

DEP ROUTING AND TRANSMITTAL SLIP

TO: (NAME, OFFICE, LOCATION)

3. ~~Greg~~

1. ~~Trina~~

4. ~~Jeff~~ (I have copies)

2. ~~Al~~

5. _____

PLEASE PREPARE REPLY FOR:

- SECRETARY'S SIGNATURE
- DIV/DIST DIR SIGNATURE
- MY SIGNATURE
- YOUR SIGNATURE
- DUE DATE _____

ACTION/DISPOSITION

- DISCUSS WITH ME
- COMMENTS/ADVISE
- REVIEW AND RETURN
- SET UP MEETING
- FOR YOUR INFORMATION
- HANDLE APPROPRIATELY
- INITIAL AND FORWARD
- SHARE WITH STAFF
- FOR YOUR FILES

COMMENTS:

Attachment 2 is locked up until a decision is made regarding confidentiality. Please let me know if you would like to see it.

Thanks

FROM: Patry

DATE: 12-27

PHONE: _____

One Energy Place
Pensacola, Florida 32520
Tel 850.444.6111

RECEIVED
DEC 26 2002
BUREAU OF AIR REGULATION



Certified Mail

December 19, 2002

Jeffrey F. Koerner
Florida Department of Environmental Protection
Division of Air Resources Management
2600 Blair Stone Road
Mail Station #5510
Tallahassee, Florida 32399-2400

Dear Mr. Koerner:

RE: CRIST ELECTRIC GENERATING PLANT
UNIT # 7 ESP & SCR APPLICATION
TITLE V Permit No: 0330045-001-AV

Thank you for meeting with representatives from Southern Company and me on November 26, 2002 to update the FDEP on the status of the Crist Unit 7 ESP and SCR Project and allowing us to start a dialog regarding SCR bypass operations. We will continue to update the Department as more information is available on specific issues regarding the operation of our SCR design and again invite you to visit our operations at Southern Company regarding advances in NOx and Mercury control technologies.

The purpose of this correspondence is to start the permitting process regarding the installation and operation of the new Electrostatic Precipitator (ESP) and Selective Catalytic Reduction (SCR) system planned for Crist Unit 7. As you are aware, an agreement between Gulf Power and the Florida Department of Environmental Protection (FDEP) was entered into on August 28, 2002 to ensure that Plant Crist located within the Pensacola, Florida Metropolitan Planning Area (PFMPA) supports the Area's compliance with the eight hour ozone ambient air quality standard and authorizes related cost recovery pursuant to Section 366.8255(1)(d) of the Florida Statutes as amended by the Florida Legislature in its 2002 session and signed into law by the Governor of the State of Florida. Through this agreement, FDEP and Gulf Power concur that installation of Selective Catalytic Reduction (SCR) controls at Crist Unit 7 as well as the implementation of other NOx reduction technologies on one or more of the other three coal-fired generating units at Plant Crist will be needed as part of a community wide effort to reduce ozone precursor compounds in the Pensacola Metropolitan Area. Due to

structural interference and performance concerns for the new SCR, a new Unit # 7 precipitator will also be constructed at a new location and completed by May 1, 2004. The Crist Unit #7 SCR will be completed by May 1, 2005 and NOx reductions on the remaining coal-fired units are required on or before May 1, 2007 pursuant to a final strategy and type of controls chosen. As a further part of this agreement, Gulf Power agrees to retire Crist Unit #1 within 120 days of the final order and Units #2 and #3 on or before May 1, 2006. These steps and changes are prudent for purposes of ensuring that Gulf Power's Plant Crist located within the FDMPA supports the Area's compliance with the eight hour ozone ambient air quality standard. A full copy of the agreement is attached as "Attachment 1" of this correspondence.

The construction of the Crist Unit 7 ESP and SCR will take several years and thus be completed in various phases as specific equipment is retired or replaced and new equipment is tied into the plant during annual outages. The first phase of the project is the planning and construction of infrastructure support facilities which include new parking lots, demolition and relocation of the maintenance shop, the creation of construction lay down area(s) and crane erection for the project. Coordination of these items has already begun with various county agencies with correspondences as needed to the local FDEP District. A summary of these activities are list below:

- State stormwater permitting (Chapter 62-25, F.A.C.)
- Federal NPDES stormwater construction permitting if applicable (delegated program to FL)
- Permitting extension to Crist potable water system to serve the construction village
- Development Review process with Escambia County. This is the process through which the county determines whether a "development" is in compliance with the local Land Development Code. The review is addressing local applicable permitting requirements such as:
 - county stormwater
 - wetlands review
 - potable water (we will provide our own water)
 - domestic waste (pursuing permitting of septic tank system for construction village)
 - parking are design requirements
 - road access (determined not applicable since Pate Road is privately owned)

The second phase of construction will be the installation of pile and foundations for the ESP and SCR. This process will include excavations into the current coal pile storage area east of the plant. The current schedule has this work beginning on March 3, 2003.

