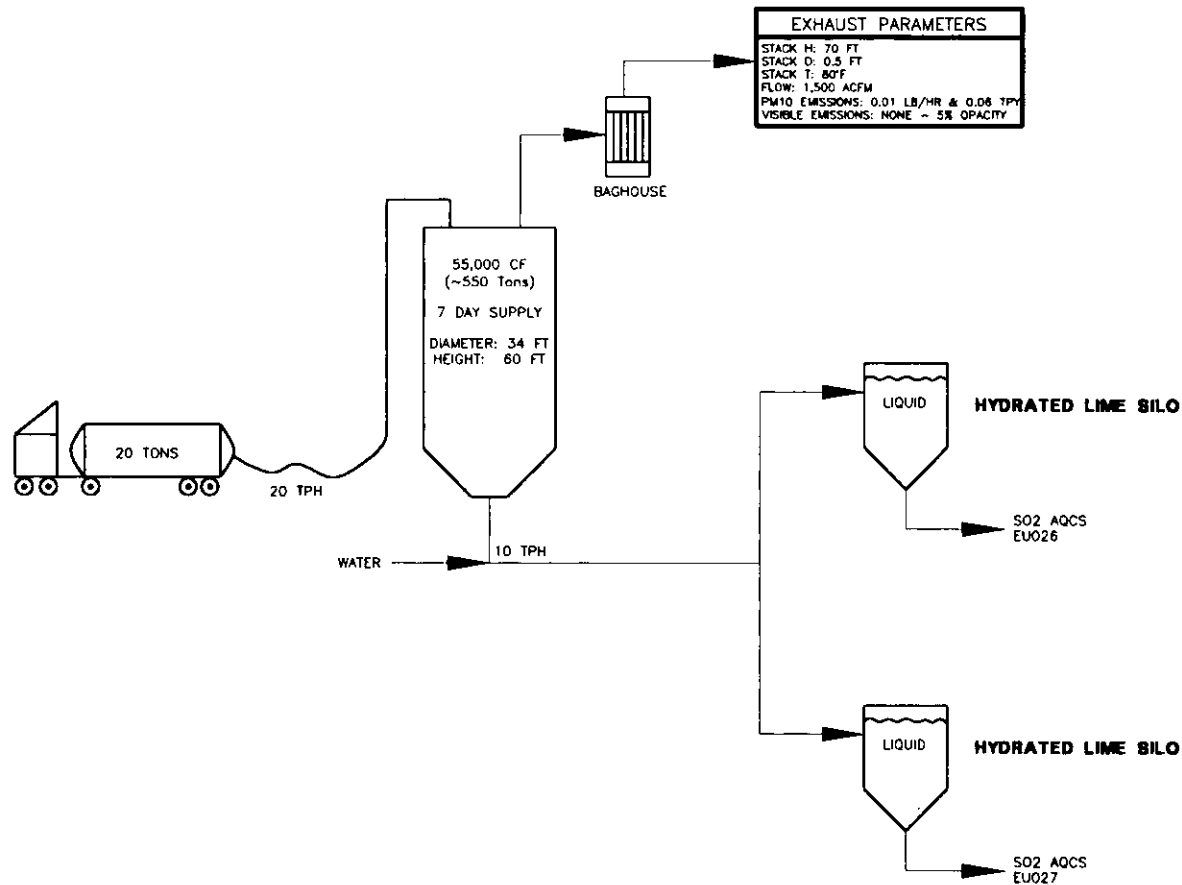
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

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

SCALE N/A	PREPARED DJG	CAD FILE NO. EU042PF.DWG
DATE: 01/26/99	CHECKED MAE	FIGURE NO.
	APPROVED DJF	F-6, EU042

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 19

NGS - Pebble Lime Silo

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

Effective : 3-21-96

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 - Pebble Lime Silo		
2. Emissions Unit Identification Number : 042 <input type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment : Emissions Unit consists of the Pebble Lime Silo (Emissions Units EU042). The emissions unit includes two emission points.		

