May 3, 1999

# RECEIVED

MAY 0分 1999

BUREAU OF AIR REGULATION



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

Mr. Clair H. Fancy May 3, 1999 Page 2 of 3

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

Mr. Clair H. Fancy May 3, 1999 Page 3 of 3

> 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	ACIA
028	NGS - Materials Handling & Storage Operations	ACIA
029	NGS - Crusher House	ACIA
031	NGS - Boiler Fuel Silos	ACIA
032	NGS - Limestone Receiving Bins	ACIA
033	NGS - Limestone Dryers/Mills	ACIA
034	NGS - Limestone Crusher Conveyor Transfers	ACIA
035	NGS - Limestone Feed Silos	ACIA
036	NGS - Fly Ash Waste Bins	ACIA

I. Part 3 - 1

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

# **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	ACIA
039	NGS - Fly & Bed Ash Silo Hydrators	AC1A
040	NGS - Bed Ash Truck Loadout Systems	AC1A
041	NGS - Fly Ash Truck Loadout Systems	ACIA
042	NGS - Pebble Lime Silo	AC1A
043	SJRPP - Rotary Railcar Dumper, Transfer Points	ACIA

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

# APPLICATION FORMS EMISSION UNIT SECTIONS ROUNDED THROUGHPUTS

<b>Emissions</b>	Unit	Information Section	6

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

## **Emissions Unit Description and Status**

2.	Emissions Unit Identification [ ] No Corresponding		Unknown
3.	Emissions Unit Status Code: C	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
6.	Unit EU028 reflects operations boundaries. An annual total of will be handled for the project.	s within the NGS boundaries and 2.42 million tons of coal/pet. col	vn in Figures 6-1 & 6-2. Emissions EU023 operations within SJRPP ke and 1.45 million tons of limestone and Alternate 1 includes existing

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

Emissions Unit Information Section	<u>6</u>
NGS - Materials Handling & Storage Operation	ns
Emissions Unit Control Equipment	1
Description:     Ship Unloading Operations     Conditioned Materials & Water Sprays     Figure EU028a	
2. Control Device or Method Code:	

III. Part 3 - 1

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

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

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:

III. Part 3 -

2

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

Emissions Unit Information Section	
NGS - Materials Handling & Storage Operation	ons
<b>Emissions Unit Control Equipment</b>	3
Description:     Enclosed Coal/Pet. Coke Storage Piles & Partial Enclosure & Conditioned Material Figure EU028h	<u>.</u>
2. Control Device or Method Code:	

III. Part 3 - 3

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

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

III. Part 3 -

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

Emissions Unit Information Section	6
NGS - Materials Handling & Storage Operation	ions
Emissions Unit Control Equipment	5
Description:     Fly & Bed Ash Silo Hydrator Loadouts     Conditioned Materials     Figure EU028r	
2. Control Device or Method Code:	

III. Part 3 - 5

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

<b>Emissions Unit Information Section</b>	6		
NGS - Materials Handling & Storage Operation	ons		
Emissions Unit Control Equipment 6			
Description:     Ship Unloading Conveyors - Both Cases, I Conditioned Materials & Wind Screens	New & Existing		

2. Control Device or Method Code:

III. Part 3 - 6

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

Emissions Unit Information Section	
NGS - Materials Handling & Storage Operatio	ns
Emissions Unit Control Equipment	
1. Description:	
Transfer Conveyors  Conditioned Materials & Covers	
2. Control Device or Method Code:	

III. Part 3 - 7

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

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

Emissions Unit Information Section 6	
NGS - Materials Handling & Storage Operations	
Emissions Unit Details	
1. Initial Startup Date : 01-Apr	-2002
2. Long-term Reserve Shutdown Date:	
3. Package Unit:	
Manufacturer:	Model Number:
4. Generator Nameplate Rating:	W
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. An a and 1.45 million tons of limestone will be handled fo	annual total of 2.42 million tons of coal/pet. coke r the project.
Emissions Unit Operating Schedule	
Requested Maximum Operating Schedule:	<del></del>
24 hours/day	7 days/week
52 weeks/year	8,760 hours/year

III. Part 4 - 1

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

Emissions Unit Information Section6_			
NGS - Materials Handling & Storage Operations			
Segment Description and Rate: Segment	i		
1. Segment Description (Process/Fuel Type and As	ssociated 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:	3. Maximum Percent Ash:		
9. Million Btu per SCC Unit:			
10. Segment Comment:			

III. Part 8 - 1

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

Emissions Unit Information Section6  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	6. Estimated Annual Activity Factor: 100.00		
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:		
9. Million Btu per SCC Unit:			
10. Segment Comment :			

III. Part 8 - 2

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

Emissions Unit Information Section 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:		

III. Part 8 - 3

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

Emissions Unit Information Section6_		
NGS - Materials Handling & Storage Operations		
Segment Description and Rate: Segment 4		
Segment Description (Process/Fuel Type and Associated Operating Method/N Conveyors	1ode):	
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:		

III. Part 8 - 4

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

Emissions Unit Information Section 6_		
NGS - Materials Handling & Storage Operations		
Segment Description and Rate: Segment	5	
Segment Description (Process/Fuel Type and 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:		

III. Part 8 - 5

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

# I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 6  NGS - Materials Handling & Storage Operations		
<u>Visible Emissions Limitation</u> : 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		

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

# I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

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

III. Part 10 - 2

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

Emissions Unit Information Section 7	<del></del>	
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. of	coke.	
2. Source Classification Code (SCC): 30501	1099	
3. SCC Units: Tons Processed		
4. Maximum Hourly Rate: 1,400.00	5. Maximum Annual Rate : 2,421,000.00	
6. Estimated Annual Activity Factor: 100.00	J D	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:	
9. Million Btu per SCC Unit:		
10. Segment Comment:		

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

Emissions Unit Information Section7		
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. c	oke.	
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 - 21

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

Emissions Unit Information Section  NGS - Crusher House	<u>,                                     </u>		
Segment Description and Rate: Segment	Segment Description and Rate: Segment 3		
1. Segment Description (Process/Fuel Type an	nd Associated Operating Method/M	lode):	
Crusher House - Limestone Transfer Point An annual total of 1.45 million tons of limesto	one.		
2. Source Classification Code (SCC): 305	501099		
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 - 43

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

nit Information Section	8	-	
NGS - Boiler Fuel Silos			
cription and Rate: Se	egment	1	
Description (Process/Fuel	Type and .	Associated Operating Method/M	ode):
total of 2.42 million tons of	coal/pet. c	oke.	
assification Code (SCC):	30501	099	
s: Tons Processed			
Hourly Rate: 1,400	0.00	5. Maximum Annual Rate:	2,421,000.00
Annual Activity Factor:	100.00		
Percent Sulfur:		8. Maximum Percent Ash:	
tu per SCC Unit :			
Comment:			
	Cription and Rate: S Description (Process/Fuel total of 2.42 million tons of assification Code (SCC):  S: Tons Processed	Cription and Rate: Segment  Description (Process/Fuel Type and Autotal of 2.42 million tons of coal/pet. Cription (SCC): 30501  S: Tons Processed  Hourly Rate: 1,400.00  Annual Activity Factor: 100.00  Percent Sulfur:  tu per SCC Unit:	Cription and Rate: Segment 1  Description (Process/Fuel Type and Associated Operating Method/Metotal of 2.42 million tons of coal/pet. coke.  assification Code (SCC): 30501099  S: Tons Processed  Hourly Rate: 1,400.00 5. Maximum Annual Rate:  Annual Activity Factor: 100.00  Percent Sulfur: 8. Maximum Percent Ash:  tu per SCC Unit:

III. Part 8 - 13

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

Emissions Unit Information Section8  NGS - Boiler Fuel Silos  Segment Description and Rate: Segment2					
			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): 3050	01099				
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: 100.0	)0				
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:				
9. Million Btu per SCC Unit:					
10. Segment Comment:					

III. Part 8 - 14

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

_		
NGS - Limestone Receiving Bins		
1		
d Associated Operating Method/M	lode):	
e.		
01099		
5. Maximum Annual Rate:	1,445,400.00	
8. Maximum Percent Ash:		
	Associated Operating Method/Me	

III. Part 8 - 15

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

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:		

III. Part 8 - 22

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

Emissions Unit Information Section 11	_				
NGS - Limestone Crusher Conveyor Transfers					
Segment Description and Rate: Segment 1					
1. Segment Description (Process/Fuel Type and a	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): 30510	105				
3. SCC Units: Tons Transferred Or Handled					
4. Maximum Hourly Rate: 150.00	5. Maximum Annual Rate: 1,314,000.00				
6. Estimated Annual Activity Factor: 0.00					
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:				
9. Million Btu per SCC Unit:	Jan 1997 1997 1997 1997 1997 1997 1997 199				
10. Segment Comment:					