Phase 3 of the project is the erection of the precipitator and duct work support steel starting in April, 2003 with startup of the ESP earmarked for May, 2004. Phase 4 will the erection of the SCR and duct work support steel in September, 2003 with startup earmarked for May, 2005.

Design and specification of the Crist Unit 7 Electrostatic Precipitator (ESP) and Selective Catalytic Reduction (SCR) is enclosed as "Attachment 2". A gnatt chart with project milestone activities is included for an overall project summary and startup schedules. These documents should be considered "living" documents which will be revised as final engineering and conceptual designs are completed.

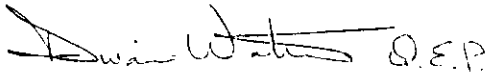
Mr. Jeffrey F. Koerner
Page 3
December 19, 2002

Pursuant to Section 403.111(1), Florida Statutes, Gulf Power requests that the Department maintain as confidential the information enclosed as Attachment 2 related to the ESP and SCR. The information describing the proposed ESP and SCR is proprietary and relates to a secret process and method, and Gulf Power Company would be severely prejudiced by disclosure of such information to competitors and to potential equipment and catalysts suppliers. Please confirm whether the Department agrees that this information should be kept confidential and exempt from the provisions of Section 119.07(1), Florida Statutes.

Please consider this as a request for a construction permit to replace the electrostatic precipitator and install a selective catalytic reduction (SCR) system at Crist Unit # 7. A professional engineer seal and responsible official certification statement are enclosed along with the revised Crist Unit 7 permit application pages as "Attachment 3".

Please let me know if you have questions or if further information is needed to process our construction permit request.

Sincerely,



G. Dwain Waters, Q.E.P.
Air Quality Programs Supervisor

cc: w/att: Jim. Vick, Gulf Power Company
 Wright, Terry, Gulf Power Company
 John Dominey, Gulf Power Company
 Robin B. Hurst, Southern Company Services
 Gary Perko, Hopping, Green & Sams
 Ms. Sandra Veazey, FDEP Northwest District Office, Pensacola, Florida

ATTACHMENT 1
FDEP- Gulf Power Ozone Agreement

AGREEMENT FOR THE PURPOSE OF ENSURING COMPLIANCE WITH OZONE AMBIENT AIR QUALITY STANDARDS

This agreement is entered into by the Florida Department of Environmental Protection (DEP) and Gulf Power Company (GULF), for the exclusive purposes as follows: (a) ensuring that GULF's electrical generating facility located within the Pensacola, Florida Metropolitan Planning Area (PFMPA) supports the Area's compliance with the eight hour ozone ambient air quality standard and (b) authorizing related cost recovery pursuant to Section 366.8255(1)(d) of the Florida Statutes as amended by the Florida Legislature in its 2002 session and signed into law by the Governor of the State of Florida.

WHEREAS:

I. GULF owns and operates the Crist Plant electrical generating facility in Escambia County, Florida. This plant generates electricity for the consuming public through the combustion of fossil fuel. The combustion of fossil fuels produces some of the precursor compounds that contribute to the formation of ozone in the ambient air.

II. Under the authority of the Clean Air Act, the U. S. Environmental Protection Agency (EPA) promulgated regulations dealing with air quality, including ambient air quality standards designed to protect human health and welfare. One such regulation places a limit on the amount of ozone that is considered to be acceptable in the ambient air during any 8-hour period (Ozone Standard).

III. Based upon the best available information, including ambient air quality monitoring data, DEP does not expect Escambia and Santa Rosa Counties to be in compliance with the Ozone Standard in 2004/2005 unless significant reductions of emissions of ozone precursor compounds are achieved in the Pensacola, Florida Metropolitan Planning Area.

IV. In its 2002 session, the Florida legislature adopted amendments to section 366.8255(1)(d) of the Florida Statutes to provide that an electric utility may seek recovery of costs and expenses prudently incurred pursuant to a voluntary agreement with DEP or EPA, for the purpose of ensuring compliance with ozone ambient air quality standards.

V. Representatives of DEP and GULF have met and arrived at a mutual agreement in furtherance of the purposes of Section 366.8255(1)(d)7 of the Florida Statutes as amended during the 2002 Florida legislative session.

VI. DEP and GULF concur that installation of Selective Catalytic Reduction (SCR) controls at Crist Unit #7 as well as the implementation of other NOx reduction

technologies on one or more of the other three coal-fired generating units at Plant Crist will be needed as part of a community wide effort to reduce ozone precursor compounds in the Pensacola Metropolitan Planning Area. Due to structural interference and performance concerns for the new SCR, a new Unit #7 precipitator will also be constructed at a new location and the SCR will be completed one year later in the location of the old Unit #7 precipitator.

VII. It is anticipated that the implementation of this agreement will result in an approximately 61% reduction [9,188 tons] in annual NOx emissions from the GULF Crist Plant based upon 1999 baseline data.