Emissions Unit Information Section 19

NGS - Pebble Lime Silo

Emissions Unit Control Equipment 1

1. Description : Pebble Lime Silo	
2. Control Device or Method Code :	18

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

Emissions Unit Information Section 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 :	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 :	20	tons per hour
4. Maximum Production Rate :		
5. Operating Capacity Comment :	Pebble Lime Silo Loading System operates at 20 TPH	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
24 hours/day	7 days/week	
52 weeks/year	8,760 hours/year	

**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.

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

Effective : 3-21-96

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
Effective : 3-21-96

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

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 Diagram :	EU042 - Figure F-6
2. Emission Point Type Code :	3
3. Descriptions of Emission Points Comprising this Emissions Unit :	One Discharge Point - Baghouse Exhaust Stack
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :	See detailed information in Attachment F-9, PSD Report (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) :	446.700
North (km) :	3,365.200
14. Emission Point Comment :	Location of points is detailed in Attachment F-8. See Process Flow Diagram F-6, EU042 for additional information.

III. Part 7b - 1

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) : 30501222	
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 :	

**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

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

Emissions Unit Information Section 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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 $lb/hr = (20 \text{ tons/hr}) \times (0.27 \text{ lb/ton}) \times (1-.995) = 0.027 \text{ lb/hr}$ $TPY = (0.027 \text{ lb/hr}) \times (8760 \text{ hr/yr}) \times (\text{ton}/2000 \text{ lb}) = 0.118 \text{ tons/yr}$		
9. Pollutant Potential/Estimated Emissions Comment : Baghouse removal efficiency is based on PM10.		

III. Part 9b - 1

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

Emissions Unit Information Section 19

NGS - Pebble Lime Silo

III. Part 9b - 2

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

Emissions Unit Information Section 19

NGS - Pebble Lime Silo

Pollutant Potential/Estimated Emissions : Pollutant 2

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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		
$lb/hr = (20 \text{ tons/hr}) \times (0.14 \text{ lb/ton}) \times (1-.998) = 0.0138 \text{ lb/hr}$		
Long Term Emissions		
$TPY = (0.0138 \text{ lb/hr}) \times (8760 \text{ hr/yr}) \times (\text{ton}/2000 \text{ lb}) = 0.060 \text{ tons/yr}$		
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 19

NGS - Pebble Lime Silo

Baghouse removal efficiency is based on PM10.

III. Part 9b - 4

Emissions Unit Information Section
NGS - Pebble Lime Silo

19

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 :	0.03 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

Emissions Unit Information Section 19
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.	

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 :	

**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 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.

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 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 Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	0.0270 lb/hour	0.1200 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

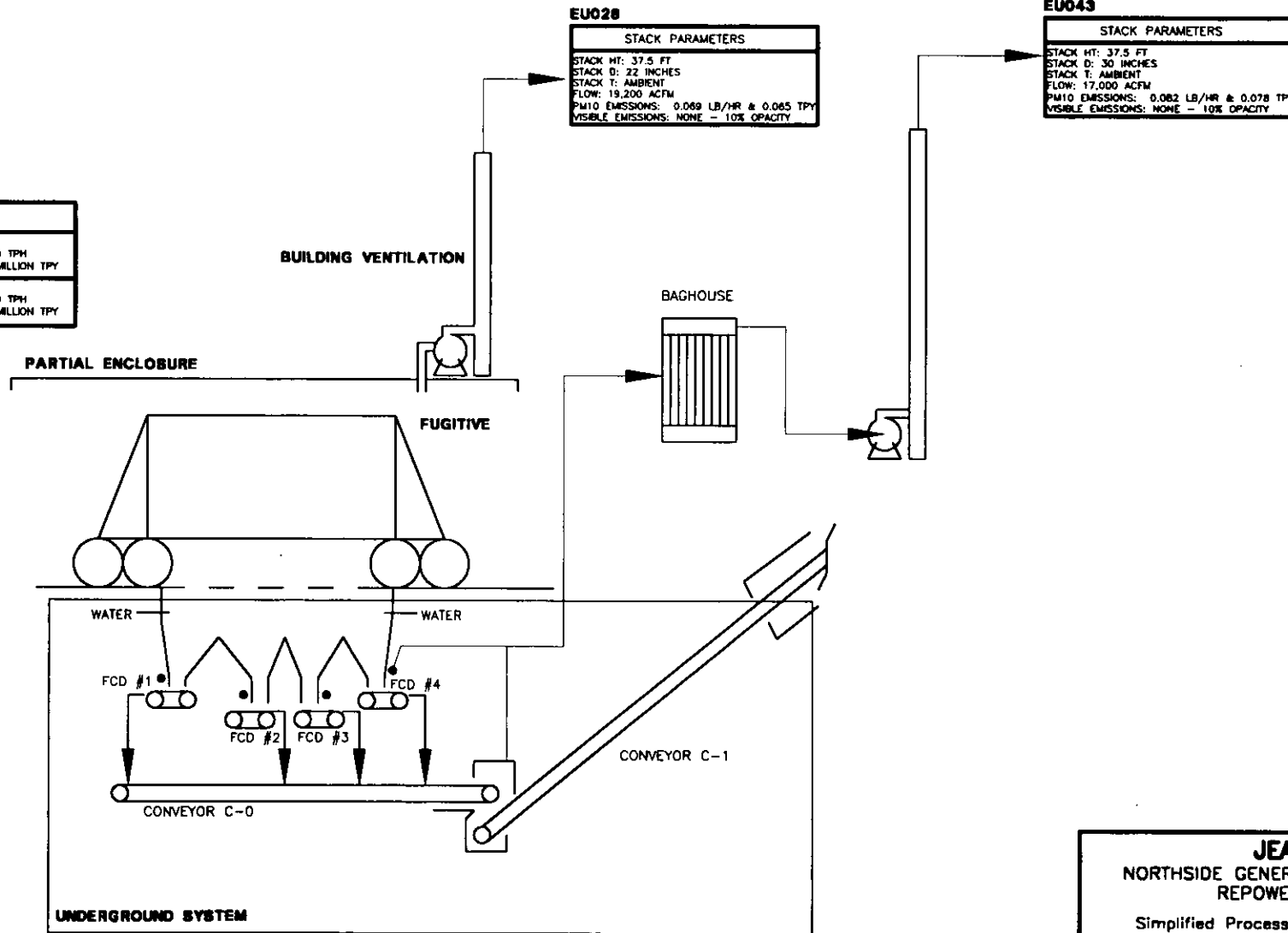
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