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

# EMISSION UNIT LISTING EU028's TO EU023's

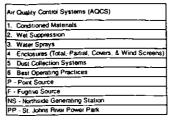
# Foster Wheeler Environmental Corporation EXCEL 7.0 Worksheet

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

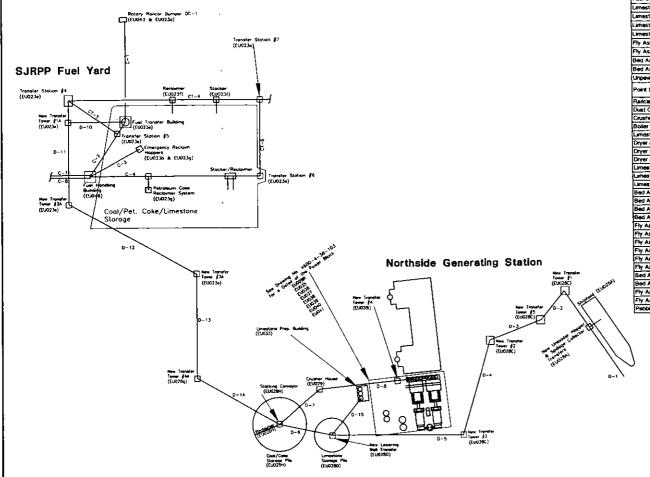
Materials Handling and Storage Operations - SJRPP				
	EU ID#			
Fugitive Dust Sources	New #	Old #		
Railcar Rotary Dumper	EU023a	EU028e		
Shiphold - Existing	EU023c	EU028b		
Shiphold - New	EU023c	EU028b		
Hopper Belt, Spillage Conveyors, and CT-1 Transfer	EU023d	EU028b		
Points - Existing Ship Unloader				
Hopper Belt, Spillage Conveyors, and DC-1 Transfer	EU023d	EU028b		
Points - New Ship Unloader				
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	EU0280		
New Transfer Tower #1-NGS	EU023e	EU028m		
New Transfer Tower #2-NGS	EU023e	EU028m		
New Transfer Tower #2-NGS	EU023e	EU028m		
New Transfer Tower #4-NGS	EU023e	EU0280		
Transfer Station No. 1	EU023e	EU0280		
Transfer Station No. 2	EU023e	EU0281		
Transfer Station No. 3	EU023e	EU0281		
Transfer Station No. 4	EU023e	EU028I		
Transfer Tower D-1	EU023e	EU028k		
Transfer Tower D-2	EU023e	EU028k		
Transfer Tower No. 1A	EU023e	EU028k		
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	EU023g EU023k	EU028j		
Enclosed Storage Pile - 3 Transfer Points	EU023k	EU028j		
Fuel Storage Pile - Wind Erosion	EU023k	EU028j EU028n		
	EU023k	EU028h EU028n		
Fuel Storage Pile - Vehicle Activities	EUU23K			

