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Pensacola, Florida 32520

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GULF POWER
A SOUTHERN COMPANY

Certified Mail

February 6, 2003

RECEIVED
FEB 10 2003
BUREAU OF AIR REGULATION

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
REQUEST FOR ADDITIONAL INFORMATION RESPONSE
UNIT # 7 ESP & SCR Project No: 0330045-005-AC

Please find enclosed Gulf Power's response to FDEP's request for additional information outlined in your letter to Gene L. Ussery, Jr. dated January 22, 2003. Included are new certifications from the Responsible Official and Professional Engineer registered in Florida.

As you are aware, Gulf Power's schedule to begin construction starts on March 3, 2003. Please advise Gulf Power as soon as possible any delay to this schedule. Gulf Power must start foundation work on March 3, 2003 in order to meet the schedule outlined in the August FDEP Ozone Agreement.

We appreciate your efforts to work with us regarding the startup of these emission control systems. Please call me regarding any additional questions or concerns.

Sincerely,

Dwain Waters Q.E.P.

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

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

2-5-03
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

Gregory N. Terry
Registration Number: 52786

2-5-03
Date

GULF POWER's RESPONSE TO FDEP's REQUEST FOR ADDITIONAL INFORMATION DATED JANUARY 22, 2003 UNIT 7 ESP/SCR PROJECT - Project No: 0330045-005-AC

Gulf Power Response: February 4, 2003

1. **Process Flow Diagram: Provide a process flow diagram of the entire system (boiler through stack) identifying the process and control equipment, flue gas fans, fuel inputs, CEMS monitoring points, ammonia injection point, bypass damper locations, and ash removal. Identify the approximate exhaust flows, temperatures, and pressure drop for each major component and for any substantial change in these parameters. Will the existing stacks or CEMS be modified due to this project?**

   Gulf Power Answer:

   See the attached process flow diagram Figure 1. The mass balances, Figures 2A, 2B and 2C, that follow provide the requested flows, temperatures and pressures at each major component. The CEMS will be modified as follows:

   The existing Continuous Emission Monitoring System (CEMS) will be modified by Spectrum Systems, Inc. for proper operation with the retrofitted SCR. The existing NO_x monitor will be replaced with a dual range model. A low range will be necessary when the SCR is in operation and the existing high range will be needed when the SCR is out of service. However, there will be no change in location of the Crist 7 CEM system. The stack probe and duct locations will remain the same as currently noted in the CEM monitoring plan.

   In addition to changing the NO_x monitor to a dual range monitor, additional calibration gas cylinders, solenoid valves, and control hardware and logic will be required to provide for automatic zero and calibration of each monitor range. Data Acquisition & Handling System (DAHS) modifications will also be required for the electronic documentation associated with dual range analyzers.

   Since the expected amount of ammonia at the compliance location is very low, the existing dilution probe and sampling system should be acceptable for use as is. A chemical ammonia scrubber will be installed in the sample line to prevent any ammonia from being seen as NO_x by the NO_x monitor. The ammonia scrubber will be selected so that a visual inspection can be used to determine when it has been spent.

   The CEMS will also be modified to compensate all measurements for changes in temperature, pressure, and molecular weight using the Electric Power Research Institute (EPRI) dilution probe correction algorithm. This will require a modification to be made to the existing dilution probe, addition of pressure and temperature sensors, and modifications to existing DAHS. The EPRI correction algorithm will result in a more accurate determination of heat input and thus a more accurate determination of lb/mmBtu of NO_x being emitted.\

   Note that new SCR inlet/outlet NOx monitors are being furnished for ammonia feed control purposes only (see the response to #3). Also, the other remaining CEMS (flow, SO2, diluent) parameters and equipment are not expected to require any changes.

2. **ESP: Provide a general description of the ESP proposed for this project (number of chambers, number of fields, etc.). Identify the following ESP design parameters: reported collection efficiency (%); reported drift velocity of particles (ft/second); and the reported collection plate area (ft^2). What is the design outlet particulate matter emission rate in terms of "lb/MMBtu of heat input" and "opacity"? Describe any flue gas conditioning that will be used to lower fly ash resistivity and any monitoring associated with this parameter. Identify the general components and operation of the system that will be used to remove particles from the collecting plates. Describe ash collection and removal including the control system used to adjust the cleaning frequency and intensity. Will the construction of the new ESP change the current methods, frequency, or duration of soot blowing for Unit 7? Please describe.**

   Gulf Power Answer:

   a. *Provide a general description of the ESP proposed for this project (number of chambers, number of fields, etc.).* The precipitator will consist of two casings (or gas tight chambers). Each casing will have three cells with five fields per cell. The precipitator will have 30 total fields (or electrical bus sections) with each field having approximate overall dimensions of 28.88' wide x 11.81' deep and a height of 49.22'. The collecting plates will be 16 gage steel with a spacing of 15.75 inches. Discharge electrodes will be of the rigid design. Each electrical bus section (30 total) will be controlled by a microprocessor based controller with field energizing optimization and high speed field bus communication. The ESP will also be equipped with a data management system for remote control and communications with the high voltage power supplies and rapper control systems.

   b. *Identify the following ESP design parameters: reported collection efficiency (%);* the predicted collection efficiency is 99.64%; reported *drift velocity of particles (ft/second);* no migration velocity value was provided by the manufacturer; *and the reported collection plate area (ft2)* total collection area is 767,326 ft2.

   c. *What is the design outlet particulate matter emission rate in terms of "lb/MMBtu of heat input" and "opacity"?* The total installation is designed to meet a maximum particulate emission limitation of 0.05 pounds per million Btu heat input and also an opacity limitation of 10 percent maximum.

   d. *Describe any flue gas conditioning that will be used to lower fly ash resistivity and any monitoring associated with this parameter.* No flue gas conditioning will be required. The existing sulfur burner will be removed.

   e. *Identify the general components and operation of the system that will be used to remove particles from the collecting plates.* A tumbling hammer rapping system will be used to strike the collecting plates. Rapping density will not exceed 1,163 square feet of collecting electrode per rapper. The rappers are rotated with a motor that will be operated at a frequency to minimize opacity spikes. Sixty hoppers (two per field) will hold the collected ash.

   f. *Describe ash collection and removal including the control system used to adjust the cleaning frequency and intensity.* The new ESP's ash collection hoppers will be tied in to the existing dry fly ash removal system. Since the ash collection will be similar to the existing ESP, no significant changes for capacity are required. Modifications will be made to extend the transport piping and increase the transport performance as necessary. The final design of the control system for the ash hopper valves is not finished, but the current concept is to use the existing control system. Some of the new ductwork will add some air heater outlet hoppers. Also with the addition of the SCR one year later, some new ash collection hoppers at the bottom of the SCR inlet will be added. Engineering evaluations are on-going to determine the removal of the ash from these new hoppers that may change or add to the ash collection system.

g. *Will the construction of the new ESP change the current methods, frequency, or duration of soot blowing for Unit 7?* No changes are expected in boiler or air heater sootblowing methods, frequency or duration due to the new ESP.

3. **Selective Catalytic Reduction (SCR) System: Identify the following SCR design parameters: general catalyst composition (material); catalyst structure (honeycomb, plate, etc.); approximate catalyst volume (ft^3); catalyst operational temperature range (° F); molar ratio of ammonia/NOx; and design inlet and outlet NOx emission rates (lb/MMBtu). Describe the ammonia distribution, flow control, and monitoring systems. What are the general procedures for startup and shutdown of the SCR system? What critical operating parameters and levels must be attained before commencing ammonia injection? Explain how the control system will monitor, adjust, and inject ammonia at a given rate. What are the estimated ammonia injection rates at 50%, 75%, and 100% of the maximum coal-firing rate? What is the target ammonia slip level based on the design criteria of 85% NOx reduction? Describe the design and operating techniques used to prevent particulate matter from fouling and masking the catalyst beds. Provide the catalyst vendor's recommendations describing catalyst maintenance procedures and schedule. In response to catalyst deactivation, describe the process of gradually adding catalyst through complete replacement.**

Gulf Power Answer:

SCR System Design Parameters:

a. General Catalyst Composition: The catalyst will be of Titanium Dioxide and Molybdenum Oxide with Vanadium Pentoxide as the active component. The catalyst is fabricated by applying ceramic catalyst material to a perforated stainless steel mesh grid plate.

b. Catalyst Structure: Plate type with 5.7mm pitch arranged in 4 layers.

c. Approximate catalyst volume: 736 cubic meters (25,988 cubic feet) initially in 2 ½ layers, 1177 cubic meters (41,559 cubic feet) with all four layers populated.

d. Catalyst Operational Temperature Range: ~600 – 800°F

e. Molar ratio of Ammonia / NO_X: 0.95 at SCR inlet (for 90% NO_X removal)

f. Design inlet NO_X Concentration: 0.70 lb/mmBtu

g. Design outlet NO_X emissions: 0.07 lb/mmBtu

h. *Describe the ammonia distribution, flow control and monitoring systems.*

Ammonia flow control and flow monitoring is discussed under paragraph k below. There are no provisions for continuously monitoring ammonia concentration in the flue gas. When ammonia measurements in the flue gas are required, a wet chemical method will be utilized. These measurements are taken periodically over the operating life of the SCR catalyst. More frequent tracking of ammonia slip will be monitored by measuring the amount of ammonia adsorbed by the flyash. Flyash samples will be measured periodically using an ion-specific electrode.

Ammonia is distributed into the SCR inlet duct through the Ammonia Injection Grid (AIG). The AIG is divided into multiple zones (perhaps 2 dozen zones, pending the upcoming model study results). Each zone is equipped with a flow indicator and manual control valve for tuning the AIG to match the inlet NO_X profile.