NOW THEREFORE, in consideration of the premises and the mutual agreements contained herein, and intending to be legally bound, the DEP and GULF hereby agree as follows:

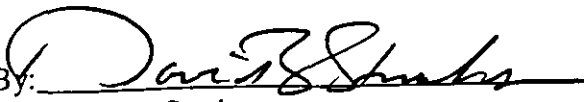
1. By May 1, 2005, GULF, after obtaining necessary permits and approvals, will install and begin and continue operating an SCR system at Crist Unit #7 whenever the Crist Unit #7 is online. The SCR system is designed to achieve no less than an 85% reduction in the quantity of nitrogen oxides as measured at the SCR unit inlet (SCR Project). The SCR Project includes the installation of a new precipitator necessary to structurally accommodate installation of the SCR. See Exhibit "A" for proposed project schedule.
2. In addition to the Crist Unit #7 SCR Project, and in order to achieve an overall plant wide Btu weighted average of 0.2 lbs/mmBtu NOx emission rate as further specified in paragraph 3 below, Gulf agrees to conduct engineering studies on the feasibility of other NOx reduction technologies on one or more of the remaining three coal-fired units at Plant Crist. Such studies and related unit specific demonstration projects may include (but are not limited to) SCR, Selective Non-Catalytic Reduction (SNCR) technology, Over-Fired Air (OFA) technology, natural gas reburn technology, selective use of biomass fuel, etc. Gulf further agrees to complete these studies by May 1, 2005. In the event GULF identifies an SCR project for Crist Unit #6 as the NOx reduction technology, GULF will implement, begin and continue operating the SCR on Crist Unit #6 as described in paragraph 3 below by December 31, 2007. In the event GULF identifies a NOx reduction technology other than SCR on Crist Unit #6, GULF will select and implement one or more NOx reduction technologies on one or more of the three other Plant Crist coal-fired units by May 1, 2006. GULF will obtain written concurrence from DEP, before implementing such NOx reduction technology or technologies, that the use thereof is reasonable and necessary to achieve the overall plantwide emission rate of 0.2 lbs/mmBtu specified in paragraph 3 below.

3. GULF will make necessary changes identified and within the timeframes set forth in paragraph 2 above, that will allow it to limit the overall 30 day average NOx emission rate at the Crist Plant to 0.2 lbs./mmbtu year-round except for periods in which Crist Unit #7 is offline. The emission rate shall be calculated pursuant to the formula set forth in Exhibit "B" to this agreement. While Crist Unit #7 is online, this 0.2 lbs./mmbtu will be achieved by utilizing the SCR system on Crist Unit #7 [discussed in paragraph 1 above] and the controls identified pursuant to paragraph 2 above. During such time as Crist Unit #7 may be offline between May 1 and September 15, GULF agrees to operate any NOx reduction technology or technologies DEP may have determined to be reasonable and necessary at other Plant Crist coal-fired units, pursuant to paragraph 2 above, unless prevented from doing so by circumstances beyond its reasonable control.
4. In addition to the NOx emission rate reduction strategies implemented pursuant to paragraphs 1 through 3 above, as a further part of this agreement to support the PFMPA's compliance with the eight hour ozone ambient air quality standard, GULF agrees to retire Crist Unit #1 within 120 days of receiving a final order from the Florida Public Service Commission as provided in paragraph 8 below. In addition, GULF further agrees to retire Crist Unit #2 and Crist Unit #3 on or before May 1, 2006.
5. In the event state or federal law changes to require a change in NOx emissions or the PFMPA is declared non-attainment for ozone, any reduction requirements would be in accordance with all applicable state and federal requirements. In addition, although Florida currently has no state statute providing for NOx trading or credits, GULF shall be entitled to retain all NOx reduction credits and trading rights that may be authorized by Florida law in the future.
6. In the event the FPSC issues a final order authorizing GULF to recover costs incurred pursuant to this agreement, by July 5, 2004, GULF will submit a Title V renewal application to the Department's Bureau of Air Regulation, 2600 Blair Stone Rd, MS 5500, Tallahassee, FL 32399 to incorporate the control technologies contained in this agreement as well as the NOx emission rate as described in paragraphs 1 through 3 above. DEP concurs that the changes envisioned by this agreement will not constitute "modifications" that trigger New Source Review.
7. DEP concurs that the steps and changes described in paragraphs 1 through 4 above are prudent for purposes of (a) ensuring that GULF's electrical generating facility located within the PFMPA supports the Area's compliance with the eight hour ozone ambient air quality standard and (b) authorizing

related cost recovery pursuant to Section 366.8255(1)(d) of the Florida Statutes as amended by the Florida Legislature in its 2002 session and signed into law by the Governor of the State of Florida.