# **REVISED FIGURES 6-1 & 6-2**

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



Commont   Common	ugithe Dust Sources	EU ID #	Site	New	AQCS	Control Efficiency	PM10 (RVN)	(IE)
Inhander Hopper & Spilage Collector Transfers   EU028   NS   Yes   1, 3, 4, 6   65,00%   0,159   0,000   10,000   0,	Shiphoid	EU028a	NS	Yes				0.25
EUGZie   PP   No.   1,4		EU028a	NS	Yes	1, 3, 4, & 6	85.00%	0.159	0.18
Elizable   Tower No. 1A		€0023e	PΡ	No	1 & 4	85 00%	0 309	0.29
Elicizia PP   Ves   1,2,8.4   86,00%   0,042   0   1   0,045   0   1,2,8.4   96,00%   0,042   0   1   0,045   0   0,042   0   0,045   0		EU023+	PP	Yes	1, 2, 8.4	96.00%	0.042	000
Eurosier Tower No. 3A		EU023e	PP	Yes	1, 2, 8.4	96.00%	0.042	0.00
Francier Tower No. 4A		EU023e	PP	Yes	1, 2, 6 4	98.00%	0.042	0.03
Fransfer Tower No 1		EU028a	NS	Yes	1, 2, 5 4	98.00%	0.042	0.00
EU028c NS   Ves   1,2,8,4   96,00%   0,042   0   0   0,042   0   0,042   0   0,042   0   0,042   0   0,042   0   0   0,042   0   0,042   0   0,042   0   0,042   0   0,042   0   0   0,042   0   0   0,042   0   0,042   0   0,042   0   0,042   0   0,042   0   0   0,042		EU029c	NS	Yes	1, 2, 4, 4	98.00%	0.042	0.0
Final Store			NS	Yes	1, 2, 5, 4	98.00%	0.042	0.0
Figure   F			NS			98.00%	0.042	0.0
EU029 NS Yes 1, 2, 6, 4 96,00%   0,029   0   1   1   1   1   1   1   1   1   1			NS	_	1.2.84	98.00%	0.042	0.0
Tell Storage Building - Stacking						98.00%	0.029	0.0
Less Storage Building - Pecclaiming				_				0.0
Fig.   Storage Building   Vehicle Activities   ELOSSh   NS   Ves   1, 3, 8 6   98.00%   0.002   0.002   0.003   0.00								
Immestore December   Verlage Schoolses   EU0284   NS   Yes   1, 3, 8   6   86,00%   0.094			_					0.0
Immestore Domeny Pres - Construction     E100280 NS   Yes   1,3,8,6   75,00%   0,495								0.0
EU028   NS   Yes   1, 3, 8, 6   75,00%   0,013   0   0   0   0   0   0   0   0   0								0.0
								0.0
Section   Proceed   Process   Proc								0.1
Fig. 24   Fig. 25   Fig.								0.0
EU029   NS   Yes   1 & 6   0.00%   0.020   0								0.0
Bed Ash Silo hydrator Loadout - Unit #2   EU029   NS   Yes   1.8   8   0.00%   0.000								
Elicida   Silva   Product Transport   Elicida   NS   Yes   3.8.6   75.00%   0.158   0.008   0.008   0.008   0.008   0.009						******		
Point Sources								
Point Sources	Unpeved Road, By-Product Transport	EU028	NS	Yes				
Raficar Flottary Dumper	Point Sources	EU ID#	Site	New	AGCS			
Duest Collector OC-1 (Coal Unloading)	Berlow Boten Cumper	EU0236	PP	No	1, 3, 4, & 6			
Couster House		EU043	PP	Yes	1, 4, 8.5	99 50%	0.082	0.0
Boiler Fuel Silos		EU029	NS	Yes	1, 4, & 5	99 50%	0.015	0.0
Eurostone Receiver Birs   Eurost No. 1   Eurost No. 1   Eurost No. 1   Eurost No. 1   Eurost No. 2   Eurost No. 3   Eurost N		EU031	NS	Yes	1, 4, 8, 5	99.50%	0.005	0.0
Dryer and Crusher No. 2  Dryer and Crusher No. 2  EUG33 NS Yes 4 & 5 99.94% 0.317  Dryer and Crusher No. 2  EUG33 NS Yes 4 & 5 99.94% 0.317  EUG33 NS Yes 4 & 5 99.94% 0.317  EUG33 NS Yes 4 & 5 99.94% 0.048  EUG44 NS Yes 4 & 5 99.94% 0.048  EUG45 NS Yes 4 & 5 99.95% 0.044  EUG45 NS Yes 4 & 5 99.95% 0.014  EUG45 NS Yes 4 & 5 99.95% 0.014  EUG45 NS Yes 4 & 5 99.95% 0.014  EUG45 NS Yes 4 & 5 99.95% 0.013  EUG45 NS Yes 4 & 5 99.95% 0.004  EYF AST Transfer & Storage System Unit #2  EUG45 NS Yes 4 & 5 99.95% 0.019  Fly Ash Transfer & Storage System Unit #2  EUG47 NS Yes 4 & 5 99.95% 0.019  Fly Ash Transfer & Storage System Unit #2  EUG41 NS Yes 4 & 5 99.96% 0.019  Fly Ash Transfer & Storage System Unit #2  EUG41 NS Yes 4 & 5 99.96% 0.019  Fly Ash Transfer & Storage System Unit #2  EUG47 NS Yes 4 & 5 99.96% 0.019  Fly Ash Transfer & Storage System Unit #2  EUG47 NS Yes 4 & 5 99.96% 0.002  ERF Ash Sho Hydrators Unit 1  EUG49 NS Yes 4 & 5 99.96% 0.062  ERF Ash Sho Hydrators Unit 2  EUG49 NS Yes 4 & 5 99.96% 0.062  ERF Ash Sho Hydrators Unit 2  EUG49 NS Yes 4 & 5 99.96% 0.053		EU032	NS	Yes	1, 4, 8.5	99.50%	0 005	0.0
Digit Birth Chishle No. 3	Dryer and Crusher No. 1	EU033	NS	Yes	1	4		
Dept and Ordanie More Conveyor Transfers   EUG94   NS   Yes   4 & 5   99.94%   0.048	Dryer and Crusher No. 2							_
EUGS   NS   Yes   4 & 5   99.50%   0.034	Dryer and Crusher No. 3		1					
EU035   NS   Yes   4 & 5   99.50%   0.034	Limestone Crusher Corweyor Transfers							
Element   Fig.   Element   Element	Limestone Feed Silo Unit 1			-				1_
Bed Ash Transler & Storage System Unit #2   EU030   NS   Yes   4 & 5   99.50%   0.014								
Bed Ash Truck Loadour - Unit #1   EU040   NS   Yes   4 & 5   99.90%   0.013			_				1	
Bad Ash Truck Loadour - Unit #2   EU040   NS   Yes   4 8 5   99.96%   0.013								
Seed ASS   Sich Hydrators Unit 2   Seed ASS   Seed AS								-
Fig. Ash Waste Bin - Unit #2   EU039   NS   Yes   4 & 5   99.50%   0.004     Fig. Ash Yaste Bin - Unit #2   EU037   NS   Yes   4 & 5   99.50%   0.004     Fig. Ash Transfer & Storage System Unit #1   EU037   NS   Yes   4 & 5   99.50%   0.019     Fig. Ash Transfer & Storage System Unit #2   EU037   NS   Yes   4 & 5   99.50%   0.019     Fig. Ash Track Loadour - Unit #2   EU041   NS   Yes   4 & 5   99.50%   0.019     Fig. Ash Track Loadour - Unit #2   EU041   NS   Yes   4 & 5   99.80%   0.013     Fig. Ash Track Loadour - Unit #2   EU041   NS   Yes   4 & 5   99.80%   0.002     Fig. Ash Track Loadour - Unit #2   EU039   NS   Yes   4 & 5   99.80%   0.062     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.062     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.062     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.062     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.062     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.063     Fig. Ash Silo Hydrators Unit 2   EU039   NS   Yes   4 & 5   99.80%   0.063     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.063     Fig. Ash Silo Hydrators Unit 2   EU039   NS   Yes   4 & 5   99.80%   0.063     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.063     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.063     Fig. Ash Silo Hydrators Unit 1   EU039   NS   Yes   4 & 5   99.80%   0.063     Fig. Ash Silo Hydrators Unit 2   EU039   NS   Yes   4 & 5   99.80%   0.063								
Fly Ash Transfer & Storage System Unit #1   EU037 NS   Yes   4 & 5   98.50%   0.019								_
Fig. Ash Transfer & Storage System Unit #2   EU337 NS   Yes   4 & 5   99.50%   0.019			-					
Fig Ash Truck Loedou - Unit 4 2 EU04 NS Yes 4 & 5 99.95% 0.013 Fig Ash Truck Loedou - Unit 4 2 EU04 NS Yes 4 & 5 99.95% 0.013 Fig Ash Truck Loedou - Unit 4 2 EU04 NS Yes 4 & 5 99.95% 0.013 Fig Ash Stor Hydrators Unit 1 EU039 NS Yes 4 & 5 99.95% 0.062 Bed Ash Stor Hydrators Unit 2 EU039 NS Yes 4 & 5 99.95% 0.062 Fig Ash Stor Hydrators Unit 1 EU039 NS Yes 4 & 5 99.95% 0.062 Fig Ash Stor Hydrators Unit 1 EU039 NS Yes 4 & 5 99.95% 0.062 Fig Ash Stor Hydrators Unit 1 EU039 NS Yes 4 & 5 99.95% 0.062			_	-	1			
Fig. Ash Trust Loadoux - Unit #2   EU041 NS   Yes   4.6.5   99.89%   0.013								
Bed Ash Silo Hydrators Unit 1         EU039         NS         Yes         4 & 5         59.80%         0.062           Bed Ash Silo Hydrators Unit 2         EU039         NS         Yes         4 & 5         59.80%         0.062           Bed Ash Silo Hydrators Unit 2         EU039         NS         Yes         4 & 5         59.80%         0.063           Fry Ash Silo Hydrators Unit 2         EU039         NS         Yes         4 & 5         59.80%         0.053			_			_		
Bed Ash Silo Hydrators Unit 2 EU039 NS   Yes 4 & 5 99,80% 0.082   Fly Ash Silo Hydrators Unit 1 EU039 NS   Yes 4 & 5 99,89% 0.083   Fly Ash Silo Hydrators Unit 2 EU039 NS Yes 4 & 5 99,96% 0.083   Fly Ash Silo Hydrators Unit 2 EU039 NS Yes 4 & 5 99,96% 0.053								
980 Xs1 SID Hydrations Unit 1 EU009 MS Yes 4 8 5 99.99% 0.083 Fry Ash SiD Hydrations Unit 2 EU009 MS Yes 4 8 5 99.99% 0.083								
Fly Ash São Hydrators Unit 2 EU039 NS Yes 4 & 5 99,98% 0.053								
							*	-
Peoble Lime Silo EU042 NS Yes 4 & 5 99.50% 0.014			_	_		89.50%		-



## Figure 6-1

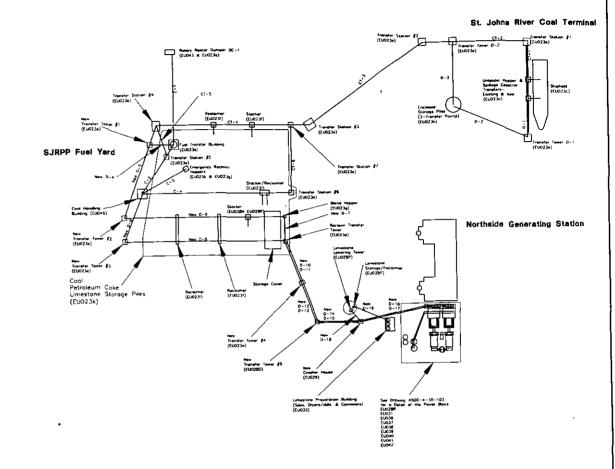
JEA
NORTHSIDE GENERATING STATION
REPOWERING

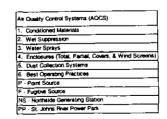
Materials Handling and Storage Operations
Equipment Layout — Base Case

FOSTER W	BELER ENVIRONMENT	
SCALE N/A	PREPARED MAE	CAD FILE NO.
DATE: 04/19/99	CHECKED DAG	FIGURE NO.

