

One Energy Place
Pensacola, Florida 32520

850.505.5111

Certified Mail



September 21, 2007

Jeff Koerner, P.E.
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
REVISED UNIT 7 COOLING TOWER REPLACEMENT PROJECT
PERMIT No: 0330045-014-AC

The purpose of this correspondence is to request a revision to the Crist Unit 7 Cooling Tower Air Construction Permit and its Title V incorporation. As you are aware, Gulf Power is in the process of designing a Wet Flue Gas Desulphurization (WFGD) scrubber system at Plant Crist to comply with future CAIR and CAMR regulation. The conceptual plot plan required Gulf to construct a new Unit 7 Cooling Tower to accommodate the installation of the new scrubber system. This system was constructed pursuant to the above referenced permit and began service in April, 2007. After startup, Gulf became aware that the circulating water pumps associated with the tower are undersized and are operating at a higher electrical load than the pump specifications allowed causing concern with unit failure. Thus, Gulf plans to upgrade the Crist Unit 7 circulating water pumps from the current permitted capacity of 180,000 to 190,000 gallons per minute in November, 2007. Analysis of this upgrade does not significantly impact the previous submitted emissions estimates.

Please find attached an original and three copies of concurrent air construction and Title V permit applications for the Crist Unit 7 Cooling Tower Relocation Project.

If you have any questions regarding the Crist Unit 7 Cooling Tower Relocation Project or the protocol development for the Crist scrubber project, please call me at (850) 444.6527.

Sincerely,

A handwritten signature in black ink that reads "G. Dwain Waters, Q.E.P.".

G. Dwain Waters, Q.E.P.
Special Projects and
Environmental Assets Coordinator

Mr. Jeff Koerner, P.E.
Crist Unit 7 Cooling Tower Replacement Project
September 21, 2007
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cc: w/att: Jim Vick, Gulf Power Company
Terry Wright, Gulf Power Company
John Dominey, Gulf Power Company
Jay Weston, Gulf Power Company
David Hollinger, Southern Company
Angela Morrison, Hopping, Green & Sams
Rick Bradburn, FDEP Northwest District Office, Pensacola, Florida



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for any air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:

- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes to establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial/revise/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

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

Application Contact

1. Application Contact Name: G. Dwain Waters	
2. Application Contact Mailing Address... Organization/Firm: Gulf Power Street Address: One Energy Place City: Pensacola State: FL Zip Code: 32520-0329	
3. Application Contact Telephone Numbers... Telephone: (850) 444 - 6527 ext. Fax: (850) 444 - 6217	
4. Application Contact Email Address: gdwaters@southernco.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 9/25/09	3. PSD Number (if applicable):
2. Project Number(s): 0330045-019-AC 0330045-020-AV	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

Gulf Power is seeking to revise the air construction permit 0330045-014-AC to upgrade the cooling tower pumps from 180k to 190k gallons per minute pursuant to load conditions on the current pump motors operating higher than specification which may cause failure.

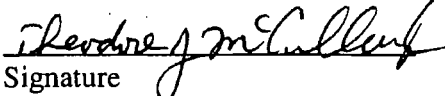
APPLICATION INFORMATION

The purpose of this application is to request a construction permit for the relocation of the Crist Unit 7 Cooling Tower. Gulf Power is in the process of designing a Wet Flue Gas Desulphurization (WFGD) scrubber system at Plant Crist to comply with future CAIR and CAMR regulation. The conceptual design plot plan reveals that the present Unit 7 Cooling Tower must be removed to accommodate the installation of the new scrubber system. A new more efficient Unit 7 Cooling Tower is being proposed as a replacement. The proposed replacement tower will be slightly larger (12 to 14 cells) and will include a drift elimination system to reduce particulate emissions. With the new tower design capability there will be a reduction of actual to potential PM and PM-10 emissions of approximately 8978 (revised from 8980) and 449 tons per year, respectively. Crist Unit 7 unit is projected to experience a heat rate improvement of less than 1% during the summer months due to the more efficient thermal system but this slight change in heat rate will not impact the plant dispatch or load capability of the unit. The basic design of the cooling system for Crist Unit 7 will remain the same as a closed loop system. The new tower is a standard forced draft design available in today's market. The original construction was completed in April, 2007 under 0330045-014-AC. However, due to electrical load concerns with the original installed pump motors, Gulf is requesting an upgrade from 180k to 190k gallons per minute. The upgrade is scheduled for November, 2007.

