



**Department of  
Environmental Protection  
Division of Air Resource  
Management  
APPLICANT DATA DETAIL REPORT  
Long Form**

Application submitted on: 2/10/2006  
For GULF POWER COMPANY

**I. APPLICATION SECTION**

**APPLICATION IDENTIFICATION INFORMATION**

Application Number: 1064  
 Applicant's Version: 1  
 Application Name: CRIST 4&5 <sup>SNCR</sup> ~~SCR~~  
 Application Type: LONG FORM  
 Purpose of Application: AIR CONSTRUCTION PERMIT.  
 Application Comment: The purpose of this application is to request a construction permit for construction of a Selective Non-Catalytic Reduction (SNCR) System on Crist Units 4 and 5 to support the facility wide NOx emission limitation as outlined under the Gulf-FDEP Ozone Reduction Agreement.

Are you requesting a multi-unit or facility-wide emissions cap for one or more pollutants? NO

**SCOPE OF APPLICATION**

EU ID	Description	Permit Type
005	Boiler #5 (Phase I & II Acid Rain Unit)	AC1B
004	Boiler #4 (Phase I & II Acid Rain Unit)	AC1B

Note: Submit any required permit application fee, which you must calculate according to 62-4.050(4), F. A. C.. Contact the appropriate Permitting Office if you have any questions.

**APPLICATION CONTACT INFORMATION**

First Name: ALLISON ✓  
 Last Name: LITTLE  
 Job Title: Engineer III  
 Name of Organization/Firm: GULF POWER COMPANY  
 Telephone: 850 - 444 - 6537  
 Fax: 850 - 444 - 6217  
 E-mail: anilittle@southernco.com  
 Street Address: ONE ENERGY PLACE  
 City: PENSACOLA  
 State: FL  
 Zip: 32520 - 0328

**OWNER/AUTHORIZED REPRESENTATIVE INFORMATION**

First Name: PENNY ✓  
 Last Name: MANUEL ✓  
 Job Title: Vice President and SPO  
 Name of Organization/Firm: GULF POWER COMPANY  
 Street Address: ONE ENERGY PLACE  
 City: PENSACOLA  
 State: FL  
 Zip: 32520 - 0001  
 Telephone: 850 - 444 - 6383  
 Fax: 850 - 444 - 6744  
 E-mail: pmmanuel@southernco.com

Check ARMS ✓

**RESPONSIBLE OFFICIAL INFORMATION**

**First Name:** PENNY  
**Last Name:** MANUEL  
**Primary RO?** YES  
**Job Title:** Vice President and SPO  
**Name of Organization/Firm:** GULF POWER COMPANY  
**Street Address:** ONE ENERGY PLACE  
**City:** PENSACOLA  
**State:** FL  
**Zip:** 32520 - 0001  
**Telephone:** 850 - 444 - 6383  
**Fax:** 850 - 444 - 6744  
**E-mail:** pmmanuel@southernco.com  
**RO Qualification:** For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

**PROFESSIONAL ENGINEER INFORMATION**

**PE UserName:** GNTERRY ✓  
**Registration Number:** 52786  
**First Name:** GREGORY  
**Last Name:** TERRY  
**Job Title:** SR ENGINEER  
**Name of Organization/Firm:** GULF POWER COMPANY  
**Telephone:** 850 - 429 - 2381  
**Fax:**  
**E-mail:** GNTERRY@SOUTHERNCO.COM  
**Street Address:** ONE ENERGY PLACE  
**City:** CANTONMENT  
**State:** FL  
**Zip:** 32520 - 0340

**II. FACILITY SECTION****FACILITY IDENTIFICATION INFORMATION**

**Owner/Company Name:** GULF POWER COMPANY  
**Site Name:** CRIST ELECTRIC GENERATING PLANT  
**Description of Location:** on Pate Road, off 10 mile Rd, located on Governors Bayou  
**Street Address:** 10 Mile Road  
**City:** PENSACOLA  
**County:** ESCAMBIA  
**ZIP:** 32520 - 0340  
**Relocatable:** NO  
**Facility Status:** A - ACTIVE  
**Comment:**

**FACILITY LOCATION AND TYPE**

**Facility UTM Coordinates:** Zone: 16 East(km): 478.27 North(km): 3381.36 ✓  
**Facility Latitude:** Degrees: 30 Minutes: 33 Seconds: 58  
**Facility Longitude:** Degrees: 87 Minutes: 13 Seconds: 44  
**Facility Type:** 1 - STEAM ELECTRIC PLANT  
**Facility SIC Codes:** Primary: 4911 - ELECTRIC, GAS AND SANITARY SERVICES  
 ELECTRIC SERVICES  
 ELECTRIC SERVICES  
**Governmental Facility Code:** 0 - NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT  
**Facility Status:** A - ACTIVE  
**Facility Major Group SIC:** 49 - ELECTRIC, GAS AND SANITARY SERVICES

**FACILITY CONTACT INFORMATION**

**First Name:** ALLISON  
**Last Name:** LITTLE  
**Job Title:** Engineer III  
**Name of Organization/Firm:** GULF POWER COMPANY  
**Telephone:** 850 - 444 - 6537  
**Fax:** 850 - 444 - 6217  
**E-mail:**  
**Street Address:** ONE ENERGY PLACE  
**City:** PENSACOLA  
**State:** FL  
**Zip:** 32520 - 0328

**FACILITY REGULATORY CLASSIFICATIONS**

**Small Business Stationary Source?**  
**Title V?** (Yes)  
**Synthetic Non-Title V Source?**  
**TITLE V Source by EPA Designation?**  
**Major Source of Pollutants Other than HAPs?** (Yes)  
**Synthetic Minor Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?**  
**Major Source of HAPs?** (Yes)  
**Synthetic Minor Source of HAPs?**  
**One or More EUs Subject to NSPS?**  
**One or More EUs Subject to NESHAP?**  
**AOR Required?** (Yes)  
**Ozone SIP Facility?** No  
**Regulatory Classifications Comment:**

**FACILITY POLLUTANT INFORMATION**

Code	Description	Class.	Comment
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Air Permit Application #1064

CO	Carbon Monoxide	A
DIOX	Dioxin/Furan	C
H014	Antimony Compounds	C
H015	Arsenic Compounds (inorganic including arsine)	C
H017	Benzene (including benzene from gasoline)	C
H021	Beryllium Compounds	C
H027	Cadmium Compounds	C
H046	Chromium Compounds	C
H047	Cobalt Compounds	C
H095	Formaldehyde	C
H106	Hydrogen chloride (Hydrochloric acid)	A
H107	Hydrogen fluoride (Hydrofluoric acid)	A
H113	Manganese Compounds	C
H114	Mercury Compounds	C
H133	Nickel Compounds	C
H150	Polychlorinated biphenyls (Aroclors)	C
H151	Polycyclic organic matter	C
H161	Radionuclides (including radon)	C
H162	Selenium Compounds	C
H169	Toluene	C
HAPS	Total Hazardous Air Pollutants	A
NH3	Ammonia	C
NOX	Nitrogen Oxides	A
PB	Lead - Total (elemental lead and lead compounds)	C
PM	Particulate Matter - Total	A
PM10	Particulate Matter - PM10	A
SAM	Sulfuric Acid Mist	C
SO2	Sulfur Dioxide	A
TH	Total Halogens	C
VOC	Volatile Organic Compounds	A

Once construction is complete, Permit No. 0330045-005-AC establishes a NOx cap of 0.2 lb/MMBtu (30-day rolling average) for Units 4, 5, 6, and 7

**FACILITY ADDITIONAL INFORMATION**

Supplementary Item	Applicable?	Attachment?
AREA MAP SHOWING FACILITY LOCATION	No	No
FACILITY PLOT PLAN		Yes
Previously submitted? NO Submittal Date:		
PROCESS FLOW DIAGRAM(s)		Yes
Previously submitted? NO Submittal Date:		
PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER		Yes
Previously submitted? NO Submittal Date:		
LIST OF EXEMPT EMISSIONS UNITS (RULE 62-210.300(3)(a) or (b)1.,F.A.C.)	No	No
LIST OF INSIGNIFICANT ACTIVITIES	No	No
IDENTIFICATION OF APPLICABLE REQUIREMENTS	No	No
COMPLIANCE REPORT AND PLAN	No	No
LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI	No	No
Equipment/Activities On Site but Not Required to be Individually Listed? NO		
VERIFICATION OF RISK MANAGEMENT PLAN SUBMISSION TO EPA	No	No
REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT	No	No
DESCRIPTION OF PROPOSED CONSTRUCTION OR MODIFICATION	Yes	Yes
RULE APPLICABILITY ANALYSIS	No	No
LIST OF EXEMPT EMISSIONS UNITS (RULE 62-210.300(3)(a) or (b)1.,F.A.C.)	No	No
FUGITIVE EMISSIONS IDENTIFICATION (RULE 62-212.400(2),F.A.C.)	No	No
PRECONSTRUCTION AIR QUALITY MONITORING AND ANALYSIS (RULE 62-212.400(5)(f),F.A.C.)	No	No
AMBIENT IMPACT ANALYSIS (RULE 62-212.400(5)(D),F.A.C.)	No	No
AIR QUALITY IMPACT SINCE 1977 (RULE 62-212.400(5)(h)5.,F.A.C.)	No	No
ADDITIONAL IMPACT ANALYSES (RULES 62-212.400(5)(e)1. and 62-212.500(4)(e),F.A.C.)	No	No
ALTERNATIVE ANALYSIS REQUIREMENTS (RULE 62-212.500(4)(g),F.A.C.)	No	No
OTHER FACILITY INFORMATION	Yes	Yes

## Supplementary Items Comment:

FACILITY ATTACHMENTS

Supplementary Item	Electronic?	Attachment Description	Electronic File Name	Uploaded?
DESCRIPTION OF PROPOSED CONSTRUCTION OR MODIFICATION	Yes	Crist 4 & 5 SNCR Description	__FLXFPFS01_ANLITTLE\$_DATA_Permitting_Crist 4_5 SNCR_Crist 45 SNCR Air Permit Rev 3.doc	Yes
FACILITY PLOT PLAN	Yes	Plot Plan for Plant Crist	__FLXFPFS01_ANLITTLE\$_DATA_Permitting_Crist 4_5 SNCR_FS2CR.pdf	Yes
OTHER FACILITY INFORMATION	Yes	Crist 5 Mercury Research Center Precautions to prevent emissions of unconfined particulate matter for	__FLXFPFS01_ANLITTLE\$_DATA_Permitting_Crist 4_5 SNCR_Research Center - Cr5.doc	Yes
PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER	Yes	Units 4 and 5	__FLXFPFS01_ANLITTLE\$_DATA_Permitting_Crist 6 SNCR_CRPREVPM.pdf	Yes
PROCESS FLOW DIAGRAM(s)	Yes	Process Flow Diagram Unit 4	__FLXFPFS01_ANLITTLE\$_DATA_Permitting_Crist 4_5 SNCR_CR4SNCR PF.pdf	Yes
PROCESS FLOW DIAGRAM(s)	Yes	Process Flow Diagram Unit 5	__FLXFPFS01_ANLITTLE\$_DATA_Permitting_Crist 4_5 SNCR_CR5SNCR PF.pdf	Yes