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

					Control	PM10	PM10
ugitive Dust Sources	EU ID#	See	New	AOCS	Eliciency	[160-02]	(15.41)
	EU023c	-cr	Ves	1, 4, 8 6	70 00%	0.257	0.385
heatraid - New			No	1, 4, 6 6	70.0074	0.257	0.385
hiphoid - Existing	EU023c			1, 4, 6 0	70 00 4	· (1.23)	
ritoacter Hopper and Spillage Collector	EU023d	CT	Yes	9. 3. 4. 8 6	85 00%	0.130	0.194
analers - New Sho Unicader			_	-	<del></del>	<u>-</u> -	$\dashv$
nioader Hopper and Spillage Collector	EU023d	ਰ	No	1, 3, 4 & 6	85 00%	0 130	0 194
arwiters - Existing System	-	_			<del></del>		
opper Bell, Spillage Conveyors, and DC-1 anuler Points - New Ship Unicader	E/10539	CT	Yes	1,4 8 6	85.00%	0.063	0.094
opper Belt, Spillage Conveyors, and CT-1					85 00%	0 471	0.704
grater Points - Existing Ship Unicader	EU023d	C1	Nio	1, 3, 4, 8 6	10000	84/1	0.704
eruter Tower D-1	EU023e	ст	Yes	1, 2, 6 4	98.00%	0.021	0 001
sclosed Storage Pile - 3 Transler Points	FU023x	Cī	Yes	1, 3, 4, 4 (	98.00%	0.063	0.094
sclosed Pile - Vehicle Activities	EU023k	СТ	Yes	3, 3, 4, 4 4	98.00%	0.011	0.047
	EU023a	दा	Yes	1, 2, 6 4		0.021	3.031
ensiter Tower D-2	EU023	CT CT	No.	1. 2. 4 4		0.021	0.031
angler Station No. 1	EU023e	CT CT	No.	1, 2, 1 4	96 00%	0.021	0.063
preter Station No. 2		- Ci	No -	1, 2, 4, 4		0.022	0.066
nneder Station No. 3	EU023+		· ·				
newter Station No. 4	EU023a	PP	No	184	98.00%	0.021	0 063
el Trans ler Building/Emergency Stackout	EU023e	PP	No	184	65 00%	0.309	0.292
sel Storage Pite - Wind Erosion	EU023k	PP	No	1. 3, 4 6		0 495	0.046
sei Storage Pile - Vehicle Activities	EU023#	PP	No	1, 3, 4 6		0.113	0.497
mestone Storage Pée - Wind Erosion Factor	EU0280	NS	No	1.3.46	75 00%	0.495	0 046
mestone Storage Pile - Vehicle Activities	EU028p	NS.	Yea	1, 3, 4 6		0.013	0.067
	FLKC28p	NS.	Yes	1.2. 4 6		0.014	0.007
mestona Lowering Wall	EU028o	NS	Yes	1 2. 6 6		0.121	0.175
musione Recisim Hopper	EU023e	PP P	Yes	1.2.54		0.042	0.119
ew Transfer Tower #1-NGS		90	V 44	1 2 8 4		0.042	0.119
ew Transfer Tower #2-HGS	EU023e	• • •	<u> </u>			0.058	0.096
aw Bland Hopper	EU023g	PP	Yes	1, 3, 4 4			
ew Stacker	EU023	PP	Yes	1.3.4		0.314	8 790
JRPP Recisimer	EU023f	PΦ	Yes	1, 3, 4	75.00%	0.244	1 785
transfer Towar #3-NGS	EU023e	PP	Yes	1, 2, 6 4	96.00%	0.030	0.143
GS Rectainer	EU023	PP	Yes	1. 3.4 4	75 00%	0.244	0.845
lew Reclaim Transfer Tower	EU0236	PP	Yes	1, 2, 4 4	98.00%	0.020	0.048
	EU023e	PP	Yes	1,2,54		0.029	0.048
ew Transfer Tower #4-NGS	EU0280	NS.	Yes	2, 8 4		0.029	0.048
ew Transler Tower #5-NGS	EU028q	N/S	Yes	1, 2, 4 4		0.029	0.051
ow Transfer Towar #6-NGS	EU028	NS.	Yes	(8.6	0.00%	0.017	0.074
y Ash Silo Hydrator Loadout - Unit #1	EUG28	NS -	Yes	186	0.00%	0.017	0.074
y Ash Silis Hydrator Latelout - Unit #2				146	0.00%	0.020	0.087
ed Ash See Hydrator Loedout - Unit #1	EU028r	NS	Yes				0.087
ed Ash Silo Hydrator Landout - Unit #2	EU028r	NS	Yes	146	0.00%	0.020	
npeved Ploed, By-Product Transport	EU029r	NS	Yes	356	75.00%	0.156	0.681
	EU ID4	Site	Herm	AGCS	Control	PM 10	PM10
roint Sources	1				Efficiency	(Mary)	(TPY)
Palcar Rotary Dumper	EU023a	PP	No	1.244		0.000	0.065
Dual Collector DC-1 (Coal Unloading)	EU043	PP	No				
Crusher House	FLI029			1,4,4		0.082	0.078
	1 5000	NS	Y=	1, 4, 4,	5 99.50%	0 022	0 029
Rotter Fuel Salot	EU031	NS NS	Yes		5 99.50%		
	EU031			1, 4, & l	5 99.50% 5 99.50%	0 022	0 029
Limestone Receiving Bins	EU031 EU032	NS NS	Yes	1, 4, & 1, 4, & 1, 4, &	5 99.50% 5 99.50%	0.022	0 029 0.008 0 007
Limestone Receiving Bins Dryer and Crusher No. 1	EU031 EU032 EU033	NS NS	Yes Yes	1, 4, & 1, 4, & 1, 4, & 4 & 5	5 99.50% 5 99.50% 5 99.50% 99.94%	0.005 0.005 0.006 0.317	0 029 0.008 0 007 1 390
Limestone Receiving Bins Dryer and Crusher No. 1 Dryer and Grusher No. 2	EU031 EU032 EU033	NS NS NS	Yes Yes Yes	1,4,8, 1,4,8, 1,4,8, 44.5	5 99.50% 5 99.50% 5 99.50% 99.94%	0.005 0.005 0.005 0.317	0 029 0.008 0 007
Limestone Receiving Bins Dryer and Crusher No. 1 Dryer and Crusher No. 2 Dryer and Crusher No. 3	EU031 EU032 EU033 EU033	NS NS NS NS	Yes Yes Yes Yes	1, 4, & 1, 4, & 3, 4, & 4 & 5 4 & 5	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94%	0.022 0.005 0.006 0.317 0.317	0 029 0.008 0 007 1 390 1.390
Limestone Receiving Bins Dryer and Crusher No. 1 Oryer and Crusher No. 2 Dryer and Crusher No. 3 Limestone Crusher Conveyor Translers	EU031 EU032 EU033 EU033 EU033	NS NS NS NS NS	Yes Yes Yes Yes Yes	1, 4, & 1, 4, & 3, 4, & 4 & 5 4 & 5 4 & 5	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94%	0.022 0.005 0.005 0.317 0.317 0.317	0 029 0.008 0 007 1 380 1.390 1.390 0.208
Linestone Receiving Bins Dryer and Crusher No. 1 Dryer and Crusher No. 2 Dryer and Crusher No. 3 Linestone Crusher Conveyor Translers	EU031 EU032 EU033 EU033 EU034 EU036	NS NS NS NS NS	Yes Yes Yes Yes Yes	1, 4, 4, 1, 4, 4, 5, 4, 5, 4, 6, 5, 4, 6, 5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.94% 99.50%	0.022 0.005 0.005 0.317 0.317 0.317 0.048	0 029 0.008 0 007 1 390 1.390 1.390 0 208
Urnestone Receiving Bins Dryer and Crusher No. 1 Dryer and Crusher No. 2 Dryer and Crusher No. 3 Urnestone Crusher No. 3 Urnestone Crusher Cronstyor Transfers Urnestone Feed São Urit 1	EU031 EU032 EU033 EU033 EU033	NS NS NS NS NS	Yes Yes Yes Yes Yes Yes Yes Yes Yes	1, 4, & 1, 4, & 1, 4, & 5, 4,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.94% 99.50%	0.022 0.005 0.005 0.317 0.317 0.048 0.034	0 029 0.008 0 007 1 390 1.390 0.208 0.151 0.151
Limestone Pacenery Bens Dryer and Cruster No. 1 Dryer and Cruster No. 2 Dryer and Cruster No. 3 Limestone Cruster No. 3 Limestone Cruster Conseyor Transfers Limestone Feed São Line 1 Limestone Feed São Line 2	EU031 EU032 EU033 EU033 EU034 EU036	NS NS NS NS NS	Yes Yes Yes Yes Yes	1, 4, 4, 1, 4, 4, 5, 4, 5, 4, 6, 5, 4, 6, 5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.94% 99.50%	0.022 0.005 0.005 0.317 0.317 0.317 0.048	0 029 0.008 0 007 1 390 1.390 1.390 0 208
Umestone Receivery Bins Orper and Countre No. 1 Oper and Countre No. 2 Oper and Countre No. 2 Oper and Countre No. 2 Oper and Countre No. 3 Umestone Country of Transleys Umestone Food São Um 1	EU031 EU032 EU033 EU033 EU034 EU035 EU035 EU038	NS NS NS NS NS	Yes Yes Yes Yes Yes Yes Yes Yes Yes	1, 4, & 1, 4, & 1, 4, & 5, 4,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.94% 99.50%	0.022 0.005 0.005 0.317 0.317 0.048 0.034	0 029 0.008 0 007 1 390 1.390 0.208 0.151 0.151
Unnestone Receiving Sine Opper and Counter No. 1 Opper and Counter No. 2 Opper and Counter No. 3 Unrestone Counter Counter Or Terrelers Unnestone Feed Salo Unit 1 Unnestone Feed Salo Unit 1 Unnestone Feed Salo Unit 2 Oper Aun Translate & Storage System Unit 81 Book Aun Translate & Storage System Unit 81 Book Aun Translate & Storage System Unit 81	EU031 EU032 EU033 EU033 EU034 EU036 EU036 EU038	NS NS NS NS NS NS NS	Yes	1, 4, & 1, 4, & 1, 4, & 1, 4, & 5, 4,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.94% 99.50% 99.50%	0.022 0.005 0.005 0.317 0.317 0.048 0.034 0.034	0 029 0.008 0 007 1 390 1.390 0 208 0.151 0.151
Lineación Receives (Erica Deperand Counter No. 1 Operand Counter No. 2 Deperand Counter No. 3 Lineación Counter No. 3 Lineación Counter Comigor Farrelard. Lineación Fred São Uter 1 Deperando Fred São Uter 1 Deperando Fred São Uter 2 Deperando Fred São Uter 1 Deperando Fred São Ute	EU031 EU032 EU033 EU033 EU034 EU036 EU036 EU038 EU038	NS	Yes     Yes     Yes     Yes     Yes     Yes     Yes     Yes     Yes	1, 4, 4, 4, 5, 4, 6, 5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50% 99.50% 99.50%	0.022 0.005 0.005 0.317 0.317 0.048 0.034 0.034	0 029 0.506 0 007 1 380 1.390 0.208 0.151 0.163 0.063
Limeston's Recovery Briss Dryer and Custer No. 1 Dryer and Custer No. 2 Dryer and Custer No. 2 Dryer and Custer No. 3 Limeston's Translate Storage Translate Limeston's Fleed Salo Lime 1 Limeston's Fleed Salo Lime 1 Dead Ana Translate A Storage System Unit at Bed Ana Translate A Stor	EU031 EU032 EU033 EU034 EU034 EU038 EU038 EU038 EU038 EU040	NS NS NS NS NS NS NS NS	Yes	1,4,4 1,4,6 1,4,6 44,5 44,5 44,5 44,5 44,5 44,5 44,5	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50% 99.50% 99.50% 99.50% 99.96%	0.022 0.005 0.005 0.317 0.317 0.048 0.034 0.034 0.014	0 029 0.508 0 007 1 390 1 390 0 208 0 151 0 053 0 056