APPLICATION INFORMATION

Owner/Authorized Representative Statement

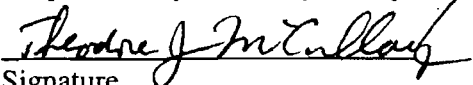
Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name : Theodore J. McCullough
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Gulf Power Company Street Address: One Energy Place City: Pensacola State: Florida Zip Code: 32520-0100
3. Owner/Authorized Representative Telephone Numbers... Telephone: (850) 444 - 6383 ext. Fax: (850) 444 - 6744
4. Owner/Authorized Representative Email Address: <u>TJMUCULL@southernco.com</u>
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.</i>  Signature <u>9/20/07</u> Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: Theodore J. McCullough
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.
3. Application Responsible Official Mailing Address... Organization/Firm: Gulf Power Company Street Address: One Energy Place City: Pensacola State: Florida Zip Code: 32520-0100
4. Application Responsible Official Telephone Numbers... Telephone: (850) 444 - 6383 ext. Fax: (850) 444 - 6744
5. Application Responsible Official Email Address: <u>TJMUCULL@southernco.com</u>
6. Application Responsible Official Certification: <i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i>  Signature <u>9/20/07</u> Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: Registration Number: Gregory N. Terry
2. Professional Engineer Mailing Address... Organization/Firm: Gulf Power Company Street Address: One Energy Place City: Pensacola State: Florida Zip Code: 32520-0340
3. Professional Engineer Telephone Numbers... Telephone: (850) 429 - 2381 ext. Fax: (850) 429 - 2246
4. Professional Engineer Email Address: <u>GNTERRY@southernco.com</u>
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input checked="" type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> Signature <u>Gregory N. Terry</u> Date <u>9/18/2007</u> (seal)

* Attach any exception to certification statement.

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
No change from Previous Title V application.		

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>Crist Plot Plan</u> <input type="checkbox"/> Previously Submitted, Date: _____
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>06/22/2004</u>
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>06/22/2004</u>

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input checked="" type="checkbox"/> Attached, Document ID: <u>Crist 7 Tower</u>
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: <u>Crist Rule</u>
4. List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1] of [1]

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [1] of [1]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section: Crist Unit 7 Cooling Tower is an unregulated emissions unit with possible particulate emissions.

3. Emissions Unit Identification Number: 012

4. Emissions Unit Status Code: C	5. Commence Construction Date: 11/01/2007	6. Initial Startup Date: 04/15/2007	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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9. Package Unit: NA
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment: Unit is an unregulated emissions unit. The above referenced item 5 is the revised commence construction date to upgrade the cooling tower pump capacity from 180 to 190k gallons per minute. The original construction date for the project was 07/01/2006.

EMISSIONS UNIT INFORMATION

Section [1] of [1]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:
Drift Eliminators rated at .0005%

2. Control Device or Method Code(s) : 152: Mist Eliminator

EMISSIONS UNIT INFORMATION

Section [1] of [1]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 190000 Gallons Per Minute
2. Maximum Production Rate:
3. Maximum Heat Input Rate: million Btu/hr
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 52 weeks/year 8760 hours/year
6. Operating Capacity/Schedule Comment: The capacity throughput rate in item 1. was upgraded from 180k to 190k gallons per minute. This is a design rated capacity at + and - 10%.

EMISSIONS UNIT INFORMATION

Section [1] of [1]

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: Cooling Tower		2. Emission Point Type Code: 4: No True Emission Point	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: F: No Stack	6. Stack Height: Feet	7. Exit Diameter: Feet	
8. Exit Temperature: 115 °F	9. Actual Volumetric Flow Rate: Acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: Dscfm		12. Nonstack Emission Point Height: 68 Feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Temperature in item #8 is estimated based on design and wet bulb calculations for mid-summer.			

EMISSIONS UNIT INFORMATION

Section [1] of [1]

D. SEGMENT (PROCESS/FUEL) INFORMATION**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type): Cooling Tower		
2. Source Classification Code (SCC): 3-90-900-04		3. SCC Units: Million Gallons Cooling Water Throughput
4. Maximum Hourly Rate: 11.4	5. Maximum Annual Rate: 99864	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Non-regulated emissions unit. Item 4. revised from 10.8 Item 5. revised from 94608		

Segment Description and Rate: Segment __ of __

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION
 Section [1] of [1]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			NS
PM 10			NS

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 6.99 lb/hour 30.6 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 6.99 lbs/hr Reference: AP-42, Section 13.4		7. Emissions Method Code: 3	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: $(190,000 \text{ gal/min}) * (.0005 \text{ gal/drift/100 gal flow}) * (14,700 \text{ lb PM/Million lb/water}) * (8.345 \text{ lb/gal water}) * 60 \text{ min/hr} = 6.99 \text{ lb/hr}$ $(6.99 \text{ lb/hr}) * (8760 \text{ Hr/Yr}) * (1 \text{ ton} / 2000 \text{ lb}) = 30.6 \text{ tons/yr} *$ * Total PM estimated using maximum daily TDS data. Item 3. revised from 6.62 to 6.99 lb/hr and 29 tons to 30.6 tons due to upgrade in flow capacity from 180k to 190k gallons per minute.			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions are based on maximum TDS measured at plant intake water.			