8. This agreement is based upon the assumption that an order from the Florida Public Service Commission (FPSC) authorizing GULF to recover the costs incurred pursuant to this agreement through the Environmental Cost Recovery Clause is rendered final (final order) within 90 days of the execution of the agreement. A final order is one that is no longer subject to review or appeal by a court of competent jurisdiction. If a final order is not rendered within 90 days of the date of execution of this agreement, the parties concur that the dates and schedules herein are subject to revision solely by mutual agreement, in order to allow GULF to move forward with the activities described in paragraphs 1-4 above pending a final order by the FPSC. Gulf will exercise good faith in seeking approval of such cost recovery from the FPSC in a timely manner. DEP will support the efforts of GULF before the FPSC and in any subsequent review or appeal. If a final order is not rendered within 120 days of execution of this agreement, the entire agreement shall automatically become null and void unless extended by mutual written agreement of the parties within 30 days thereafter.
9. This agreement shall bind the parties hereto and those whom they represent and may be modified only in writing with the consent of both parties.
10. This agreement is entered into and effective on the date of the last signature of the parties below.

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION

By: 
David B. Struhs
Secretary

Date: August 28, 2002

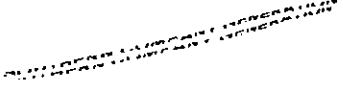
GULF POWER COMPANY

By: 
Thomas A. Fanning
President and Chief Executive Officer

Date: August 28, 2002

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float	2002					2003					2004					2005				
						F	M	A	M	J	F	M	A	M	J	F	M	A	M	J	F	M	A	M	J
TIE-IN OUTAGE:																									
CST106	Precipitator Tie-In	65	06MAR04	09MAY04	0																				
ENGINEERING																									
ENG001	Project Start	0	01APR02*		0																				
ENG136	Preliminary Engineering	65	01APR02	26JUN02	8																				
ENG105	Detail Engineering/Design and Support- Precip	204	01JUL02	03APR03	10																				
ENG166	SCS Design Ductwork and Supports	100	20AUG02	04JAN03	78																				
ENG116	Receive Foundation Info From Precip Vendor	0	02SEP02		0																				
ENG176	SCS Design Pile and Foundations	40	02SEP02	25OCT02	0																				
ENG186	SCS Prepare Pile Erection Spec	20	23SEP02	18OCT02	0																				
ENG196	Award Pile Erection	0	06DEC02		0																				
PROCUREMENT																									
PRO160	Prep Spec for Precipitator Design and Supply	30	01APR02	10MAY02	0																				
PRO190	Issue Precipitator Inquiry for Bids	0		13MAY02	0																				
PRO200	Receive Precipitator Bids	0		24JUN02	0																				
PRO210	Evaluate Precipitator Bids	20	25JUN02	22JUL02	0																				
PRO170	Award Precipitator Design and Supply	0		22JUL02	0																				
PRO115	Vendor Design Precipitator	130	23JUL02	17JAN03	0																				
PRO155	Flow Modeling - Precipitator	60	20AUG02	11NOV02	10																				
PRO180	Precipitator - Fabricate and Deliver	150	18JAN03	06AUG03	55																				
CONSTRUCTION																									
CST104	Relocations	66	28AUG02	25NOV02	8																				
CST106	Install Piles	50	06DEC02	06FEB03	0																				
CST126	Install Pile Caps	50	07FEB03	16APR03	0																				
CST136	Erect Precip and Ductwork Supt Steel	80	17APR03	06AUG03	0																				
CST146	Erect Ductwork	60	03JUL03	24SEP03	40																				
CST156	Erect Precipitator Box	125	07AUG03	28JAN04	0																				
CST176	Erect Precipitator Mechanical Equipment	105	02OCT03	17FEB04	17																				
CST186	Erect Precipitator Electrical Equipment	105	27OCT03	05MAR04	0																				
STARTUP																									
SU196	Checkout and Start-up	40	31MAR04	09MAY04	0																				
TIE-IN OUTAGE:																									
CST113	SCR Relocations Outage	35	06MAR03*	11APR03	0																				
CST101	Building Relocation Outage	66	06MAR04	09MAY04	0																				
CST103	SCR Tie-In Outage	70	03FEB05	13APR05	0																				
ENGINEERING																									
ENG000	Project Start	0	20MAY02*		0																				
ENG137	Preliminary Engineering	80	20MAY02	09AUG02	0																				
ENG100	Detail Engineering/Design	340	12AUG02	20NOV03	0																				
ENG110	Construction Support	320	24SEP03	23NOV04	69																				
ENG120	Startup Support	100	04JAN05	13APR05	48																				
PROCUREMENT																									
PRO140	Award Catalyst	0		06NOV02	13																				
PRO150	Flow Modeling	65	11NOV02	28FEB03	226																				
PRO130	Award ID Fans and Motors	0		26JAN03	44																				
PRO100	Award Structural Steel	0		14FEB03	21																				
PRO105	Fabricate and Deliver Structural Steel	140	17FEB03	29AUG03	21																				
PRO145	Fabricate and Deliver Catalyst	270	28DEC03	16DEC04	13																				
PRO135	Fabricate and Deliver ID Fans and Motors	250	05JAN04	02DEC04	44																				
CONSTRUCTION																									
CST100	Relocations	70	13JAN03	11APR03	0																				
CST105	Install Piles	100	14APR03	29AUG03	0																				
CST125	Install Pile Caps	80	09JUN03	26SEP03	0																				
CST110	Award General Contractor	0		12SEP03	10																				
CST115	Erect Structural Steel	125	29SEP03	05MAR04	0																				
CST130	Structural Building Modifications	50	07MAR04	10MAY04	0																				
CST135	Erect Steel to Reactor Level	40	11MAY04	05JUL04	0																				
CST140	Erect Remaining Steel	164	11MAY04	24DEC04	7																				
CST145	Erect Reactor Box	125	08JUN04	29NOV04	0																				
CST150	Install Mechanical Systems	115	06JUL04	13DEC04	0																				
CST155	Install Electrical Systems	115	28JUL04	04JAN05	0																				
CST160	Load Catalyst	21	05JAN05	02FEB05	0																				
STARTUP																									
SU0165	Checkout and Start-Up	100	04JAN05	13APR05	0																				

