21 West Church Street
Jacksonville, Florida 32202-3139

May 3, 1999

JEA

Clair H. Fancy, Chief
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

RE: Minor Revisions to JEA Northside Units 1 and 2
Repowering Project PSD Permit Application
PSD-FL-265/PSD-FL-010(C)

Dear Mr. Fancy:

Enclosed please find an original and six (6) copies of some minor revisions to the Prevention of Significant Deterioration (PSD) air construction permit application for the JEA Northside Units 1 and 2 Repowering Project, originally filed with the Department on February 15, 1999. On March 17, that application was deemed complete as filed. We therefore hope to receive the Technical Evaluation and Preliminary Determination, along with the proposed permit, within the next few weeks.

The changes being made to the application are minor and do not affect the results of any of the analyses performed in the application. The following is a summary of these changes:

1. The application forms for the materials handling operations are being revised to reflect annual fuel usage rates for Northside in rounded terms of 2.42 million tons of coal/petroleum coke and 1.45 million tons of limestone, as was discussed with Mr. Arif of your office.

2. The application forms are also being revised to separate materials handling operations at Northside from those at the adjacent St. Johns River Power Park (SJRPP). The Northside operations with fugitive emissions will continue to be addressed as "EU028" and the SJRPP operations with fugitive emissions will be addressed as "EU023" (in Section 21 of the forms), consistent with the current Title V permit for the facility. As a result, some activities currently addressed in the section for "EU028" will be moved to "EU023" (new application form

pages, along with a summary listing of these activities, are being provided). In addition, Figures 6-1 and 6-2 have been revised to reflect these changes in the emission unit identifications.

3. The emission estimates for EU023d (Formerly EU045 - Ship Unloading Operations) and EU023e (Formerly EU044 – Fuel Transfer Building) are being revised to reflect current control strategies on existing materials handling operations at SJRPP. These sources had previously been addressed in Sections 21 and 22 of the application form; those sections are being deleted, and (as stated above) a new Section 21 is being added to address EU023.

4. Typographical errors in Tables 7-2 and 7-5 of the PSD Report are being corrected. These changes have previously been presented to Mr. Holladay of your staff.

We have discussed most of these minor revisions to the application in conceptual terms with Mr. Arif, the permitting engineer for the project, and based on those discussions do not expect any interruption of the current permitting schedule to result. If after further review you or members of your staff determine that these changes might cause a delay in the schedule, please let Bert Gianazza with JEA know as soon as possible.

Thank you for your continued cooperation and assistance with this project. We have enjoyed working with your staff on this project, and look forward to receiving the proposed permit soon. If you have any questions in the meantime, please do not hesitate to contact Mr. Gianazza at 904-665-6247.

Sincerely,

Walter P. Bussells
Managing Director & Chief Executive Officer

Enclosures

cc: A. A. Linero, DEP
Syed Arif, DEP
Cleve Holladay, DEP
Hamilton S. Oven, Jr., DEP Siting
Scott Goorland, DEP OGC
Rita Felton-Smith , DEP NE District
Robert S. Pace, Jacksonville RESD

Gregg Worley, EPA Region IV
Ellen Porter, U.S. Fish and Wildlife Service
Jerry Hebb, U.S. Department of Energy

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
001	NGS Boiler No. 1	-
002	NGS Boiler No. 2 (Long-Term Reserve Shutdown - 3/1/84)	-
003	NGS Boiler No. 3	-
023	SJRPP Materials Handling & Storage Operations	AC1A
026	NGS - Circulating Fluidized Bed Boiler No. 2	AC1A
027	NGS - Circulating Fluidized Bed Boiler No. 1	AC1A
028	NGS - Materials Handling & Storage Operations	AC1A
029	NGS - Crusher House	AC1A
031	NGS - Boiler Fuel Silos	AC1A
032	NGS - Limestone Receiving Bins	AC1A
033	NGS - Limestone Dryers/Mills	AC1A
034	NGS - Limestone Crusher Conveyor Transfers	AC1A
035	NGS - Limestone Feed Silos	AC1A
036	NGS - Fly Ash Waste Bins	AC1A

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
037	NGS - Fly Ash Transfer & Storage Systems	AC1A
038	NGS - Bed Ash Transfer & Storage Systems	AC1A
039	NGS - Fly & Bed Ash Silo Hydrators	AC1A
040	NGS - Bed Ash Truck Loadout Systems	AC1A
041	NGS - Fly Ash Truck Loadout Systems	AC1A
042	NGS - Pebble Lime Silo	AC1A
043	SJRPP - Rotary Railcar Dumper, Transfer Points	ACIA

APPLICATION FORMS
EMISSION UNIT SECTIONS
ROUNDED THROUGHPUTS

Emissions Unit Information Section 6

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 - Materials Handling & Storage Operations		
2. Emissions Unit Identification Number : 028 [ ] 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, as proposed, includes two alternatives shown in Figures 6-1 & 6-2. Emissions Unit EU028 reflects operations within the NGS boundaries and EU023 operations within SJRPP boundaries. An annual total of 2.42 million tons of coal/pet. coke and 1.45 million tons of limestone will be handled for the project. Both alternatives involve the SJRPP Rotary Rail Car Dumper and Alternate 1 includes existing SJRPP Ship Unloading and Transfer System.		

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 1

1. Description : Ship Unloading Operations 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 : Transfer Towers/Stations Partial Enclosures, Conditioned Materials & Wet Suppression (as depicted) Figures EU028c, g, i, o & q
2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 3

1. Description : Enclosed Coal/Pet. Coke Storage Piles & Operations 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 4

1. Description : Limestone Lowering Well, Pile & Reclaim Hopper 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 5

1. Description : Fly & Bed Ash Silo Hydrator Loadouts Conditioned Materials Figure EU028r
2. Control Device or Method Code :

Emissions Unit Information Section 6

NGS - Materials Handling & Storage Operations

Emissions Unit Control Equipment 6

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 7

1. Description : Transfer Conveyors Conditioned Materials & Covers
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 : Dwell Time : Incinerator Afterburner Temperature :		Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	0	
4. Maximum Production Rate :		
5. Operating Capacity Comment : See Process Flow Diagrams for individual rates. An annual total of 2.42 million tons of coal/pet. coke and 1.45 million tons of limestone will be handled for the project.		

Emissions Unit Operating Schedule

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

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.	
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 :	

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) : Transfer Towers Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates.	
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 :	

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) : Lowering Wells. Stackers, Storage Piles & Reclaimers Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates. (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 :	

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) : Conveyors Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates. (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 :	

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) : Ash Hydrator Loadouts Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates.	
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 :	

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 New Limestone Pile & Hopper	

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

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

Visible Emissions Limitation : Visible Emissions Limitation 2

1. Visible Emissions Subtype : 5

2. Basis for Allowable Opacity : RULE

3. Requested Allowable Opacity :

Normal Conditions :	5	%
Exceptional Conditions :	100	%
Maximum Period of Excess Opacity Allowed :		min/hour

4. Method of Compliance :

Annual EPA Method 9

5. Visible Emissions Comment :

As Read at the Property Line
Transfer Towers
New Enclosed Storage Pile
New Stacker/Reclaimers
New Limestone Lowering Wells
New Ash Hydrator Loadouts
All Conveyors

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 An annual total of 2.42 million tons of coal/pet. coke.	
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 An annual total of 2.42 million tons of coal/pet. coke.	
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 An annual total of 1.45 million tons of limestone.	
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 :	

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 An annual total of 2.42 million tons of coal/pet. coke.	
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 8

NGS - Boiler Fuel Silos

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Petroleum Coke An annual total of 2.42 million tons of coal/pet. coke.	
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 9

NGS - Limestone Receiving Bins

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Limestone An annual total of 1.45 million tons of 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 :	

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 An annual total of 1.45 million tons of limestone.	
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 :	

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 An annual total of 1.32 million tons of limestone will be handled for the project.	
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 :	

EMISSION UNIT LISTING
EU028's TO EU023's

Foster Wheeler Environmental Corporation
EXCEL 7.0 Worksheet

Northside Generating Station Units #1 & 2 Repowering Project
Materials Handling and Storage Operations - SJRPP New & Modified Activities