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM 10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.33 lb/hour 1.45 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.33 lb/hr Reference: AP-42 and Greystone Environmental Consultants Abstract No. 216		7. Emissions Method Code: 3	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): 1.45 tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Total PM = (190,000 gall/min) * (.0005 gal/drift/100 gal flow) * (14,700 lb PM/Million lb/water) * (8.345 lb/gal water) * 60 min/hr = 6.99 lb/hr Based on Abstract "Calculating Realistic PM 10 Emissions from Cooling Tower" by Joel Reisman and Gordon Fribie the PM-10 fraction is less than 5% at TDS levels greater than 12000 ppm. Thus; PM10 = 6.99 lb/hr * .05 = 0.35 lb/hr PM 10 Annual = (0.35 lb/hr) * (8760 Hr/Yr) * (1ton /2000 lb) = 1.53 tons/yr			
11. Potential, Fugitive, and Actual Emissions Comment: Based on Abstract "Calculating Realistic PM 10 Emissions from Cooling Tower" by Joel Reisman and Gordon Fribie the PM-10 fraction is less than 5% at TDS levels greater than 12000 ppm. Item 10. revised from .33 lb/hr and 1.44 ton/yr to .35 lb/hr and 1.53 ton/yr, respectively due to upgrade from 180k to 190k gallons per minute capacity.			

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions ___ of ___

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

Allowable Emissions Allowable Emissions ___ of ___

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

Allowable Emissions Allowable Emissions ___ of ___

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	

6. Allowable Emissions Comment (Description of Operating Method):
This unit is an unregulated emissions unit.

EMISSIONS UNIT INFORMATION

Section [1] of [1]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation ___ of ___

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation ___ of ___

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment: This is an unregulated emissions unit.	

EMISSIONS UNIT INFORMATION

Section [1] of [1]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor ___ of ___

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input 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:	

Continuous Monitoring System: Continuous Monitor ___ of ___

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input 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: This is an unregulated emissions unit.	

EMISSIONS UNIT INFORMATION

Section [1] of [1]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>06/22/2004</u>
2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>06/22/2004</u>
3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>06/22/2004</u>
4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>06/22/2004</u> <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input checked="" type="checkbox"/> Attached, Document ID: <u>Cooling Tower Certification</u> Test Date(s)/Pollutant(s) Tested: <u>Permittee submitted certification of drift elimination by contractor on 04/30/07.</u> <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1] of [1]

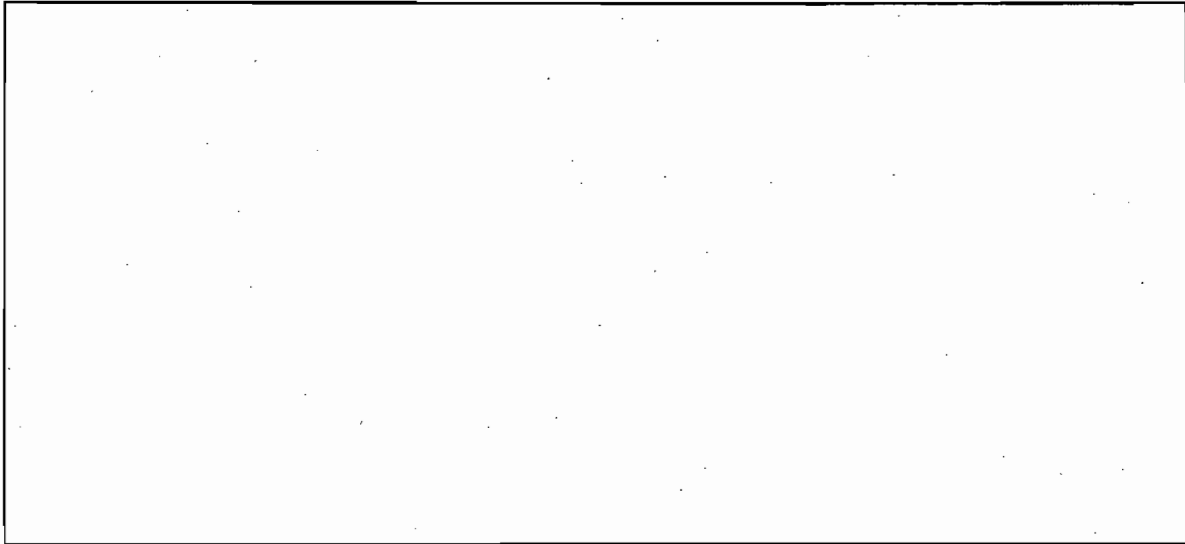
Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