Emissions Unit 043

SJRPP - Rotary Railcar Dumper, Transfer Points

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

HANDLING RATES	
CURRENT ALLOWABLE	
UNLOADING RATE:	4,000 TPH
COAL/PET. COKE:	5.2 MILLION TPY
PROPOSED ALLOWABLE	
UNLOADING RATE:	4,000 TPH
COAL/PET. COKE:	7.5 MILLION TPY



NOTE: COVERS ON CONVEYORS

JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram		
Emissions Unit ID 043		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU043PF.DWG
DATE: 01/26/99	CHECKED: MAE	FIGURE NO.: F-6, EU043
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 20

SJRPP - Rotary Railcar Dumper, Transfer Points

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

Effective : 3-21-96

**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 Number : 043 <input type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown		
3. Emissions Unit Status Code : A	4. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)		

Emissions Unit Information Section 20

SJRPP - Rotary Railcar Dumper, Transfer Points .

Emissions Unit Control Equipment 1

1. Description :

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

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/day	7 days/week
52 weeks/year	8,760 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section 20
SJRPP - Rotary Railcar Dumper, Transfer Points

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
Effective : 3-21-96

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
Effective : 3-21-96

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
Effective : 3-21-96

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
Effective : 3-21-96

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 20

SJRPP - Rotary Railcar Dumper, Transfer Points

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Rail Car Unloading
2. Emission Point Type Code :	2
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 : 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 (km) : 3366.500

III. Part 7a - 1

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

Effective : 3-21-96

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

Effective : 3-21-96

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 Associated Operating Method/Mode) : Coal (Total Maximum 2,421,000 tons per year)	
2. Source Classification Code (SCC) : 30501099	
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

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 20

SJRPP - Rotary Railcar Dumper, Transfer Points

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Petroleum Coke (Total Maximum 2,421,000 tons per year)	
2. Source Classification Code (SCC) : 30501099	
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
Effective : 3-21-96

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

Emissions Unit Information Section 20
SJRPP - Rotary Railcar Dumper, Transfer Points

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

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

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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right; margin-right: 100px;">to</div> <div style="text-align: right;">tons/year</div>		
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.		

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 2

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:	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.	

Emissions Unit Information Section 20
SJRPP - Rotary Railcar Dumper, Transfer Points

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 :	0.17 lb/hour 0.16 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).