Limeston's Recovery Bris  Dyer and Couther No. 3  Limeston's Charles No. 3  Limeston's Flood Sho User 1  Bod Ant Transfer A Stongs System Unit or 1  Bod Ant Transfer A St	EU031 EU032 EU033 EU033 EU034 EU035 EU036 EU036 EU036 EU036 EU040 EU040	NS NS NS NS NS NS NS NS	Yes	1,4,8 1,4,6 1,4,6 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4,5 4,5	5 90.50% 5 90.50% 5 90.50% 90.94% 90.94% 90.94% 90.50% 90.50% 90.50% 90.96% 90.96%	0.022 0.005 0.006 0.317 0.317 0.048 0.034 0.034 0.014 0.014 0.013	0 029 0 000 1 390 1 390 1 390 0 151 0 063 0 056 0 018
Lineation Receivery Briss  Dyer and Custer No. 1  Dyer and Custer No. 2  Dyer and Custer No. 3  Lineation Float Compayor Transfers  Lineation Float So User 1  Lineation Float So User 2  Bod Ash Transfer A Strongs System User 22  Bod Ash Transfer Londou - User 21  Py Ash Wassie Bri - User 21	EU031 EU032 EU033 EU033 EU034 EU035 EU038 EU038 EU038 EU038 EU038 EU038 EU038 EU038 EU038	NS	Yes	1, 4, 4 1, 4, 4 1, 4, 5 44, 5	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50%	0.022 0.005 0.006 0.317 0.317 0.048 0.034 0.034 0.013 0.013 0.014	0 029 0.008 0 007 1 390 1 390 0 151 0 151 0 068 0 058 0 018
Lineación Recenery Bris  Dyer and Countre No. 1  Dyer and Countre No. 2  Dyer and Countre No. 2  Dyer and Countre No. 3  Dyer and No.	EU031 EU032 EU033 EU033 EU035 EU035 EU035 EU035 EU036 EU036 EU036 EU036 EU036 EU036 EU036 EU036	NS NS NS NS NS NS NS NS NS	Yes	1, 4, 4 1, 4, 4 1, 4, 5 4,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50%	0.022 0.005 0.006 0.317 0.317 0.048 0.034 0.014 0.014 0.013 0.013 0.004	0 029 0.008 0 007 1 390 1 390 0 208 0 151 0 063 0 068 0 068 0 068
Lineación Receives (Erica Department) Department (Counter No. 1 Department (Counter No. 2 Department (Counter No. 3 Lineación (Counter No. 3 Lineación (Counter No. 3 Lineación Freed São Uter 1 Baco Ann Transler à Storago System Unit er 1 Baco Ann Transler à Storago System Unit er 1 Baco Ann Transler à Storago System Unit er 1 Baco Ann Transler à Storago System Unit er 2 Pry Ann Westale (In - Uter 12 Pry Ann Transler à Storago System Unit er 1 Pry Ann Transler à Storago System Unit er 1 Pry Ann Transler à Storago System Unit er 1	EU031 EU032 EU033 EU033 EU035 EU035 EU036 EU036 EU036 EU040 EU040 EU040 EU037 EU037	NS N	Yes	1, 4, 4 1, 4, 4 1, 4, 8 44, 5 44,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50%	0.022 0.005 0.006 0.317 0.317 0.317 0.004 0.004 0.004 0.014 0.013 0.013 0.010 0.004	0 029 0.008 0 007 1 390 1 390 0 151 0 063 0 065 0 075 0 076 0 081 0 081
Lineación Recenery Bris  Dyer and Countre No. 1  Dyer and Countre No. 2  Dyer and Countre No. 2  Dyer and Countre No. 3  Dyer and No.	EU031 EU032 EU033 EU033 EU035 EU035 EU035 EU035 EU036 EU036 EU036 EU036 EU036 EU036 EU036 EU036	NS N	Yes	1, 4, 4 1, 4, 4 5, 4, 8 44, 5 44,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50% 99.50%	0.022 0.005 0.006 0.317 0.317 0.048 0.034 0.014 0.013 0.013 0.004 0.013 0.004	0 029 0 007 1 390 1 1390 0 151 0 151 0 065 0 078 0 078 0 081 0 081
Limeston's Receivery Briss Dyne and Cousher No. 1 Dyne and Cousher No. 2 Dyne and Cousher No. 2 Dyne and Cousher No. 3 Limeston's Custon's Receivery Terrelard Limeston's Charles No. 3 Limeston's Freed São Unit 1 Boo Ann Transler à Storage System Unit et a Boo Ann Transler à Storage System Unit et a Boo Ann Transler à Storage System Unit et a Boor Ann Transler à Storage System Unit et a Boor Ann Transler à Storage System Unit et a Boor Ann Transler à Storage System Unit et a Boor Ann Transler à Boorage System Unit et a Boor Ann Transler à Storage System Unit et a Boor Ann Transler à Storage System Unit et a	EU031 EU032 EU033 EU033 EU035 EU035 EU036 EU036 EU036 EU040 EU040 EU040 EU037 EU037	NS N	Yes	1, 4, 4 1, 4, 4 1, 4, 4 1, 4, 5 44,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50%	0.022 0.005 0.005 0.317 0.317 0.317 0.048 0.034 0.014 0.013 0.013 0.004 0.019 0.019	0 029 0 007 1 390 1 1390 0 151 0 151 0 063 0 078 0 078 0 078 0 078 0 078 0 078 0 078
Lineación Recenerg Bres  Dyes and Counter No. 1  Dyes and Counter No. 2  Dyes and Counter No. 2  Dyes and Counter No. 3  Lineación Counter No. 3  Lineación Counter No. 3  Ber Ann Transis A. Stongo System Unit es No. 4  Ber Ann Transis A. Stongo System Unit es No. 4  Ber Ann Transis A. Stongo System Unit es No. 4  Ber Ann Transis A. Stongo System Unit es No. 4  Ber Ann Transis A. Stongo System Unit es No. 4  Fin Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B. Stongo System Unit es P.  Py Ann Transis B.	EU031 EU032 EU033 EU033 EU034 EU035 EU035 EU036 EU036 EU036 EU036 EU036 EU036 EU036 EU036 EU036 EU036	NS N	Yes	1, 4, 4 1, 4, 4 5, 4, 8 44, 5 44,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50%	0.022 0.005 0.005 0.317 0.317 0.317 0.048 0.034 0.014 0.013 0.013 0.004 0.019 0.019	0 029 0 007 1 390 1 390 0 151 0 151 0 063 0 063 0 068 0 068 0 068 0 068 0 068 0 068 0 068
Lineation Recovery Briss  Dyes and Claster No. 3  Dyes and Transler & Stonge System Unit at 18  Dyes And Transler & Stonge System Unit at 2  Dyes And Transler No. 3  Dyes and	EU031 EU032 EU033 EU033 EU033 EU035 EU036 EU036 EU036 EU036 EU036 EU036 EU036 EU036 EU036 EU036	NS N	Yes	1, 4, 4 1, 4, 4 1, 4, 4 1, 4, 5 44,	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50% 90.50%	0.022 0.005 0.005 0.005 0.0317 0.317 0.317 0.014 0.014 0.014 0.015 0.013 0.019 0.019 0.019	0 029 0 000 0 007 1 390 1 390 0 1390 0 151 0 003 0 053 0 054 0 001 0 001 0 001 0 001 0 001 0 001
Lineation Recovery Bris  Oper and Counter No. 1  Oper and Counter No. 2  Oper and Counter No. 2  Oper and Counter No. 3  Unsestion Counter No. 3  Lineation Formation Transfers  Lineation Feed Salo Use 1  Bod Ash Transfer & Storage System Unit et 1  Bod Ash Transfer & Storage System Unit et 1  Bod Ash Transfer & Storage System Unit et 1  Bod Ash Transfer & Storage System Unit et 1  PH Ash Waste Bir - Unit et 2  PH Ash Transfer & Storage System Unit et 1  PH Ash Transfer & Storage System Unit et 1  PH Ash Transfer & Storage System Unit et 1  PH Ash Transfer & Storage System Unit et 1  PH Ash Transfer & Storage System Unit et 1  PH Ash Transfer & Storage System Unit et 1  PH Ash Transfer & Storage System Unit et 1  Bed Ash Storage Valories Unit et 2	EU031 EU032 EU033 EU033 EU033 EU034 EU035 EU036	NS N	Yes     Yes	1, 4, 4 1, 4, 4 1, 4, 6 4, 6, 5 4, 6, 6 4, 6	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.84% 99.84% 99.85% 99.50%	0.022 0.005 0.005 0.005 0.317 0.317 0.034 0.034 0.014 0.013 0.013 0.004 0.019 0.019 0.019 0.019 0.019 0.019 0.019 0.019 0.019 0.019	0 029 0 009 1 390 1 390 1 1390 1 1390 0 208 0 151 0 058 0 058 0 018 0 001 0 001 0 001 0 001 0 001 0 002 0 002 002
Oyer and Crusher No. 1 Oyer and Crusher No. 2 Oyer and Crusher No. 2 Unrestone Crusher No. 3 Unrestone Crusher Conveyor Travelers Unrestone Feed Sto Unit 1 Unrestone Feed Sto Unit 2 Bed Ann Traveler A Storage System Unit e1 Bed Ann Traveler A Storage System Unit e1 Bed Ann Traveler A Storage System Unit e1 Bed Ann Traveler Bed Unit e1 Ply Ash Traveler Ben - Unit e1 Ply Ash Traveler Ben - Unit e1 Ply Ash Traveler A Storage System Unit e1 Ply Ash Traveler Conduct - Unit e1 Ply Ash Travel Londout - Unit e1	EU031 EU032 EU033 EU033 EU034 EU035 EU036 EU036 EU040 EU040 EU040 EU037 EU037 EU037 EU031 EU031 EU031 EU031	NS N	Yes	1.4.4 1.4.4 1.4.6 1.4.6 44.5 44.5 44.5 44.5 44.5 44.5 44.5	5 99.50% 5 99.50% 5 99.50% 99.94% 99.94% 99.94% 99.50%	0.022 0.005 0.006 0.317 0.317 0.317 0.044 0.034 0.013 0.013 0.013 0.019 0.019 0.019 0.019 0.019 0.019 0.019	0 029 0.008 0 007 1 390 1 390 0 1390 0 151 0 063 0 065 0 066 0 066 0 066 0 066 0 066