Fugitive Dust Sources	EU ID #	
	New #	Old #
Railcar Rotary Dumper	EU023a	EU028e
Shiphold - Existing	EU023c	EU028b
Shiphold - New	EU023c	EU028b
Hopper Belt, Spillage Conveyors, and CT-1 Transfer Points - Existing Ship Unloader	EU023d	EU028b
Hopper Belt, Spillage Conveyors, and DC-1 Transfer Points - New Ship Unloader	EU023d	EU028b
Unloader Hopper and Spillage Collector Transfers - Existing System	EU023d	EU045
Unloader Hopper and Spillage Collector Transfers - New Ship Unloader	EU023d	EU028b
Fuel Transfer Building/Emergency Stackout	EU023e	EU044
New Reclaim Transfer Tower	EU023e	EU028o
New Transfer Tower #1-NGS	EU023e	EU028m
New Transfer Tower #2-NGS	EU023e	EU028m
New Transfer Tower #3-NGS	EU023e	EU028m
New Transfer Tower #4-NGS	EU023e	EU028o
Transfer Station No. 1	EU023e	EU028l
Transfer Station No. 2	EU023e	EU028l
Transfer Station No. 3	EU023e	EU028l
Transfer Station No. 4	EU023e	EU028l
Transfer Tower D-1	EU023e	EU028k
Transfer Tower D-2	EU023e	EU028k
Transfer Tower No. 1A	EU023e	EU028g
Transfer Tower No. 2A	EU023e	EU028g
Transfer Tower No. 3A	EU023e	EU028g
New Stacker	EU023f	EU028n
NGS Reclaimer	EU023f	EU028n
SJRPP Reclaimer	EU023f	EU028n
New Blend Hopper	EU023g	EU028m
Enclosed Pile - Vehicle Activities	EU023k	EU028j
Enclosed Storage Pile - 3 Transfer Points	EU023k	EU028j
Fuel Storage Pile - Wind Erosion	EU023k	EU028n
Fuel Storage Pile - Vehicle Activities	EU023k	EU028n

REVISED FIGURES 6-1 & 6-2

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
NS - Northside Generating Station
PP - St. Johns River Power Park

Fugitive Dust Sources	EU ID #	Site	New	AQCS	Control Efficiency	PM10 (lb/hr)	PM10 (TPY)
Shiphold	EU028a	NS	Yes	1 & 6	70.00%	0.257	0.294
Unloader Hopper & Spillage Collector Transfers	EU028a	NS	Yes	1, 3, 4, & 6	85.00%	0.159	0.181
Fuel Transfer Building/Emergency Stackout	EU023e	PP	No	1 & 4	85.00%	0.309	0.292
Transfer Tower No. 1A	EU023e	PP	Yes	1, 2, & 4	98.00%	0.042	0.034
Transfer Tower No. 2A	EU023e	PP	Yes	1, 2, & 4	98.00%	0.042	0.034
Transfer Tower No. 3A	EU023e	PP	Yes	1, 2, & 4	98.00%	0.042	0.034
Transfer Tower No 4A	EU028g	NS	Yes	1, 2, & 4	98.00%	0.042	0.034
Transfer Tower No. 1	EU028c	NS	Yes	1, 2, & 4	98.00%	0.042	0.048
Transfer Tower No. 2	EU028c	NS	Yes	1, 2, & 4	98.00%	0.042	0.048
Transfer Tower No. 3	EU028c	NS	Yes	1, 2, & 4	98.00%	0.042	0.048
Transfer Tower No. 5	EU028c	NS	Yes	1, 2, & 4	98.00%	0.042	0.048
Transfer Tower No. 4	EU028i	NS	Yes	1, 2, & 4	98.00%	0.029	0.051
Fuel Storage Building - Stacking	EU028h	NS	Yes	1, 3, & 6	98.00%	0.042	0.034
Fuel Storage Building - Reclaiming	EU028h	NS	Yes	1, 3, & 6	98.00%	0.029	0.051
Fuel Storage Building - Vehicle Activities	EU028h	NS	Yes	1, 3, & 6	98.00%	0.002	0.007
Limestone Lowering Well & Coal/Coke Transfer	EU028d	NS	Yes	1, 3, & 6	98.00%	0.084	0.041
Limestone Storage Pile - Wind Erosion Factor	EU028d	NS	Yes	1, 3, & 6	75.00%	0.495	0.046
Limestone Storage Pile - Vehicle Activities	EU028d	NS	Yes	1, 3, & 6	75.00%	0.013	0.057
Limestone Reclaim Hopper	EU028d	NS	Yes	1, 3, & 6	75.00%	0.121	0.175
Fly Ash Silo Hydrator Loadout - Unit #1	EU028r	NS	Yes	1 & 6	0.00%	0.017	0.074
Fly Ash Silo Hydrator Loadout - Unit #2	EU028r	NS	Yes	1 & 6	0.00%	0.017	0.074
Bed Ash Silo Hydrator Loadout - Unit #1	EU028r	NS	Yes	1 & 6	0.00%	0.020	0.087
Bed Ash Silo Hydrator Loadout - Unit #2	EU028r	NS	Yes	1 & 6	0.00%	0.020	0.087
Unpaved Road, By-Product Transport	EU028	NS	Yes	3 & 6	75.00%	0.156	0.681
Point Sources	**EU ID #**	**Site**	**New**	**AQCS**	**Control Efficiency**	**PM10 (lb/hr)**	**PM10 (TPY)**
Railcar Rotary Dumper	EU023a	PP	No	1, 3, 4, & 6	97.00%	0.069	0.065
Dust Collector DC-1 (Coal Unloading)	EU043	PP	Yes	1, 4, & 5	99.50%	0.082	0.078
Crusher House	EU029	NS	Yes	1, 4, & 5	99.50%	0.015	0.025
Boiler Fuel Silos	EU031	NS	Yes	1, 4, & 5	99.50%	0.005	0.008
Limestone Receiving Bins	EU032	NS	Yes	1, 4, & 5	99.50%	0.005	0.007
Dryer and Crusher No. 1	EU033	NS	Yes	4 & 5	99.94%	0.317	1.390
Dryer and Crusher No. 2	EU033	NS	Yes	4 & 5	99.94%	0.317	1.390
Dryer and Crusher No. 3	EU033	NS	Yes	4 & 5	99.94%	0.317	1.390
Limestone Crusher Conveyor Transfers	EU034	NS	Yes	4 & 5	99.94%	0.048	0.208
Limestone Feed Silo Unit 1	EU035	NS	Yes	4 & 5	99.50%	0.034	0.151
Limestone Feed Silo Unit 2	EU035	NS	Yes	4 & 5	99.50%	0.034	0.151
Bed Ash Transfer & Storage System Unit #1	EU036	NS	Yes	4 & 5	99.50%	0.014	0.063
Bed Ash Transfer & Storage System Unit #2	EU036	NS	Yes	4 & 5	99.50%	0.014	0.063
Bed Ash Truck Loadout - Unit #1	EU040	NS	Yes	4 & 5	99.98%	0.013	0.058
Bed Ash Truck Loadout - Unit #2	EU040	NS	Yes	4 & 5	99.98%	0.013	0.058
Fly Ash Waste Bin - Unit #1	EU036	NS	Yes	4 & 5	99.50%	0.004	0.018
Fly Ash Waste Bin - Unit #2	EU036	NS	Yes	4 & 5	99.50%	0.004	0.018
Fly Ash Transfer & Storage System Unit #1	EU037	NS	Yes	4 & 5	99.50%	0.019	0.081
Fly Ash Transfer & Storage System Unit #2	EU037	NS	Yes	4 & 5	99.50%	0.019	0.081
Fly Ash Truck Loadout - Unit #1	EU041	NS	Yes	4 & 5	99.98%	0.013	0.058
Fly Ash Truck Loadout - Unit #2	EU041	NS	Yes	4 & 5	99.98%	0.013	0.058
Bed Ash Silo Hydrators Unit 1	EU039	NS	Yes	4 & 5	99.80%	0.062	0.273
Bed Ash Silo Hydrators Unit 2	EU039	NS	Yes	4 & 5	99.80%	0.062	0.273
Fly Ash Silo Hydrators Unit 1	EU039	NS	Yes	4 & 5	99.98%	0.053	0.231
Fly Ash Silo Hydrators Unit 2	EU039	NS	Yes	4 & 5	99.98%	0.053	0.231
Pebble Lime Silo	EU042	NS	Yes	4 & 5	99.50%	0.014	0.060