During commissioning and periodically over the life of the plant, it is necessary to tune the ammonia injection grid. This tuning optimizes the distribution of ammonia in the inlet duct relative to the NO_x distribution so that maximum deNO_x efficiency can be achieved with minimum ammonia slip. To facilitate this tuning, a manual gas sampling grid (GSG) is installed downstream of the last catalyst layer. The GSG allows a high-resolution traverse for gas composition across the outlet of the SCR, which can be used to precisely adjust the AIG. The GSG is comprised of individual small-bore (~½") heavy-wall pipes extending from outside the SCR to distributed sampling locations below the last catalyst layer. Portable equipment is used to sample and measure gas concentrations via the GSG.

Effective performance of the AIG to distribute ammonia relative to NO_x is dependent on the velocity profile entering the AIG. A static mixing device, consisting of steel plates installed at opposing angles, is used to create flow resistance and flatten this profile and make gas flow more uniform. This static device is designed by the catalyst supplier as part of the physical model study. It is installed upstream of the AIG.

A second static mixer is installed downstream of the AIG. The elements of this mixer are precisely oriented with the AIG injection points to impart a swirl to the diluted ammonia and promote good mixing with the flue gas. Ammonia will be stored on site in two 20,500 gallons tanks.

i. *What are the general procedures for startup and shutdown of the SCR system?*

SCR Startup Procedure: The SCR dampers will initially be in the Bypass position. The boiler should reach a minimum load of approximately 220MW with stable firing on coal. The unit may be at any other load up to maximum, but load should be steady while the SCR is valved into the flue gas path.

The SCR outlet dampers are stroked in tandem to the full open position and pinned in place. The continuous cleaning sequence of the sonic horns is activated. Dilution air flow to the AIG is initiated to preclude flue gas or flyash accumulation in the AIG. The SCR bypass damper is then slowly opened (to SCR in-service position) over a period of hours to heat the SCR reactor in a controlled manner while avoiding any upset to the furnace draft controls. The limiting constraint on thermal ramp rate is differential temperature, which must be no greater than 150°F [preliminary] between the internal structural members and stiffeners on the external skin of the reactor. The reactor is heated as quickly as possible within this constraint to minimize the transition time through the moisture and sulfuric acid dewpoints. It takes from 12 to 14 hours to open the dampers the first time the SCR is put in service, in part because moisture is driven off of the insulation in the process. Thereafter, the heat-up procedure may take 8 to 12 hours.

When the damper is fully opened (all of gas flow is through the SCR reactor) the boiler load may be dispatched as required. An FGAS sample fan is started and the SCR inlet and outlet NO_X concentration monitors are verified to agree with the stack CEMS. The bypass damper seal air pressure and flow are verified to assure 0% bypass. Ammonia injection may begin when the SCR catalyst reaches the minimum operating temperature of 600°F. If the boiler is at full load and the gas flow is at 100% of the design rate, the catalyst performance is still temperature limited. At 600°F the catalyst activity is sufficient to provide only 75% NO_X reduction efficiency (as opposed to 90% at design temperature of 680°F). The ammonia flow rate should be limited to 80% of the flow rate at design conditions. When the catalyst reaches the design temperature (680°F) the ammonia flow can be increased to achieve 90% NO_X removal.

Alternately the SCR may be in the flue gas path in while the unit undergoes a hot or cold start. The same reactor differential temperature constraints and minimum ammonia injection temperature applies. The catalyst is exposed to soot because the burners are not optimized for the #2 fuel oil used as a startup fuel. The unburned hydrocarbons from the fuel oil may block the catalyst pores and reduce the catalyst life. However, most deposits are expected to occur on the thin layer of flyash on the catalyst surfaces. At this time we do not know if the boiler or SCR will be the limiting constraint on startup time.

SCR Shutdown Procedure: The ammonia injection is stopped and a delay time (<1 hour) is allowed for the outlet NO_X concentration to rise to equal the inlet concentration. This period of gas flow without ammonia injection assures that all residual ammonia is consumed and provides the NFPA 8502 purge requirement.

If the outage is expected to be short, the SCR inlet/bypass damper is stroked to the full bypass position in a controlled manner to avoid any furnace draft upset. The SCR outlet damper is then closed and seal air flow is established at both dampers. Operation of the sonic horns, FGAS sample fan and dilution air flow may then be halted. The SCR catalyst is thus 'bottled up' hot and will remain above the acid dewpoint for a considerable length of time because the reactor is well insulated. This procedure allows the boiler to be cooled more quickly because the SCR reactor is required to be cooled. It also allows the SCR to be put back in service in much less time than for the gradual warm-up from a cold start.

If a long outage is expected or if access to the inside of the reactor is required, the SCR dampers are kept open as the boiler is brought off-line in the normal fashion. After fuel flow is discontinued, the ID and FD fans are left running to cool the boiler and SCR. The cooling time will be extended by up to 12 hours due to the thermal capacity of the SCR. The reactor should be isolated during any maintenance procedure that could subject the catalyst to excessive moisture, such as air preheater washing or economizer maintenance.

j. *What critical operating parameters and levels must be attained before commencing ammonia injection?*

The following permissives must be met before ammonia may be injected to the SCR:

- No unit Master Fuel Trip
- SCR inlet and outlet dampers are fully opened
- Catalyst at or above minimum operating temperature (~600F)
- Ammonia / dilution air ratio is not high (>10% by volume)
- Dilution air flow is not low
- Gaseous ammonia is above the minimum vaporizer outlet temperature

k. *Explain how the control system will monitor, adjust, and inject ammonia at a given rate.*

An ammonia flow control valve (FCV) controls the flow of undiluted anhydrous ammonia vapor from the operating vaporizer into the diluted ammonia stream via a mixing chamber. The flow control valve setpoint for the SCR reactor is established by an algorithm computation as depicted in Figure 3.

The ammonia flow control loop in the DCS uses a cascaded-feedforward control scheme. The lower controller in this scheme is a simple ammonia flow controller. The upper controller and its feedforward signal develop the ammonia flow setpoint. This setpoint is compared to the measured ammonia flow (measured flow is compensated for temperature and pressure) and the output, when in automatic, is adjusted accordingly. This output signal adjusts the ammonia flow control valve. The feedforward signal is generated from the measured SCR inlet NO_x, the outlet NO_x setpoint, and the heat input to the boiler, which is estimated from the measured megawatt output of the steam turbine. The multiplication of the two signals, and the scaling factor, is used to determine the flow of ammonia (in units of lbs/hr) required for the current flow rate of NO_X into the SCR.

The upper controller of the cascaded control loop compares the SCR outlet NO_x to the preset NO_x setpoint and then trims the feedforward signal to adjust for any inaccuracies in the other measurements and for any ammonia slip that actually occurred. The stack NO_x signal is also monitored since it is the measurement that is used to determine compliance with the air permit limits.

The scaling factor for the ammonia flow feedforward signal (0.39) is based upon the differences in molecular weight between one molecule of NO_X and one molecule of ammonia. This calculation assumes that 95% of the NO_X will be NO and 5% of it will be NO_2. It also assumes that all of the ammonia molecules find NO_X to react with and that there is no unreacted ammonia.

l. *What are the estimated ammonia injection rates at 50%, 75%, and 100% of the maximum coal-firing rate?*

- The ammonia injection rate is 1319 lb/hr at Peak Maximum conditions.
- The ammonia injection rate is 1000 lb/hr at 75% of maximum conditions.
- The ammonia injection rate is 785 lb/hr at the minimum load for NH_3 injection.
- The ammonia injection rate would be 695 lb/hr at 50% load (250MW) however we expect the SCR to limit low-load operation to a minimum load of about 275MW. Below the load, the economizer outlet temperature may not meet the minimum 600°F required for ammonia injection.

m. *What is the target ammonia slip level based on the design criteria of 85% NOx reduction?*

The target ammonia slip level is less than 5ppm measured at the stack.

n. *Describe the design and operating techniques used to prevent particulate matter from fouling and masking the catalyst beds.*

Large "popcorn" ash particles have the potential to plug the protective screens on catalyst modules and may even plug the catalyst elements themselves. This pluggage leads to poor gas distribution within the SCR, higher draft loss across the SCR and a reduction in catalyst life. Large (>4mm diameter) particles must be collected before they reach the catalyst. Flyash particles must be kept moving through the catalyst and not allowed to accumulate.

Flow model studies of the SCR system are being conducted using both numerical and experimental methods. The numerical method uses computational fluid dynamics (CFD) to predict flow patterns and particle behavior throughout the system. The experimental method includes a 1/12th scale model of the SCR system. Fans force air to flow through the model at velocities selected for similitude across the operating range of the full scale reactor. Gas flow patterns in the model are observed using smoke, tracer gas and tufts of yarn. Areas of ash deposition are observed using cork dust to simulate flyash. Gas flow distribution devices and popcorn ash collection devices are developed and tested.

The SCR inlet duct is designed to facilitate collection and removal of large ash particles. The 90 degree bend upward from the economizer outlet duct provides the change of flow direction necessary for momentum-based devices such as deflector plates. The large cross-sectional area is sized for low velocity (35 feet/second) with upward vertical flow. This allows particle screens to be used with minimal abrasion and draft loss. Devices of these types will be tested and proven as part of the flow model study.