# Figure 6-2

JEA NORTHSIDE GENERATING STATION REPOWERING

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

FOSTER	WHEELER	ENVIRONMENTAL	CORPORATION
			40

	PREPARED	DJC	NGSA1,DWG
DATE: 04/19/99	APPROVED	DAC	FIGURE NO.

# APPLICATION FORMS EMISSIONS UNIT 023 SJRPP MATERIALS HANDLING & STORAGE OPERATIONS

### III. EMISSIONS UNIT INFORMATION

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

Emission	ns Unit Information Section 21
SJRPP M	aterials Handling & Storage Operations
Type of	Emissions Unit Addressed in This Section
1. Regul	ated 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	e Process, Group of Processes, or Fugitive Only? Check one:
	This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
	This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

III. Part 1 - 1

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

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

### **Emissions Unit Description and Status**

1. Description of Emissions Unit	Addressed in This Section:	
SJRPP Materials Handling & Sto	rage Operations	
Emissions Unit Identification     No Corresponding I		ıknown
3. Emissions Unit Status Code: A	4. Acid Rain Unit? [ ] Yes [X] No	5. Emissions Unit Major Group SIC Code: 49
alternatives are shown in Figures NGS boundaries and EU023 ope throughput rates of coal/pet. cok	te activities associated with the NC is 6-1 & 6-2. Emissions Unit EU02 erations within SJRPP boundaries. e to 7.55 million tons and limestor with some new construction as ide	8 reflects operations within the The project will increase annual ne to 2.05 million tons.

III. Part 2 - 1

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

Emissions Unit Information Section	
SJRPP Materials Handling & Storage Operation	ions
Emissions Unit Control Equipment	1
Description:     Ship Unloading Operations     Partial Enclosures, Conditioned Materials     Figure EU023c & d	& Water Sprays
2. Control Device or Method Code:	61

III. Part 3 - 1

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

**Emissions Unit Information Section** 21 SJRPP Materials Handling & Storage Operations **Emissions Unit Control Equipment** 1. Description: **Transfer Towers/Stations** 

Partial Enclosures, Conditioned Materials & Wet Suppression (as depicted) Figures EU023e

2. Control Device or Method Code:

62

III. Part 3 -

2

<b>Emissions Unit Information Section</b>	21
SJRPP Materials Handling & Storage Opera	tions
<b>Emissions Unit Control Equipment</b>	3
Description:     Enclosed Coal/Pet. Coke Storage Piles & Partial Enclosure & Conditioned Materia Figure EU023k	•
2. Control Device or Method Code:	

III. Part 3 - 3

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

<b>Emissions Unit Information Section</b>	21					
SJRPP Materials Handling & Storage Operation	ons					
Emissions Unit Control Equipment 4						
1. Description:	N. O.F.					
Ship Unloading Conveyors - Both Cases, N Conditioned Materials & Wind Screens	New & Existing					

2. Control Device or Method Code:

III. Part 3 - 4

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

Emissions Unit Information Section	
SJRPP Materials Handling & Storage Operat	ions
Emissions Unit Control Equipment	5
Description:     Transfer Conveyors     Conditioned Materials & Covers	
2. Control Device or Method Code:	

III. Part 3 - 5

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

Emissions Unit Information Section	<del></del>
SJRPP Materials Handling & Storage Opera	utions
<b>Emissions Unit Control Equipment</b>	6
Description:     Railcar Rotary Dumper     EU023a     Conditioned Materials, Partial Enclosure	e and Water Sprays
2. Control Device or Method Code:	61

III. Part 3 - 6

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

Emissions Unit Information Section 21

SJRPP Materials Handling & Storage Operations

Emissions Unit Control Equipment 7

Description:

 Fuel Storage Pile
 EU023k
 Conditioned Materials, Water Sprays & Best Operating Practices

2. Control Device or Method Code: 61

III. Part 3 -

7

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

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

III. Part 3 -

8

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

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

21\_\_\_

1. Initial Startup Date :	01-Apr-2002	
2. Long-term Reserve Shutdown Date :		
3. Package Unit:		
Manufacturer:		Model Number:
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:		
Dwell Temperature:		Degrees Fahrenheit
Dwell Time:		Seconds
Incinerator Afterburner Temperature:		Degrees Fahrenheit
1. Maximum Heat Input Rate:	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	0	
4. Maximum Production Rate:		
5. Operating Capacity Comment:		
See Process Flow Diagrams for individual rate	tes. Startup date refers	s to the proposed new equipment
Emissions Unit Operating Schedule		
Requested Maximum Operating Schedule:		
24 hours/da	y	7 days/week
•	ear	8,760 hours/year

III. Part 4 - 1

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

**Emissions Unit Information Section** 

SJRPP Materials Handling & Storage Operations

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

<b>Emissions Unit Information Section</b>	21
SJRPP Materials Handling & Storage Operat	tions