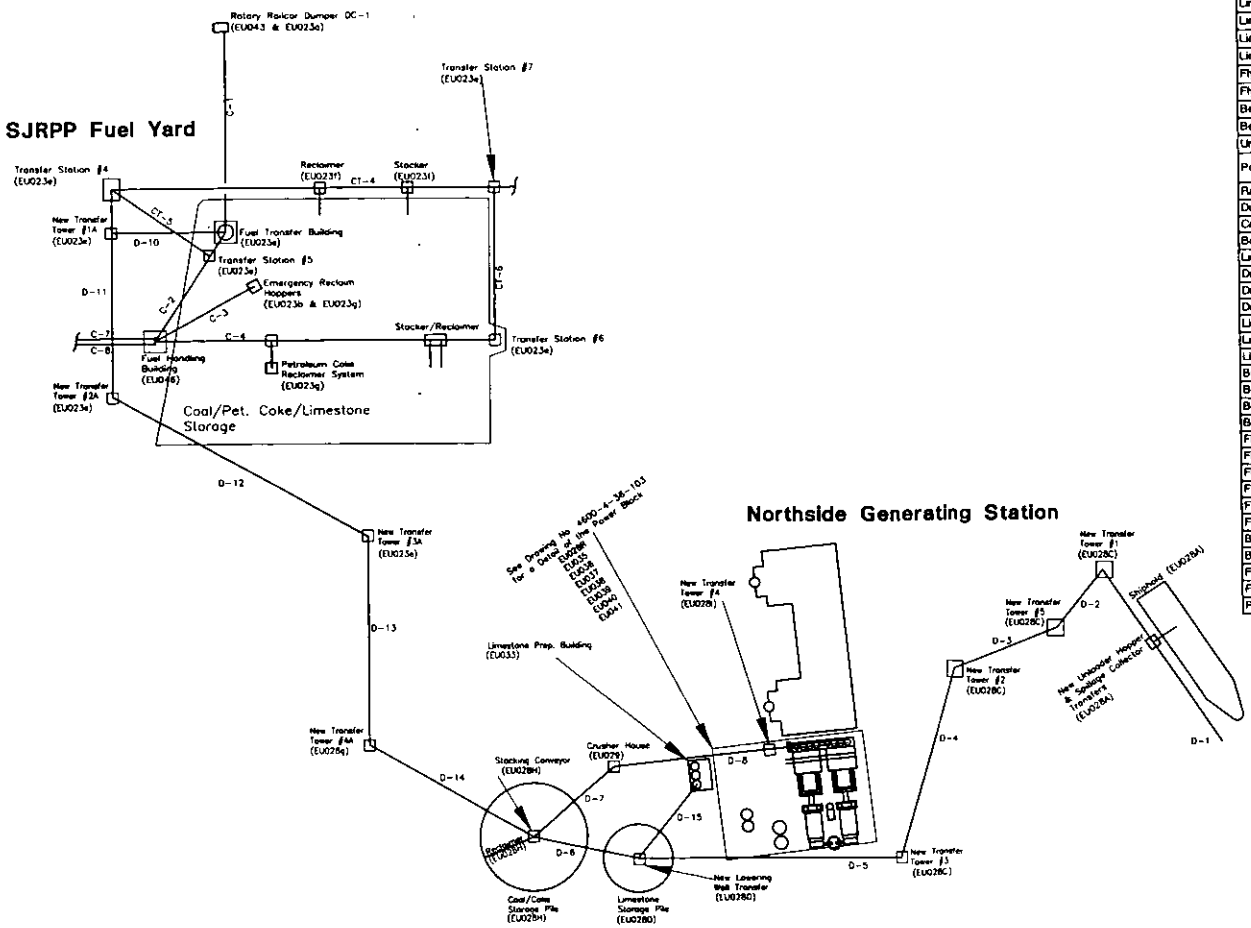


Figure 6-1

JEA
NORTHSIDE GENERATING STATION
REPOWERING
Materials Handling and Storage Operations
Equipment Layout – Base Case

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A	PREPARED MAE	CAD FILE NO. NGSBC.DWG
DATE: 04/19/99	CHECKED DJC	FIGURE NO. Figure 6-1
	APPROVED DJC	