2002 2003 2004 2005



**AGREEMENT FOR THE PURPOSE OF ENSURING
COMPLIANCE WITH OZONE AMBIENT AIR
QUALITY STANDARDS**

Exhibit "B"

Gulf will measure its compliance with the emission rate limit set forth in paragraph 3 of this agreement by determining the Plant Crist NOx emission rate, when Crist Unit #7 has operated for 30 sequential days (which need not be consecutive) on a generating unit-specific btu weighted average basis pursuant to the following formula:

$$\begin{array}{l} \text{plant wide} \\ \text{daily} \\ \text{mmbtu} \\ \text{weighted} \\ \text{NOx rate} \end{array} = \frac{\sum_{\substack{\text{Units} \\ 4, 5, 6, 7}} \left[\left(\text{Unit \# daily mmbtu} \right) \times \left(24 \text{ hour avg unit \# NOx CEMs rate} \right) \right]}{\sum_{\substack{\text{Units} \\ 4, 5, 6, 7}} \left(\text{Unit \# daily mmbtu} \right)}$$

For the purposes of this calculation, a Crist Unit #7 operating day means any calendar day that Crist Unit #7 is online a minimum of 18 hours.

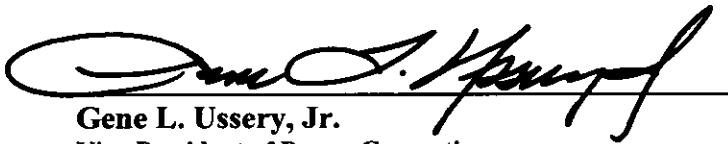
Unit # daily mmbtu (heat input) in the foregoing formula is determined by Plant Crist's daily as-burned fuel analysis

ATTACHMENT 3
RO & PE Certification Pages
Revised Permit Application Pages for Crist 7

**CRIST ELECTRIC GENERATING PLANT
UNIT # 7 ESP & SCR CONSTRUCTION APPLICATION
CERTIFICATION BY RESPONSIBLE OFFICIAL**

“I, the undersigned, am the responsible official, as defined in Chapter 62-210.200, F.A.C., for the Title V source for which this request is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this request are true, accurate and complete.”

Responsible Official Signature:


Gene L. Ussery, Jr.


Vice-President of Power Generation

12-11-02
Date:

**CRIST ELECTRIC GENERATING PLANT
Unit # 7 ESP & SCR CONSTRUCTION PERMIT
CERTIFICATION BY PROFESSIONAL ENGINEER**

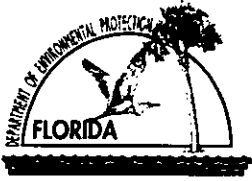
"I, the undersigned, am a registered professional engineer in the State of Florida and hereby certify to the best of my knowledge that all information for the construction and design of the Unit # 7 Electrostatic Precipitator and Selective Catalytic Reduction System at the Crist Electric Generating Plant is true, accurate and complete."

Professional Engineer Signature:



Gregory N. Terry
Registration Number: 52786

12-17-02
Date



Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: Gulf Power Company	
2. Site Name: Crist Electric Generating Plant	
3. Facility Identification Number: 0330045 <input type="checkbox"/> Unknown	
4. Facility Location: Pate Road Street Address or Other Locator: (off of 10 mile road) on Governors Bayou City: Pensacola County: Escambia Zip Code: 32520-0340	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Name and Title of Application Contact: G. Dwain Waters Air Quality Programs Supervisor	
2. Application Contact Mailing Address: Organization/Firm: Gulf Power Company Street Address: One Energy Place City: Pensacola State: FL Zip Code: 32520-0328	
3. Application Contact Telephone Numbers: Telephone: (850) 444 - 6527 Fax: (850) 444 - 6217	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	<i>12-26-03</i>
2. Permit Number:	<i>0330045-005-AC</i>
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: _____

- Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit number to be revised: _____

- Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: _____

- Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: _____

Reason for revision: _____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.

Construction/Modification Information

1. Description of Proposed Project or Alterations:

Project consists of the replacement of the Crist Unit 7 electrostatic precipitator and the addition of a selective catalytic reduction system. The Unit 7 ESP is scheduled to begin operation by May 1, 2004. The Unit 7 SCR is schedule to begin operation by May 1, 2005. Pile and foundation work is scheduled to begin on March 3, 2003.