Additional Requirements Comment



ATTACHMENT: CRIST RULE

FDEP Rule	GULF POWER - CRIST FACILITY FDEP APPLICABLE REQUIREMENTS LIST FDEP Title	Facility Emission Unit Identification Number(s)	Applicable Requirement		Comments/Discussion	Unit/Facility Potential Applicability
			Yes	No/NA		
<p>"This list includes only those applicable requirements typically associated with an electric power plant. For example, NSPS Subpart O for sewage treatment plants has not been included. If rules other than those listed herein apply to your source, they should be included in your source's application even if they are not listed below. ^bPlease refer to HGSS's June 6, 1995 memorandum explaining how this list was developed and how applicable requirements should be addressed in an application.</p>						
Chapter 62-4 Permits						
62-4.030	General Prohibition.	0330045	✓		State Only	Facility
62-4.040(1)	Exemptions.	0330045	✓		State Only	Facility
62-4.100	Suspension and Revocation.	0330045	✓		State Only	Facility
62-4.130	Plant Operation - Problems.	0330045	✓		State Only	Facility
Chapter 62-204 State Implementation Plan						
62-204.800 (11)	Adoption of 40 CFR 70, Federal Title V Rule	0330045	✓		State only.	Facility
62-204.800 (19)	Adoption of 40 CFR 82, Stratospheric Ozone	0330045	✓		State only.	Facility
Chapter 62-210 Stationary Sources - General Requirements						
62-210.300	Permits Required.					
	(2) Air Operation Permits. (Except (b))	0330045	✓			Facility
	(3)(a) Exemptions - #1-29.	0330045	✓			Facility
	(3)(b) Temporary Exemptions.	0330045	✓			Facility
62-210.300	(5) Notification of Startup. The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.	0330045	✓		May apply in the future.	Facility
	(a) The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.	0330045	✓		May apply in the future.	Facility
	(b) If, due to an emergency, a startup date is not known 60 days	0330045	✓		May apply in the future.	Facility

FDEP Rule	GULF POWER - CRIST FACILITY FDEP APPLICABLE REQUIREMENTS LIST FDEP Title	Facility Emission Unit Identification Number(s)	Applicable Requirement		Comments/Discussion	Unit/Facility Potential Applicability
			Yes	No/NA		
	prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.					
62-210.370	Reports.					
	(3) Annual Operating Report for Air Pollutant Emitting Facility.	0330045	✓			Facility
62-210.900	Forms and Instructions.	0330045	✓			Facility
	(5) Annual Operating Reports	0330045	✓			Facility
Chapter 62-213 Operation Permits for Major Sources of Air Pollution						
62-213.205	Annual Emissions Fee.	0330045	✓			Facility
62-213.400	Permits and Permit Revisions Required.	0330045	✓			Facility
62-213.410	Changes Without Permit Revision.	0330045	✓			Facility
62-213.415	Trading of Emissions Within a Source.	0330045	✓		May apply in the future.	Facility
62-213.460	Permit Shield.	0330045	✓			Facility
Chapter 62-252 Gasoline Vapor Control						
62-252.300	Gasoline Dispensing Facilities - Stage I Vapor Recovery.					
	(2) Prohibition.	0330045				Facility
	(3) Control Technology Requirements.	0330045				Facility
	(4) Compliance Schedule.	0330045			State Only	Facility
62-252.400	Gasoline Dispensing Facilities - Stage II Vapor Recovery.					
	(2) Prohibition.	0330045			State Only	Facility
	(3) Control Technology Requirements.	0330045			State Only	Facility
	(4) Compliance Schedules.	0330045			State Only	Facility
	(5) Testing.	0330045			State Only	Facility

FDEP Rule	GULF POWER - CRIST FACILITY FDEP APPLICABLE REQUIREMENTS LIST FDEP Title	Facility Emission Unit Identification Number(s)	Applicable Requirement		Comments/Discussion	Unit/Facility Potential Applicability
			Yes	No/NA		
	(6) Recordkeeping.	0330045			State Only	Facility
	(7) System Maintenance.	0330045			State Only	Facility
62-252.400	(8) Training.	0330045			State Only	Facility
62-252.500	Gasoline Tanker Trucks.					
	(2) Prohibitions.	0330045			State Only	Facility
	(3) Leak Testing.	0330045			State Only	Facility
Chapter 62-256 Open Burning and Frost Protection Fires						
62-256.300	Prohibitions.	0330045	✓		State Only	Facility
62-256.450	Burning for Cold or Frost Protection.	0330045			State Only	Facility
62-256.500	Land Clearing.	0330045	✓		State Only	Facility
62-256.600	Industrial, Commercial, Municipal, and Research Open Burning.	0330045	✓		State Only	Facility
62-256.700	Open Burning Allowed.	0330045	✓		State Only	Facility
Chapter 62-257 Asbestos Removal						
62-257.301	Notification Procedure and Fee.	0330045	✓		State Only	Facility
62-257.400	Fee Schedule.	0330045	✓		State Only	Facility
62-257.900	Form.	0330045	✓		State Only	Facility
Chapter 62-281 Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling.						
62-281.300	Applicability.	0330045			State Only	Facility
62-281.400	Compliance Requirements.	0330045			State Only	Facility
62-281.500	Establishment Certification.					
	(1) Initial Certification.	0330045			State Only	Facility
	(2) Renewal Certification.	0330045			State Only	Facility