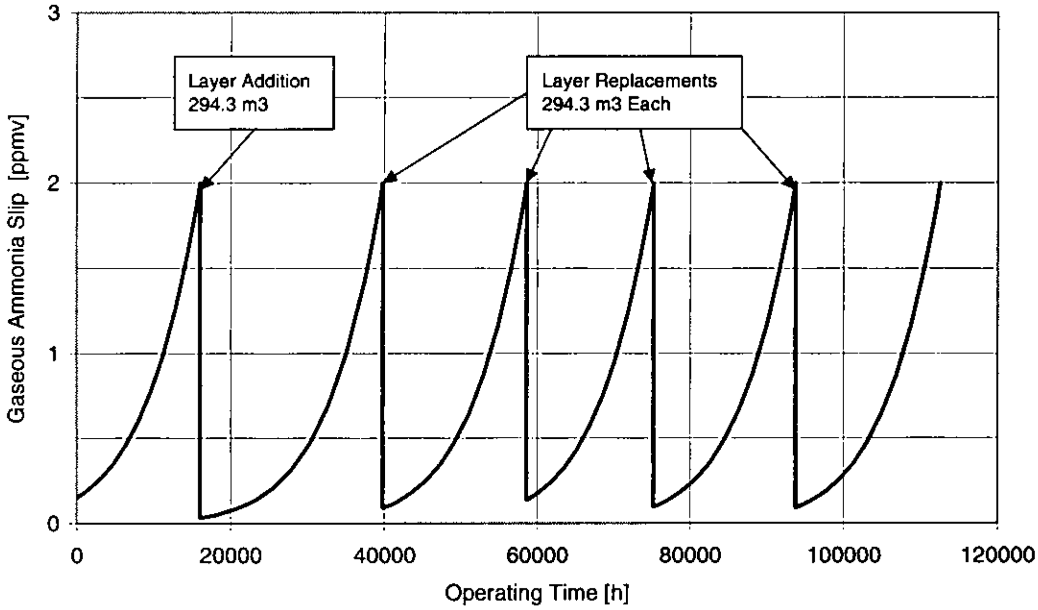
Acoustic cleaning devices are provided for on-line cleaning of flyash from the catalyst and reactor surfaces. The SCR reactors are equipped with 8 sonic horns per catalyst elevation to prevent ash accumulation. These horns operate in the audible sound range and prevent ash deposits by semi-continuously vibrating or fluidizing ash particles. The fluidized particles pass through the SCR under the force of flue gas flow and gravity. The compressed air system that supplies the sonic horns will be sized to allow for additional horns which may be added in the SCR inlet area to prevent ash deposits on turning vanes, beams, collection devices, etc.

o. *Provide the catalyst vendor's recommendations describing catalyst maintenance procedures and schedule. In response to catalyst deactivation, describe the process of gradually adding catalyst through complete replacement.*

The catalyst has been selected for a 16,000-hour life at design conditions. The initial catalyst load consists of two and a half layers. At the end of the first 16,000 hour period a full fourth layer is added. After the next interval (at 40,000 hours), the half-layer is replaced with a full layer. Full layers are replaced in succession thereafter similar to the catalyst management plan shown below.

Please note that this recommended schedule has not yet been met at any operating SCR system within the Southern Company.

Catalyst Management Plan
Crist 7: 2 1/2 layers, 735.8 m3 Initial Installation



4. **<u>SCR Bypass Duct</u>: Describe the general location and operation of the proposed SCR bypass duct. Under what conditions is it necessary to use the bypass? For each condition, estimate the duration of bypass operation and the number of times per year the bypass is expected to operate under the condition. Is Gulf Power requesting any specific permit conditions related to bypass operation? Please provide supporting documentation for any requests.**

Gulf Power Answer:

a. *Describe the general location and operation of the proposed SCR bypass duct.* The SCR bypass duct is configured to allow boiler exhaust gas to bypass the SCR catalyst. Initial design locates it so the bypass inlet is at the top of the SCR box and the outlet is at the bottom of the SCR box. Two large bypass dampers re-direct the gas flow through this duct. See EPS-3016-281.Fora general understanding of bypass issues, two conditions pertaining to the SCR should be understood. First, the SCR reaction takes high temperatures for the chemical reaction to occur. These temperatures, around 600 degrees F, do not exist until the unit is loaded to approximately 275 MW. Second, a cold SCR must be gradually warmed to control thermal expansion.

b. *Under what conditions is it necessary to use the bypass?* Three conditions are anticipated that require bypass duct operation.

1. Boiler problems requiring personnel entry into the boiler for maintenance: By closing the by-pass dampers in this situation, the SCR remains thermally isolated and warm while the boiler is cooled for entry. By keeping the SCR warm, the SCR can be returned to operation much faster.
2. Starting up the unit: The SCR typically would require a longer startup time without bypassing. With bypassing, the boiler can come to the SCR's operating temperature faster and the bypass dampers can be opened gradually for controlled SCR warming.
3. SCR catalyst problems, such as plugging, would require maintenance and inspections on the SCR itself. The bypass would be used to allow entry and work on the SCR itself without taking the unit off-line.

c. *For each condition, estimate the duration of bypass operation and the number of times per year the bypass is expected to operate under the condition.*

1. Boiler Problems- occur an estimated 10 to 12 times per year for a bypass time of approximately 60 hours. Note the unit is off line approximately 36 of these hours.
2. Start Up other than boiler problems- about 10 times per year for a bypass time of approximately 48 hours.
3. SCR catalyst problems – These events on other units range from 4 days to 2 weeks in duration and would be expected to occur about 3-4 times per year on a unit operated with SCR year-round.

d. *Is Gulf Power requesting any specific permit conditions related to bypass operation? Please provide supporting documentation for any requests.*

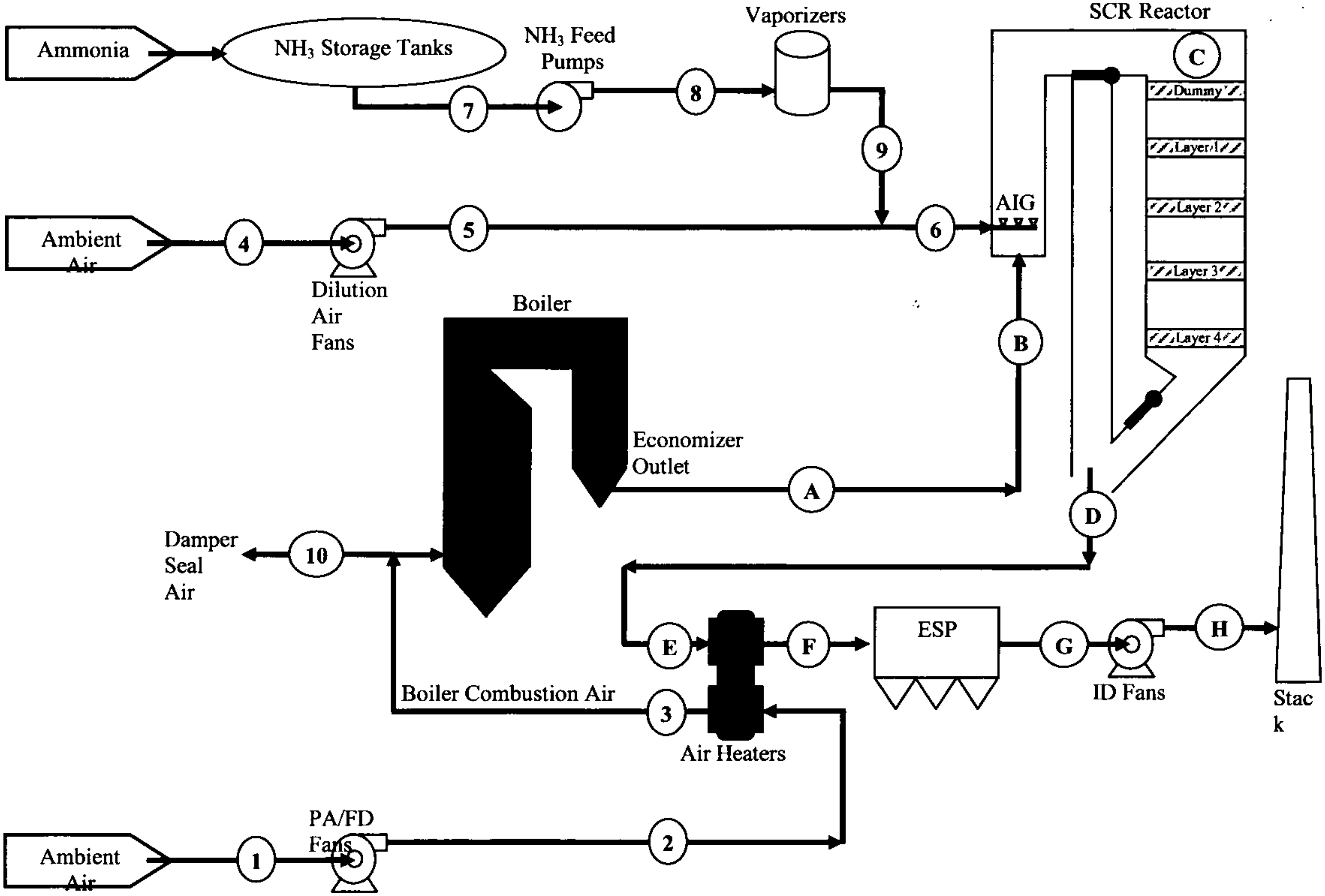
Gulf Power believes operations during periods of startup, shutdown and malfunction do not constitute representative conditions for the purpose of performance testing and are exempt as excess emissions. Thus, the SCR bypass should be authorized for unit startup and shutdown including boiler and SCR maintenance as periods of malfunction. Gulf Power requests that bypass operation for boiler and SCR maintenance be permitted for 15 days during 2005 and up to 15 days per calendar year thereafter. During bypass operations the NOx emissions limit should be a 24 hour average at 0.35 lb/mmbtu from Crist Unit 7. These periods should not be included in the 30 day emission average for NOx. on a daily average basis during those days. The proposed 0.35 lb/mmbtu limit is based on past actual operating data for Crist Unit 7 and is included as "Attachment A."