2. Projected or Actual Date of Commencement of Construction: **March 3, 2003**

3. Projected Date of Completion of Construction: **May 1, 2004, May 1, 2005**

Application Comment

The Crist Unit 7 modifications outlined in this application are pollution control projects and are exempt from New Source Review. Some modifications are expected in the Economizer Control Damper, the Economizer Hopper, the Air Preheater and the Perheater Inlet in order to retrofit the Selective Catalytic Reduction System. These modifications will not increase emissions or add capacity to Crist Unit 7.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)**

Emissions Unit Description and Status

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input checked="" type="checkbox"/> 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).</p> <p><input type="checkbox"/> 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.</p> <p><input type="checkbox"/> 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.</p>			
<p>2. Regulated or Unregulated Emissions Unit? (Check one)</p> <p><input checked="" type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.</p> <p><input type="checkbox"/> The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.</p>			
<p>3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Crist Unit 7 Electric Utility Boiler</p>			
<p>4. Emissions Unit Identification Number: <input type="checkbox"/> No ID ID: 007 <input type="checkbox"/> ID Unknown</p>			
<p>5. Emissions Unit Status Code: A</p>	<p>6. Initial Startup Date:</p>	<p>7. Emissions Unit Major Group SIC Code: 49</p>	<p>8. Acid Rain Unit? <input checked="" type="checkbox"/></p>
<p>9. Emissions Unit Comment: (Limit to 500 Characters) Crist Unit 7 is a Foster Wheeler front and rear wall fired, dry bottom boiler. The primary fuels are coal and natural gas. Distillate # 2 fuel oil is combusted as a secondary fuel.</p>			

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Particulate Controls

Particulate emissions are controlled a Alstom cold side electrostratic precipitator replacing the existing Buell electrostatic precipitator in May, 2004.

NO_x Controls

Dry low-NO_x combustors and the addition of a selective catalytic reduction system in May, 2005.

2. Control Device or Method Code(s): **25 (dry low-NO_x); 065 Catalytic Reduction**

Emissions Unit Details

1. Package Unit:	
Manufacturer: Westinghouse	Model Number:
2. Generator Nameplate Rating: 578 MW	
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

**B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: 6406.4 (HHV) mmBtu/hr		
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
<p>Unit 7 is capable of full load on coal and gas with # 2 fuel oil and “on spec” used oil as secondary fuels.</p>		

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Attachment A-1	

**D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)**

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? Stack			2. Emission Point Type Code: 2		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Common stack with Crist Unit 6					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: Crist Unit 6 – ARMS #006 Crist Unit 7 – ARMS #007					
5. Discharge Type Code: V		6. Stack Height: 450 feet		7. Exit Diameter: 23.2 feet	
8. Exit Temperature: 270 °F		9. Actual Volumetric Flow Rate: 2462700 acfm		10. Water Vapor: 9.0 %	
11. Maximum Dry Standard Flow Rate: dscfm			12. Nonstack Emission Point Height: feet		
13. Emission Point UTM Coordinates: Zone: 16 East (km): 478.500 North (km): 3381.300					
14. Emission Point Comment (limit to 200 characters):					

**E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)**

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Boiler fired with pulverized bituminous coal. Emissions related to ton burned.		
2. Source Classification Code (SCC): 1-01-002-02		3. SCC Units: Tons Burned (solid fuel)
4. Maximum Hourly Rate: 242.68	5. Maximum Annual Rate: 2,125,876.80	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 3.90	8. Maximum % Ash: 15.8	9. Million Btu per SCC Unit: 12800
10. Segment Comment (limit to 200 characters): Unit capable of full load with coal.		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Boiler fired with natural gas.		
2. Source Classification Code (SCC): 1-01-006-01		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 5.82	5. Maximum Annual Rate: 50,983.20	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.01	8. Maximum % Ash: 0.00	9. Million Btu per SCC Unit: 1060
10. Segment Comment (limit to 200 characters): Unit capable of full load with natural gas.		

**E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)**

Segment Description and Rate: Segment 1 of 3

1. Segment Description (Process/Fuel Type) (limit to 500 characters): <p align="center">Boiler fired with No. 2 fuel oil. Emissions related to thousand gallons burned</p>		
3. Source Classification Code (SCC): <p align="center">1-01-005-01</p>	3. SCC Units: <p align="center">Thousand Gallons Burned (all liquid fuel)</p>	
4. Maximum Hourly Rate: <p align="center">9.29</p>	5. Maximum Annual Rate: <p align="center">81,406.68</p>	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: <p align="center">0.50</p>	8. Maximum % Ash: <p align="center">0.10</p>	9. Million Btu per SCC Unit: <p align="center">138</p>
10. Segment Comment (limit to 200 characters): Fuel use limited to startup, flame stabilization and used oil utilization for energy recovery.		