**III. EMISSIONS UNIT SECTION****EU 005: DESCRIPTION AND DETAIL INFORMATION****EU Classification:** R - REGULATED EMISSIONS UNIT**Type of EU:** THIS EU 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).**EU Description:** BOILER #5 (PHASE I & II ACID RAIN UNIT) ✓**EU Status:** A - ACTIVE**Commence Construction Date:****Initial Startup Date:** 6/1/1961**Long-term Reserve Shutdown Date:****EU Major Group SIC:** 49 - ELECTRIC, GAS AND SANITARY SERVICES**Acid Rain Unit?** Yes**Package Unit Manufacturer:** COMBUSTION ENGINEERING**Generator Nameplate Rating:** 93 MW ✓**EU Comment:** UNIT 5 IS A COMBUSTION ENGINEERING TANGENTIALLY FIRED, DRY BOTTOM ELECTRIC UTILITY BOILER.**EU 005: CONTROL EQUIPMENT/METHOD INFORMATION****Control Equipment/Method Name:** ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)**Description:** ✓ Hot side electrostatic precipitators manufactured by Buell Model Bal. 2x34n333-4-3p and cold side precipitators Buell Model 1.1x48k33-1p.**EU 005: OPERATING CAPACITY AND SCHEDULE****Maximum Process or Throughput Rate:****Maximum Process or Throughput Rate Units:****Maximum Production Rate:** 99999**Maximum Production Rate Units:** MW**Maximum Heat Input Rate:** 1097 mmBtu/hr ✓**Maximum Incineration Rate:****Requested Maximum Operating Schedule:** 24 hours/day 7 days/week 52 weeks/year 8760 hours/year ✓**Operating Capacity and Schedule Comment:** 1096.7 MMBTU/HR. COMPLIANCE BY FUEL RECORDS. ✓**EU 005: POINT (STACK/VENT) INFORMATION****Identification of Point on Plot Plan or Flow Diagram?** SINGLE COMMON STACK SHARED BY UNITS 1,2,3,4,AND 5 ✓**Emission Point Type Code:** 2 - AN EMISSION POINT SERVING 2 OR MORE EU'S CAPABLE OF SIMULTANEOUS OPERATION**Discharge Type Code:** V - A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A VERTICAL, OR NEARLY VERTICAL DIRECTION**Stack Height:** 450 feet ✓**Exit Diameter:** 18 feet ✓**Exit Temperature:** 290 Fahrenheit ✓**Actual Volumetric Flow Rate:** 802500 acfm ✓**Water Vapor:** 9 %**Maximum Dry Standard Flow Rate:****Nonstack Emission Point Height:****Emission Point UTM Coordinates:** Zone: 16 East(km): 478.6 North(km): 3381.3**Emission Point Latitude:** DD: 30 MM: 33 SS: 56**Emission Point Longitude:** DD: 87 MM: 13 SS: 31

Emission Point Comment: Common stack for units 1-5.

**EU 005: SEGMENT (PROCESS/FUEL) INFORMATION****SCC Code: 10100212**

Units: Tons Bituminous Coal Burned ✓

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Bituminous/Subbituminous Coal

Description 4: Pulverized Coal: Dry Bottom (Tangential) (Bituminous Coal)

Is this a Valid Segment? YES

Segment Description (Process/Fuel Type): Pulverized bituminous coal.

Maximum Hourly Rate: 40.52

Maximum Annual Rate: 354955.2

Estimated Annual Activity Factor:

Maximum % Sulfur: 3.5

Maximum % Ash: 9.3

Million Btu per SCC Unit: 24

Segment Comment: Primarily a coal fired unit. This unit is also capable of full load using natural gas. No. 2 fuel oil is used as a secondary fuel.

**SCC Code: 10100501**

Units: 1000 Gallons Distillate Oil (No. 1 &amp; 2) Burned ✓

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Distillate Oil

Description 4: Grades 1 and 2 Oil

Is this a Valid Segment? YES

Segment Description (Process/Fuel Type): #2 fuel oil.

Maximum Hourly Rate: 7.184

Maximum Annual Rate: 62931.84

Estimated Annual Activity Factor:

Maximum % Sulfur: 0.5

Maximum % Ash: 0.1

Million Btu per SCC Unit: 138

Segment Comment: #2 fuel oil as a back up fuel.

**SCC Code: 10100604**

Units: Million Cubic Feet Natural Gas Burned ✓

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Natural Gas

Description 4: Tangentially Fired Units

Is this a Valid Segment? YES

Segment Description (Process/Fuel Type): Natural gas

Maximum Hourly Rate: 0.96

Maximum Annual Rate: 8409.6

Estimated Annual Activity Factor:

Maximum % Sulfur: 0.01

Maximum % Ash:

Million Btu per SCC Unit: 1000

Segment Comment: Natural gas

**SCC Code: 10100903**

Units: Tons Wood Burned

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Wood/Bark Waste

Description 4: Wood-fired Boiler--Wet Wood.(≥20% moisture)

Is this a Valid Segment? YES

Segment Description (Process/Fuel

97.7 (where in permit)

**Type):** "Biomass" (wood, switchgrass, sawdust, and sander dust)  
**Maximum Hourly Rate:**  
**Maximum Annual Rate:**  
**Estimated Annual Activity Factor:**  
**Maximum % Sulfur:**  
**Maximum % Ash:**  
**Million Btu per SCC Unit:**  
**Segment Comment:** Permit allows up to 97.7 MMBtu/hr of "biomass" (wood, switchgrass, sawdust, and sander dust) with TPH and TPY limits for each "biomass" fuel

**SCC Code:** 10101302  
**Units:** 1000 Gallons Waste Oil Burned ✓  
**Description 1:** External Combustion Boilers  
**Description 2:** Electric Generation  
**Description 3:** Liquid Waste  
**Description 4:** Waste Oil  
**Is this a Valid Segment?** YES  
**Segment Description (Process/Fuel Type):** On-specification used oil.  
**Maximum Hourly Rate:**  
**Maximum Annual Rate:**  
**Estimated Annual Activity Factor:**  
**Maximum % Sulfur:**  
**Maximum % Ash:**  
**Million Btu per SCC Unit:**  
**Segment Comment:** Used oil specification: Arsenic 5 PPM, Cadmium 2 PPM, Chromium 10 PPM, Lead 100 PPM, Total Halogens 1000 PPM, PCB50 ppm. ✓

**EU 005: POLLUTANT POTENTIAL/ESTIMATED EMISSIONS INFORMATION**

**Pollutant Code:** CO  
**Pollutant Description:** CARBON MONOXIDE  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 38.4 lb/hour 168.19 tons/year  
**Synthetically Limited?:** NO  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.  
**Emission Factor:** 40  
**Emission Factor Units:** LB/MMCF BURNED  
**Emission Factor Reference:** AP-42  
**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.  
**Calculation of Emissions:** [40 lb/mmcf] [.96 mmcf/hr] [8760 hr/yr] [1/2000] =168.19 tons/yr  
**Pollutant Comment:** Potential emissions highest with unit operates on natural gas.

**Pollutant Code:** DIOX  
**Pollutant Description:** DIOXIN/FURAN  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:**  
**Synthetically Limited?:**  
**Range of Estimated Fugitive**



**Emissions:**  
**Emissions Method:**  
**Emission Factor:**  
**Emission Factor Units:**  
**Emission Factor Reference:**  
**Emissions Method Code:**  
**Calculation of Emissions:**  
**Pollutant Comment:**

**Pollutant Code: H014**

**Pollutant Description:** ANTIMONY COMPOUNDS  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.04 lb/hour 0.16 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.  
**Emission Factor:** 0.004935  
**Emission Factor Units:** LB/1000 GAL  
**Emission Factor Reference:** AP-42  
**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:**

**Pollutant Code: H015**

**Pollutant Description:** ARSENIC COMPOUNDS (INORGANIC INCLUDING ARSINE)  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.02 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Emission Factor:** 0.000592  
**Emission Factor Units:** LB/TON  
**Emission Factor Reference:** RAD  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:** Limited to 5 ppm as specification of used oil.

**Pollutant Code: H017**

**Pollutant Description:** BENZENE (INCLUDING BENZENE FROM GASOLINE)  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.02 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.000091  
**Emission Factor Units:** LB/TON  
**Emission Factor Reference:** EPRISR  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:**

**Pollutant Code: H021**

**Pollutant Description:** BERYLLIUM COMPOUNDS  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.02 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED BY USE OF MATERIAL BALANCE AND KNOWLEDGE OF THE PROCESS.  
**Emission Factor:** 0.000103  
**Emission Factor Units:** LB/TON  
**Emission Factor Reference:**  
**Emissions Method Code:** 2 - CALCULATED BY USE OF MATERIAL BALANCE AND KNOWLEDGE OF THE PROCESS.  
**Calculation of Emissions:**  
**Pollutant Comment:**

**Pollutant Code: H027**

**Pollutant Description:** CADMIUM COMPOUNDS  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.01 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Emission Factor:** 0.000079  
**Emission Factor Units:** LB/TON  
**Emission Factor Reference:** RAD  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:** Limited to 2 ppm as specification of used oil.

**Pollutant Code: H046**

**Pollutant Description:** CHROMIUM COMPOUNDS  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.02 lb/hour 0.08 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.00045  
**Emission Factor Units:** LB/TON  
**Emission Factor Reference:**  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:** Limited to 10 ppm as specification of used oil.