FDEP Rule	GULF POWER - CRIST FACILITY FDEP APPLICABLE REQUIREMENTS LIST FDEP Title	Facility Emission Unit Identification Number(s)	Applicable Requirement		Comments/Discussion	Unit/Facility Potential Applicability
			Yes	No/NA		
	(3) Fees.	0330045			State Only	Facility
	(4) Certificate of Compliance.	0330045			State Only	Facility
62-281.600	Training Requirements.	0330045			State Only	Facility
62-281.700	Equipment Certification.	0330045			State Only	Facility
62-281.900	Forms.	0330045			State Only	Facility
Chapter 62-296 Stationary Sources – Emission Standards						
62-296.320	General Pollutant Emission Limiting Standards.					
	(1) Volatile organic compounds emissions or organic solvents emissions.	0330045				Facility
	(2) Objectionable Odor Prohibited.	0330045	✓			Facility
	(3) Open Burning.	0330045	✓		State Only	Facility
	(4)(b) General Visible Emissions Standard.	0330045	✓			Facility
	(4)(c) Unconfined Emissions of Particulate Matter.	0330045	✓			Facility

EPA Rule	GULF POWER - CRIST FACILITY EPA APPLICABLE REQUIREMENTS LIST EPA Title	(AIRS) Facility Emission Unit Identification Number(s)	Applicable Requirement		Comments/Discussion	Unit/Facility Potential Applicability
			Yes	No/NA		
<p>*This list includes only those applicable requirements typically associated with an electric power plant. For example, NSPS Subpart O for sewage treatment plants has not been included. If rules other than those listed herein apply to your source, they should be included in your source's application even if they are not listed below. †Please refer to HGSS's June 6, 1995 memorandum explaining how this list was developed and how applicable requirements should be addressed in an application.</p>						
Part 61 - EPA Regulations on National Emission Standards for Hazardous Air Pollutants						
Subpart A - General Provisions						
61.05	Prohibited Activities.	0330045	✓			Facility
61.09	Notification of Startup.	0330045				Facility
61.10	Source Reporting and Request for Waiver of Compliance.	0330045				Facility
61.11	Waiver of Compliance.	0330045				Facility
61.12 (b)	Compliance with Standards and Maintenance Requirements.	0330045	✓			Facility
61.13	Emission Tests and Waiver of Emission Tests.	0330045				Facility
61.14	Monitoring Requirements.	0330445				Facility
61.19	Circumvention.	0330045				Facility
Subpart M — National Emission Standards for Asbestos		0330045	✓			Facility
Appendix C to Part 61 — Quality Assurance Procedures		0330045	✓			Facility
EPA Part 82 - Protection Of Stratospheric Ozone						
Subpart B - Servicing of Motor Vehicle Air Conditioners						
82.34	Prohibitions.	0330045	✓			Facility
82.36	Approved refrigerant recycling equipment.	0330045	✓			Facility
82.38	Approved independent standards testing organizations.	0330045	✓			Facility
82.40	Technician training and certification.	0330045	✓			Facility
82.42	Certification, recordkeeping and public notification requirements.	0330045	✓			Facility

EPA Rule	GULF POWER - CRIST FACILITY EPA APPLICABLE REQUIREMENTS LIST EPA Title	(AIRS) Facility Emission Unit Identification Number(s)	Applicable Requirement		Comments/Discussion	Unit/Facility Potential Applicability
			Yes	No/NA		
Subpart F - Recycling and Emissions Reduction						
82.154	Prohibitions.	0330045	✓			Facility
82.156	Required practice.	0330045	✓			Facility
82.158	Standards for recycling and recovery equipment.	0330045	✓			Facility
82.160	Approved equipment testing organizations.	0330045	✓			Facility
82.161	Technician certification.	0330045	✓			Facility
82.162	Certification by owners of recovery and recycling equipment.	0330045	✓			Facility
82.164	Reclaimer certification.	0330045	✓			Facility
82.166 (k) (m)	Reporting and recordkeeping requirements for owners/operators.	0330045	✓			Facility
40 CFR 279.72	Used Oil Regulations	0330045	✓		Facility burns on-spec used oil.	Facility

Title V Core List

Effective: 03/01/02

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: (description)

40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.

40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).

40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: (description)

CHAPTER 62-4, F.A.C.: PERMITS, effective 06-01-01

62-4.030, F.A.C.: General Prohibition.

62-4.040, F.A.C.: Exemptions.

62-4.050, F.A.C.: Procedure to Obtain Permits; Application.

62-4.060, F.A.C.: Consultation.

62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.

62-4.080, F.A.C.: Modification of Permit Conditions.