5. **<u>Schedule</u>: Provide an updated project construction schedule similar to that shown in "Exhibit A" of the Gulf Power/DEP agreement.**

   Gulf Power Answer:
   See "Attachment B" summary schedules for the precipitator and the SCR. Note this schedule is the current plan and is subject to revision to accommodate unit outage scheduling, fabrication and delivery of components and actual construction activities.

FIGURES

SCR SYSTEM PROCESS FLOW DIAGRAM – FIGURE 1



PEAK LOAD MASS AND ENERGY BALANCES – FIGURE 2A

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Energy to Serve Your World™

Gulf Power Company
Plant Crist, Unit 7

PROCESS STREAM DETAILS

Date: 1/17/2003
Revision: A
Case: Peak Max.
Page: 1
Document No.:

STREAM	A	B	C	D	E	F	G	H		
	Economizer Outlet	**AIG Inlet**	**SCR Inlet**	**SCR Outlet**	**APH Gas Inlet**	**APH Gas Outlet**	**ID Fan Inlet**	**ID Fan Outlet**		
Temperature, F	725	724	720	719	719	320	310	317		
Pressure, in. w.g.	-12.0	-12.7	-14.7	-17.2	-17.4	-27.8	-29.8	2.0		
Pressure, in.w.a.	392.2	391.5	389.5	387.0	386.8	376.4	374.4	406.2		
Gas Flow, acfm	2,654,195	2,689,423	2,716,585	2,731,817	2,736,702	2,167,106	2,258,288	2,101,242		
Gas Flow, scfm	1,140,194	1,154,239	1,163,872	1,163,872	1,165,351	1,357,350	1,425,218	1,425,218		
Gas Flow, lb/hr	5,221,663	5,227,141	5,270,767	5,270,767	5,277,463	6,146,959	6,454,307	6,454,307		
NOx, lb/hr (as NO2)	3,762	3,762	3,762	376	376	376	376	376		
Particulate, lb/hr	26,134	26,134	26,134	26,134	26133.7	26,134	131	131		

STREAM	1	2	3	4	5	6	7	8	9	10
	FD Fan Inlet	**FD Fan Outlet**	**APH Air Outlet**	**Dilution Air Fan Inlet**	**Dilution Air Fan Outlet**	**AIG Feed**	**Ammonia Feed Pump Suction**	**Ammonia Feed Pump Discharge**	**Regulated Ammonia Flow**	**Damper Seal Air from Secondary**
Temperature, F	75	76	550	75	77	77	75	75	40	550
Pressure, in. w.g.	-1.0	16.4	7.0	-1.0	40.0	30.0	-	-	25.0	-4.0
Pressure, in.w.a.	403.2	420.6	411.2	403.2	444.2	434.2	-	-	429.2	400.2
Gas Flow, acfm	1,326,771	1,274,049	2,087,612	9,684	8,824	9,309	-	-	447	5,300
Gas Flow, scfm	1,297,834	1,297,834	1,103,159	9,472	9,472	9,768	-	-	499	2,816
Gas Flow, lb/hr	5,796,641	5,796,641	4,927,145	42,307	42,307	43,626	1,319	1,319	1,319	12,174
										-
Pressure, psig	-	-	-	-	-	-	125	125	-	-

NOTES:

1. All flows are total for one boiler unit.
2. Standard conditions are based on 68 deg. F and 29.921 in.Hg.
3. Air to sonic horns and bypass due to FGAS sampling is neglected.
4. Flows streams exclude equipment sizing margins.

NORMAL MAX LOAD MASS AND ENERGY BALANCES – FIGURE 2B

SOUTHERN COMPANY
Energy to Serve Your World

Gulf Power Company
Plant Crist Unit 7

PROCESS STREAM DETAILS

Date: 1/17/2003
Revision: A
Case: Normal Max.
Page: 2
Document No.:

STREAM	A	B	C	D	E	F	G	H		
	Economizer Outlet	**AIG Inlet**	**SCR Inlet**	**SCR Outlet**	**APH Gas Inlet**	**APH Gas Outlet**	**ID Fan Inlet**	**ID Fan Outlet**		
Temperature, F	725	724	720	719	719	240	230	234		
Pressure, in. w.g.	-10.0	-10.6	-12.2	-14.3	-14.5	-23.1	-24.8	0.0		
Pressure, in.w.a.	394.2	393.6	392.0	389.9	389.7	381.1	379.4	404.2		
Gas Flow, acfm	2,408,482	2,440,264	2,464,625	2,475,671	2,480,568	1,754,182	1,823,540	1,722,044		
Gas Flow, scfm	1,039,916	1,052,971	1,062,577	1,062,577	1,064,225	1,239,433	1,301,405	1,301,405		
Gas Flow, lb/hr	4,762,428	4,768,532	4,812,037	4,812,037	4,819,498	5,612,957	5,893,605	5,893,605		
NOx, lb/hr (as NO2)	3,414	3,414	3,414	341	341	341	341	341		
Particulate, lb/hr	23,835	23,835	23,835	23,835	23,835	23,835	119	119		

STREAM	1	2	3	4	5	6	7	8	9	10
	FD Fan Inlet	**FD Fan Outlet**	**APH Air Outlet**	**Dilution Air Fan Inlet**	**Dilution Air Fan Outlet**	**AIG Feed**	**Ammonia Feed Pump Suction**	**Ammonia Feed Pump Discharge**	**Regulated Ammonia Flow**	**Damper Seal Air from Secondary**
Temperature, F	75	76	460	75	77	77	75	75	40	460
Pressure, in. w.g.	-0.4	13.0	7.0	-1.0	40.0	30.0	-	-	25.0	2.0
Pressure, in.w.a.	403.8	417.2	411.2	403.2	444.2	434.2	-	-	429.2	406.2
Gas Flow, acfm	1,208,946	1,171,654	1,735,295	9,684	8,824	9,283	-	-	406	5,300
Gas Flow, scfm	1,184,339	1,184,339	1,006,688	9,472	9,472	9,740	-	-	452	3,046
Gas Flow, lb/hr	5,289,729	5,289,729	4,496,270	42,307	42,307	43,504	1,197	1,197	1,197	13,566
										-
Pressure, psig	-	-	-	-	-	-	125	125	-	-

NOTES:

1. All flows are total for one boiler unit.
2. Standard conditions are based on 68 deg. F and 29.921 in.Hg.
3. Air to sonic horns and bypass due to FGAS sampling is neglected.
4. Flows streams exclude equipment sizing margins.

LOW LOAD MASS AND ENERGY BALANCES – FIGURE 2C

SOUTHERN COMPANY
Energy to Serve Your World

Gulf Power Company
Plant Crist, Unit 7

PROCESS STREAM DETAILS

Date: 1/17/2003
Revision: A
Case: Min. NH3 Inj.
Page: 3
Document No.:

STREAM	A	B	C	D	E	F	G	H		
	Economizer Outlet	AIG Inlet	SCR Inlet	SCR Outlet	APH Gas Inlet	APH Gas Outlet	ID Fan Inlet	ID Fan Outlet		
Temperature, F	600	599	595	594	594	230	220	222		
Pressure, in. w.g.	-7.0	-7.2	-8.0	-8.8	-8.9	-12.6	-13.3	0.0		
Pressure, in.w.a.	397.2	397.0	396.2	395.4	395.3	391.6	390.9	404.2		
Gas Flow, acfm	1,395,907	1,412,288	1,428,965	1,430,804	1,434,481	1,103,720	1,144,177	1,109,977		
Gas Flow, scfm	678,917	687,104	696,610	696,610	698,275	813,058	853,711	853,711		
Gas Flow, lb/hr	3,105,478	3,111,649	3,154,699	3,154,699	3,162,242	3,682,054	3,866,156	3,866,156		
NOx, lb/hr (as NO2)	2,117	2,117	2,117	212	212	212	212	212		
Particulate, lb/hr	14,966	14,966	14,966	14,966	14965.7	14,966	75	75		

STREAM	1	2	3	4	5	6	7	8	9	10
	FD Fan Inlet	FD Fan Outlet	APH Air Outlet	Dilution Air Fan Inlet	Dilution Air Fan Outlet	AIG Feed	Ammonia Feed Pump Suction	Ammonia Feed Pump Discharge	Regulated Ammonia Flow	Damper Seal Air from Secondary
Temperature, F	75	76	450	75	77	77	75	75	40	450
Pressure, in. w.g.	-0.3	10.5	7.0	-1.0	40.0	30.0	-	-	25.0	2.0
Pressure, in.w.a.	404.0	414.7	411.2	403.2	444.2	434.2	-	-	429.2	406.2
Gas Flow, acfm	791,711	772,003	1,124,470	9,684	8,824	9,186	-	-	252	5,300
Gas Flow, scfm	775,885	775,885	659,502	9,472	9,472	9,639	-	-	281	3,080
Gas Flow, lb/hr	3,465,409	3,465,409	2,945,598	42,307	42,307	43,050	742	742	742	13,715
										-
Pressure, psig	-	-	-	-	-	-	125	125	-	-