**Pollutant Code:** H047  
**Pollutant Description:** COBALT COMPOUNDS  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.04 lb/hour 0.16 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Emission Factor:** 0.005217  
**Emission Factor Units:** LB/1000 GAL  
**Emission Factor Reference:**  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:**

**Pollutant Code:** H095  
**Pollutant Description:** FORMALDEHYDE  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.02 lb/hour 0.09 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED BY USE OF MATERIAL BALANCE AND KNOWLEDGE OF THE PROCESS.  
**Emission Factor:** 0.00282  
**Emission Factor Units:** LB/1000 GAL  
**Emission Factor Reference:** EPRISR  
**Emissions Method Code:** 2 - CALCULATED BY USE OF MATERIAL BALANCE AND KNOWLEDGE OF THE PROCESS.  
**Calculation of Emissions:**  
**Pollutant Comment:**

**Pollutant Code:** H106  
**Pollutant Description:** HYDROGEN CHLORIDE (HYDROCHLORIC ACID)  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 70.5 lb/hour 308.79 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 1.74

**Emission Factor Units:** LB/TON

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:** 1.74 lb/ton coal\*40.516 ton/hr \* 8760 hr/yr\*1 ton/2000 lbs = 308.78 TPY

**Pollutant Comment:**

**Pollutant Code:** H107

**Pollutant Description:** HYDROGEN FLUORIDE (HYDROFLUORIC ACID)

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 6.83 lb/hour 29.9 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.16849

**Emission Factor Units:** LB/TON

**Emission Factor Reference:** GDW

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:** 0.16848 lb/ton of coal\* 40.516 ton/hr\* 8760 hr/yr\* 1ton /2000 lb = 29.9 TPY

**Pollutant Comment:**

**Pollutant Code:** H113

**Pollutant Description:** MANGANESE COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.02 lb/hour 0.1 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.000542

**Emission Factor Units:** LB/TON

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code:** H114

**Pollutant Description:** MERCURY COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.01 lb/hour 0.02 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.00014

**Emission Factor Units:** LB/TON

**Emission Factor Reference:** GDW  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:**

**Pollutant Code: H133**

**Pollutant Description:** NICKEL COMPOUNDS  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.17 lb/hour 0.75 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Emission Factor:** 0.02397  
**Emission Factor Units:** LB/1000 GAL  
**Emission Factor Reference:** RAD  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:**

**Pollutant Code: H150**

**Pollutant Description:** POLYCHLORINATED BIPHENYLS (AROCLORS)  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:**  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:**  
**Emission Factor:**  
**Emission Factor Units:**  
**Emission Factor Reference:**  
**Emissions Method Code:**  
**Calculation of Emissions:**  
**Pollutant Comment:** Limited to 50 ppm as specification of used oil.

**Pollutant Code: H151**

**Pollutant Description:** POLYCYCLIC ORGANIC MATTER  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.02 lb/hour 0.1 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Emission Factor:** 0.003173  
**Emission Factor Units:** LB/1000 GAL  
**Emission Factor Reference:** RAD  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

Calculation of Emissions:  
Pollutant Comment:

**Pollutant Code: H161**

Pollutant Description: RADIONUCLIDES (INCLUDING RADON)

Is this a Valid Pollutant? YES

Include in the Facility Emissions  
Cap? NO

Pollutant Regulatory Code: NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

Primary Control Device:

Secondary Control Device:

Total % Efficiency of Control:

Potential Emissions:

Synthetically Limited?:

Range of Estimated Fugitive

Emissions:

Emissions Method:

Emission Factor:

Emission Factor Units:

Emission Factor Reference:

Emissions Method Code:

Calculation of Emissions:

Pollutant Comment:

**Pollutant Code: H162**

Pollutant Description: SELENIUM COMPOUNDS

Is this a Valid Pollutant? YES

Include in the Facility Emissions  
Cap? NO

Pollutant Regulatory Code: NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

Primary Control Device:

Secondary Control Device:

Total % Efficiency of Control:

Potential Emissions: 0.1 lb/hour 0.45 tons/year

Synthetically Limited?:

Range of Estimated Fugitive

Emissions:

Emissions Method: CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

Emission Factor: 0.002541

Emission Factor Units: LB/TON

Emission Factor Reference:

Emissions Method Code: 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

Calculation of Emissions:

Pollutant Comment:

**Pollutant Code: H169**

Pollutant Description: TOLUENE

Is this a Valid Pollutant? YES

Include in the Facility Emissions  
Cap? NO

Pollutant Regulatory Code: NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

Primary Control Device:

Secondary Control Device:

Total % Efficiency of Control:

Potential Emissions: 0.01 lb/hour 0.04 tons/year

Synthetically Limited?:

Range of Estimated Fugitive

Emissions:

Emissions Method: CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

Emission Factor: 0.001396

Emission Factor Units: LB/1000 GAL

Emission Factor Reference:

Emissions Method Code: 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

Calculation of Emissions:

Pollutant Comment:

**Pollutant Code: NOX****Pollutant Description:** NITROGEN OXIDES**Is this a Valid Pollutant?** YES**Include in the Facility Emissions Cap?** YES**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:** 658.02 lb/hour 2882.13 tons/year**Synthetically Limited?:** NO**Range of Estimated Fugitive Emissions:****Emissions Method:** EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.**Emission Factor:** 0.6**Emission Factor Units:** LB/MMBTU 0.2**Emission Factor Reference:** PERMIT LIMIT**Emissions Method Code:****Calculation of Emissions:** (0.6 lb/mmBtu) [1096.7 mmBtu/hr] [8760 hr/yr] [1/2000] = 2882.13 tons/yr**Pollutant Comment:****Pollutant Code: PB****Pollutant Description:** LEAD - TOTAL (ELEMENTAL LEAD AND LEAD COMPOUNDS)**Is this a Valid Pollutant?** YES**Include in the Facility Emissions Cap?** NO**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:** 0.01 lb/hour 0.05 tons/year**Synthetically Limited?:****Range of Estimated Fugitive Emissions:****Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.**Emission Factor:** 0.000259**Emission Factor Units:** LB/TON**Emission Factor Reference:****Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.**Calculation of Emissions:****Pollutant Comment:** Limited to 100 ppm as specification of used oil.**Pollutant Code: PM****Pollutant Description:** PARTICULATE MATTER - TOTAL**Is this a Valid Pollutant?** YES**Include in the Facility Emissions Cap?** NO**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT**Primary Control Device:** ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)**Secondary Control Device:****Total % Efficiency of Control:** 99**Potential Emissions:** 109.7 lb/hour 600 tons/year**Synthetically Limited?:** NO**Range of Estimated Fugitive Emissions:****Emissions Method:** EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.**Emission Factor:** 0.125**Emission Factor Units:** LB/MMBTU**Emission Factor Reference:** Permit Limit**Emissions Method Code:****Calculation of Emissions:** lb/hr = 1096.7 mmBtu/hr \* 0.1 lb/mmBtu = 109.7 lb/hr. TPY = 1096.7 mmBtu/hr \* 0.125 lb/mmBtu \* 8760 hrs/yr \* 1 ton/2000 lb = 600. TPY

**Pollutant Comment:** Emission factor based on 0.1 lb/MMBtu, 21 hours (steady- state); 0.3 lb/MMBtu, 3 hours (soot-blowing).

**Pollutant Code: PM10**

**Pollutant Description:** PARTICULATE MATTER - PM10

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:** ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)

**Secondary Control Device:**

**Total % Efficiency of Control:** 99

**Potential Emissions:** 18.8399 lb/hour 82.5189 tons/year

**Synthetically Limited?:** NO

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.

**Emission Factor:** 0.465

**Emission Factor Units:** LB/TON

**Emission Factor Reference:** AP-42

**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.

**Calculation of Emissions:** [.465 lb/ton of coal] [40.516 ton/hr] [8760 hr/yr] [1/2000]=82.5189 tons/yr

**Pollutant Comment:**

**Pollutant Code: SAM**

**Pollutant Description:** SULFURIC ACID MIST

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 46.23 lb/hour 202.5 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.

**Emission Factor:** 1.14

**Emission Factor Units:** LB/TON

**Emission Factor Reference:** AP-42

**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code: SO2**

**Pollutant Description:** SULFUR DIOXIDE

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 2632.8 lb/hour 11532 tons/year

**Synthetically Limited?:** NO

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.

**Emission Factor:** 2.4

**Emission Factor Units:** LB/MMBTU

**Emission Factor Reference:** Permit Limit

**Emissions Method Code:**

**Calculation of Emissions:**



Pollutant Comment: Potential emissions are based on coal firing.

**Pollutant Code:** VOC

**Pollutant Description:** VOLATILE ORGANIC COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 2.43 lb/hour 10.65 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.

**Emission Factor:** 0.06

**Emission Factor Units:** LB/TON

**Emission Factor Reference:** AP-42

**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**EU 005: POLLUTANT ALLOWABLE EMISSIONS INFORMATION**

**Pollutant Code:** NOX

**Pollutant Description:** NITROGEN OXIDES

**Basis for Allowable Emissions Code:** OTHER - REQUESTED BY APPLICANT FOR OTHER REASONS

**Regulation:**

**Future Effective Date of Allowable Emissions:**

**Allowable Emissions:** 0.6

**Allowable Emissions Unit:** POUNDS PER MILLION BTU HEAT INPUT

**Equivalent Allowable Emissions:** 658.02 lb/hour 2882.13 tons/year

**Method of Compliance:** CEM annual average of Title V Phase II NOx Averaging Plan.

**Comment/Description of Operating Method:** Crist Unit 5 is part of the Gulf/Mississippi Power NOx Averaging Plan for compliance with Phase II NOx limits. See 40.CFR.Part.76.for.details.No.hrlly.annual.equivalent.allowable.emissions.necessary.

**Pollutant Code:** PM

**Pollutant Description:** PARTICULATE MATTER - TOTAL

**Basis for Allowable Emissions Code:** RULE - EMISSIONS CAP REQUIRED BY RULE

**Regulation:** 62-210.700(3)

**Future Effective Date of Allowable Emissions:**

**Allowable Emissions:** 0.3 ✓

**Allowable Emissions Unit:** POUNDS PER MILLION BTU HEAT INPUT

**Equivalent Allowable Emissions:** 329.01 lb/hour 600 tons/year

**Method of Compliance:** Test required when liquid a/o solid fuel fired >400 hrs/yr

**Comment/Description of Operating Method:** During soot-blowing and load change for 3-hrs per 24-hr period .

**Pollutant Code:** PM

**Pollutant Description:** PARTICULATE MATTER - TOTAL

**Basis for Allowable Emissions Code:** RULE - EMISSIONS CAP REQUIRED BY RULE

**Regulation:** 62-296.405(1)(b)

**Future Effective Date of Allowable Emissions:**

**Allowable Emissions:** 0.1 ✓

**Allowable Emissions Unit:** POUNDS PER MILLION BTU HEAT INPUT

Equivalent Allowable Emissions: 109.67 lb/hour 600 tons/year  
Method of Compliance: Test required when liquid a/o solid fuel fired >400 hrs/yr  
Comment/Description of Operating Method: During normal operations.

**Pollutant Code: SO2**

Pollutant Description: SULFUR DIOXIDE

Basis for Allowable Emissions Code: RULE - EMISSIONS CAP REQUIRED BY RULE

Regulation: 62-296.405(1)(c)2.c.