### **Rule Applicability Analysis**

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

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

III. Part 6a - 1

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

SJRPP Materials Handling & Storage Operations

### **List of Applicable Regulations**

40 CFR 60.7 Notification and Recordkeeping

40 CFR 60.8 Performance Tests

40 CFR 60.11 Compliance with Standard and Maintenance Requirements

40 CFR 60.12 Circumvention

40 CFR 60.13 Monitoring Requirements

40 CFR 60.19 General Notifications and Reporting Requirements

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

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

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

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

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

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

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

62-297.310 General Test Requirements

III. Part 6b - 1

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

SJRPP Materials Handling & Storage Operations

### **List of Applicable Regulations**

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

21

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

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

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

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

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

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

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

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

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

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

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

40 CFR 60.672(b) Standard for Particulate Matter

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

III. Part 6b - 2

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

SJRPP Materials Handling & Storage Operations

### **List of Applicable Regulations**

40 CFR 60.676 Reporting and Recordkeeping

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

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

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

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

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

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

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

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

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

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

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

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

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

III. Part 6b - 3

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

SJRPP 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

III. Part 6b - 4

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

### E. EMISSION POINT (STACK/VENT) INFORMATION

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 Emissi (limit to 100 characters per point)	ons Unit for V	E Tracking :
4. ID Numbers or Descriptions of Emission Units with this  See Figures 6-1& 6-2 along with other process flow diagram		
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 (k	m): 3364.975

III. Part 7a - 1

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

**Emissions Unit Information Section** 

14. Emissio	n Point Commen	t :		 

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:					

III. Part 8 - 1

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

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): 3050	1099
3. SCC Units: Tons Transferred Or Handled	
4. Maximum Hourly Rate: 0.00	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor: 100.00	0
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	_!
10. Segment Comment:	

III. Part 8 - 2

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

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:					

III. Part 8 - 3

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

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): 3050	1099				
3. SCC Units: Tons Transferred Or Handled					
4. Maximum Hourly Rate: 0.00	5. Maximum Annual Rate:				
6. Estimated Annual Activity Factor: 100.00					
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:				
9. Million Btu per SCC Unit:	-				
10. Segment Comment:					

III. Part 8 - 4

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

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

Emissions Unit Information Section 21
SJRPP Materials Handling & Storage Operations

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

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

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

Emissions Unit Information Section 21				
SJRPP Materials Handling & Storage Operations				
Pollutant Potential/Estimated Emissions: Pollutant				
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 Uni Reference : AP-42	its			
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 - 1

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

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

21

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 Emis	ssions:	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 fo	or detailed calculations and control eff	iciencies.

III. Part 9b - 2

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

**Emissions Unit Information Section** 

SJRPP Materials Handling & Storage Operations

Emissions Unit Information Section						
Pollutant Information Section						
Allowable Emissions						
1. Basis for Allowable Emissions Code	:					
2. Future Effective Date of Allowable I	Emissions :					
3. Requested Allowable Emissions and	Units:	· · · · · · · · · · · · · · · · · · ·				
4. Equivalent Allowable Emissions:						
	lb/hour	tons/year				
5. Method of Compliance:						
6. Pollutant Allowable Emissions Com	ment (Desc. of Related Oper	rating Method/Mode):				

## I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 21
SJRPP Materials Handling & Storage Operations

ble Emissions Limitation: Visible Emissions Limitation1
Visible Emissions Subtype: 10
Basis for Allowable Opacity: RULE
Requested Allowable Opacity:
Normal Conditions: 10 % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: min/hour
Method of Compliance : Annual VE Test using EPA Method 9
Visible Emissions Comment:  hip Unloading Operations - Shiphold & Receiving Hoppers  tailcar Rotary Dumper Building  Existing SJRPP Fuel Storage Pile  Receiving Conveyors

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

## I. VISIBLE EMISSIONS INFORMATION (Regulated Emissions Units Only)

Emissions Unit Information Section 21
SJRPP Materials Handling & Storage Operations

<u>Vi</u>	sible Emissions Limitation: Visible Emissions Limitation	ation	2	
1.	Visible Emissions Subtype: 5			
2.	Basis for Allowable Opacity: RULE			
3.	Requested Allowable Opacity:			
		5 100	% % min/hour	
4.	Method of Compliance :			
	Annual EPA Method 9			
5.	Visible Emissions Comment:		, <u></u>	
	As Read at the Property Line Transfer Towers New Enclosed Storage Pile New Stacker/Reclaimers All Covered Conveyors			
_				

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

# J. CONTINUOUS MONITOR INFORMATION (Regulated Emissions Units Only)

**Emissions Unit Information Section** 

III. Part 11 - 1

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

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

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 PSI review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
[ ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
[ ] The facility addressed in this application is classified as an EPA major source, and the emission unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
[ ] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

III. Part 12 - 1

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

2.	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.	In	crement Consu	ming/Expan	oding Code:					
		PM:	С	SO2:	NO	2:			
4.	В	aseline Emission	ns:						
		PM : SO2 : NO2 :		lb/hour lb/hour		tons/year tons/year tons/year			
5.	PS	SD Comment:					_		

III. Part 12 - 2

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

## L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 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 Application	is Only
10. Alternative Methods of Operations:	
11. Alterntive Modes of Operation (Emissions Trading):	

III. Part 13 - 1

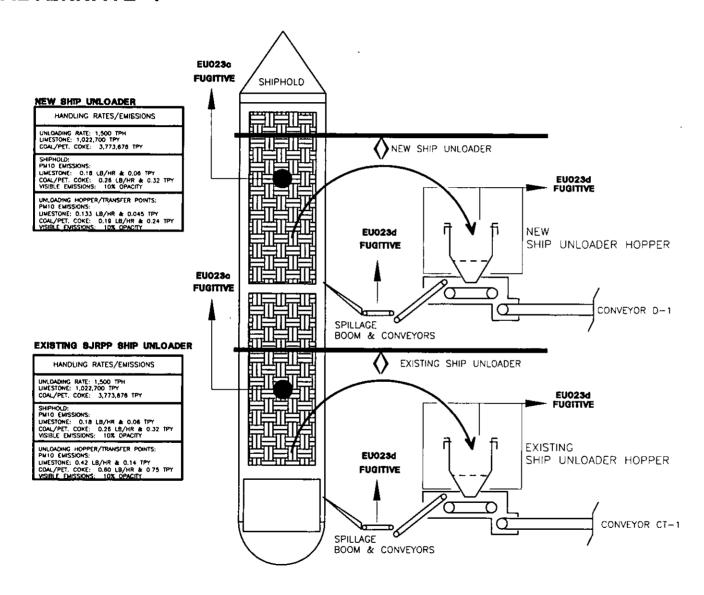
DEP Form No. 62-210.900(1) - Form

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

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

## REVISED EMISSION ESTIMATES EMISSION UNITS 023d & 023e

## NORTHSIDE GENERATING STATION SHIP UNLOADING OPERATIONS **ALTERNATE 1**



JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram Emissions Unit ID 028

APPROVED DUG

FOSTER WHEELER ENVIRONMENTAL CORPORATION

CAD FILE NO. EU028PFb.DWG FIGURE NO. F-6. EU023c SCALE N/A PREPARED DJG CHECKED MAE

DATE: 04/19/99

## Foster Wheeler Environmental Corporation EXCEL 7.0 Worksheet Calculation

By: D. Graziani, P.E.

Date: 11/3/98

Ckd. By: Kim Evans, P.E

Date: 11/10/98

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

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**

f	Operat	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		
Petroleum Coke	1.83	0.87	0.27	0.231	0.109	0.034		
Limestone	1.27	0.60	0.19	0.160	0.076	0.024		

1-Transfer Point at 100%

1-Transfer Point at 1%

#### 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%

<u> </u>	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

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### Foster Wheeler Environmental Corporation

**EXCEL 7.0 Worksheet Calculation** 

By: D. Graziani, P.E.

Date: 11/3/98

Ckd. By: Kim Evans. P.E.