62-4.090, F.A.C.: Renewals.

62-4.100, F.A.C.: Suspension and Revocation.

62-4.110, F.A.C.: Financial Responsibility.

62-4.120, F.A.C.: Transfer of Permits.

62-4.130, F.A.C.: Plant Operation - Problems.

62-4.150, F.A.C.: Review.

62-4.160, F.A.C.: Permit Conditions.

62-4.210, F.A.C.: Construction Permits.

62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 06-21-01

62-210.300, F.A.C.: Permits Required.

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

62-210.300(2), F.A.C.: Air Operation Permits.

62-210.300(3), F.A.C.: Exemptions.

62-210.300(5), F.A.C.: Notification of Startup.

62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.300(7), F.A.C.: Transfer of Air Permits.

Title V Core List

Effective: 03/01/02

- 62-210.350, F.A.C.: Public Notice and Comment.
- 62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.
- 62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.
- 62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

- 62-210.360, F.A.C.: Administrative Permit Corrections.
- 62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.
- 62-210.400, F.A.C.: Emission Estimates.
- 62-210.650, F.A.C.: Circumvention.
- 62-210.700, F.A.C.: Excess Emissions.

- 62-210.900, F.A.C.: Forms and Instructions.
- 62-210.900(1), F.A.C.: Application for Air Permit – Title V Source, Form and Instructions.
- 62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.
- 62-210.900(7), F.A.C.: Application for Transfer of Air Permit – Title V and Non-Title V Source.

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 08-17-00

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 04-16-01

- 62-213.205, F.A.C.: Annual Emissions Fee.
- 62-213.400, F.A.C.: Permits and Permit Revisions Required.
- 62-213.410, F.A.C.: Changes Without Permit Revision.
- 62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
- 62-213.415, F.A.C.: Trading of Emissions Within a Source.
- 62-213.420, F.A.C.: Permit Applications.
- 62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
- 62-213.440, F.A.C.: Permit Content.
- 62-213.450, F.A.C.: Permit Review by EPA and Affected States
- 62-213.460, F.A.C.: Permit Shield.

- 62-213.900, F.A.C.: Forms and Instructions.
- 62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.
- 62-213.900(7), F.A.C.: Statement of Compliance Form.

Title V Core List

Effective: 03/01/02

CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 03-02-99

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 03-02-99

62-297.310, F.A.C.: General Test Requirements.

62-297.330, F.A.C.: Applicable Test Procedures.

62-297.340, F.A.C.: Frequency of Compliance Tests.

62-297.345, F.A.C.: Stack Sampling Facilities Provided by the Owner of an Emissions
Unit.

62-297.350, F.A.C.: Determination of Process Variables.

62-297.570, F.A.C.: Test Report.

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests

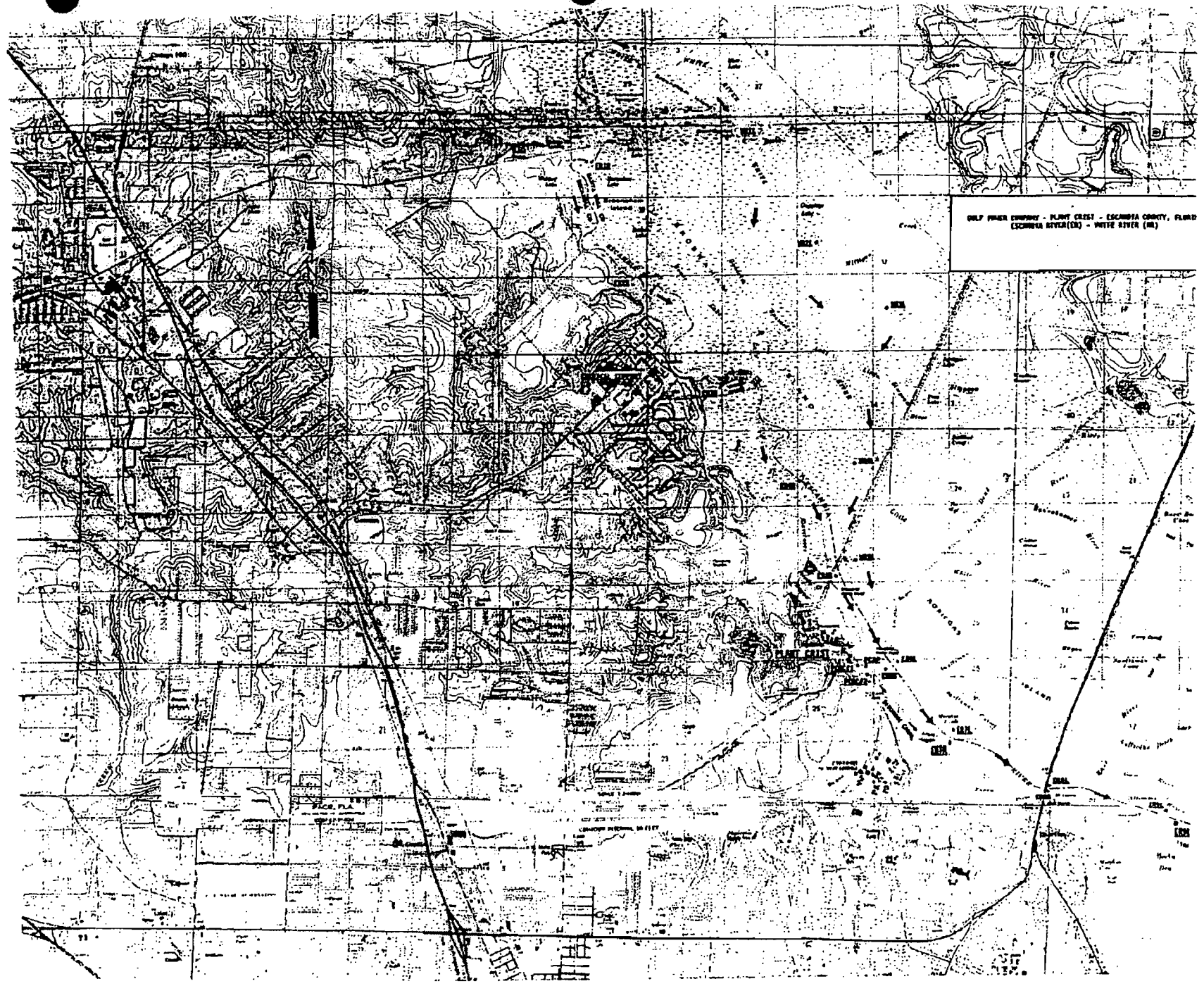
**CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective
07-01-98**

CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-94

CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 02-09-99

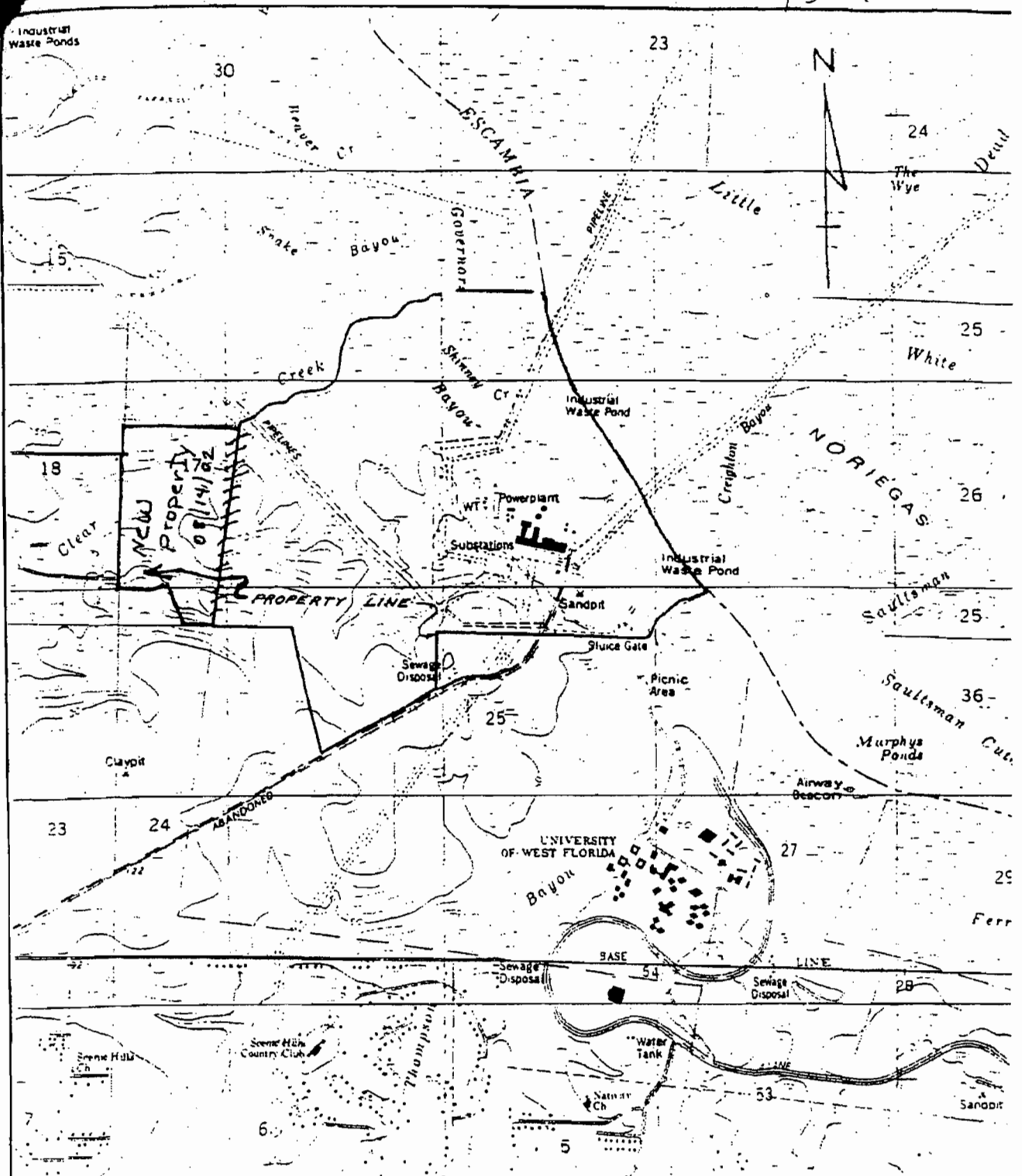
**CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and
Recycling, effective 09-10-96**