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

Fugitive Dust Sources	EU ID#	See	New	AQCS	Control Efficiency	PM10 (lb/hr)	PM10 (TPY)
Shiphold - New	EU023c	CT	Yes	1, 4, & 5	70.00%	0.257	0.385
Shiphold - Existing	EU023c	CT	No	1, 4, & 5	70.00%	0.257	0.385
Unloader Hopper and Spillage Collector Transfers - New Ship Unloader	EU023d	CT	Yes	3, 3, 4, & 5	85.00%	0.130	0.194
Unloader Hopper and Spillage Collector Transfers - Existing System	EU023d	CT	No	1, 3, 4 & 5	85.00%	0.130	0.194
Hopper Belt, Spillage Conveyors, and DC-1 Transfer Points - New Ship Unloader	EU023d	CT	Yes	1, 4 & 5	98.00%	0.053	0.094
Hopper Belt, Spillage Conveyors, and CT-1 Transfer Points - Existing Ship Unloader	EU023d	CT	No	1, 3, 4, & 5	85.00%	0.471	0.704
Transfer Tower D-1	EU023e	CT	Yes	1, 2, & 4	98.00%	0.021	0.031
Enclosed Storage Pile - 3 Transfer Points	EU023k	CT	Yes	3, 3, 4, & 5	98.00%	0.063	0.094
Enclosed Pile - Vehicle Activities	EU023k	CT	Yes	3, 3, 4, & 5	98.00%	0.011	0.047
Transfer Tower D-2	EU023e	CT	Yes	1, 2, & 4	98.00%	0.021	0.031
Transfer Station No. 1	EU023e	CT	No	1, 2, & 4	98.00%	0.021	0.031
Transfer Station No. 2	EU023e	CT	No	1, 2, & 4	98.00%	0.021	0.063
Transfer Station No. 3	EU023e	PP	No	1, 2, & 4	98.00%	0.022	0.066
Transfer Station No. 4	EU023e	PP	No	1 & 4	98.00%	0.021	0.063
Fuel Transfer Building/Emergency Stackout	EU023e	PP	No	1 & 4	85.00%	0.309	0.292
Fuel Storage Pile - Wind Erosion	EU023k	PP	No	1, 3, & 5	75.00%	0.495	0.046
Fuel Storage Pile - Vehicle Activities	EU023k	PP	No	1, 3, & 5	75.00%	0.113	0.497
Limestone Storage Pile - Wind Erosion Factor	EU028p	NS	No	1, 3, & 5	75.00%	0.495	0.046
Limestone Storage Pile - Vehicle Activities	EU028p	NS	Yes	1, 3, & 5	75.00%	0.013	0.057
Limestone Lowering Well	EU028p	NS	Yes	1, 2, & 5	98.00%	0.014	0.007
Limestone Reclaim Hopper	EU028p	NS	Yes	1, 2, & 5	75.00%	0.121	0.175
New Transfer Tower #1-NGS	EU023e	PP	Yes	1, 2, & 4	98.00%	0.042	0.119
New Transfer Tower #2-NGS	EU023e	PP	Yes	1, 2, & 4	98.00%	0.042	0.119
New Blend Hopper	EU023g	PP	Yes	1, 3, & 4	98.00%	0.058	0.096
New Stacker	EU023f	PP	Yes	1, 3, & 4	85.00%	0.314	0.790
SJRPP Reclaimer	EU023f	PP	Yes	1, 3, & 4	75.00%	0.244	1.786
New Transfer Tower #3-NGS	EU023e	PP	Yes	1, 2, & 4	98.00%	0.039	0.143
NGS Reclaimer	EU023f	PP	Yes	1, 3, & 4	75.00%	0.244	0.845
New Reclaim Transfer Tower	EU023e	PP	Yes	1, 2, & 4	98.00%	0.020	0.048
New Transfer Tower #4-NGS	EU023e	PP	Yes	1, 2, & 4	98.00%	0.029	0.048
New Transfer Tower #5-NGS	EU028o	NS	Yes	1, 2, & 4	98.00%	0.029	0.048
New Transfer Tower #6-NGS	EU028q	NS	Yes	1, 2, & 4	98.00%	0.029	0.051
Fly Ash Silo Hydrator Loadout - Unit #1	EU028r	NS	Yes	1 & 6	0.00%	0.017	0.074
Fly Ash Silo Hydrator Loadout - Unit #2	EU028r	NS	Yes	1 & 6	0.00%	0.017	0.074
Bed Ash Silo Hydrator Loadout - Unit #1	EU028r	NS	Yes	1 & 6	0.00%	0.020	0.087
Bed Ash Silo Hydrator Loadout - Unit #2	EU028r	NS	Yes	1 & 6	0.00%	0.020	0.087
Unpaved Road, By-Product Transport	EU028r	NS	Yes	3 & 6	75.00%	0.156	0.681
Point Sources	**EU ID#**	**Site**	**New**	**AQCS**	**Control Efficiency**	**PM10 (lb/hr)**	**PM10 (TPY)**
Railcar Rotary Dumper	EU023a	PP	No	3, 3, 4, & 5	97.00%	0.088	0.055
Dust Collector DC-1 (Coal Unloading)	EU043	PP	No	1, 4, & 5	99.50%	0.082	0.078
Crusher House	EU029	NS	Yes	1, 4, & 5	99.50%	0.022	0.029
Boiler Fuel Silos	EU031	NS	Yes	1, 4, & 5	99.50%	0.005	0.008
Limestone Receiving Bins	EU032	NS	Yes	1, 4, & 5	99.50%	0.005	0.007
Dryer and Crusher No. 1	EU033	NS	Yes	4 & 5	99.94%	0.317	1.390
Dryer and Crusher No. 2	EU033	NS	Yes	4 & 5	99.94%	0.317	1.390
Dryer and Crusher No. 3	EU033	NS	Yes	4 & 5	99.94%	0.317	1.390
Limestone Crusher Conveyor Transfers	EU034	NS	Yes	4 & 5	99.94%	0.048	0.208
Limestone Feed Silo Unit 1	EU035	NS	Yes	4 & 5	99.50%	0.034	0.151
Limestone Feed Silo Unit 2	EU035	NS	Yes	4 & 5	99.50%	0.034	0.151
Bed Ash Transfer & Storage System Unit #1	EU038	NS	Yes	4 & 5	99.50%	0.014	0.063
Bed Ash Transfer & Storage System Unit #2	EU038	NS	Yes	4 & 5	99.50%	0.014	0.063
Bed Ash Truck Loadout - Unit #1	EU040	NS	Yes	4 & 5	99.98%	0.013	0.058
Bed Ash Truck Loadout - Unit #2	EU040	NS	Yes	4 & 5	99.98%	0.013	0.058
Fly Ash Wastie Bin - Unit #1	EU036	NS	Yes	4 & 5	99.50%	0.004	0.018
Fly Ash Wastie Bin - Unit #2	EU036	NS	Yes	4 & 5	99.50%	0.004	0.018
Fly Ash Transfer & Storage System Unit #1	EU037	NS	Yes	4 & 5	99.50%	0.019	0.081
Fly Ash Transfer & Storage System Unit #2	EU037	NS	Yes	4 & 5	99.50%	0.019	0.081
Fly Ash Truck Loadout - Unit #1	EU041	NS	Yes	4 & 5	99.98%	0.013	0.058
Fly Ash Truck Loadout - Unit #2	EU041	NS	Yes	4 & 5	99.98%	0.013	0.058
Bed Ash Silo Hydrators Unit 1	EU039	NS	Yes	4 & 5	99.80%	0.062	0.273
Bed Ash Silo Hydrators Unit 2	EU039	NS	Yes	4 & 5	99.80%	0.062	0.273
Fly Ash Silo Hydrators Unit 1	EU039	NS	Yes	4 & 5	99.80%	0.063	0.231
Fly Ash Silo Hydrators Unit 2	EU039	NS	Yes	4 & 5	99.80%	0.063	0.231
Pebble Lime Silo	EU042	NS	Yes	4 & 5	99.50%	0.014	0.060

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
NS - Northside Generating Station
PP - St. Johns River Power Park

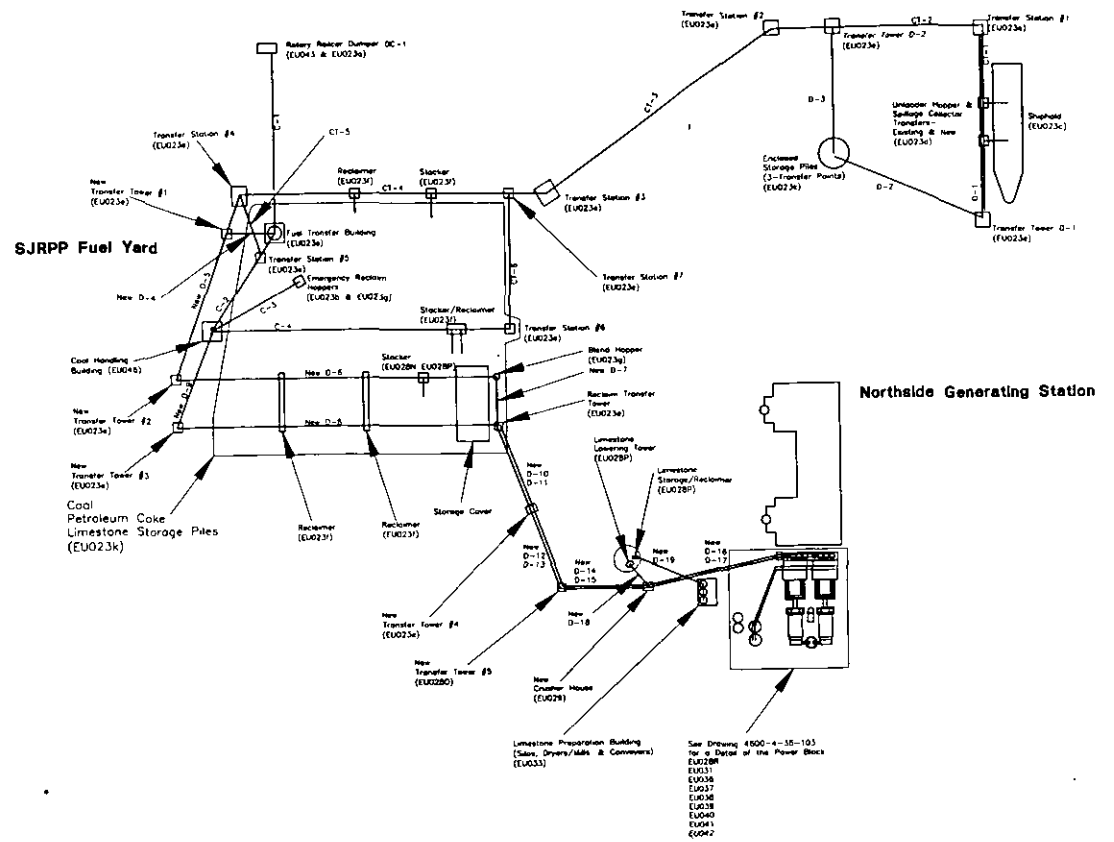


Figure 6-2

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. NGSA1.DWG
DATE: 04/19/99	CHECKED MAE	FIGURE NO. Figure 6-2
	APPROVED DJG	

APPLICATION FORMS
EMISSIONS UNIT 023
SJRPP MATERIALS HANDLING & STORAGE OPERATIONS

III. EMISSIONS UNIT INFORMATION

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

Emissions Unit Information Section 21

SJRPP 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.