Date: 11/10/98

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

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**

		Belt Speed	H2O	Particle Size Multipliers			Emission Factors (lb/ton)		
Raw Materials	Constant	(MPH)	(%)	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** 

	Operat	ting 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	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 Hates - C	ontrolled	98.00%					
		Short-Term					
	PM10	PM2.5	PM	PM10	PM2.5		
Raw Materials	(lb/hr)	(lb/hr)	(lb/hr)	(g/s)	(g/s)	(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**

			Long-Ter	m							
	PM	PM10	PM2.5	PM	PM10	PM2.5					
Raw Materials	(TPY)	(TPY)	(TPY)	(g/s)	(g/s)	(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%

			Long-Te	rm							
	PM	PM10	PM2.5	PM2.5 PM PM1		PM2.5					
Raw Materials	(TPY)	(TPY)	(TPY)	(g/s)	(g/s)	(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

### 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

		Belt Speed	H2O	Particle Size Multipliers			Emission Factors (lb/ton)		
Raw Materials	Constant	(MPH)	(%)	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**

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

#### **Emission Rates - Uncontrolled**

			Short-T	erm							
	PM	PM10	PM2.5	PM	PM10	PM2.5					
Raw Materials	(lb/hr)	(lb/hr)	(lb/hr)	(g/s)	(g/s)	(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%

E1111301011 110103 - 00	illi onea	00.0070									
			Short-T	erm							
	PM	PM10	PM2.5	PM	PM10	PM2.5					
Raw Materials	(ib/hr)	(lb/hr)	(lb/hr)	(g/s)	(g/s)	(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-T	erm							
1	PM	PM10	PM2.5	PM	PM10	PM2.5					
Raw Materials	(TPY)	(TPY)	(TPY)	(g/s)	(g/s)	(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-T	erm							
	PM	PM10	PM2.5	PM	PM10	PM2.5					
Raw Materials	(TPY)	(TPY)	(TPY)	(g/s)	(g/s)	(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					

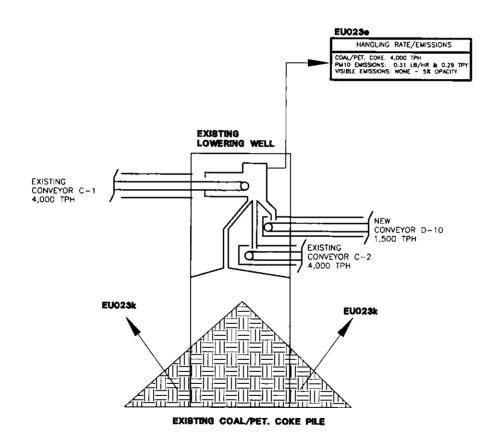
#### References:

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

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



#### JEA

NORTHSIDE GENERATING STATION REPOWERING

Simplified Process Flow Diagram Emissions Unit ID 028

FOSTER WHEELER ENVIRONMENTAL CORPORATION

SCALE N/A DATE: 04/19/99

PREPARED DJG CHECKED MAE APPROVED DJG CAD FILE I EU028PF7.D FIGURE N F-6. EU02

NOTE: COVERS ON CONVEYORS

## Foster Wheeler Environmental Corporation

**EXCEL 7.0 Worksheet Calculation** 

By: D. Graziani, P.E.

Cal. No.: 981103DJG01 Date: 11/3/98 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**

		Belt Speed	H2O	Particle Size Multipliers			Emission Factors (lb/ton)		
Raw Materials	Constant	(MPH)	(%)	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** 

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

#### **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	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**

Lillission nates - Col	03.00%									
		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	0.654	0.309	0.097	0.08247	0.03901	0.01226				
Petroleum Coke	0.654	0.309	0.097	0.08247	0.03901	0.01226				

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#### **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	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				

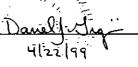
#### **Emission Rates - Controlled** 85.00%

	PM	M PM10 PM2		PM	PM10	PM2.5	
Raw Materials	(TPY)	(TPY)	(TPY)	(g/s)	(g/s)	(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



## Foster Wheeler Environmental Corporation

**EXCEL 7.0 Worksheet Calculation** 

By: D. Graziani, P.E.

Cal. No.: 981103DJG01 Date: 11/3/98 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**

		Belt Speed	H2O	Particle	e Size Mu	tipliers	Emission	Emission Factors (lb/ton)			
Raw Materials	Constant	(MPH)	(%)	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** 

<u>-</u>	Operat	Operating Rates					
Raw Materials	(TPH)	(TPY)					
Coal	4000	7547352					
Petroleum Coke	4000	7547352					
Limestone	0	0					

#### Emission Bates - Uncontrolled

			Short-Te	rm								
	PM	PM10	PM2.5	PM	PM10	PM2.5						
Raw Materials	(lb/hr)	(lb/hr)	(lb/hr)	(g/s)	(g/s)	(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%

			Short-Ter	rm									
	PM	PM10	PM2.5	PM	PM10	PM2.5							
Raw Materials	(lb/hr)	(lb/hr)	(lb/hr)	(g/s)	(g/s)	(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	Ö	0	0	0	0							

#### **Emission Rates - Uncontrolled**

			Long-Ter	rm	-								
	PM	PM10	PM2.5	PM PM		PM2.5							
Raw Materials	(TPY)	(TPY)	(TPY)	(g/s)	(g/s)	(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%

			Long-Tel	m									
	PM	PM10	PM2.5	PM	PM10	PM2.5							
Raw Materials	(TPY) (TPY)		(TPY)	(g/s)	(g/s)	(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

NGSBCTF.xls MP #61

## **REVISED TABLES 7-2 & 7-5**

### NORTHSIDE REPOWERING PROJECT

		SHMMA	DV OF CLAS	S II DSD/EAA	TABLE 1	7-2 ' <u>ANT IMP</u> ACT	AREA CONG	TENTO ATTOR	.ic			
		SUMMA	IKI OF CLAS	S II FSD/FAA	<u>QS SIGNIFIC</u>	ANI IMPACI	AREA CONC			m Concentration	by Year <sup>(1)</sup> (us	v/m³)
Pollutant	Averaging Period	Maximum Concentration (μg/m³)	Significance Level (µg/m³)	Significant Off-site Impact	Significant Impact Radius (km)	Cavity <sup>(2)</sup> Conc (µg/m³)	Length of Cavity <sup>(3)</sup> (km)	1984	1985	1986	1987	1988
Sulfur Dioxide (SO <sub>2</sub> ) (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 <sub>2</sub> ) (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 <sub>2</sub> )	Annual	0.3	1	No	NSI	0.8	NSI	0.1	0.1	0.3	0.2	0.1
Nitrogen Dioxide (NO <sub>2</sub> )	Annual	4.0	1	Yes	1.0	2.4	0.3	4.0	2.8	3.7	3.0	3.8
Particulate Matter (PM <sub>10</sub> ) (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 <sub>10</sub> ) (Base Case)	Annual	1.9	1	Yes	1.3	0.	NSI	1.9	1.9	1.8	1.7	1.9
Particulate Matter (PM <sub>10</sub> ) (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 <sub>10</sub> ) (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 <sup>(4)</sup>	0.002	0.03	No	NSI	0.02	NSI	0.002	0.002	0.002	0.002	0.002

NSI = no significant impact

Source: FWENC, 1998

<sup>(1)</sup> 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.

### NORTHSIDE REPOWERING PROJECT

TABLE 7-5								
SUMMARY OF CLASS II PSD INCREM	1ENT ANALYSIS							

					Receptor	Receptor Location Preliminary Maximum <sup>(1)</sup> Concentration by Year (µg/m³)					ug/m³)
Pollutant	Avg Period	Maximum <sup>(1)</sup> Refined Conc (µg/m³)	Class II PSD Increment (µg/m³)	Period (yymmddhh)	North (km)	East (km)	1984	1985	1986	1987	1988
Sulfur Dioxide (SO <sub>2</sub> ) (0.20 lb/mmBtu)	3-hr	382	512	88052115	3,367.777	446.658	375	306	355	361	382
Sulfur Dioxide (SO <sub>2</sub> ) (0.20 lb/mmBtu)	24-hr	77	91	87091424	3,366.786	448.394	. 68	55	65	77	49
Sulfur Dioxide (SO <sub>2</sub> )	Annual	1.9	20	87	3,365.940	441.747	0.2	0.2	1.0	1.8	1,4
Nitrogen Dioxide (NO <sub>2</sub> )	Annual	1.6	25	N/A	N/A	N/A	1.6	0.0	1.4	0.4	1.3
Particulate Matter (PM <sub>10</sub> ) (Baseline)	24-hr	20	30	870102924	3,365.566	447.697	19.9	19.0	20.0	20.1	18.6
Particulate Matter (PM <sub>10</sub> ) (Baseline)	Annual	13.8	17	88	3,366.360	446.540	0.7	0.2	0.0	0.2	0.9
Particulate Matter (PM <sub>10</sub> ) (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 <sub>10</sub> ) (Alternate 1)	Annual	0.0	17	N/A	N/A	N/A	0.0	0.0	0.0	0.0	0.0

<sup>(1)</sup> High second high, for short-term analyses.

N/A = Not Applicable

Source: FWENC, 1998

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April 12, 1999

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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**

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

123112 4/9/99

CC: File C. Holladay, BAR