**F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO2			EL
SAM			NS
NOX	065	024	EL
CO			NS
PM	010		EL
PM10			NS
VOC			NS
HCL			NS
H107 (HF)			NS

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:	
3. Potential Emissions: 34,166.21 lb/hour	149,648.01 tons/year	4. Synthetically Limited? []
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year		
6. Emission Factor: 38 (S%).95 = SO2 lbs/ton of coal burned Reference: AP-42	7. Emissions Method Code: 3	
8. Calculation of Emissions (limit to 600 characters): [38 (3.9%S) .95] = 140.79 SO2 lbs/ton of coal thus; [140.79 lb/ton] [242.675 ton/hr] = 34, 166.21 SO2 lbs/hr thus; [140.79 lb/ton] [242.675 ton/hr] [8760 hr/yr] [1/2000 lb/ton] = 149,648.01 SO2 ton/yr		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): The allowable emissions of this pollutant is 5.9 SO2 lb/MMBTU heat input per Rule 62-296.405(1)(2)c. No change in emissions due to the replacement of the ESP or addition of the SCR project.		

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: Rule	2. Future Effective Date of Allowable Emissions:	
3. Requested Allowable Emissions and Units: 5.9 lbs/mmbtu	4. Equivalent Allowable Emissions: 34,364.60 lb/hour 150,503.80 tons/year	
5. Method of Compliance (limit to 60 characters): Daily 24 hour average based on CEM or FS&A		
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): See specific condition C23. in Title V Permit for compliance demonstration to standard.		

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)**

Potential/Fugitive Emissions

1. Pollutant Emitted: SAM	2. Total Percent Efficiency of Control:
3. Potential Emissions: 276.93 lb/hour 1,212.94 tons/year	4. Synthetically Limited? <input type="checkbox"/>
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 1.14114 SAM lb/ton of coal burned Reference: AP-42	7. Emissions Method Code: 3
8. Calculation of Emissions (limit to 600 characters): [1.14114 lb/ton of coal] [242.675 ton/hr] [8760 hr/yr] [1/2000 lb/ton] = 1212.9 ton/yr AP-42 factor	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): No change in emissions due to the replacement or the ESP or addition of the SCR project.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)**

Potential/Fugitive Emissions

1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control: 99.6%
3. Potential Emissions: 153.4 lb/hour	671.76 tons/year 4. Synthetically Limited? []
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 0.04 (%ash) = PM lb/ton of coal fired Reference: AP-42 @ 99.6% ESP Efficiency	7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 characters): [0.04(%Ash) = PM lbs/ton of coal fired based on 99.6% efficiency [0.04(15.8%) = .632 PM lbs/ton of coal fired [0.632 lb/ton of coal] [242.675 ton/hr] = 153.37 lb/hr [0.632 lb/ton of coal] [242.675 ton/hr] [8760 hr/yr] [1/2000 lb/ton] = 671.76 ton/yr AP-42 factor using 99.6% efficiency	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Original Title V emissions estimate based on 99.2% efficiency @ an average ash content of 9.3%. Revised estimates based on 99.6% efficiency @ maximum ash content of 15.8%. Net reduction in potential emissions estimated is (790.81-671.76) = 119.05 PM tons/year from the new ESP.	

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: Rule	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.10 lb/mbtu	4. Equivalent Allowable Emissions: 582.40 lb/hour 2,550.91 tons/year
5. Method of Compliance (limit to 60 characters): Annual Method 17 Particulate Test	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Particulate standatd is 0.1 lb/mmbtu in 62-296.405(1)(b) and test method is 62-296-405(1)(e)2.	

Emissions Unit Information Section _____ of _____

Allowable Emissions Allowable Emissions 1 of 2

1. Basis for Allowable Emissions Code: Rule	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 0.30 lb/mbtu	4. Equivalent Allowable Emissions: 1,747.20 lb/hour 956.59 tons/year
5. Method of Compliance (limit to 60 characters): Annual Method 17 Particulate Test	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Excess emissions under 62-210.700 (3). Test method is 62-296-405(1)(e)2.	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)**

Potential/Fugitive Emissions

1. Pollutant Emitted: PM10	2. Total Percent Efficiency of Control: 99.6
3. Potential Emissions: 95.9 lb/hour 419.85 tons/year	4. Synthetically Limited? []
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: 0.025(%ash) = PM10 lb/ton of coal fired Reference: AP-42 using 99.6% efficiency	7. Emissions Method Code: 3
8. Calculation of Emissions (limit to 600 characters): <p>[0.025(%Ash) = PM10 lbs/ton of coal fired based on 99.6% efficiency [0.025(15.8%) = .395 PM10 lbs/ton of coal fired [0.395 lb/ton of coal] [242.675 ton/hr] = 95.86 lb/hr [0.395 lb/ton of coal] [242.675 ton/hr] [8760 hr/yr] [1/2000 lb/ton] = 419.85 ton/yr AP-42 factor using 99.6% efficiency</p>	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): <p>Original Title V emissions estimate based on 99.2% efficiency @ an average ash content of 9.3%. Revised estimates based on 99.6% efficiency @ maximum ash content of 15.8%. Net reduction in potential emissions estimated is (494.26-419.85) = 74.41 PM10 tons/year from the new ESP.</p>	