Future Effective Date of Allowable Emissions:

Allowable Emissions: 2.4 5.90

Allowable Emissions Unit: POUNDS PER MILLION BTU HEAT INPUT

Equivalent Allowable Emissions: 6470.5 lb/hour 28341 tons/year  
Method of Compliance: Daily 24 hour average based on CEM

Comment/Description of Operating Method: While firing coal.

**Pollutant Code: SO2**

Pollutant Description: SULFUR DIOXIDE

Basis for Allowable Emissions Code: RULE - EMISSIONS CAP REQUIRED BY RULE

Regulation: 62-296.405(1)(c)1.j.

Future Effective Date of Allowable Emissions:

Allowable Emissions: 2.75 2.40

Allowable Emissions Unit: POUNDS PER MILLION BTU HEAT INPUT

Equivalent Allowable Emissions: 3015.93 lb/hour 13209.75 tons/year  
Method of Compliance: Daily 24 hour average based on CEM

Comment/Description of Operating Method: While burning liquid fuel.

**EU 005: VISIBLE EMISSIONS INFORMATION**

**Visible Emissions Subtype: VE40**

Basis for Allowable Opacity: RULE

Requested Allowable Opacity in Normal Conditions: 40 ✓

Requested Allowable Opacity in Exceptional Conditions:

Maximum Period of Excess Opacity Allowed:

Continuous Opacity Monitor Used: Yes

Visible Emissions Comment: During normal condition. Compliance shown through transmissometer (opacity meter).

**Visible Emissions Subtype: VE60**

Basis for Allowable Opacity: RULE ✓

Requested Allowable Opacity in Normal Conditions: 60 ✓

Requested Allowable Opacity in Exceptional Conditions:

Maximum Period of Excess Opacity Allowed:

Continuous Opacity Monitor Used: Yes

Visible Emissions Comment: During the 3-hrs in any 24 hr period allowed for boiler cleaning (soot blowing) and load change. Compliance shown through transmissometer (opacity meter).

**EU 005: CONTINUOUS MONITOR INFORMATION**

**CM Identifier: 5**

**Parameter Code: CO2 - Carbon dioxide****CMS Requirement:**

**Monitor Manufacturer:** Siemens  
**Model Number:** ULTRAMAT 5E  
**Serial Number:** E3-730  
**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994  
**Status:** ACTIVE

**Continuous Monitor Comment:** Spectrum Systems Model 300 Dilution Monitoring System uses the Siemens CO2 analyzer to measure the diluent component of the SO2 and NOX emission rate.

**CM Identifier: 4****Parameter Code: EM - EMISSION**

**Pollutant(s) Monitored:** NOX - Nitrogen Oxides  
**CMS Requirement:**  
**Monitor Manufacturer:** Teco  
**Model Number:** 42D  
**Serial Number:** 42D-42539-267  
**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994  
**Status:** ACTIVE

**Continuous Monitor Comment:** Spectrum Systems Model 300 Dilution Monitoring System uses Siemens and Teco analyzers to calculate unit NOx emission rate.

**CM Identifier: 3****Parameter Code: EM - EMISSION**

**Pollutant(s) Monitored:** SO2 - Sulfur Dioxide  
**CMS Requirement:**  
**Monitor Manufacturer:** Teco  
**Model Number:** 43H  
**Serial Number:** 43H-44334-271  
**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994  
**Status:** ACTIVE

**Continuous Monitor Comment:** Unit has elected to install and operate CEM for SO2 in lieu of monitoring emissions using fuel sampling and analysis under rule 62-296.405(1)(f)1.

**CM Identifier: 6****Parameter Code: FLOW - Volumetric flow rate**

**CMS Requirement:**  
**Monitor Manufacturer:** United Science  
**Model Number:** ULTRAFLOW 100  
**Serial Number:** 9401591  
**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994  
**Status:** ACTIVE

**Continuous Monitor Comment:** Spectrum Systems Model 300 Dilution Monitoring System uses heat input measurements from flow to calculate hourly emissions.

**CM Identifier: 2****Parameter Code: VE - Visible emissions (opacity)**

**CMS Requirement:**  
**Monitor Manufacturer:** Lear Siegler  
**Model Number:** SS-4542  
**Serial Number:** 940602  
**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994  
**Status:** ACTIVE

**Continuous Monitor Comment:** Unit required to monitor opacity under 62-96.405(1)(f)1.

VOC?

**EU 005: ADDITIONAL ITEMS**

Supplementary Item	Applicable?	Attachment?
PROCESS FLOW DIAGRAM Previously submitted? NO Submittal Date:	No	No
FUEL ANALYSIS OR SPECIFICATION Previously submitted? NO Submittal Date:	No	No
DETAILED DESCRIPTION OF CONTROL EQUIPMENT Previously submitted? NO Submittal Date:	No	No
DESCRIPTION OF STACK SAMPLING FACILITIES	No	No
PROCEDURES FOR STARTUP AND SHUTDOWN Previously submitted? NO Submittal Date:	No	No
OPERATION AND MAINTENANCE PLAN Previously submitted? NO Submittal Date:	No	No
COMPLIANCE DEMONSTRATION REPORTS/RECORDS Previously submitted? NO Submittal Date: Previously Submitted Test Date(s)/Pollutants Tested: To Be submitted? NO Submittal Date: To Be Submitted Test Date(s)/Pollutants Tested:	No	No
OTHER INFORMATION REQUIRED BY RULE OR STATUTE	No	No
IDENTIFICATION OF APPLICABLE REQUIREMENTS	No	No
COMPLIANCE ASSURANCE MONITORING PLAN	No	No
ALTERNATIVE METHODS OF OPERATION	No	No
ACID RAIN PART (FORM NO. 62-210.900(1)(a)) Previously submitted? NO Submittal Date:	No	No
CONTROL TECHNOLOGY REVIEW AND ANALYSIS (RULES 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))	No	No
GOOD ENGINEERING PRACTICE STACK HEIGHT ANALYSIS (RULE 62-212.400(5)(h)6., F.A.C., and RULE 62-212.500(4)(f), F.A.C.)	No	No
ALTERNATIVE MODES OF OPERATION (EMISSIONS TRADING)	No	No
REPOWERING EXTENSION PLAN (FORM NO. 62-210.900(1)(a)1.) Previously submitted? NO Submittal Date:	No	No
NEW UNIT EXEMPTION (FORM NO. 62-210.900(1)(a)2.) Previously submitted? NO Submittal Date:	No	No
RETIRED UNIT EXEMPTION (FORM NO. 62-210.900(1)(a)3.) Previously submitted? NO Submittal Date:	No	No
PHASE II NO <sub>x</sub> COMPLIANCE PLAN (FORM NO. 62-210.900(1)(a)4.) Previously submitted? NO Submittal Date:	No	No
PHASE II NO <sub>x</sub> AVERAGING PLAN (FORM NO. 62-210.900(1)(a)5.) Previously submitted? NO Submittal Date:	No	No
CERTIFICATE OF REPRESENTATION (EPA FORM NO. 7610-1)	No	No
OTHER EMISSIONS UNIT INFORMATION	No	No

**EU 005: ATTACHMENTS**

\*\*\* No Emissions Unit Additional Attachments Found \*\*\*

**EU 004: DESCRIPTION AND DETAIL INFORMATION****EU Classification:** R - REGULATED EMISSIONS UNIT**Type of EU:** THIS EU 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).**EU Description:** BOILER #4 (PHASE I & II ACID RAIN UNIT)**EU Status:** A - ACTIVE**Commence Construction Date:****Initial Startup Date:** 7/1/1959**Long-term Reserve Shutdown Date:****EU Major Group SIC:** 49 - ELECTRIC, GAS AND SANITARY SERVICES**Acid Rain Unit?** Yes**Package Unit Manufacturer:** COMBUSTION ENGINEERING**Generator Nameplate Rating:** 93 MW**EU Comment:** UNIT 4 IS A COMBUSTION ENGINEERING TANGENTIALLY FIRED, DRY BOTTOM ELECTRIC UTILITY BOILER.**EU 004: CONTROL EQUIPMENT/METHOD INFORMATION****Control Equipment/Method Name:** ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)**Description:** Hot side electrostatic precipitators manufactured by Buell Model Bal. 2x34n333-4-3p and cold side precipitators Buell Model 1.1x48k33-1p.**EU 004: OPERATING CAPACITY AND SCHEDULE****Maximum Process or Throughput Rate:****Maximum Process or Throughput Rate Units:****Maximum Production Rate:** 99999**Maximum Production Rate Units:** MW**Maximum Heat Input Rate:** 1097 mmBtu/hr**Maximum Incineration Rate:****Requested Maximum Operating Schedule:** 24 hours/day 7 days/week 52 weeks/year 8760 hours/year**Operating Capacity and Schedule Comment:** 1096.7 MMBTU/HR. COMPLIANCE BY FUEL RECORDS.**EU 004: POINT (STACK/VENT) INFORMATION****Identification of Point on Plot Plan or Flow Diagram?** SINGLE COMMON STACK SHARED BY UNITS 1,2,3,4,AND 5**Emission Point Type Code:** 2 - AN EMISSION POINT SERVING 2 OR MORE EU'S CAPABLE OF SIMULTANEOUS OPERATION**Discharge Type Code:** V - A STACK WITH AN UNOBSTRUCTED OPENING DISCHARGING IN A VERTICAL, OR NEARLY VERTICAL DIRECTION**Stack Height:** 450 feet**Exit Diameter:** 18 feet**Exit Temperature:** 290 Fahrenheit**Actual Volumetric Flow Rate:** 802500 acfm**Water Vapor:** 9 %**Maximum Dry Standard Flow Rate:****Nonstack Emission Point Height:****Emission Point UTM Coordinates:** Zone: 16 East(km): 478.6 North(km): 3381.3**Emission Point Latitude:** DD: 30 MM: 33 SS: 56**Emission Point Longitude:** DD: 87 MM: 13 SS: 31**Emission Point Comment:** Common stack for unts 1-5.

**EU 004: SEGMENT (PROCESS/FUEL) INFORMATION****SCC Code: 10100212**

Units: Tons Bituminous Coal Burned

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Bituminous/Subbituminous Coal

Description 4: Pulverized Coal: Dry Bottom (Tangential) (Bituminous Coal)

Is this a Valid Segment? YES

Segment Description (Process/Fuel Type): Pulverized bituminous coal.

Maximum Hourly Rate: 40.52

Maximum Annual Rate: 354955.2

Estimated Annual Activity Factor:

Maximum % Sulfur: 3.5

Maximum % Ash: 9.3

Million Btu per SCC Unit: 24

Segment Comment: Primarily a coal fired unit. This unit is also capable of full load using natural gas. No. 2 fuel oil is used as a secondary fuel.