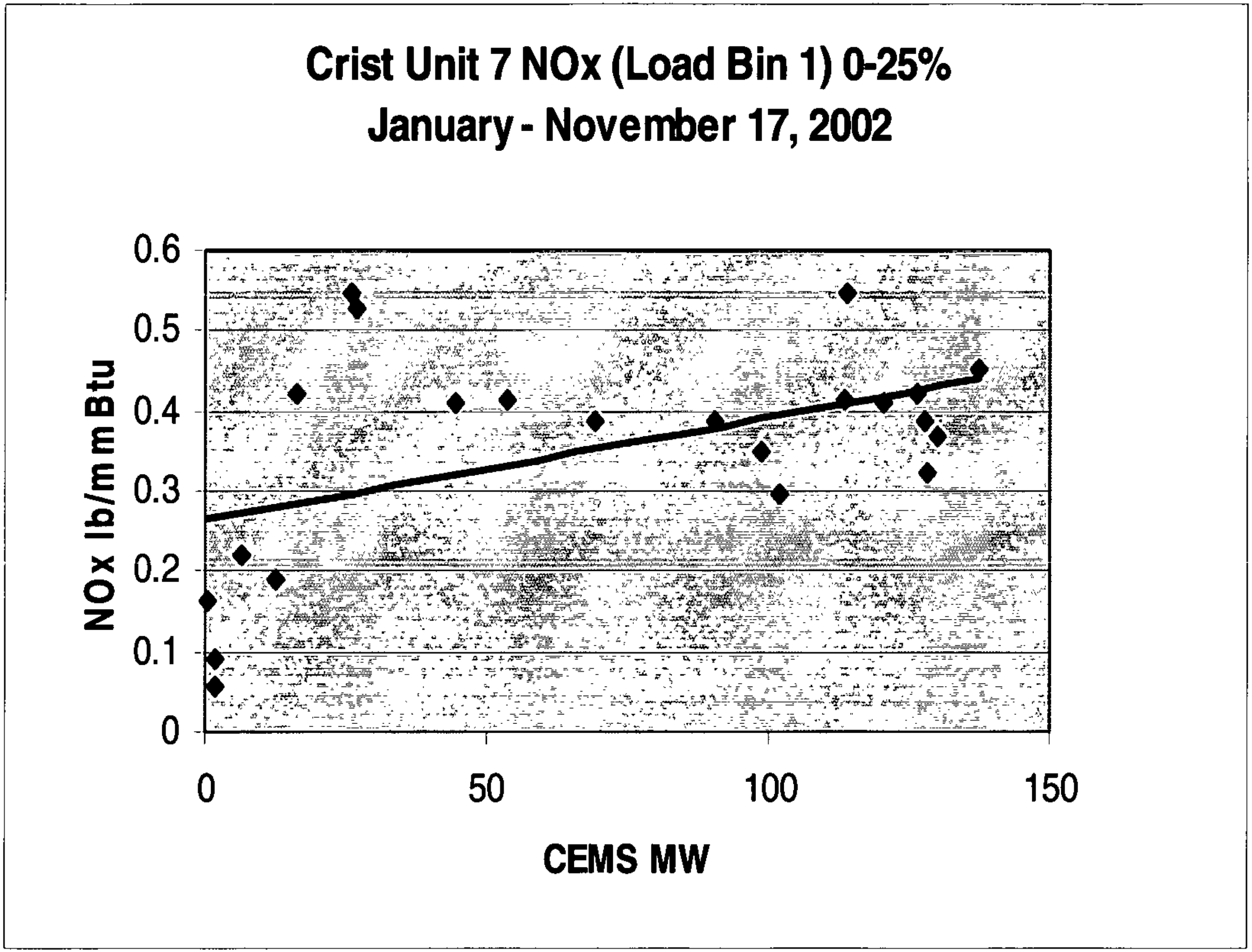
NOTES:
1. All flows are total for one boiler unit.
2. Standard conditions are based on 68 deg. F and 29.921 in.Hg.
3. Air to sonic homs and bypass due to FGAS sampling is neglected.
4. Flows streams exclude equipment sizing margins.