III. Part 9c - 1

Emissions Unit Information Section 20
SJRPP - Rotary Railcar Dumper, Transfer Points

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 :	0.08 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 Comment (Desc. of Related Operating Method/Mode) :	BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emissions limit (%5 Opacity)

III. Part 9c - 2

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 20
SJRPP - Rotary Railcar Dumper, Transfer Points

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 :	BACT was evaluated at 5% Opacity (i.e., no visible emissions) for this operation. Excess Opacity - 2 hours in any 24-hour period

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section

III. Part 11 - 1

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

Effective : 3-21-96

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

Emissions Unit Information Section 20

SJRPP - Rotary Railcar Dumper, Transfer Points

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

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

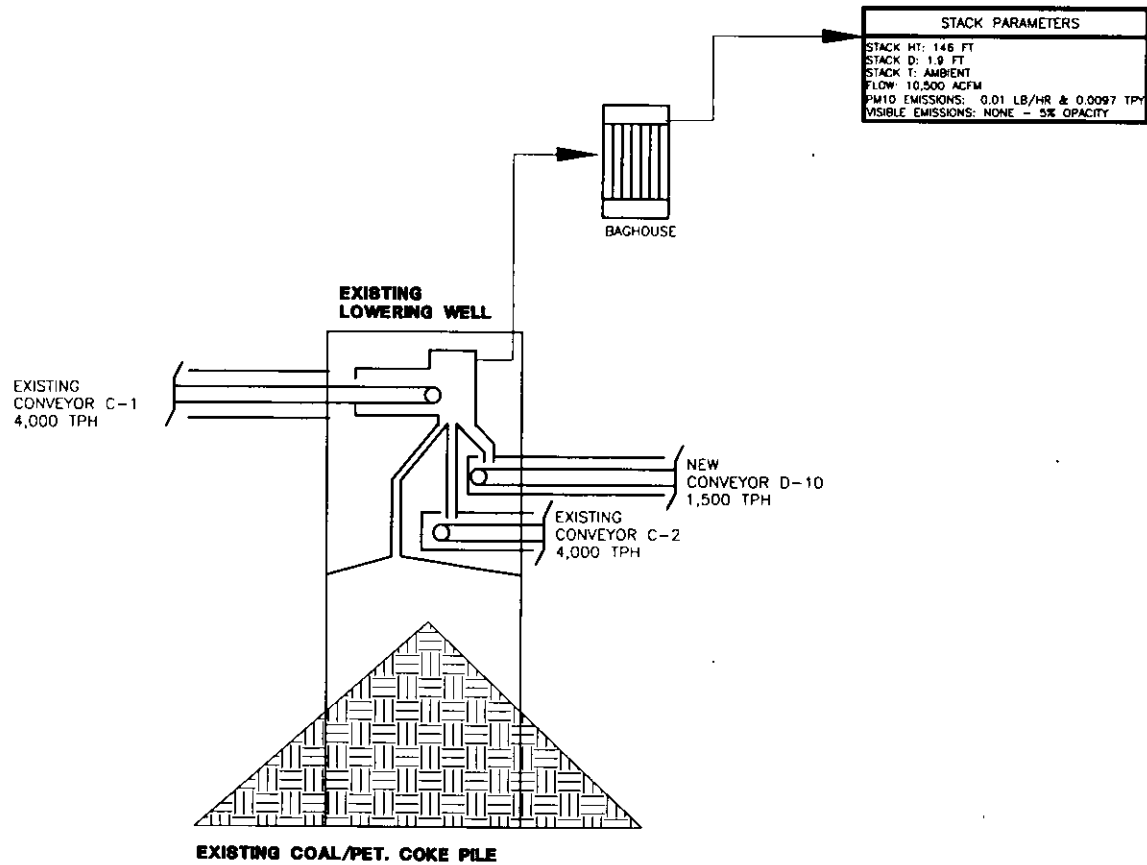
New Unit Exemption (Form No. 62-210.900(1)(a)2.)

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

Emissions Unit 044

SJRPP - Coal Transfer Building

NORTHSIDE GENERATING STATION COAL TRANSFER BUILDING BASE CASE & ALTERNATE 1



NOTE: COVERS ON CONVEYORS

JEA		
NORTHSIDE GENERATING STATION REPOWERING		
Simplified Process Flow Diagram Emissions Unit ID 044		
FOSTER WHEELER ENVIRONMENTAL CORPORATION		
SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EJU044PF.DWG
DATE: 01/26/99	CHECKED: MAE	FIGURE NO.: F-6, EJU044
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 21

SJRPP - Coal Transfer Building

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

Effective : 3-21-96

**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 - Coal Transfer Building		
2. Emissions Unit Identification Number : 044 [] 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 existing SJRPP Coal Transfer Building and a new Transfer Point (Conveyor C-1 to Conveyor D-10).		