Emissions Unit Information Section 21

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 Materials Handling & Storage Operations		
2. Emissions Unit Identification Number : 023 [ ] 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 : The emissions unit includes those activities associated with the NGS Repowering project. The two alternatives are shown in Figures 6-1 & 6-2. Emissions Unit EU028 reflects operations within the NGS boundaries and EU023 operations within SJRPP boundaries. The projrct will increase annual throughput rates of coal/pet. coke to 7.55 million tons and limestone to 2.05 million tons. Most of the activities are active with some new construction as identified.		

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 1

1. Description : Ship Unloading Operations Partial Enclosures, Conditioned Materials & Water Sprays Figure EU023c & d
2. Control Device or Method Code : 61

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 2

1. Description : Transfer Towers/Stations Partial Enclosures, Conditioned Materials & Wet Suppression (as depicted) Figures EU023e
2. Control Device or Method Code : 62

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 3

1. Description : Enclosed Coal/Pet. Coke Storage Piles & Operations Partial Enclosure & Conditioned Materials Figure EU023k
2. Control Device or Method Code :

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 4

1. Description : Ship Unloading Conveyors - Both Cases, New & Existing Conditioned Materials & Wind Screens
2. Control Device or Method Code :

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 5

1. Description : Transfer Conveyors Conditioned Materials & Covers
2. Control Device or Method Code :

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 6

1. Description : Railcar Rotary Dumper EU023a Conditioned Materials, Partial Enclosure and Water Sprays
2. Control Device or Method Code : 61

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 7

1. Description :
   Fuel Storage Pile
   EU023k
   Conditioned Materials, Water Sprays & Best Operating Practices

2. Control Device or Method Code : 61

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 8

1. Description : Stacker/Reclaimers/Hoppers EU023g Conditioned Matrials &, Water Sprays as depicted
2. Control Device or Method Code : 61

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

Emissions Unit Information Section 21
SJRPP 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 : Dwell Time : Incinerator Afterburner Temperature :		Degrees Fahrenheit Seconds Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	0	
4. Maximum Production Rate :		
5. Operating Capacity Comment : See Process Flow Diagrams for individual rates. Startup date refers to the proposed new equipment.		

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 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

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 Extext Applicable)

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

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

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

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

40 CFR 60.672(b) Standard for Particulate Matter

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

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)

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 21

SJRPP Materials Handling & Storage Operations

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	Figures 6-1 & 6-2	
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 6-1& 6-2 along with other process flow diagrams associated EU028 and EU023.		
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 : Zone : 17 East (km) : 466.820 North (km) : 3364.975		

14. Emission Point Comment :

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Railcar & Ship Unloading Operations Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates.	
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 :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Segment Description and Rate : Segment 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Transfer Towers Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates.	
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 :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Segment Description and Rate : Segment 3

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. (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 :	

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Segment Description and Rate : Segment 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : Conveyors Limestone, Coal, and Petroleum Coke See Flow Diagrams for individual transfer rates. (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 :	

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

Emissions Unit Information Section 21
SJRPP 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 21
SJRPP 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? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference : AP-42
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 21
SJRPP 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? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: to tons/year
6. Emissions Factor Units Reference :
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.

Emissions Unit Information Section _____

Pollutant Information Section _____

Allowable Emissions _____

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

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 21
SJRPP 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
Railcar Rotary Dumper Building
Existing SJRPP Fuel Storage Pile
Receiving Conveyors

I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 21
SJRPP Materials Handling & Storage Operations

Visible Emissions Limitation : Visible Emissions Limitation 2

1. Visible Emissions Subtype : 5

2. Basis for Allowable Opacity : RULE

3. Requested Allowable Opacity :

Normal Conditions :	5	%
Exceptional Conditions :	100	%
Maximum Period of Excess Opacity Allowed :		min/hour

4. Method of Compliance :

Annual EPA Method 9

5. Visible Emissions Comment :

As Read at the Property Line
Transfer Towers
New Enclosed Storage Pile
New Stacker/Reclaimers
All Covered Conveyors

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section

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

Emissions Unit Information Section 21

SJRPP 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 21

SJRPP Materials Handling & Storage Operations

Supplemental Requirements for All Applications

1. Process Flow Diagram :	F-6, EU023
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. Alterntive Modes of Operation (Emissions Trading) :

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.)

REVISED EMISSION ESTIMATES
EMISSION UNITS 023d & 023e

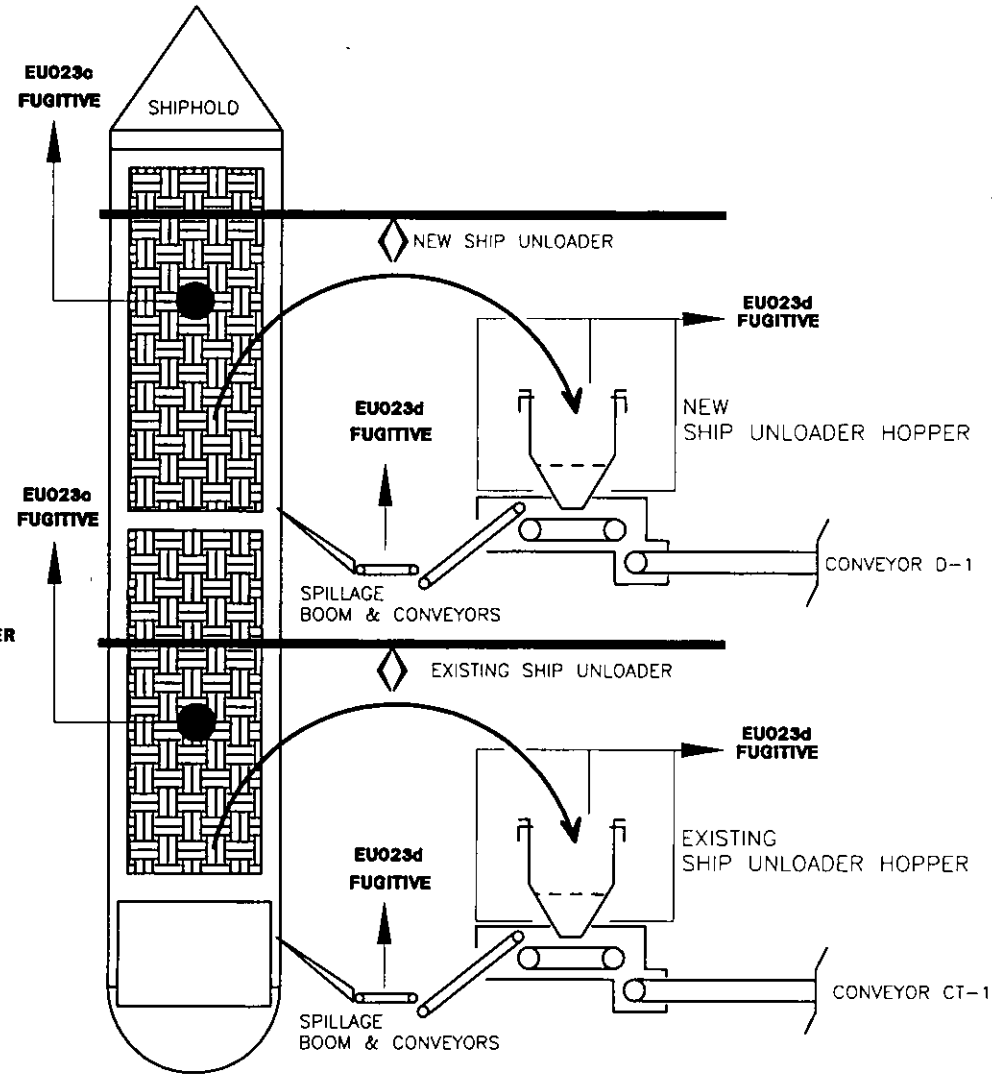
NORTHSIDE GENERATING STATION
SHIP UNLOADING OPERATIONS
ALTERNATE 1

NEW SHIP UNLOADER

HANDLING RATES/EMISSIONS
UNLOADING RATE: 1,500 TPH LIMESTONE: 1,022,700 TPY COAL/PET. COKE: 3,773,678 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: 3,773,678 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: 0.42 LB/HR & 0.14 TPY COAL/PET. COKE: 0.60 LB/HR & 0.75 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. EU028PFD.DWG
DATE: 04/19/99	CHECKED MAE	FIGURE NO. F-8. EU023c
	APPROVED DJG	