Attachment A

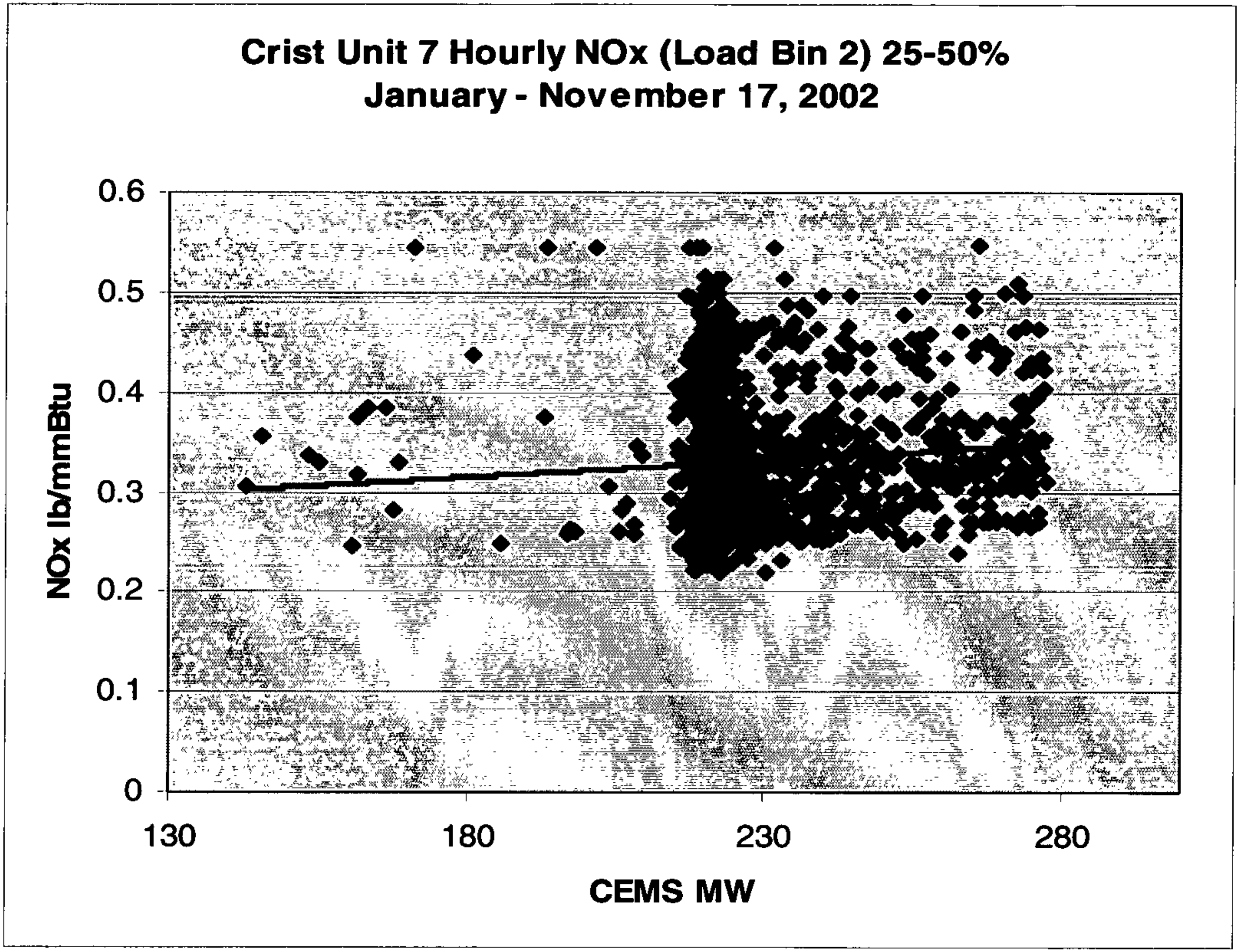
Crist Unit 7 NOx Data

Crist Unit 7 NOx Data
2001 & 2002

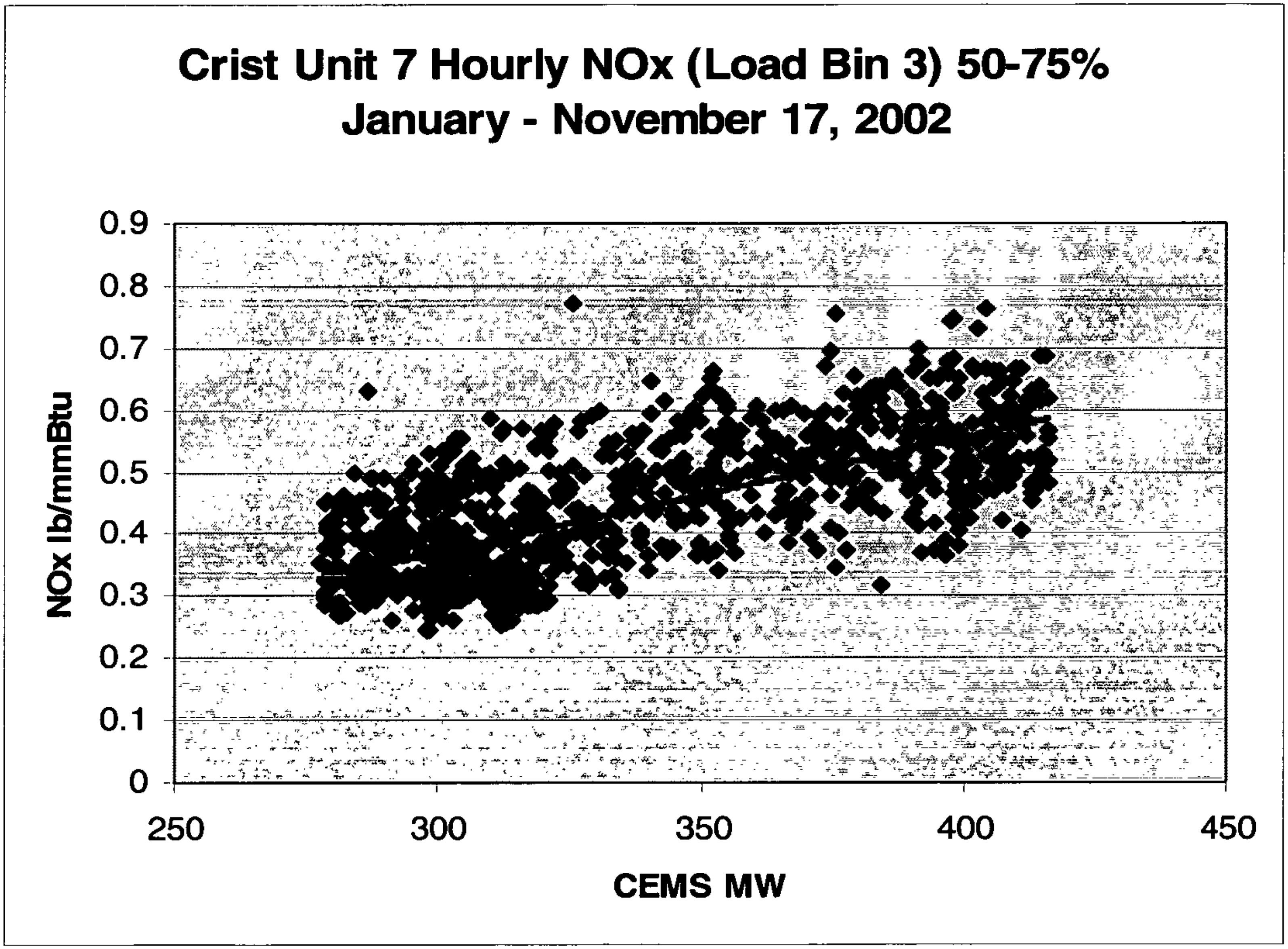
	2002 thru 11/17	2002 thru 11/17	1/1/01-12/31/01	2001
Load Bin	NOx (lb/mmbtu)	Hours	NOx (lb/mmbtu)	Hours
0-25%	0.354	21	0.307	35
25-50%	0.331	1848	0.341	1711
50-75%	0.436	1073	0.45	1119
75-100%	0.604	2885	0.515	3005
Ave 4 Load Bins	0.486	5827	0.451	5870

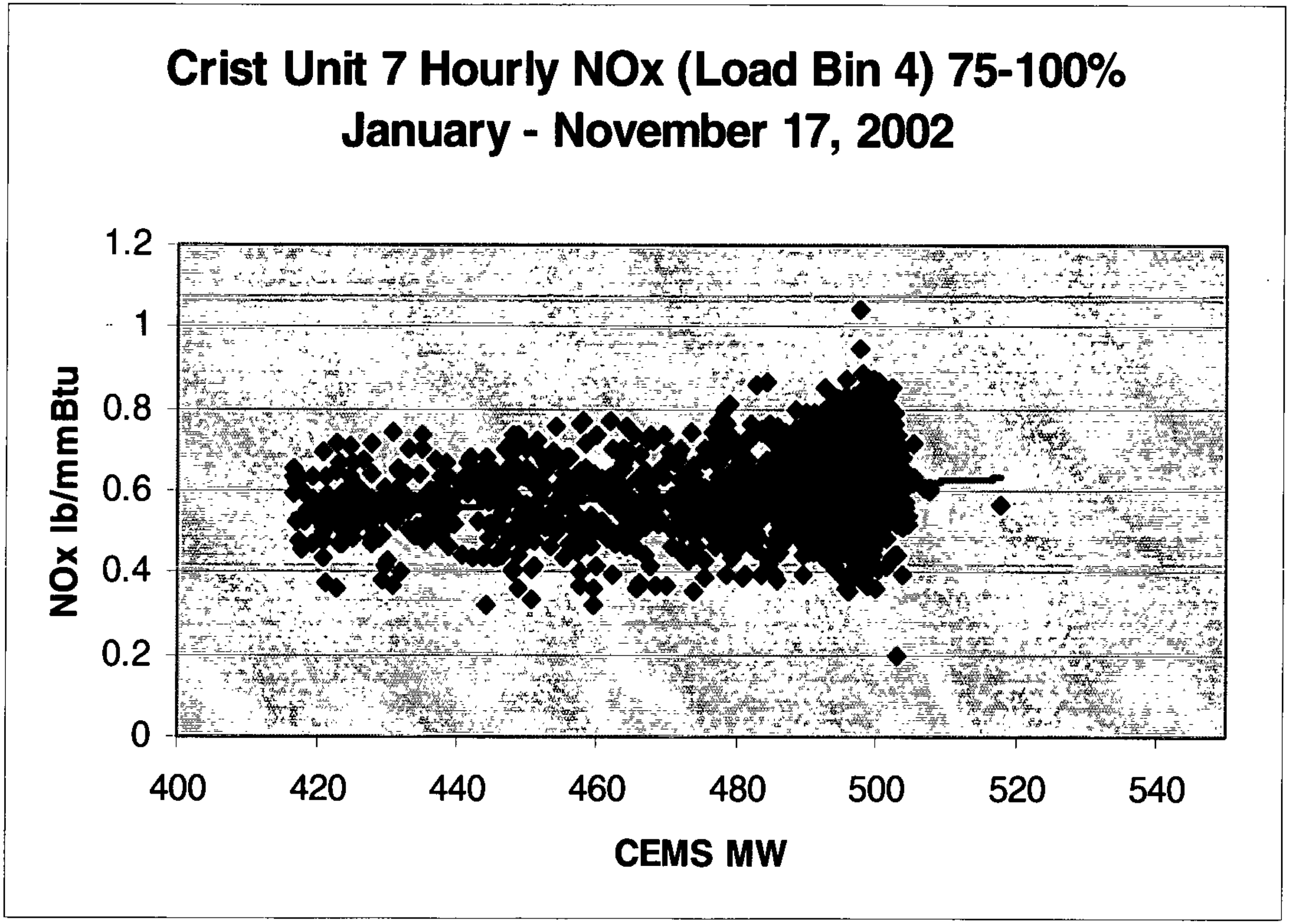


Crist Unit 7 NOx (Load Bin 1) 0-25%
January - November 17, 2002



Crist Unit 7 Hourly NOx (Load Bin 2) 25-50%
January - November 17, 2002


Crist Unit 7 Hourly NOx (Load Bin 3) 50-75%
January - November 17, 2002
NOx lb/mmBtu
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
250
300
350
400
450
CEMS MW



Crist Unit 7 Hourly NOx (Load Bin 4) 75-100%
January - November 17, 2002

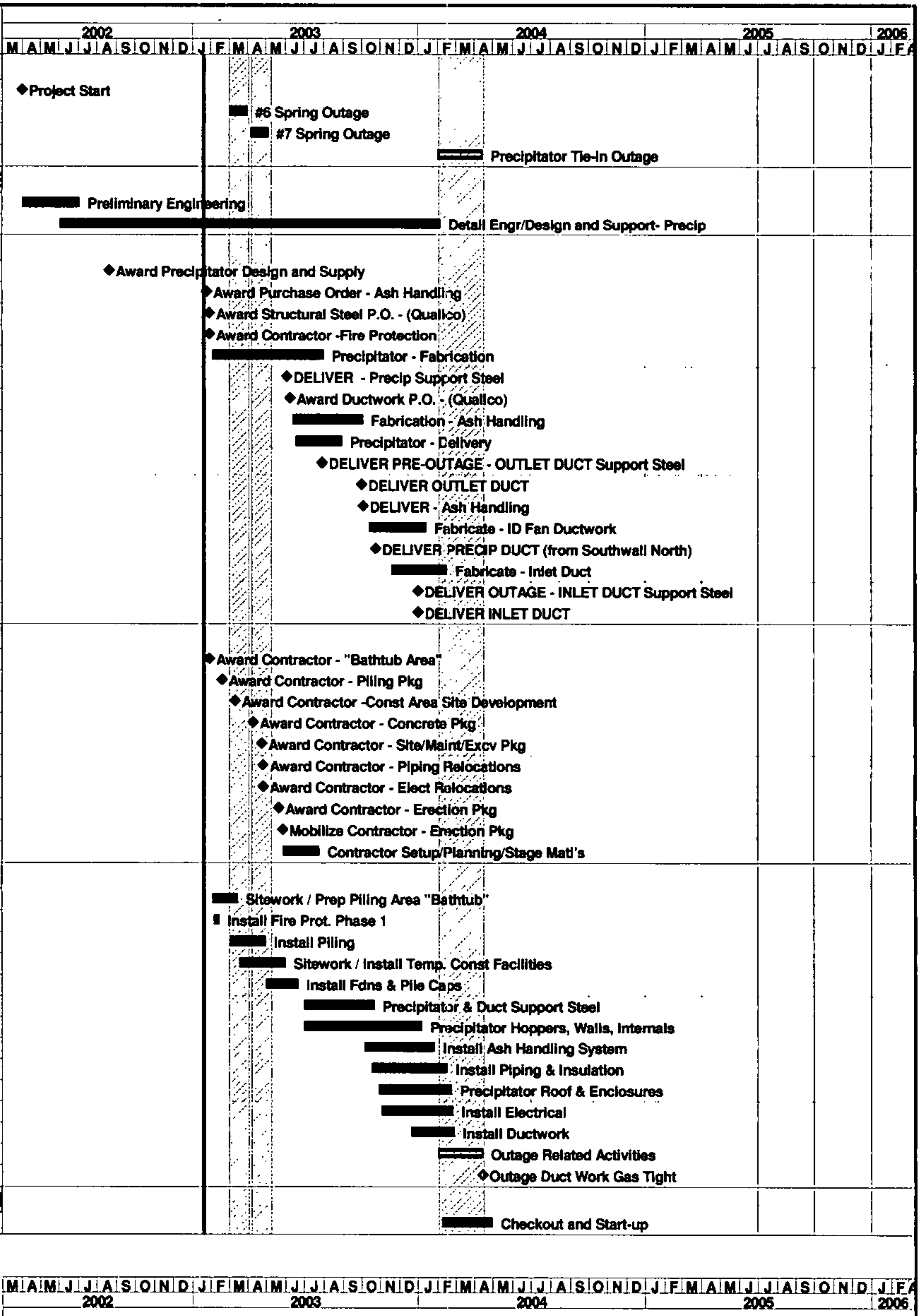
Gulf Power Proposal

- During periods of Crist Unit 7 SCR by-pass operation for maintenance or emergency operation allow NOx emissions rate at or below 0.35 lbs/mbtu.
- Gulf Power requests these operations be limited to no more than 15 days per year for routine maintenance activities and limited to case by case basis for emergency operations.
- Startup and Shutdown operations are exempt from all emissions averaging.