Emissions Unit Information Section 21

SJRPP - Coal Transfer Building

Emissions Unit Control Equipment 1

1. Description :

The SJRPP Coal Transfer Building 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

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

Emissions Unit Information Section

21

SJRPP - Coal Transfer Building

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/day	7 days/week
52 weeks/year	8,760 hours/year

**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
Effective : 3-21-96

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
Effective : 3-21-96

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
Effective : 3-21-96

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
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E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section

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 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 : Coal Transfer Building including the Existing Lower Well, an existing Transfer Point (Conveyor C-1 to Conveyor C-2), and a New Transfer Point (Conveyor C-1 to Conveyor D-1)	
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

Effective : 3-21-96

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

Effective : 3-21-96

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/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 : 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

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 2,421,000 tons per year)	
2. Source Classification Code (SCC) : 30501099	
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

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

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 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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right;">to tons/year</div>		
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

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/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 Unit Information Section
SJRPP - Coal Transfer Building

21

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 :	0.01 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 limit (%5 Opacity)

III. Part 9c - 2

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 21
SJRPP - Coal Transfer Building

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 :	BACT was evaluated at 5% Opacity (i.e., no visible emissions) for this operation. Excess Opacity - 2 hours in any 24-hour period

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section

III. Part 11 - 1

DEP Form No. 62-210.900(1) - Form
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**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION**

Emissions Unit Information Section 21

SJRPP - Coal Transfer Building

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

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 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 Consuming/Expanding Code :			
PM :	C	SO2 :	NO2 :
4. Baseline Emissions :			
PM :	0.0220	lb/hour	0.0206 tons/year
SO2 :		lb/hour	tons/year
NO2 :			tons/year
5. PSD Comment :			

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 21

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
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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