Foster Wheeler Environmental Corporation
EXCEL 7.0 Worksheet Calculation

By: D. Graziani, P.E.
Date: 11/3/98

Cal. No.: 981103DJG01
Project No.: 7830.0020.0056

Ckd. By: Kim Evans, P.E
Date: 11/10/98

Revision No.: 1

Project: Northside Repower Project - Materials Handling and Storage Operations Alternate #1
Subject: Emissions Estimates Shiphold to the Ship Unloader Hoppers & Spillage Conveyors (1% Lost)

Emissions Data

		Wind Speed	H2O	Particle Size Multipliers			Emission Factors (lb/ton)		
Raw Materials	Constant	(MPH)	(%)	PM	PM10	PM2.5	PM	PM10	PM2.5
Coal	0.0032	8	5	0.74	0.35	0.11	0.0012	0.0006	0.0002
Petroleum Coke	0.0032	8	5	0.74	0.35	0.11	0.0012	0.0006	0.0002
Limestone	0.0032	8	6.5	0.74	0.35	0.11	0.0008	0.0004	0.0001

Operating Data

	Operating Rates	
Raw Materials	(TPH)	(TPY)
Coal	1500	3773676
Petroleum Coke	1500	3773676
Limestone	1500	1022700

Emission Rates - Uncontrolled

	Short-Term						
	PM	PM10	PM2.5	PM	PM10	PM2.5	
Raw Materials	(lb/hr)	(lb/hr)	(lb/hr)	(g/s)	(g/s)	(g/s)	
Coal	1.83	0.87	0.27	0.231	0.109	0.034	1-Transfer Point at 100%
Petroleum Coke	1.83	0.87	0.27	0.231	0.109	0.034	1-Transfer Point at 1%
Limestone	1.27	0.60	0.19	0.160	0.076	0.024	

Emission Rates - Controlled *85.00%*

	Short-Term					
	PM	PM10	PM2.5	PM	PM10	PM2.5
Raw Materials	(lb/hr)	(lb/hr)	(lb/hr)	(g/s)	(g/s)	(g/s)
Coal	0.27	0.13	0.04	0.035	0.016	0.005
Petroleum Coke	0.27	0.13	0.04	0.035	0.016	0.005
Limestone	0.19	0.09	0.03	0.024	0.011	0.004

Emission Rates - Uncontrolled

	Long-Term					
	PM	PM10	PM2.5	PM	PM10	PM2.5
Raw Materials	(TPY)	(TPY)	(TPY)	(g/s)	(g/s)	(g/s)
Coal	2.31	1.09	0.34	0.066	0.031	0.010
Petroleum Coke	2.31	1.09	0.34	0.066	0.031	0.010
Limestone	0.43	0.20	0.06	0.012	0.006	0.002

Emission Rates - Controlled *85.00%*

	Long-Term					
	PM	PM10	PM2.5	PM	PM10	PM2.5
Raw Materials	(TPY)	(TPY)	(TPY)	(g/s)	(g/s)	(g/s)
Coal	0.35	0.16	0.05	0.009955	0.004709	0.00148
Petroleum Coke	0.35	0.16	0.05	0.009955	0.004709	0.00148
Limestone	0.06	0.03	0.01	0.001869	0.000884	0.000278

References:

Emission Factor - AP42 Chapter 13.2.4 Aggregate Handling and Storage Piles
Wind Speed - Average Annual
Moisture Contents - Design Data
Transfer Rates - Design Data

Daniel J. Graziani
4/22/99

Foster Wheeler Environmental Corporation
EXCEL 7.0 Worksheet Calculation

By: D. Graziani, P.E.
Date: 11/3/98

Cal. No.: 981103DJG01
Project No.: 7830.0020.0056

Ckd. By: Kim Evans, P.E
Date: 11/10/98

Revision No.: 1

Project: Northside Repower Project - Materials Handling and Storage Operations Alternate #1
Subject: Emissions Estimates for the 3 transfer points from the Hopper to CD-1 and Spillage Conveyors

Emissions Data

Raw Materials	Constant	Belt Speed (MPH)	H2O (%)	Particle Size Multipliers			Emission Factors (lb/ton)		
				PM	PM10	PM2.5	PM	PM10	PM2.5
Coal	0.0032	9.32	5	0.74	0.35	0.11	0.00148	0.00070	0.00022
Petroleum Coke	0.0032	9.32	5	0.74	0.35	0.11	0.00148	0.00070	0.00022
Limestone	0.0032	9.32	6.5	0.74	0.35	0.11	0.00102	0.00048	0.00015

Operating Data

Raw Materials	Operating Rates	
	(TPH)	(TPY)
Coal	1500	3773676
Petroleum Coke	1500	3773676
Limestone	1500	1022700

Emission Rates - Uncontrolled

Raw Materials	Short-Term					
	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	6.64	3.14	0.99	0.837	0.396	0.124
Petroleum Coke	6.64	3.14	0.99	0.837	0.396	0.124
Limestone	4.60	2.17	0.68	0.580	0.274	0.086

Emission Rates - Controlled *98.00%*

Raw Materials	Short-Term					
	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	0.133	0.063	0.020	0.0167	0.0079	0.0025
Petroleum Coke	0.133	0.063	0.020	0.0167	0.0079	0.0025
Limestone	0.092	0.043	0.014	0.0116	0.0055	0.0017

Emission Rates - Uncontrolled

Raw Materials	Long-Term					
	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	8.35	3.95	1.24	0.240	0.114	0.036
Petroleum Coke	8.35	3.95	1.24	0.240	0.114	0.036
Limestone	1.57	0.74	0.23	0.045	0.021	0.007

Emission Rates - Controlled *98.00%*

Raw Materials	Long-Term					
	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	0.1670	0.0790	0.0248	0.00481	0.00227	0.00071
Petroleum Coke	0.1670	0.0790	0.0248	0.00481	0.00227	0.00071
Limestone	0.0313	0.0148	0.0047	0.0009	0.00043	0.00013

References:

Emission Factor - AP42 Chapter 13.2.4 Aggregate Handling and Storage Piles
Belt Speed - Design Value to Avoid Wind Erosion effects
Moisture Contents - Design Data
Transfer Rates - Design Data

Daniel J. Graziani
4/22/99

Foster Wheeler Environmental Corporation
EXCEL 7.0 Worksheet Calculation

By: D. Graziani, P.E.
Date: 11/3/98

Cal. No.: 981103DJG01
Project No.: 7830.0020.0056

Ckd. By: Kim Evans, P.E
Date: 11/10/98

Revision No.: 1

Project: Northside Repower Project - Materials Handling and Storage Operations Alternate #1
Subject: Emissions Estimates for the 3 transfer points from the Existing Hopper to CT-1 and Spillage Conveyors

Emissions Data

Raw Materials	Constant	Belt Speed (MPH)	H2O (%)	Particle Size Multipliers PM	PM10	PM2.5	Emission Factors (lb/ton) PM	PM10	PM2.5
Coal	0.0032	9.32	5	0.74	0.35	0.11	0.00148	0.00070	0.00022
Petroleum Coke	0.0032	9.32	5	0.74	0.35	0.11	0.00148	0.00070	0.00022
Limestone	0.0032	9.32	6.5	0.74	0.35	0.11	0.00102	0.00048	0.00015

Operating Data

Raw Materials	Operating Rates (TPH)	(TPY)
Coal	1500	3773676
Petroleum Coke	1500	3773676
Limestone	1500	1022700