Attachment B

ESP & SCR Schedules

Early Start	Early Finish	
MILESTONES		
01APR02A		Project Start
01MAR03*	30MAR03	#6 Spring Outage
05APR03*	04MAY03	#7 Spring Outage
02FEB04*	14APR04	Precipitator Tie-In Outage
PRELIMINARY ENGINE		
01APR02A	02JUL02A	Preliminary Engineering
03JUN02A	04FEB04	Detail Engr/Design and Support- Precip
PROCUREMENT		
	19AUG02A	Award Precipitator Design and Supply
	24JAN03	Award Purchase Order - Ash Handling
	27JAN03*	Award Structural Steel P.O. - (Qualico)
	29JAN03	Award Contractor -Fire Protection
03FEB03	01AUG03	Precipitator - Fabrication
02JUN03		DELIVER - Precip Support Steel
	06JUN03*	Award Ductwork P.O. - (Qualico)
12JUN03	03OCT03	Fabrication - Ash Handling
17JUN03	29AUG03	Precipitator - Delivery
29JUL03		DELIVER PRE-OUTAGE - OUTLET DUCT Support Steel
01OCT03		DELIVER OUTLET DUCT
	03OCT03*	DELIVER - Ash Handling
14OCT03	12JAN04	Fabricate - ID Fan Ductwork
24OCT03		DELIVER PRECIP DUCT (from Southwall North)
18NOV03	16FEB04	Fabricate - Inlet Duct
01JAN04		DELIVER OUTAGE - INLET DUCT Support Steel
01JAN04		DELIVER INLET DUCT
BID & AWARD LABOR		
	28JAN03	Award Contractor - "Bathtub Area"
	17FEB03	Award Contractor - Piling Pkg
	10MAR03	Award Contractor -Const Area Site Development
	09APR03	Award Contractor - Concrete Pkg
	23APR03	Award Contractor - Site/Maint/Excv Pkg
	24APR03	Award Contractor - Piping Relocations
	24APR03	Award Contractor - Elect Relocations
	19MAY03	Award Contractor - Erection Pkg
	26MAY03	Mobilize Contractor - Erection Pkg
27MAY03	24JUL03	Contractor Setup/Planning/Stage Matl's
CONSTRUCTION		
03FEB03	14MAR03	Sitework / Prep Piling Area "Bathtub"
04FEB03	14FEB03	Install Fire Prot. Phase 1
03MAR03	28APR03	Install Piling
18MAR03	30MAY03	Sitework / Install Temp. Const Facilities
01MAY03	20JUN03	Install Fdns & Pile Caps
01JUL03	20OCT03	Precipitator & Duct Support Steel
01JUL03	06JAN04	Precipitator Hoppers, Walls, Internals
06OCT03	27JAN04	Install Ash Handling System
17OCT03	17FEB04	Install Piping & Insulation
29OCT03	23FEB04	Precipitator Roof & Enclosures
03NOV03	26FEB04	Install Electrical
19DEC03	27FEB04	Install Ductwork
02FEB04	14APR04	Outage Related Activities
	14APR04	Outage Duct Work Gas Tight
CHECK OUT/ STARTU		
07FEB04	30APR04	Checkout and Start-up



Start Date	01APR02
Finish Date	09JUN04
Data Date	20JAN03
Run Date	27JAN03 15:31

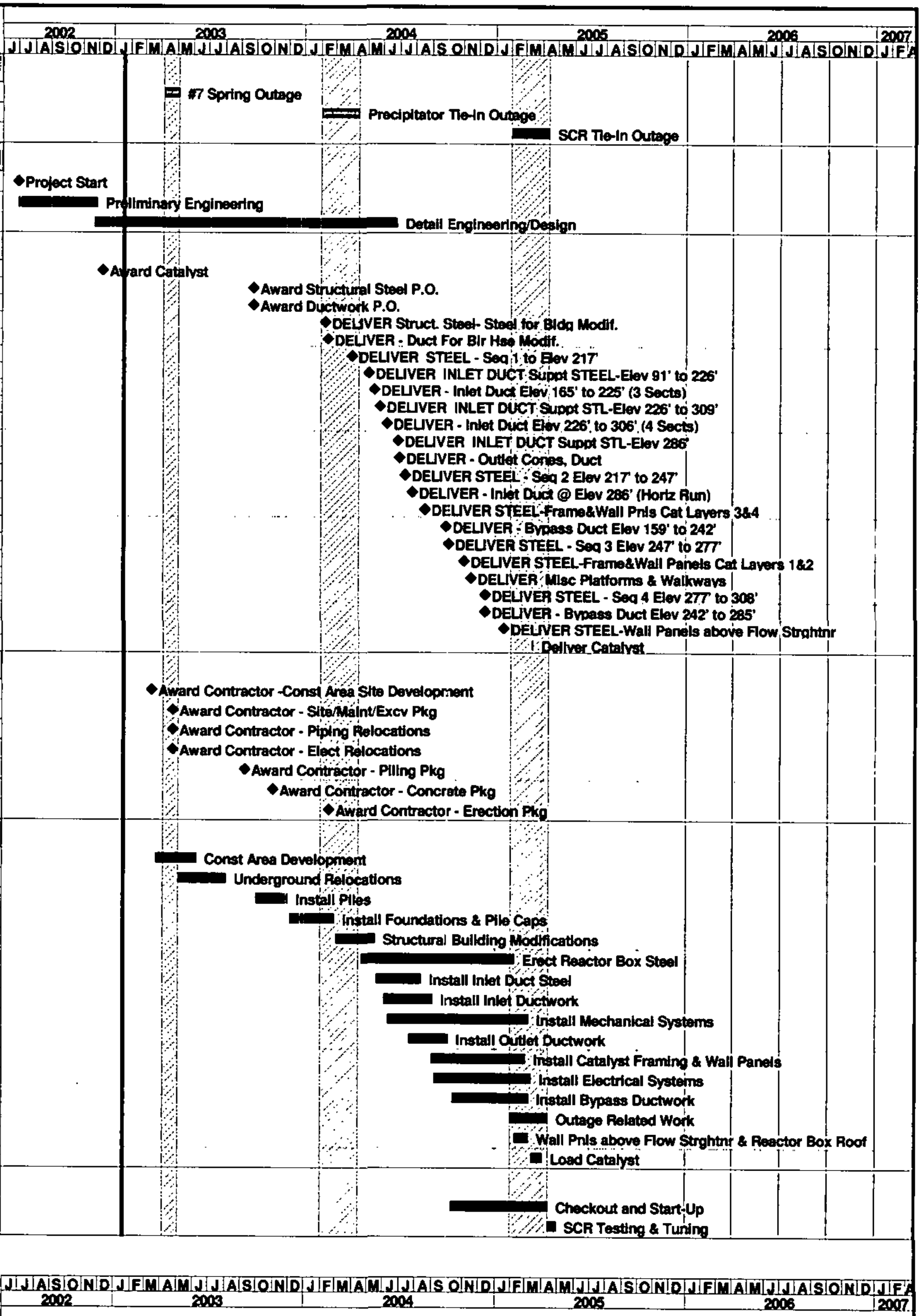
PR15

Sheet 1 of 1

SOUTHERN COMPANY GENERATION

CRIST UNIT 7 PRECIPITATOR
SUMMARY SCHEDULE

Date	Revision	Checked	Approved
11NOV02	Project Status		
02DEC02	Project Status		
06JAN03	Project Status		
20JAN03	Project Status		