Emissions Unit 045

SJRPP - Ship Unloader

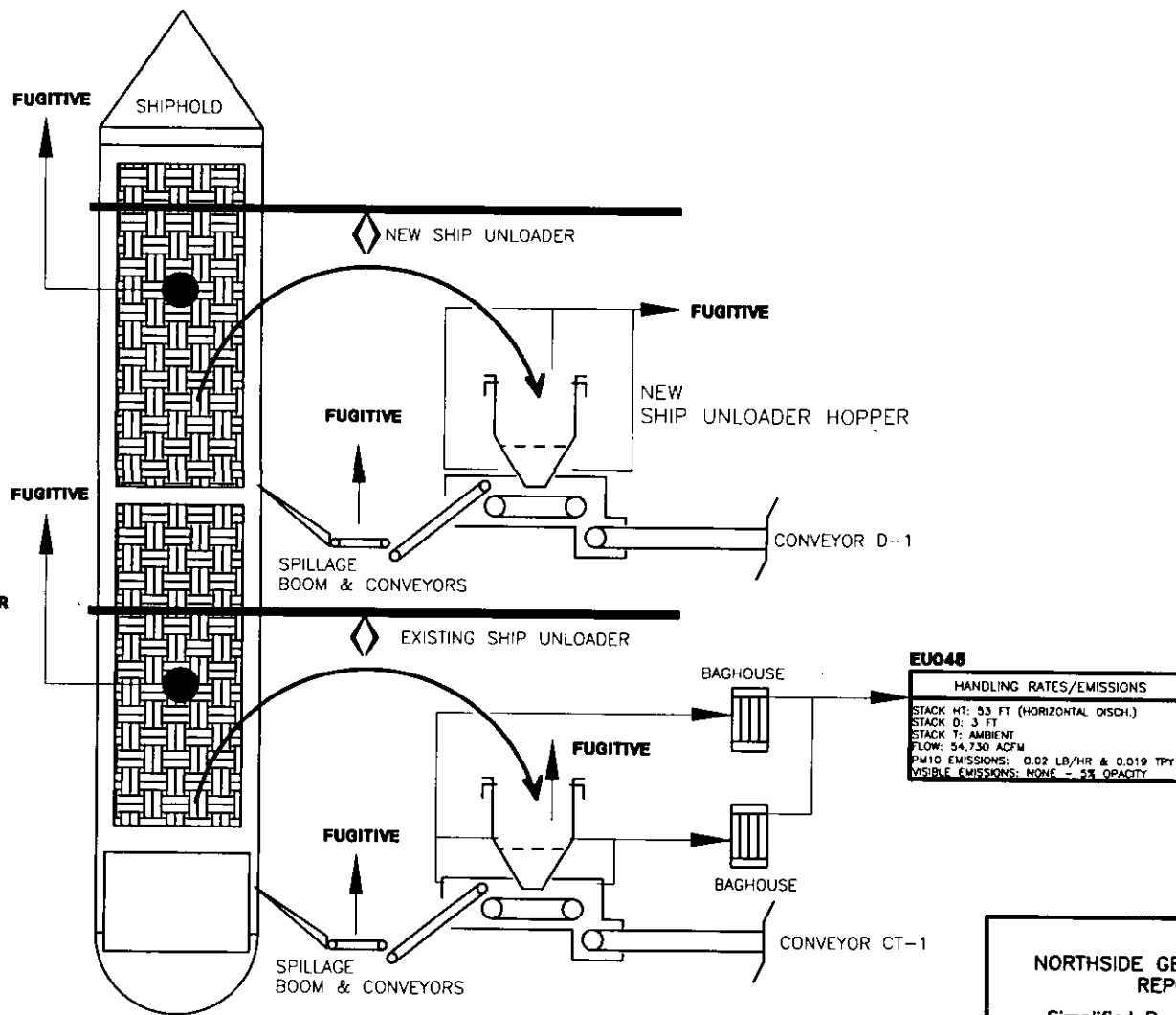
NORTHSIDE GENERATING STATION SHIP UNLOADING OPERATIONS ALTERNATE 1

NEW SHIP UNLOADER

HANDLING RATES/EMISSIONS
UNLOADING RATE: 1,500 TPH
LIMESTONE: 1,022,700 TPY
COAL/PET. COKE: 3,773,676 TPY
SHIPHOLD:
PM10 EMISSIONS:
LIMESTONE: 0.18 LB/HR & 0.06 TPY
COAL/PET. COKE: 0.26 LB/HR & 0.32 TPY
VISIBLE EMISSIONS: 10% OPACITY
UNLOADING HOPPER/TRANSFER POINTS:
PM10 EMISSIONS:
LIMESTONE: 0.133 LB/HR & 0.045 TPY
COAL/PET. COKE: 0.19 LB/HR & 0.24 TPY
VISIBLE EMISSIONS: 10% OPACITY

EXISTING SJRPP SHIP UNLOADER

HANDLING RATES/EMISSIONS
UNLOADING RATE: 1,500 TPH
LIMESTONE: 1,022,700 TPY
COAL/PET. COKE: 3,773,676 TPY
SHIPHOLD:
PM10 EMISSIONS:
LIMESTONE: 0.18 LB/HR & 0.06 TPY
COAL/PET. COKE: 0.26 LB/HR & 0.32 TPY
VISIBLE EMISSIONS: 10% OPACITY
UNLOADING HOPPER/TRANSFER POINTS:
PM10 EMISSIONS:
LIMESTONE: 0.11 LB/HR & 0.034 TPY
COAL/PET. COKE: 0.15 LB/HR & 0.18 TPY
VISIBLE EMISSIONS: 10% OPACITY



EU045

HANDLING RATES/EMISSIONS
STACK HT: 53 FT (HORIZONTAL DISCH.)
STACK D: 3 FT
STACK T: AMBIENT
FLOW: 54,730 ACFM
PM10 EMISSIONS: 0.02 LB/HR & 0.019 TPY
VISIBLE EMISSIONS: NONE - 2% OPACITY

JEA
NORTHSIDE GENERATING STATION
REPOWERING

Simplified Process Flow Diagram
Emissions Unit ID 045

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE: N/A	PREPARED: DJG	CAD FILE NO.: EU045PE.DWG
DATE: 01/26/99	CHECKED: MAE	FIGURE NO.: F-8, EU045
	APPROVED: DJF	

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 22

SJRPP - Ship Unloader

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

Effective : 3-21-96

**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 - Ship Unloader		
2. Emissions Unit Identification Number : 045 [] 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 : This emissions unit consists of the existing SJRPP Ship Unloading Operation transfer points controlled by use of a dust collection system.		