**SCC Code: 10100501**

Units: 1000 Gallons Distillate Oil (No. 1 &amp; 2) Burned

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Distillate Oil

Description 4: Grades 1 and 2 Oil

Is this a Valid Segment? YES

Segment Description (Process/Fuel Type): #2 fuel oil

Maximum Hourly Rate: 7.184

Maximum Annual Rate: 62931.84

Estimated Annual Activity Factor:

Maximum % Sulfur: 0.5

Maximum % Ash: 0.1

Million Btu per SCC Unit: 138

Segment Comment: #2 fuel oil as a back up fuel.

**SCC Code: 10100604**

Units: Million Cubic Feet Natural Gas Burned

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Natural Gas

Description 4: Tangentially Fired Units

Is this a Valid Segment? YES

Segment Description (Process/Fuel Type): Natural gas.

Maximum Hourly Rate: 0.96

Maximum Annual Rate: 8409.6

Estimated Annual Activity Factor:

Maximum % Sulfur: 0.01

Maximum % Ash:

Million Btu per SCC Unit: 1000

Segment Comment: Natural gas.

**SCC Code: 10100903**

Units: Tons Wood Burned

Description 1: External Combustion Boilers

Description 2: Electric Generation

Description 3: Wood/Bark Waste

Description 4: Wood-fired Boiler - Wet Wood (&gt;=20% moisture)

Is this a Valid Segment? YES

Segment Description (Process/Fuel Type): "Biomass" (wood, switchgrass, sawdust, and sander dust)

Maximum Hourly Rate:

Maximum Annual Rate:

**Estimated Annual Activity Factor:****Maximum % Sulfur:****Maximum % Ash:****Million Btu per SCC Unit:****Segment Comment:**

Permit allows up to 97.7 MMBtu/hr of "biomass" (wood, switchgrass, sawdust, and sander dust) with TPH and TPY limits for each "biomass" fuel

**SCC Code: 10101302****Units:** 1000 Gallons Waste Oil Burned**Description 1:** External Combustion Boilers**Description 2:** Electric Generation**Description 3:** Liquid Waste**Description 4:** Waste Oil**Is this a Valid Segment?** YES**Segment Description (Process/Fuel Type):**

On-specification used oil.

**Maximum Hourly Rate:****Maximum Annual Rate:****Estimated Annual Activity Factor:****Maximum % Sulfur:****Maximum % Ash:****Million Btu per SCC Unit:****Segment Comment:**

Used oil specification: Arsenic 5 PPM, Cadmium 2 PPM, Chromium 10 PPM, Lead 100 PPM, Total Halogens 1000 PPM, PCB50 ppm.

**EU 004: POLLUTANT POTENTIAL/ESTIMATED EMISSIONS INFORMATION****Pollutant Code: CO****Pollutant Description:** CARBON MONOXIDE**Is this a Valid Pollutant?** YES**Include in the Facility Emissions Cap?** NO**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:** 38.4 lb/hour 168.19 tons/year**Synthetically Limited?:** NO**Range of Estimated Fugitive Emissions:****Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.**Emission Factor:** 40**Emission Factor Units:** LB/MMCF BURNED**Emission Factor Reference:** AP-42**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.**Calculation of Emissions:** [40 lb/mmcf] [.96 mmcf/hr] [8760 hr/yr] [1/2000] =168.19 tons/yr**Pollutant Comment:** Potential emissions highest with unit operates on natural gas.**Pollutant Code: DIOX****Pollutant Description:** DIOXIN/FURAN**Is this a Valid Pollutant?** YES**Include in the Facility Emissions Cap?** NO**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:****Synthetically Limited?:****Range of Estimated Fugitive Emissions:****Emissions:****Emissions Method:****Emission Factor:**

Emission Factor Units:  
Emission Factor Reference:  
Emissions Method Code:  
Calculation of Emissions:  
Pollutant Comment:

**Pollutant Code: H014**

**Pollutant Description:** ANTIMONY COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions** NO

**Cap?**

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.04 lb/hour 0.16 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.

**Emission Factor:** 0.004935

**Emission Factor Units:** LB/1000 GAL

**Emission Factor Reference:** AP-42

**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code: H015**

**Pollutant Description:** ARSENIC COMPOUNDS (INORGANIC INCLUDING ARSINE)

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions** NO

**Cap?**

**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.02 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.000592

**Emission Factor Units:** LB/TON

**Emission Factor Reference:** RAD

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:** Limited to 5 ppm as specification of used oil.

**Pollutant Code: H017**

**Pollutant Description:** BENZENE (INCLUDING BENZENE FROM GASOLINE)

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions** NO

**Cap?**

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.02 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.000091

**Emission Factor Units:** LB/TON

**Emission Factor Reference:** EPRISR



**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code:** H021

**Pollutant Description:** BERYLLIUM COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions**  
**Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.02 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED BY USE OF MATERIAL BALANCE AND KNOWLEDGE OF THE PROCESS.

**Emission Factor:** 0.000103

**Emission Factor Units:** LB/TON

**Emission Factor Reference:**

**Emissions Method Code:** 2 - CALCULATED BY USE OF MATERIAL BALANCE AND KNOWLEDGE OF THE PROCESS.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code:** H027

**Pollutant Description:** CADMIUM COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions**  
**Cap?** NO

**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.01 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.000079

**Emission Factor Units:** LB/TON

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:** Limited to 2 ppm as specification of used oil.

**Pollutant Code:** H046

**Pollutant Description:** CHROMIUM COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions**  
**Cap?** NO

**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.02 lb/hour 0.08 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.00045

**Emission Factor Units:** LB/TON

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:** Limited to 10 ppm as specification of used oil.

**Pollutant Code: H047**

**Pollutant Description:** COBALT COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.04 lb/hour 0.16 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.005217

**Emission Factor Units:** LB/1000 GAL

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code: H095**

**Pollutant Description:** FORMALDEHYDE

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.02 lb/hour 0.09 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED BY USE OF MATERIAL BALANCE AND KNOWLEDGE OF THE PROCESS.

**Emission Factor:** 0.00282

**Emission Factor Units:** LB/1000 GAL

**Emission Factor Reference:** EPRISR

**Emissions Method Code:** 2 - CALCULATED BY USE OF MATERIAL BALANCE AND KNOWLEDGE OF THE PROCESS.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code: H106**

**Pollutant Description:** HYDROGEN CHLORIDE (HYDROCHLORIC ACID)

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 70.5 lb/hour 308.79 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 1.74

**Emission Factor Units:** LB/TON

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:** 1.74 lb/ton coal\*40.516 ton/hr \* 8760 hr/yr\*1 ton/2000 lbs = 308.78 TPY

**Pollutant Comment:**

**Pollutant Code: H107**

**Pollutant Description:** HYDROGEN FLUORIDE (HYDROFLUORIC ACID)

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions**  
Cap? NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 6.83 lb/hour 29.9 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.16848

**Emission Factor Units:** LB/TON

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:** 0.16848 lb/ton of coal\* 40.516 ton/hr\* 8760 hr/yr\* 1ton /2000 lb = 29.9 TPY

**Pollutant Comment:**

**Pollutant Code: H113**

**Pollutant Description:** MANGANESE COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions**  
Cap? NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.02 lb/hour 0.1 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.000542

**Emission Factor Units:** LB/TON

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code: H114**

**Pollutant Description:** MERCURY COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions**  
Cap? NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.01 lb/hour 0.02 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive**

**Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.00014

**Emission Factor Units:** LB/TON

**Emission Factor Reference:** GDW

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code: H133**

**Pollutant Description:** NICKEL COMPOUNDS

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.17 lb/hour 0.75 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.02397

**Emission Factor Units:** LB/1000 GAL

**Emission Factor Reference:**

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code: H150**

**Pollutant Description:** POLYCHLORINATED BIPHENYLS (AROCLORS)

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:**

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:**

**Emission Factor:**

**Emission Factor Units:**

**Emission Factor Reference:**

**Emissions Method Code:**

**Calculation of Emissions:**

**Pollutant Comment:** Limited to 50 ppm as specification of used oil.

**Pollutant Code: H151**

**Pollutant Description:** POLYCYCLIC ORGANIC MATTER

**Is this a Valid Pollutant?** YES

**Include in the Facility Emissions Cap?** NO

**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE

**Primary Control Device:**

**Secondary Control Device:**

**Total % Efficiency of Control:**

**Potential Emissions:** 0.02 lb/hour 0.1 tons/year

**Synthetically Limited?:**

**Range of Estimated Fugitive Emissions:**

**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Emission Factor:** 0.003173

**Emission Factor Units:** LB/1000 GAL

**Emission Factor Reference:** RAD

**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.

**Calculation of Emissions:**

**Pollutant Comment:**

**Pollutant Code: H161****Pollutant Description:** RADIONUCLIDES (INCLUDING RADON)**Is this a Valid Pollutant?** YES**Include in the Facility Emissions**  
**Cap?** NO**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:****Synthetically Limited?:****Range of Estimated Fugitive****Emissions:****Emissions Method:****Emission Factor:****Emission Factor Units:****Emission Factor Reference:****Emissions Method Code:****Calculation of Emissions:****Pollutant Comment:****Pollutant Code: H162****Pollutant Description:** SELENIUM COMPOUNDS**Is this a Valid Pollutant?** YES**Include in the Facility Emissions**  
**Cap?** NO**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:** 0.1 lb/hour 0.45 tons/year**Synthetically Limited?:****Range of Estimated Fugitive****Emissions:****Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.**Emission Factor:** 0.002541**Emission Factor Units:** LB/TON**Emission Factor Reference:****Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.**Calculation of Emissions:****Pollutant Comment:****Pollutant Code: H169****Pollutant Description:** TOLUENE**Is this a Valid Pollutant?** YES**Include in the Facility Emissions**  
**Cap?** NO**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:** 0.01 lb/hour 0.04 tons/year**Synthetically Limited?:****Range of Estimated Fugitive****Emissions:****Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.**Emission Factor:** 0.001396**Emission Factor Units:** LB/1000 GAL**Emission Factor Reference:****Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.**Calculation of Emissions:****Pollutant Comment:****Pollutant Code: NOX****Pollutant Description:** NITROGEN OXIDES

**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** YES  
**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 570.28 lb/hour 2497.84 tons/year  
**Synthetically Limited?:** NO  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.  
**Emission Factor:** 0.52  
**Emission Factor Units:** LB/MMBTU  
**Emission Factor Reference:** PERMIT LIMIT  
**Emissions Method Code:**  
**Calculation of Emissions:** [0.52 lb/mmBtu] [1096.7 mmBtu/hr] [8760 hr/yr] [1/2000]= 2497.84 tons/yr  
**Pollutant Comment:**

**Pollutant Code:** PB  
**Pollutant Description:** LEAD - TOTAL (ELEMENTAL LEAD AND LEAD COMPOUNDS)  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 0.01 lb/hour 0.05 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Emission Factor:** 0.000259  
**Emission Factor Units:** LB/TON  
**Emission Factor Reference:**  
**Emissions Method Code:** 5 - CALCULATED USING EMISSION FACTOR OTHER THAN AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:** Limited to 100 ppm as specification of used oil.