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)**

Potential/Fugitive Emissions

1. Pollutant Emitted: HCL		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 422 lb/hour		4. Synthetically Limited? <input type="checkbox"/>	
1848.36 tons/year			
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year			
6. Emission Factor: tons coal x 2000lbs/ton x ppm Cl in coal x 1E-6 x 1.028 lb HCL = lbs HCL released Reference: EPRI Emissions Factor Handbook		7. Emissions Method Code: 5	
8. Calculation of Emissions (limit to 600 characters): $[\text{tons coal}] [2000 \text{ lb/ton}] [\text{ppm Cl}] [1\text{E-}6 \times 1.028 \text{ lb HCL/lb CL/hr}] = \text{HCL lbs released}$ $[242.675 \text{ tons coal/hr}] [2000] [846 \text{ ppm}] [1\text{E-}6 \times 1.028 \text{ lb HCL}] = 422 \text{ lbs/hr}$ $[422 \text{ HCL lbs/hr}] [8760] [1/2000 \text{ lb/ton}] = 1848.36 \text{ HCL tons/yr}$			
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): No change in emissions due to the replacement of the ESP or addition of the SCR project.			

**G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)**

Potential/Fugitive Emissions

1. Pollutant Emitted: HF	2. Total Percent Efficiency of Control:
3. Potential Emissions: 36.8 lb/hour 161.2 tons/year	4. Synthetically Limited? []
5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year	
6. Emission Factor: tons coal x 2000lbs/ton x ppm F in coal x 1E-6 x 1.053 lb HF x 0.90= lbs HF released Reference: ERPI Emissions Factor Handbook	7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 characters): [tons coal] [2000 lb/ton][ppm F] [1E-6 x 1.028lb HF/lb F/hr][0.90] = HF lbs released [242.675 tons coal/hr] [2000][80ppm] [1E-6 x 1.053 lb HF][0.90] = 36.8 lbs/hr [36.8 HF lbs/hr [8760] [1/2000 lb/ton] = 161.2 HF tons/yr	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): No change in emissions due to the replacement of the ESP or addition of the SCR project.	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: VES	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: 40 % Exceptional Conditions: 60 % Maximum Period of Excess Opacity Allowed: 60 min/hour	
4. Method of Compliance: EPA Reference Method 9 or Opacity Monitoring System	
5. Visible Emissions Comment (limit to 200 characters): Rule 62-296.405(1)(a)	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: 40 % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: 60 min/hour	
4. Method of Compliance: EPA Reference Method 9 or Opacity Monitoring System	
5. Visible Emissions Comment (limit to 200 characters): Excess emissions resulting from startup, shutdown, or malfunction not-to-exceed 2 hours in any 24 hour period unless authorized by FDEP for a longer duration. Rule 62-210.700(1), F.A.C.	

**I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)**

Continuous Monitoring System: Continuous Monitor 1 of 5

1. Parameter Code: VE	2. Pollutant(s):
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Lear Siegler Model Number: SS-4542 Serial Number: 926232	
5. Installation Date: 12-01-1992	6. Performance Specification Test Date: 09-03-2002
7. Continuous Monitor Comment (limit to 200 characters): Unit required to monitor opacity under 62-296.405(1)(f)1.	

Continuous Monitoring System: Continuous Monitor 2 of 5

1. Parameter Code: Flow	2. Pollutant(s):
3. CMS Requirement: 40 CFR Part 75	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): Required by 40 CFR Part 75 (Acid Rain Program) and 40 CFR Subpart Da. Specific CEMS information will be provided to FDEP when available.	

Emissions Unit Information Section _____ of _____

Continuous Monitoring System: Continuous Monitor 3 of 5

1. Parameter Code: Flow	2. Pollutant(s):
3. CMS Requirement: 40 CFR Part 75	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): Required by 40 CFR Part 75 (Acid Rain Program) and 40 CFR Subpart Da. Specific CEMS information will be provided to FDEP when available.	

Continuous Monitoring System: Continuous Monitor 4 of 5

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement: 40 CFR Part 75	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: TECO Model Number: 42C Serial Number: 42C-73834-374	
5. Installation Date: 06-19-02	6. Performance Specification Test Date: 06-26-02
7. Continuous Monitor Comment (limit to 200 characters): Required by 40 CFR Part 75 (Acid Rain Program).	

Emissions Unit Information Section _____ of _____

Continuous Monitoring System: Continuous Monitor 5 of 5

1. Parameter Code: EM	2. Pollutant(s):
3. CMS Requirement: 40 CFR Part 75	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information: Manufacturer: TECO Model Number: 43C Serial Number: 43C-72788-372	
5. Installation Date: 06-19-02	6. Performance Specification Test Date: 06-26-02
7. Continuous Monitor Comment (limit to 200 characters): <p style="text-align: center;">Required by 40 CFR Part 75 (Acid Rain Program).</p>	