Emission Rates - Uncontrolled

	Short-Term					
Raw Materials	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	6.64	3.14	0.99	0.837	0.396	0.124
Petroleum Coke	6.64	3.14	0.99	0.837	0.396	0.124
Limestone	4.60	2.17	0.68	0.580	0.274	0.086

Emission Rates - Controlled *85.00%*

	Short-Term					
Raw Materials	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	1.00	0.47	0.15	0.13	0.06	0.02
Petroleum Coke	1.00	0.47	0.15	0.13	0.06	0.02
Limestone	0.69	0.33	0.10	0.09	0.04	0.01

Emission Rates - Uncontrolled

	Long-Term					
Raw Materials	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	8.35	3.95	1.24	0.240	0.114	0.036
Petroleum Coke	8.35	3.95	1.24	0.240	0.114	0.036
Limestone	1.57	0.74	0.23	0.045	0.021	0.007

Emission Rates - Controlled *85.00%*

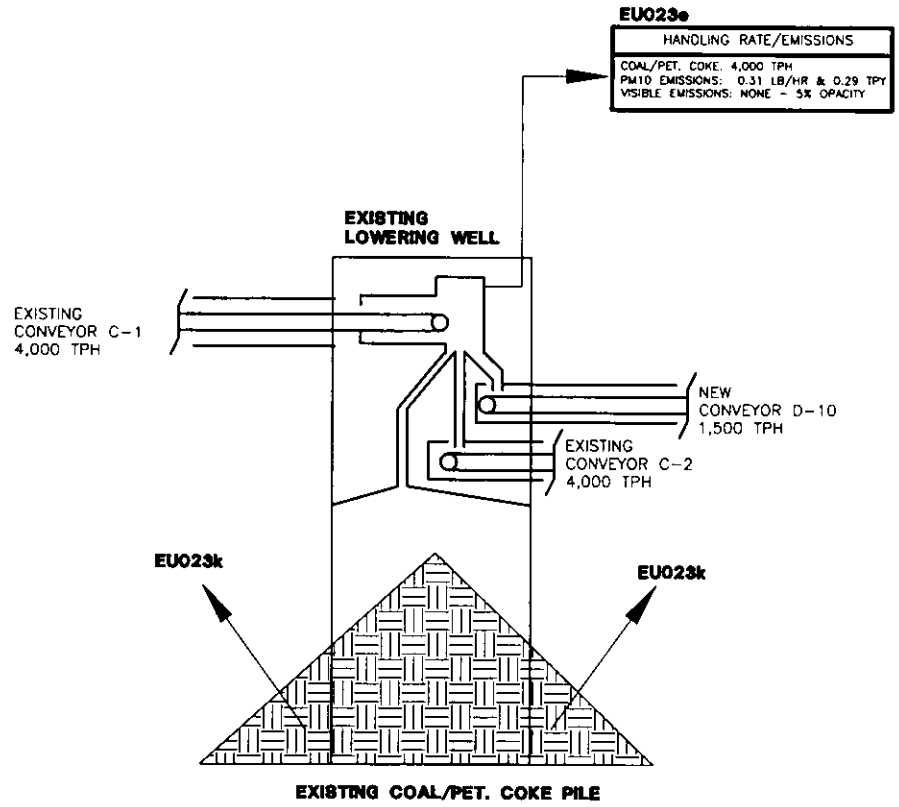
	Long-Term					
Raw Materials	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	1.253	0.592	0.186	0.036	0.017	0.005
Petroleum Coke	1.253	0.592	0.186	0.036	0.017	0.005
Limestone	0.235	0.111	0.035	0.007	0.003	0.001

References:

Emission Factor - AP42 Chapter 13.2.4 Aggregate Handling and Storage Piles
Belt Speed - Design Value to Avoid Wind Erosion effects
Moisture Contents - Design Data
Transfer Rates - Design Data

Darrell Graziani
4/22/99

NORTHSIDE GENERATING STATION
COAL TRANSFER BUILDING - COAL PILE
BASE CASE & 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. EU028PFT.DWG
DATE: 04/19/99	CHECKED MAE	FIGURE NO. F-6, EU023e
	APPROVED DJG	

Foster Wheeler Environmental Corporation
EXCEL 7.0 Worksheet Calculation

By: D. Graziani, P.E.
Date: 11/3/98

Cal. No.: 981103DJG01
Project No.: 7830.0020.0056

Ckd. By: Kim Evans, P.E.
Date: 11/10/98

Revision No.: 1a

Project: Northside Repower Project - Materials Handling and Storage Operations Alternate #1
Subject: Emissions Estimates for SJRPP Coal Transfer Building

Emissions Data

Raw Materials	Constant	Belt Speed (MPH)	H2O (%)	Particle Size Multipliers			Emission Factors (lb/ton)		
				PM	PM10	PM2.5	PM	PM10	PM2.5
Coal	0.0032	7.38	5	0.74	0.35	0.11	0.0011	0.0005	0.0002
Petroleum Coke	0.0032	7.38	5	0.74	0.35	0.11	0.0011	0.0005	0.0002

Operating Data

Raw Materials	Operating Rates	
	(TPH)	(TPY)
Coal	4000	7547352
Petroleum Coke	4000	7547352

Emission Rates - Uncontrolled

Raw Materials	Short-Term					
	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	4.36	2.06	0.65	0.550	0.260	0.082
Petroleum Coke	4.36	2.06	0.65	0.550	0.260	0.082

Emission Rates - Controlled *85.00%*

Raw Materials	Short-Term					
	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	0.654	0.309	0.097	0.08247	0.03901	0.01226
Petroleum Coke	0.654	0.309	0.097	0.08247	0.03901	0.01226

Emission Rates - Uncontrolled

Raw Materials	Long-Term					
	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	4.11	1.95	0.61	0.118	0.056	0.018
Petroleum Coke	4.11	1.95	0.61	0.118	0.056	0.018

Emission Rates - Controlled *85.00%*

Raw Materials	Long-Term					
	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	0.616945	0.291798	0.09171	0.01776	0.00840	0.00264
Petroleum Coke	0.616945	0.291798	0.09171	0.01776	0.00840	0.00264

References:

Emission Factor - AP42 Chapter 13.2.4 Aggregate Handling and Storage Piles
Belt Speed - JEA Operational Data
Moisture Contents - Design Data
Transfer Rates - JEA Operational Data

Daniel J. Graziani
4/22/99

Foster Wheeler Environmental Corporation
EXCEL 7.0 Worksheet Calculation

By: D. Graziani, P.E.
Date: 11/3/98

Cal. No.: 981103DJG01
Project No.: 7830.0020.0056

Ckd. By: Kim Evans, P.E.
Date: 11/10/98

Revision No.: 1

Project: Northside Repowering Project - Materials Handling & Storage Operations Base Case
Subject: Emissions Estimates for SJRPP Coal Transfer Building

Emissions Data

Raw Materials	Constant	Belt Speed (MPH)	H2O (%)	Particle Size Multipliers			Emission Factors (lb/ton)		
				PM	PM10	PM2.5	PM	PM10	PM2.5
Coal	0.0032	7.38	5	0.74	0.35	0.11	0.0011	0.0005	0.0002
Petroleum Coke	0.0032	7.38	5	0.74	0.35	0.11	0.0011	0.0005	0.0002
Limestone	0.0032	6.14	6.5	0.74	0.35	0.11	0.00059	0.00028	8.82E-05

Operating Data

Raw Materials	Operating Rates	
	(TPH)	(TPY)
Coal	4000	7547352
Petroleum Coke	4000	7547352
Limestone	0	0

Emission Rates - Uncontrolled

Raw Materials	Short-Term					
	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	4.36	2.06	0.65	0.550	0.260	0.082
Petroleum Coke	4.36	2.06	0.65	0.550	0.260	0.082
Limestone	0	0	0	0	0	0

Emission Rates - Controlled *85.00%*

Raw Materials	Short-Term					
	PM (lb/hr)	PM10 (lb/hr)	PM2.5 (lb/hr)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	0.654	0.309	0.097	0.082	0.039	0.012
Petroleum Coke	0.654	0.309	0.097	0.082	0.039	0.012
Limestone	0	0	0	0	0	0