*Handwritten calculations:*  

$$\frac{1361}{.52} = \frac{748.7}{1096.7}$$
 An arrow points from the result 748.7 to a circled 68% with a checkmark.

**Pollutant Code:** PM  
**Pollutant Description:** PARTICULATE MATTER - TOTAL  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT  
**Primary Control Device:** ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)  
**Secondary Control Device:**  
**Total % Efficiency of Control:** 99  
**Potential Emissions:** 109.7 lb/hour 600 tons/year  
**Synthetically Limited?:** NO  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.  
**Emission Factor:** 0.125  
**Emission Factor Units:** LB/MMBTU  
**Emission Factor Reference:** Permit Limit  
**Emissions Method Code:**  
**Calculation of Emissions:** lb/hr = 1096.7 mmBtu/hr\*0.1 lb/mmBtu = 109.7 lb/hr. TPY =1096.7 mmBtu/hr\*0.125 lb/mmBtu \* 8760 hrs/yr\*1 ton/2000 lb = 600. TPY  
**Pollutant Comment:** Emission factor based on 0.1 lb/MMBtu, 21 hours (steady- state); 0.3 lb/MMBtu, 3 hours (soot-blowing).

**Pollutant Code: PM10****Pollutant Description:** PARTICULATE MATTER - PM10**Is this a Valid Pollutant?** YES**Include in the Facility Emissions Cap?** NO**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE**Primary Control Device:** ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY (95.0-99.9%)**Secondary Control Device:****Total % Efficiency of Control:** 99**Potential Emissions:** 18.8399 lb/hour 82.5189 tons/year**Synthetically Limited?:** NO**Range of Estimated Fugitive Emissions:****Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.**Emission Factor:** 0.465**Emission Factor Units:** LB/TON**Emission Factor Reference:** AP-42**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.**Calculation of Emissions:** [.465 lb/ton of coal] [40.516 ton/hr] [8760 hr/yr] [1/2000]=82.5189 tons/yr**Pollutant Comment:****Pollutant Code: SAM****Pollutant Description:** SULFURIC ACID MIST**Is this a Valid Pollutant?** YES**Include in the Facility Emissions Cap?** NO**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:** 46.23 lb/hour 202.5 tons/year**Synthetically Limited?:****Range of Estimated Fugitive Emissions:****Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.**Emission Factor:** 1.14**Emission Factor Units:** LB/TON**Emission Factor Reference:** AP-42**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.**Calculation of Emissions:****Pollutant Comment:****Pollutant Code: SO2****Pollutant Description:** SULFUR DIOXIDE**Is this a Valid Pollutant?** YES**Include in the Facility Emissions Cap?** NO**Pollutant Regulatory Code:** EL - EMISSION-LIMITED POLLUTANT**Primary Control Device:****Secondary Control Device:****Total % Efficiency of Control:****Potential Emissions:** 2632.8 lb/hour 11532 tons/year**Synthetically Limited?:** NO**Range of Estimated Fugitive Emissions:****Emissions Method:** EQUAL TO EQUIVALENT ALLOWABLE EMISSION/WORST-CASE ALLOWABLE EMISSION.**Emission Factor:** 2.4**Emission Factor Units:** LB/MMBTU**Emission Factor Reference:** Permit Limit**Emissions Method Code:****Calculation of Emissions:****Pollutant Comment:** Potential emissions are based on coal firing.**Pollutant Code: VOC**

**Pollutant Description:** VOLATILE ORGANIC COMPOUNDS  
**Is this a Valid Pollutant?** YES  
**Include in the Facility Emissions Cap?** NO  
**Pollutant Regulatory Code:** NS - POLLUTANT NOT EMISSIONS-LIMITED NOT SUBJECT TO WORK PRACTICE  
**Primary Control Device:**  
**Secondary Control Device:**  
**Total % Efficiency of Control:**  
**Potential Emissions:** 2.43 lb/hour 10.65 tons/year  
**Synthetically Limited?:**  
**Range of Estimated Fugitive Emissions:**  
**Emissions Method:** CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.  
**Emission Factor:** 0.06  
**Emission Factor Units:** LB/TON  
**Emission Factor Reference:** Fire  
**Emissions Method Code:** 3 - CALCULATED USING EMISSION FACTOR FROM AP-42/FIRE SYSTEM.  
**Calculation of Emissions:**  
**Pollutant Comment:**

**EU 004: POLLUTANT ALLOWABLE EMISSIONS INFORMATION**

**Pollutant Code:** NOX  
**Pollutant Description:** NITROGEN OXIDES  
**Basis for Allowable Emissions Code:** OTHER - REQUESTED BY APPLICANT FOR OTHER REASONS  
**Regulation:**  
**Future Effective Date of Allowable Emissions:**  
**Allowable Emissions:** 0.52  
**Allowable Emissions Unit:** POUNDS PER MILLION BTU HEAT INPUT  
**Equivalent Allowable Emissions:** 570.28 lb/hour 2497.84 tons/year  
**Method of Compliance:** CEM annual average of Title V Phase II NOx Averaging Plan.  
**Comment/Description of Operating Method:** Crist Unit 4 is part of the Gulf/Mississippi Power NOx Averaging Plan for compliance with Phase II NOx limits. See 40 CFR Part 76 for details. No hrly annual equivalent allowable emissions necessary. ✓

**Pollutant Code:** PM  
**Pollutant Description:** PARTICULATE MATTER - TOTAL  
**Basis for Allowable Emissions Code:** RULE - EMISSIONS CAP REQUIRED BY RULE  
**Regulation:** 62-296.405(1)(b)  
**Future Effective Date of Allowable Emissions:**  
**Allowable Emissions:** 0.1 ✓  
**Allowable Emissions Unit:** POUNDS PER MILLION BTU HEAT INPUT  
**Equivalent Allowable Emissions:** 109.67 lb/hour 600 tons/year  
**Method of Compliance:** Test required when liquid a/o solid fuel fired >400 hrs/yr  
**Comment/Description of Operating Method:** During normal operations.

**Pollutant Code:** PM  
**Pollutant Description:** PARTICULATE MATTER - TOTAL  
**Basis for Allowable Emissions Code:** RULE - EMISSIONS CAP REQUIRED BY RULE  
**Regulation:** 62-210.700 (3).  
**Future Effective Date of Allowable Emissions:**  
**Allowable Emissions:** 0.3 ✓  
**Allowable Emissions Unit:** POUNDS PER MILLION BTU HEAT INPUT  
**Equivalent Allowable Emissions:** 329.01 lb/hour 600 tons/year  
**Method of Compliance:** Test required when liquid a/o solid fuel fired >400 hrs/yr  
**Comment/Description of Operating Method:**



**Method:** During soot-blowing and load change for 3-hrs per 24-hr period .

**Pollutant Code:** SO2

**Pollutant Description:** SULFUR DIOXIDE

**Basis for Allowable Emissions Code:** RULE - EMISSIONS CAP REQUIRED BY RULE

**Regulation:** 62-296.405(1)(c)2.c.

**Future Effective Date of Allowable Emissions:**

**Allowable Emissions:** 2.4 *5.9*

**Allowable Emissions Unit:** POUNDS PER MILLION BTU HEAT INPUT

**Equivalent Allowable Emissions:** 2632.08 lb/hour 11528.51 tons/year

**Method of Compliance:** Daily 24 hour average based on CEM

**Comment/Description of Operating Method:** While firing coal.

**Pollutant Code:** SO2

**Pollutant Description:** SULFUR DIOXIDE

**Basis for Allowable Emissions Code:** RULE - EMISSIONS CAP REQUIRED BY RULE

**Regulation:** 62-296.405(1)(c)1.j.

**Future Effective Date of Allowable Emissions:**

**Allowable Emissions:** 2.75 ~~2.75~~ *2.4*

**Allowable Emissions Unit:** POUNDS PER MILLION BTU HEAT INPUT

**Equivalent Allowable Emissions:** 3015.9 lb/hour 13210 tons/year

**Method of Compliance:** Daily 24 hour average based on CEM

**Comment/Description of Operating Method:** While burning liquid fuel.

#### EU 004: VISIBLE EMISSIONS INFORMATION

**Visible Emissions Subtype:** VE40

**Basis for Allowable Opacity:** RULE ✓

**Requested Allowable Opacity in Normal Conditions:** 40 ✓

**Requested Allowable Opacity in Exceptional Conditions:**

**Maximum Period of Excess Opacity Allowed:**

**Continuous Opacity Monitor Used:** Yes

**Visible Emissions Comment:** During normal operations. Compliance shown through transmissometer (opacity meter).

**Visible Emissions Subtype:** VE60 ✓

**Basis for Allowable Opacity:** RULE ✓

**Requested Allowable Opacity in Normal Conditions:** 60

**Requested Allowable Opacity in Exceptional Conditions:**

**Maximum Period of Excess Opacity Allowed:**

**Continuous Opacity Monitor Used:** Yes

**Visible Emissions Comment:** During the 3-hrs in any 24 hr period allowed for boiler cleaning (soot blowing) and load change. Compliance shown through transmissometer (opacity meter).

#### EU 004: CONTINUOUS MONITOR INFORMATION

**CM Identifier:** 6

**Parameter Code:** CO2 - Carbon dioxide

**CMS Requirement:**

**Monitor Manufacturer:** Siemens

**Model Number:** ULTRAMAT 5E

**Serial Number:** E3-729

**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994

**Status:** ACTIVE

**Continuous Monitor Comment:** Spectrum Systems Model 300 Dilution Monitoring System uses the Siemens CO2 analyzer to measure the diluent component of the SO2 and NOX emission rate.

**CM Identifier:** 2

**Parameter Code:** EM - EMISSION

**Pollutant(s) Monitored:** SO2 - Sulfur Dioxide

**CMS Requirement:**

**Monitor Manufacturer:** Teco

**Model Number:** 43H

**Serial Number:** 43H-44285-271

**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994

**Status:** ACTIVE

**Continuous Monitor Comment:** Unit has elected to install and operate CEM for SO2 in lieu of monitoring emissions using fuel sampling and analysis under rule 62-296.405(1)(f)1.