Early Start	Early Finish	
MILESTONES		
05APR03*	04MAY03	#7 Spring Outage
02FEB04*	14APR04	Precipitator Tie-In Outage
31JAN05*	13APR05	SCR Tie-In Outage
PRELIMINARY ENGI		
01JUL02A		Project Start
01JUL02A	27NOV02A	Preliminary Engineering
25NOV02A	25JUN04	Detail Engineering/Design
PROCUREMENT		
	09DEC02A	Award Catalyst
	25SEP03	Award Structural Steel P.O.
	25SEP03	Award Ductwork P.O.
	09FEB04	DELIVER Struct. Steel- Steel for Bldg Modif.
	13FEB04	DELIVER - Duct For Blr Hse Modif.
	01APR04	DELIVER STEEL - Seq 1 to Elev 217'
	03MAY04	DELIVER INLET DUCT Suppt STEEL-Elev 91' to 226'
	13MAY04	DELIVER - Inlet Duct Elev 165' to 225' (3 Sects)
	24MAY04	DELIVER INLET DUCT Suppt STL-Elev 226' to 309'
	08JUN04	DELIVER - Inlet Duct Elev 226' to 306' (4 Sects)
	29JUN04	DELIVER INLET DUCT Suppt STL-Elev 286'
	01JUL04	DELIVER - Outlet Cones, Duct
	12JUL04	DELIVER STEEL - Seq 2 Elev 217' to 247'
	26JUL04	DELIVER - Inlet Duct @ Elev 286' (Horiz Run)
	18AUG04	DELIVER STEEL-Frame&Wall Pnls Cat Layers 3&4
	27SEP04	DELIVER - Bypass Duct Elev 159' to 242'
	04OCT04	DELIVER STEEL - Seq 3 Elev 247' to 277'
	03NOV04	DELIVER STEEL-Frame&Wall Panels Cat Layers 1&2
	17NOV04	DELIVER Misc Platforms & Walkways
	13DEC04	DELIVER STEEL - Seq 4 Elev 277' to 308'
	14DEC04	DELIVER - Bypass Duct Elev 242' to 285'
	17JAN05	DELIVER STEEL-Wall Panels above Flow Strghtnr
14MAR05	14MAR05	Deliver Catalyst
BID & AWARD		
	14MAR03	Award Contractor -Const Area Site Development
	23APR03	Award Contractor - Site/Maint/Excv Pkg
	24APR03	Award Contractor - Piping Relocations
	24APR03	Award Contractor - Elect Relocations
	09SEP03	Award Contractor - Piling Pkg
	31OCT03	Award Contractor - Concrete Pkg
	16FEB04	Award Contractor - Erection Pkg
CONSTRUCTION		
22MAR03	07JUN03	Const Area Development
06MAY03	04AUG03	Underground Relocations
01OCT03	30NOV03	Install Piles
03DEC03	28FEB04	Install Foundations & Pile Caps
02MAR04	17MAY04	Structural Building Modifications
21APR04	09FEB05	Erect Reactor Box Steel
20MAY04	13AUG04	Install Inlet Duct Steel
03JUN04	03SEP04	Install Inlet Ductwork
10JUN04	08MAR05	Install Mechanical Systems
21JUL04	03OCT04	Install Outlet Ductwork
03SEP04	02MAR05	Install Catalyst Framing & Wall Panels
09SEP04	13MAR05	Install Electrical Systems
13OCT04	08MAR05	Install Bypass Ductwork
31JAN05*	13APR05	Outage Related Work
10FEB05	07MAR05	Wall Pnls above Flow Strghtnr & Reactor Box Roof
14MAR05	03APR05	Load Catalyst
CHECK OUT/START		
09OCT04	13APR05	Checkout and Start-Up
14APR05	30APR05	SCR Testing & Tuning

Start Date	01APR02
Finish Date	30APR05
Data Date	20JAN03
Run Date	27JAN03 15:29

SCRT

Sheet 1 of 1

SOUTHERN COMPANY GENERATION

CRIST UNIT 7 SCR Project
PRELIMINARY MASTER SCHEDULE

Date	Revision	Checked	Approvec
06JAN03	Issued Preliminary		
20JAN03	Issued Preliminary		

FLORIDA

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

January 22, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Gene L. Ussery, Jr., V.P. of Power Generation
Gulf Power Company – Crist Electric Generating Plant
One Energy Place
Pensacola, FL 32520-0328

Re: **Request for Additional Information**
Project No. 0330045-005-AC
Crist Unit 7 ESP/SCR Project

Dear Mr. Ussery:

On December 26, 2002, the Department received your application for an air construction permit to construct a new ESP and install an SCR system for existing Unit 7 at the Crist Power Plant. The application is incomplete. In order to continue processing your application, the Department will need the additional information requested below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. Process Flow Diagram: Provide a process flow diagram of the entire system (boiler through stack) identifying the process and control equipment, flue gas fans, fuel inputs, CEMS monitoring points, ammonia injection point, bypass damper locations, and ash removal. Identify the approximate exhaust flows, temperatures, and pressure drop for each major component and for any substantial change in these parameters. Will the existing stacks or CEMS be modified due to this project?

2. ESP: Provide a general description of the ESP proposed for this project (number of chambers, number of fields, etc.). Identify the following ESP design parameters: reported collection efficiency (%); reported drift velocity of particles (ft/second); and the reported collection plate area (ft^2). What is the design outlet particulate matter emission rate in terms of "lb/MMBtu of heat input" and "opacity"? Describe any flue gas conditioning that will be used to lower fly ash resistivity and any monitoring associated with this parameter. Identify the general components and operation of the system that will be used to remove particles from the collecting plates. Describe ash collection and removal including the control system used to adjust the cleaning frequency and intensity. Will the construction of the new ESP change the current methods, frequency, or duration of soot blowing for Unit 7? Please describe.

3. Selective Catalytic Reduction (SCR) System: Identify the following SCR design parameters: general catalyst composition (material); catalyst structure (honeycomb, plate, etc.); approximate catalyst volume (ft^3); catalyst operational temperature range (° F); molar ratio of ammonia/NOx; and design inlet and outlet NOx emission rates (lb/MMBtu). Describe the ammonia distribution, flow control, and monitoring systems. What are the general procedures for startup and shutdown of the SCR system? What critical operating parameters and levels must be attained before commencing ammonia injection? Explain how the control system will monitor, adjust, and inject ammonia at a given rate. What are the estimated ammonia injection rates at 50%, 75%, and 100% of the maximum coal-firing rate? What is the target ammonia slip level based on the design criteria of 85% NOx reduction? Describe the design and operating techniques used to prevent particulate matter from fouling and masking the catalyst beds. Provide the catalyst vendor's

recommendations describing catalyst maintenance procedures and schedule. In response to catalyst deactivation, describe the process of gradually adding catalyst through complete replacement.

4. SCR Bypass Duct: Describe the general location and operation of the proposed SCR bypass duct. Under what conditions is it necessary to use the bypass? For each condition, estimate the duration of bypass operation and the number of times per year the bypass is expected to operate under the condition. Is Gulf Power requesting any specific permit conditions related to bypass operation? Please provide supporting documentation for any requests.
5. Schedule: Provide an updated project construction schedule similar to that shown in "Exhibit A" of the Gulf Power/DEP agreement.

The Department will resume processing your application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. For any material changes to the application, please include a new certification statement by the authorized representative or responsible official. You are reminded that Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days or provide a written request for an additional period of time to submit the information.

If you have any questions regarding this matter, please call me at 850/921-9536.

Sincerely,

Jeffery F. Koerner
New Source Review Section

cc: Mr. G. Dwain Waters, Gulf Power Co.
Mr. Gregory N. Terry, Gulf Power Co.
Ms. Sandra Veazey, NWD
Mr. Gregg Worley, EPA Region 4
Mr. John Bunyak, NPS

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Gene L. Ussery, Jr.
V.P. of Power Generation
Gulf Power Company - Crist Electric
Generating Plant
One Energy Place
Pensacola, FL 32520-0328

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☒ Agent ☐ Addressee

B. Received by (Printed Name) K-BEACH.

C. Date of Delivery 1-24-03

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2 7001 0320 0001 3692 7058

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 7058

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark
Here

Sent To Gene L. Ussery, Jr.
Street, Apt. No.; or PO Box No. One Energy Place
City, State, ZIP+4 Pensacola, FL 32520-0328

PS Form 3800, January 2001 See Reverse for Instructions

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

January 17, 2003

CERTIFIED MAIL

Mr. G. Dwain Waters
Air Quality Programs Supervisor
Gulf Power Company
One Energy Place
Pensacola, Florida 32520-0328

Re: Project No. 0330045-005-AC
Gulf Power Company, Crist Power Plant
Unit 7 ESP/SCR Project
Return of Confidential Information

Dear Mr. Waters:

On December 26, 2002, the Department received Gulf Power's application to construct a new ESP and install an SCR system for the existing Crist Unit 7. Information related to the ESP and SCR design was labeled as "Attachment 2", and Gulf Power requested that this information be maintained as "confidential" pursuant to Section 430.111(1), F.S. At this time, no decisions have been made based on the information contained in Attachment 2. The Department has maintained Attachment 2 as if it were considered confidential information. However, the Department makes no determination that this information is, or is not, confidential information pursuant to the statute. The Department is returning Attachment 2 to you as the "Application Contact" for proper handling. The Department is still reviewing the application and expects soon to request more specific information related to the control equipment. If at that time, you believe that your response to the specific questions should be maintained as confidential information, please identify such information separately and provide a basis for the claim of confidentiality for each item. The Department will then determine the confidentiality of each item. If you have any questions, please contact me at 850/922-9536.

Sincerely,

Jeffery F. Koerner
New Source Review Section

cc: (letter only)

Mr. Gene L. Ussery, Jr, Gulf Power
Mr. Gregory N. Terry, P.E., Gulf Power
Ms. Sandra Veazey, NWD

TV/AAL/jfk

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. G. Dwain Waters
Air Quality Programs Supervisor
Gulf Power Company
One Energy Place
Pensacola, FL 32520-0328

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X James Blakely ☐ Agent ☐ Addressee

B. Received by (*Printed Name*)

C. Date of Delivery
1/23/03

D. Is delivery address different from item 1? ☑ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (*Extra Fee*) ☐ Yes

2. 7001 0320 0001 3692 7065

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 7065

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark
Here

Sent To G. Dwain Waters
Street, Apt. No.; or PO Box No. One Energy Place
City, State, ZIP+4 Pensacola, FL 32520-0328

PS Form 3800, January 2001 See Reverse for Instructions