Emission Rates - Uncontrolled

Raw Materials	Long-Term					
	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	4.11	1.95	0.61	0.118	0.056	0.018
Petroleum Coke	4.11	1.95	0.61	0.118	0.056	0.018
Limestone	0	0	0	0	0	0

Emission Rates - Controlled *85.00%*

Raw Materials	Long-Term					
	PM (TPY)	PM10 (TPY)	PM2.5 (TPY)	PM (g/s)	PM10 (g/s)	PM2.5 (g/s)
Coal	0.62	0.29	0.092	0.018	0.0084	0.0026
Petroleum Coke	0.62	0.29	0.092	0.018	0.0084	0.0026
Limestone	0	0	0	0	0	0

References:

Emission Factor - AP42 Chapter 13.2.4 Aggregate Handling and Storage Piles
Wind Speed - Annual Average
Moisture Contents - JEA Operational Data
Transfer Rates - JEA Operational Data

4/22/99

REVISED TABLES 7-2 & 7-5

TABLE 7-2
SUMMARY OF CLASS II PSD/FAAQS SIGNIFICANT IMPACT AREA CONCENTRATIONS

Pollutant	Averaging Period	Maximum Concentration ($\mu g/m^3$)	Significance Level ($\mu g/m^3$)	Significant Off-site Impact	Significant Impact Radius (km)	Cavity [2] Conc ($\mu g/m^3$)	Length of Cavity [3] (km)	Preliminary Maximum Concentration by Year [1] ($\mu g/m^3$)				
								1984	1985	1986	1987	1988
Sulfur Dioxide (SO_2) (0.20 lb/mmBtu)	3-hr	49.9	25	Yes	7.0	7.1	NSI	32.8	38.2	49.9	45.4	46.3
Sulfur Dioxide (SO_2) (0.20 lb/mmBtu)	24-hr	11.5	5	Yes	2.0	3.2	NSI	5.8	7.6	9.5	11.5	7.9
Sulfur Dioxide (SO_2)	Annual	0.3	1	No	NSI	0.8	NSI	0.1	0.1	0.3	0.2	0.1
Nitrogen Dioxide (NO_2)	Annual	4.0	1	Yes	1.0	2.4	0.3	4.0	2.8	3.7	3.0	3.8
Particulate Matter (PM_{10}) (Base Case)	24-hr	12.8	5	Yes	1.5	0.5	NSI	12.8	9.5	12.3	38.2	10.1
Particulate Matter (PM_{10}) (Base Case)	Annual	1.9	1	Yes	1.3	0.	NSI	1.9	1.9	1.8	1.7	1.9
Particulate Matter (PM_{10}) (Alternate 1)	24-hr	19.2	5	Yes	4.0	0.5	NSI	19.2	14.3	18.3	13.2	14.3
Particulate Matter (PM_{10}) (Alternate 1)	Annual	2.1	1	Yes	1.5	0.1	NSI	2.1	2.1	1.9	1.8	2.1
Carbon Monoxide (CO)	1-hr	169	2000	No	NSI	13.8	NSI	156	142	132	142	169
Carbon Monoxide (CO)	8-hr	46	500	No	NSI	9.7	NSI	46	35	32	39	41
Lead (Pb)	Quarterly [4]	0.002	0.03	No	NSI	0.02	NSI	0.002	0.002	0.002	0.002	0.002

[1] ISCST3 modelling.
[2] SCREEN3 modelling.
[3] Limestone dryer is the source of the cavity impact (CFB boiler structure creates cavity).
[4] Standard is quarterly, modelling results are 24-hr average.

NSI = no significant impact

Source: FWENC, 1998

TABLE 7-5
SUMMARY OF CLASS II PSD INCREMENT ANALYSIS

					Receptor Location		Preliminary Maximum[1] Concentration by Year (µg/m³)				
Pollutant	Avg Period	Maximum[1] Refined Conc (µg/m³)	Class II PSD Increment (µg/m³)	Period (yymmddhh)	North (km)	East (km)	1984	1985	1986	1987	1988
Sulfur Dioxide (SO_2) (0.20 lb/mmBtu)	3-hr	382	512	88052115	3,367.777	446.658	375	306	355	361	382
Sulfur Dioxide (SO_2) (0.20 lb/mmBtu)	24-hr	77	91	87091424	3,366.786	448.394	68	55	65	77	49
Sulfur Dioxide (SO_2)	Annual	1.9	20	87	3,365.940	441.747	0.2	0.2	1.0	1.8	1.4
Nitrogen Dioxide (NO_2)	Annual	1.6	25	N/A	N/A	N/A	1.6	0.0	1.4	0.4	1.3
Particulate Matter (PM_{10}) (Baseline)	24-hr	20	30	870102924	3,365.566	447.697	19.9	19.0	20.0	20.1	18.6
Particulate Matter (PM_{10}) (Baseline)	Annual	13.8	17	88	3,366.360	446.540	0.7	0.2	0.0	0.2	0.9
Particulate Matter (PM_{10}) (Alternate 1)	24-hr	24.4	30	88100824	3,365.684	447.361	23.5	21.8	23.5	23.9	24.4
Particulate Matter (PM_{10}) (Alternate 1)	Annual	0.0	17	N/A	N/A	N/A	0.0	0.0	0.0	0.0	0.0

[1] High second high, for short-term analyses.

N/A = Not Applicable

Source: FWENC, 1998

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April 12, 1999

Via Hand Delivery

Syed Arif, P.E.
Bureau of Air Regulation
Department of Environmental Protection
Magnolia Park Courtyard
Tallahassee, FL 32301

RE: JEA Northside Units 1 and 2 Repowering, PSD-FL-265, and SJRPP PSD Permit Revision, PSD-FL-010(C)

Dear Syed:

Thank you for agreeing to meet with Bert Gianazza, P. T. Nielsen, Darrel Graziani, and me this coming Wednesday, April 14. We are looking forward to discussing the enclosed draft permitting documents regarding the above-referenced projects, including a Prevention of Significant Deterioration (PSD) permit for the Northside Units 1 and 2 Repowering Project (PSD-FL-265) and associated documents such as a cover letter from the Department to JEA, an Intent to Issue, and a Public Notice. These documents have been prepared for your review and consideration, and reflect what was proposed in the PSD permit application submitted to the Department on February 15 (with some minor changes that we will discuss during our meeting).

We understand that you will be formally issuing the proposed permit within the next few weeks, and we hope that these draft documents are of some assistance to you in that effort. We are providing a hard copy of each of the documents, along with a computer disk containing each of the documents in "Word" format. We will also send you a copy via e-mail. If you have problems opening any of the computer versions of these documents, please let me know and we can attempt to send you the documents in a different format.

In addition to the permitting documents, a draft letter from JEA to the U.S. Environmental Protection Agency (EPA) is enclosed for your review. This letter requests approval to use alternative methods for compliance purposes under the New Source Performance Standards

applicable to the new Northside Units 1 and 2, and provides notification that the continuous opacity monitors will be used for compliance in lieu of Method 9. We would like to discuss this with you during our meeting, prior to formally submitting it to EPA.

We are continuing to develop a draft Preliminary Determination and Technical Evaluation, including a draft Best Available Control Technology determination, for the Northside Units 1 and 2 Repowering Project and hope to provide that document to you on April 19. We are also developing a draft PSD permit revision for the St. Johns River Power Park materials handling operations (PSD-FL-010(C)), as well as an application to update that permit, which we hope to submit later this month.

Thank you for your consideration of these documents, and we look forward to discussing them with you on Wednesday. If you have any questions in the meantime, please do not hesitate to contact me at the number listed above.

Sincerely,

Angela R. Morrison

Enclosures

cc: Bert Gianazza, JEA
P. T. Nielsen, JEA
Richard Breitmoser, FW
Darrel Graziani, FW
Mike Bilello, FW
Gary Sams, HGSS

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4/9/99

CC: File

C. Holladay, BAR