**CM Identifier:** 5

**Parameter Code:** EM - EMISSION

**Pollutant(s) Monitored:** NOX - Nitrogen Oxides

**CMS Requirement:**

**Monitor Manufacturer:** Teco

**Model Number:** 42D

**Serial Number:** 42D-44859-272

**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994

**Status:** ACTIVE

**Continuous Monitor Comment:** Spectrum Systems Model 300 Dilution Monitoring System uses Siemens and Teco analyzers to calculate unit NOx emission rate.

**CM Identifier:** 7

**Parameter Code:** FLOW - Volumetric flow rate

**CMS Requirement:**

**Monitor Manufacturer:** United Science

**Model Number:** ULTRAFLOW 100

**Serial Number:** 9401588

**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994

**Status:** ACTIVE

**Continuous Monitor Comment:** Spectrum Systems Model 300 Dilution Monitoring System uses heat input measurements from flow to calculate hourly emissions.

**CM Identifier:** 3

**Parameter Code:** VE - Visible emissions (opacity)

**CMS Requirement:**

**Monitor Manufacturer:** Lear Siegler

**Model Number:** SS-4542

**Serial Number:** 940601

**Installation Date:** 7/1/1994

**Performance Specification Test**  
**Date:** 7/24/1994

**Status:** ACTIVE

**Continuous Monitor Comment:** Unit required to monitor opacity under 62-96.405(1)(f)1.

Supplementary Item

Applicable? Attachment?

PROCESS FLOW DIAGRAM Previously submitted? NO Submittal Date:	No	No
FUEL ANALYSIS OR SPECIFICATION Previously submitted? NO Submittal Date:	No	No
DETAILED DESCRIPTION OF CONTROL EQUIPMENT Previously submitted? NO Submittal Date:	No	No
DESCRIPTION OF STACK SAMPLING FACILITIES	No	No
PROCEDURES FOR STARTUP AND SHUTDOWN Previously submitted? NO Submittal Date:	No	No
OPERATION AND MAINTENANCE PLAN Previously submitted? NO Submittal Date:	No	No
COMPLIANCE DEMONSTRATION REPORTS/RECORDS Previously submitted? NO Submittal Date: Previously Submitted Test Date(s)/Pollutants Tested: To Be submitted? NO Submittal Date: To Be Submitted Test Date(s)/Pollutants Tested:	No	No
OTHER INFORMATION REQUIRED BY RULE OR STATUTE	No	No
IDENTIFICATION OF APPLICABLE REQUIREMENTS	No	No
COMPLIANCE ASSURANCE MONITORING PLAN	No	No
ALTERNATIVE METHODS OF OPERATION	No	No
ACID RAIN PART (FORM NO. 62-210.900(1)(a)) Previously submitted? NO Submittal Date:	No	No
CONTROL TECHNOLOGY REVIEW AND ANALYSIS (RULES 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))	No	No
GOOD ENGINEERING PRACTICE STACK HEIGHT ANALYSIS (RULE 62-212.400(5)(h)6., F.A.C., and RULE 62-212.500(4)(f), F.A.C.)	No	No
ALTERNATIVE MODES OF OPERATION (EMISSIONS TRADING)	No	No
REPOWERING EXTENSION PLAN (FORM NO. 62-210.900(1)(a)1.) Previously submitted? NO Submittal Date:	No	No
NEW UNIT EXEMPTION (FORM NO. 62-210.900(1)(a)2.) Previously submitted? NO Submittal Date:	No	No
RETIRED UNIT EXEMPTION (FORM NO. 62-210.900(1)(a)3.) Previously submitted? NO Submittal Date:	No	No
PHASE II NOx COMPLIANCE PLAN (FORM NO. 62-210.900(1)(a)4.) Previously submitted? NO Submittal Date:	No	No
PHASE II NOx AVERAGING PLAN (FORM NO. 62-210.900(1)(a)5.) Previously submitted? NO Submittal Date:	No	No
CERTIFICATE OF REPRESENTATION (EPA FORM NO. 7610-1)	No	No
OTHER EMISSIONS UNIT INFORMATION	No	No

**EU 004: ATTACHMENTS**

\*\*\* No Emissions Unit Additional Attachments Found \*\*\*

\*\*\*\*\*

**PROFESSIONAL ENGINEER CERTIFICATION:**

I hereby certify, except as particularly noted herein\*, that:

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here [ ], if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here [ ], if so) or concurrently process

and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

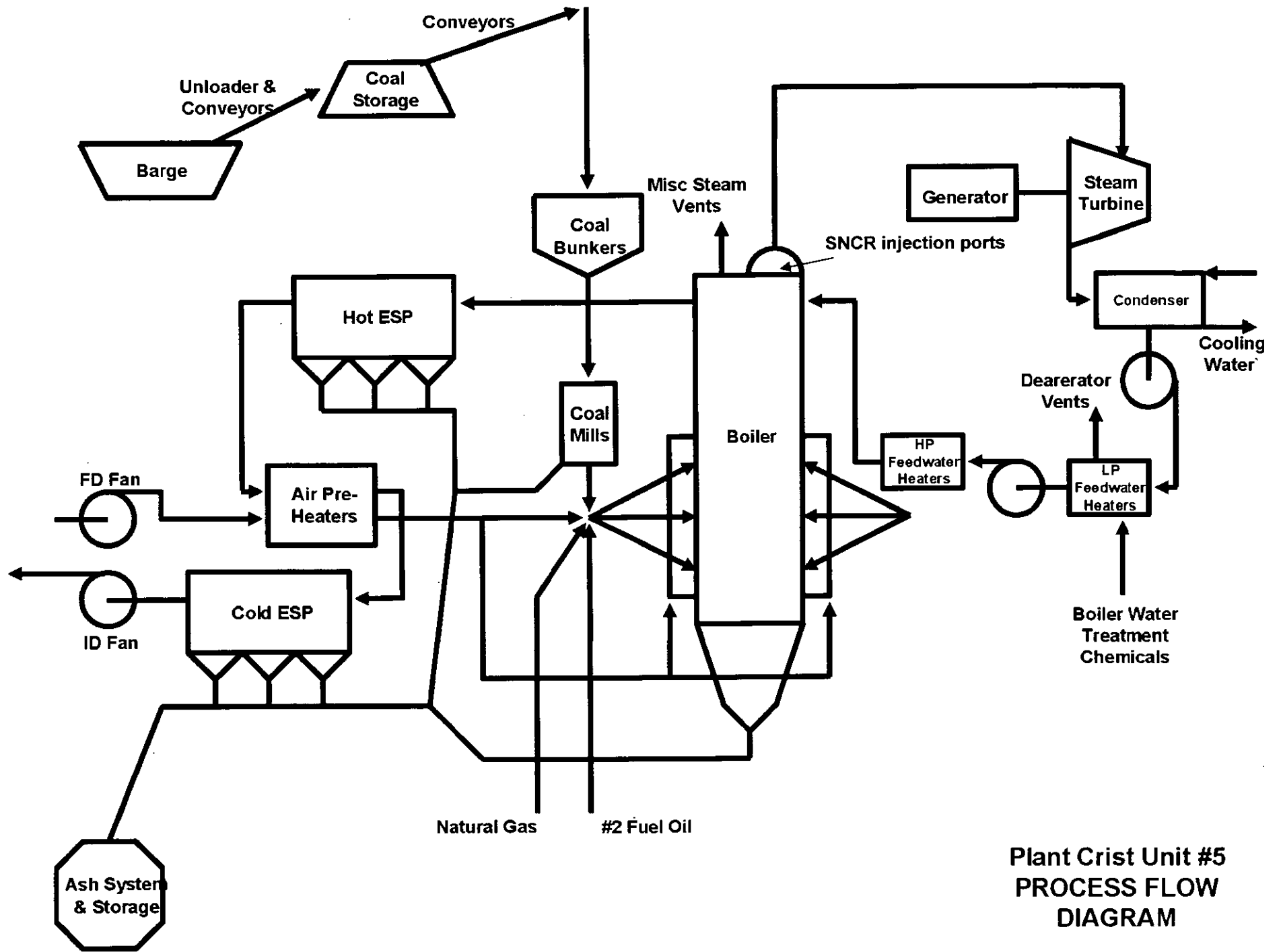
Professional Engineer Name: GREGORY TERRY  
Professional Engineer Registration Number: 52786  
Date Professional Engineer Submitted: 2/8/2006

**OWNER/AUTHORIZED REPRESENTATIVE STATEMENT:**

By entering my PIN below, I certify that I am the owner/authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

Owner/Authorized Representative Name: PENNY MANUEL  
Date Owner/Authorized Representative Submitted: 2/10/2006

\*\*\* End of Applicant's Detail Report \*\*\*  
Report run at 2/14/2006 11:00:40 AM