Emissions Unit Information Section 22

SJRPP - Ship Unloader

Emissions Unit Control Equipment 1

1. Description :

Application Forms reflect "Worst Case Scenario" as described under Alternate No. 1. This scenario includes one additional transfer point associated with the Limestone Conveyor.

2. Control Device or Method Code : 18

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

Emissions Unit Information Section

22

SJRPP - Ship Unloader

Emissions Unit Details

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 :	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 :	1500	tons/hr
4. Maximum Production Rate :		
5. Operating Capacity Comment :	Detailed rate information is in Attachment F-9, PSD Report (Appendix C).	

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
24 hours/day	7 days/week	
52 weeks/year	8,760 hours/year	

**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

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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

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

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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)

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
Effective : 3-21-96

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, Nonmetallic-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
Effective : 3-21-96

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

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section

22

SJRPP - Ship Unloader

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 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 : The existing SJRPP Ship Unloader includes a dust collection 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
		North (km) : 3362.200

III. Part 7a - 1

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

Effective : 3-21-96

14. Emission Point Comment :

Attachments F-6, F-8, and F-9 contain additional information related to stack parameters and location.

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 22

SJRPP - Ship Unloader

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 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 : The existing SJRPP Ship Unloader includes a dust collection 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) : 0.000
		North (km) : 0.000

III. Part 7a - 1

14. Emission Point Comment :

Attachments F-6, F-8, and F-9 contain additional information related to stack parameters and location.

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) : 30501099	
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

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) : 30501099	
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

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) : 30501099	
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

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

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

Emissions Unit Information Section 22

SJRPP - Ship Unloader

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : PM		
2. Total Percent Efficiency of Control :	99.50	%
3. Potential Emissions :	0.0332000 lb/hour	0.0500000 tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <div style="text-align: right;">to tons/year</div>		
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

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

Effective : 3-21-96

Emissions Unit Information Section
SJRPP - Ship Unloader

22

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 :	0.03 lb/hour 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 Method/Mode) :	BACT was evaluated as 0.01 gr/dscf or less in addition to a no visible emission limit (5% opacity).

III. Part 9c - 1

Emissions Unit Information Section
SJRPP - Ship Unloader

22

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 0.02 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.

III. Part 9c - 2

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section

III. Part 11 - 1

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

**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

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 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 Consuming/Expanding Code :		
PM : C	SO2 : U	NO2 : U
4. Baseline Emissions :		
PM :	0.0332 lb/hour	0.0500 tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		
Item 4 values present increment consumption values		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 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 Applications Only

10. Alternative Methods of Operations :
11. Alternative 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.)

ATTACHMENT E-1

Fuel Analyses

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/ft ³ ⁽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
⁽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			
	Minimum	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

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 (CaSO₃) and calcium sulfate (CaSO₄) 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 (CaO) 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 (Ca(OH)₂) or as a lime slurry depending upon the specific manufacturers design. Calcium hydroxide (Ca(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 (CaSO_3), calcium sulfate (CaSO_4), calcium oxide (CaO), 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.

ATTACHMENT E-3

Stack Sampling Facilities Descriptions

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 one-half 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.

ATTACHMENT E-4

Startup and Shutdown Procedures

ATTACHMENT E-4

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_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.

Particulate

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.

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_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

	TIME	Heat Input	SO2		NOx		CO		VOC		PART.		AMMONIA
	END OF HR	MMBtu/Hr	lb/MMBtu	lbs/hr	lb/MMBtu	lbs/hr	lb/MMBtu	lbs/hr	lb/MMBtu	lbs/hr	lb/MMBtu	lbs/hr	PPMV
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	0
	2	275	0.06	17	0.45	124	0.55	151	0.250	69	0.011	3.0	0
	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	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	0
	9	638	4.00	2552	0.33	207	0.40	255	0.131	84	0.011	7.0	0
	10	813	3.00	2439	0.26	213	0.33	264	0.072	58	0.011	8.9	0
	11	1013	1.25	1266	0.20	203	0.25	253	0.012	12	0.011	11.1	0
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

ATTACHMENT E-5

Requested Test Frequencies

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.