Plant Crist Unit #5  
 PROCESS FLOW  
 DIAGRAM

**PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE  
MATTER**

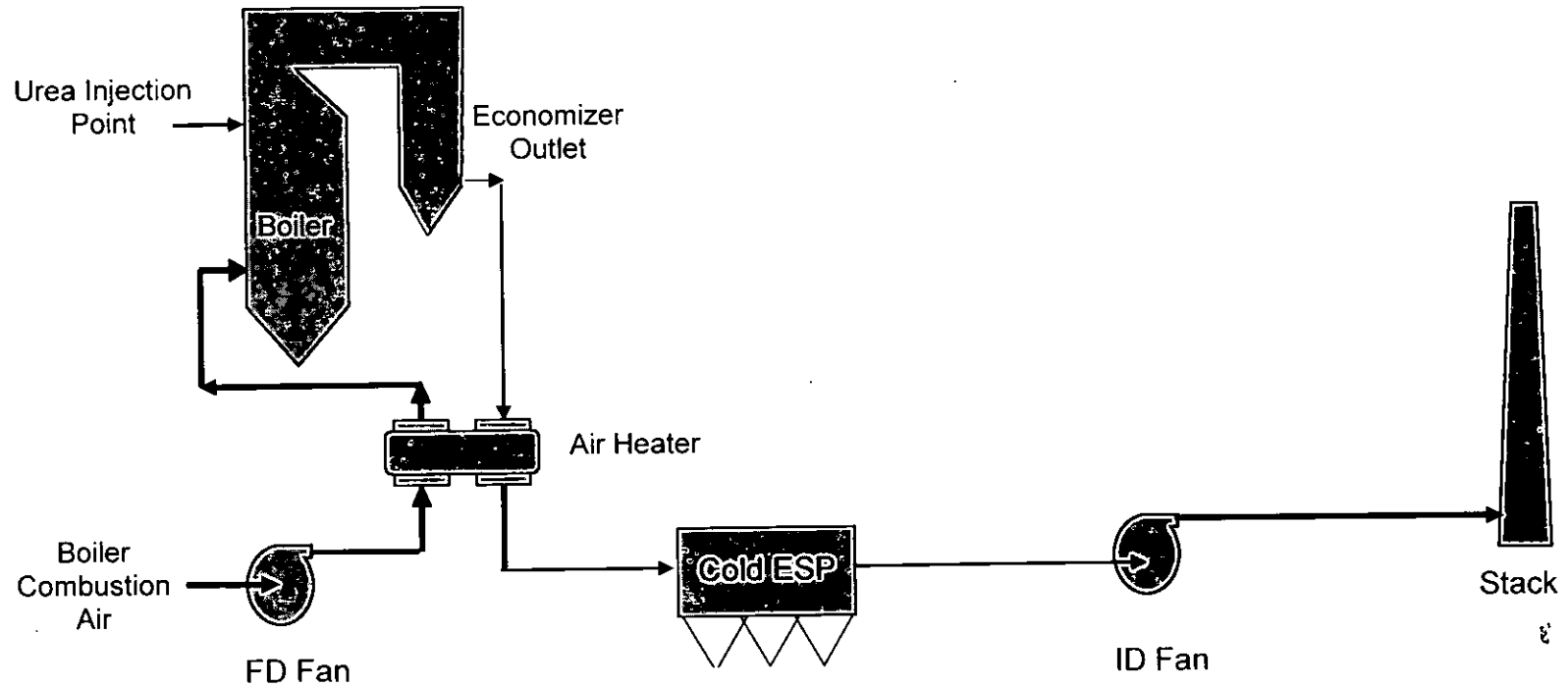
**1) TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER WHILE UNLOADING FLY ASH, ASH LEAVING THE FACILITY WILL BE HAULED IN CLOSED CONTAINER TRUCKS. ASH BEING DISPOSED OF ON PLANT PROPERTY WILL BE MIXED WITH WATER AS IT IS BEING LOADED INTO THE TRUCKS FOR TRANSPORT TO LANDFILL.**

**2) THE PLANT ASH HAUL ROADS WILL BE WATERED AS NECESSARY TO CONTROL ANY UNCONFINED PARTICULATE MATTER THAT MAY BE ON THE ROADS.**

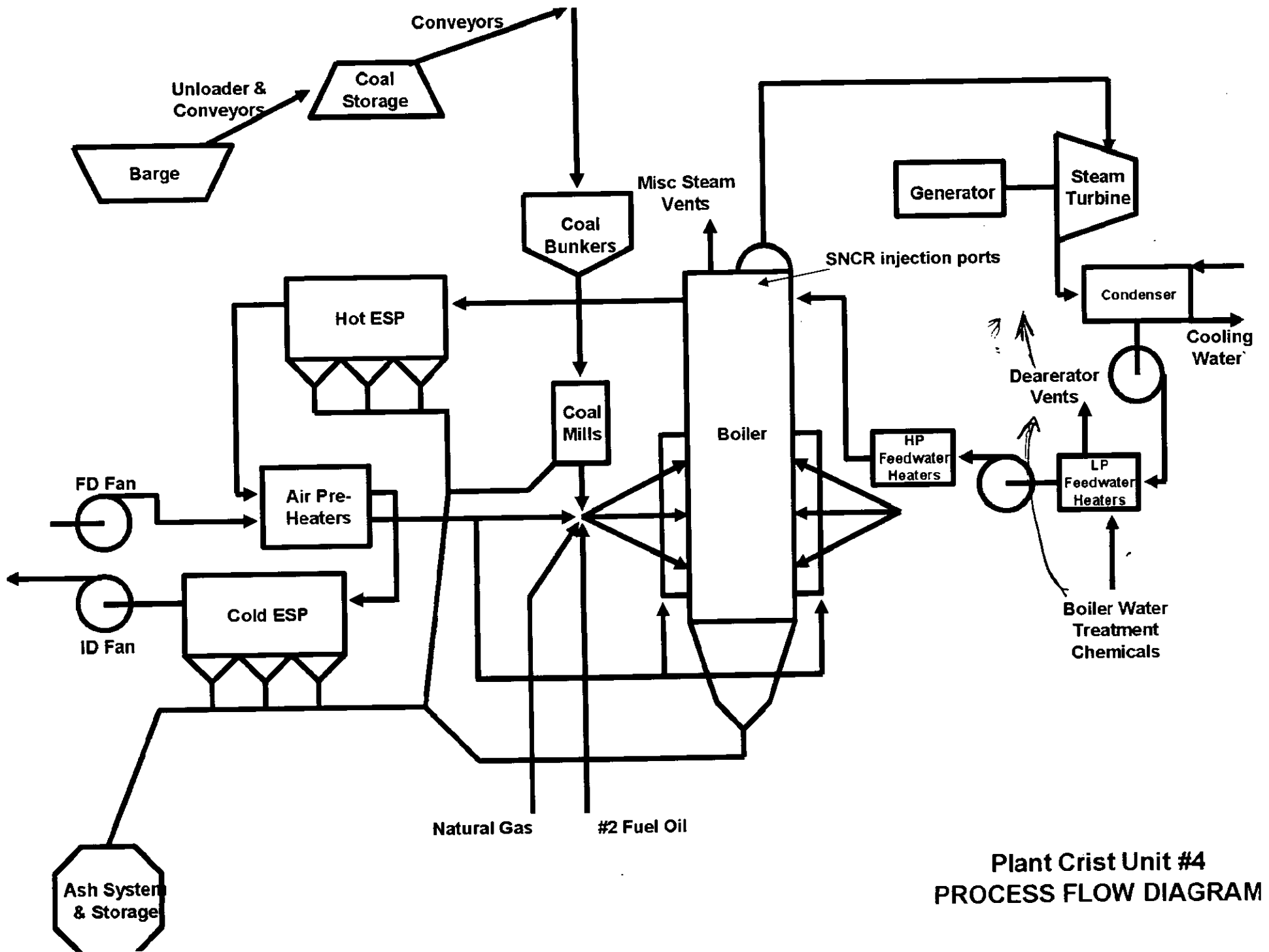
**3) AS SECTIONS OF THE ASH LANDFILL REACH THEIR CAPACITY THESE SECTIONS WILL BE GRASSED OVER TO PREVENT ANY PARTICULATE MATTER BEING LIFTED INTO THE WIND.**

**4) THE COAL PILE IS PACKED REGULARLY TO HELP IN THE PREVENTION OF COAL PILE FIRES AND LIMIT THE AMOUNT OF COAL DUST THAT MIGHT GET BLOWN OFF THE PILE IF IT WERE NOT PACKED.**

**5) A DUST SUPPRESSANT WILL BE APPLIED TO THE COAL ON THE CONVEYOR BELTS AS NECESSARY TO CONTROL DUST.**



Gulf Power Company  
Plant Crist, Unit 4&5  
SNCR Process Flow Diagram



Plant Crist Unit #4  
PROCESS FLOW DIAGRAM



The SNCR on Crist Unit 5 will be run as needed to comply with the plant-wide NOx cap. However, it should be noted that the Mercury Research Center is using a slip stream of flue gas from Unit 5. Therefore, when research is being conducted by the center, the SNCR will not be operated in an effort to avoid compromising research results.

9/28/2005

3/4/2004

10/28/2004

9/24/2004

7/29/2004

4/25/2005

4/10/2003

4/4/2003

7/2/2004

3/12/2004

2/18/2004

10/21/2005

4/11/2005

6/1/2004

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:R(PERMIT\_SUBTYPE) LIKE '%05%' AND ISSUE BETWEEN TO\_DATE('07/01/2005','MM/DD/YYYY') AND TO\_DATE('06/30/2006','MM/DD

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(YYYY)

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950169 STERICYCLE INC	CDOR	Y	Issued
950190 FLORIDA GAS TRANSMISSION COMPANY	CDOR	Y	Issued
950212 REGAL MARINE INDUSTRIES	CDOR	Y	Issued
950252 LEISURE BAY MANUFACTURING	CDOR	Y	Issued
1010071 PASCO COGEN LIMITED	SWD	Y	Issued
1030117 PINELLAS CO. BOARD OF CO. COMMISSIONERS	SWD	Y	Issued
1030119 FILM TECHNOLOGIES INT, INC	SWPN	Y	Issued
1050046 MOSAIC FERTILIZER, LLC	SWD	Y	Issued
1050053 MOSAIC FERTILIZER, LLC	SWD	Y	Issued
1050174 PEPPERIDGE FARM, INC	SWD	Y	Issued
1050216 WHEELABRATOR RIDGE ENERGY INC.	SWD	Y	Issued
1050325 SOUTHERN BAKERIES, INC.	SWD	Y	Issued
1110086 MAVERICK BOAT COMPANY, INC.	SED	Y	Issued
1130004 AIR PRODUCTS AND CHEMICALS, INC	NWD	Y	Issued

A Grand Total of 54 Records were returned.

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select AIRSID,OWNER,FACILITY\_OFFICE,TITLE\_V,AGENCY\_ACTION,PERMIT\_NUMBER,PERMIT\_OFFICE,ISSUE,COMPLETE

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Revised: August 29, 2003

0950169006AV	CD	6/7/2006	10/3/2005 8:21	3/30/2011	5
0950190005AV	CD	9/26/2005	3/5/2004	2/28/2011	5
0950212007AV	CD	11/7/2005	11/3/2004	4/30/2010	5
0950252007AV	CD	10/27/2005	9/29/2004	3/30/2010	5
1010071003AV	SWD	7/3/2005	8/2/2004	1/4/2010	5
1030117006AV	TAL	11/22/2005	4/25/2005	11/14/2010	5
1030119006AV	SWD	8/14/2005	4/11/2003	8/14/2010	5
1050046018AV	TAL	9/30/2005	4/10/2003	9/30/2010	5
1050053037AV	SWD	8/26/2005	7/6/2004	8/26/2010	5
1050174003AV	SWD	9/9/2005	3/18/2004	9/9/2010	5
1050216008AV	SWD	3/15/2006	2/24/2004	3/14/2011	5
1050325003AV	SWD	5/22/2006	10/27/2005	5/22/2011	5
1110086005AV	SED	1/30/2006	4/12/2005	1/9/2011	5
1130004011AV	NWD	8/25/2005	6/2/2004	8/21/2010	5

EXPIRE,PERMIT\_SUBTYPE,RECEIVE from Arms\_Snap.FAC\_PERMIT\_VW where 1 = 1 AND UPPER(PERMIT\_TYPE) = 'AV' AND UPPE

4 reports  
 1. 2000-2001 - AV 02 & AV 05  
 2. 2005-2006 - AV 02 & AV 05