ATTACHMENT: CRIST PLOT PLAN

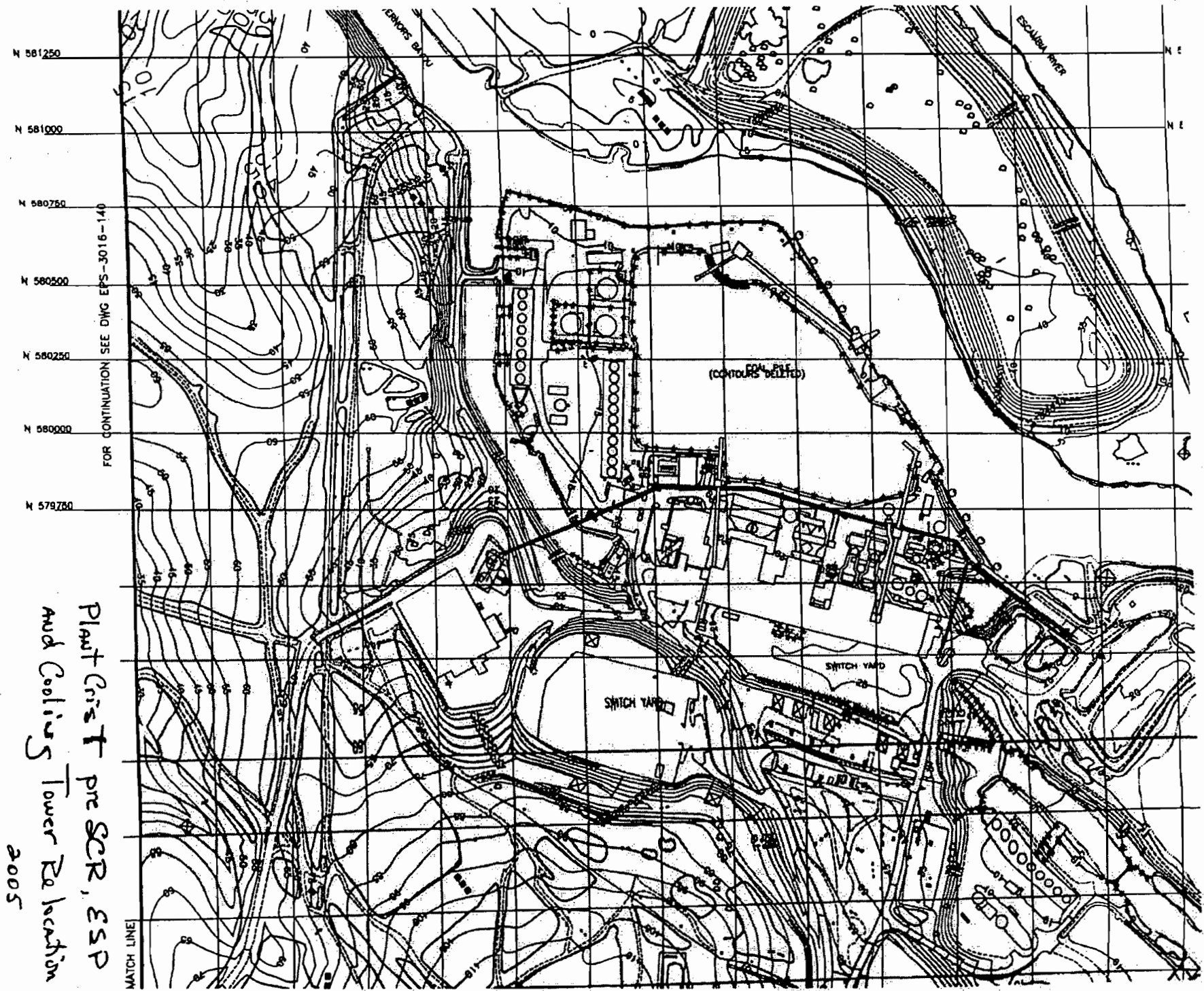


GULF POWER COMPANY

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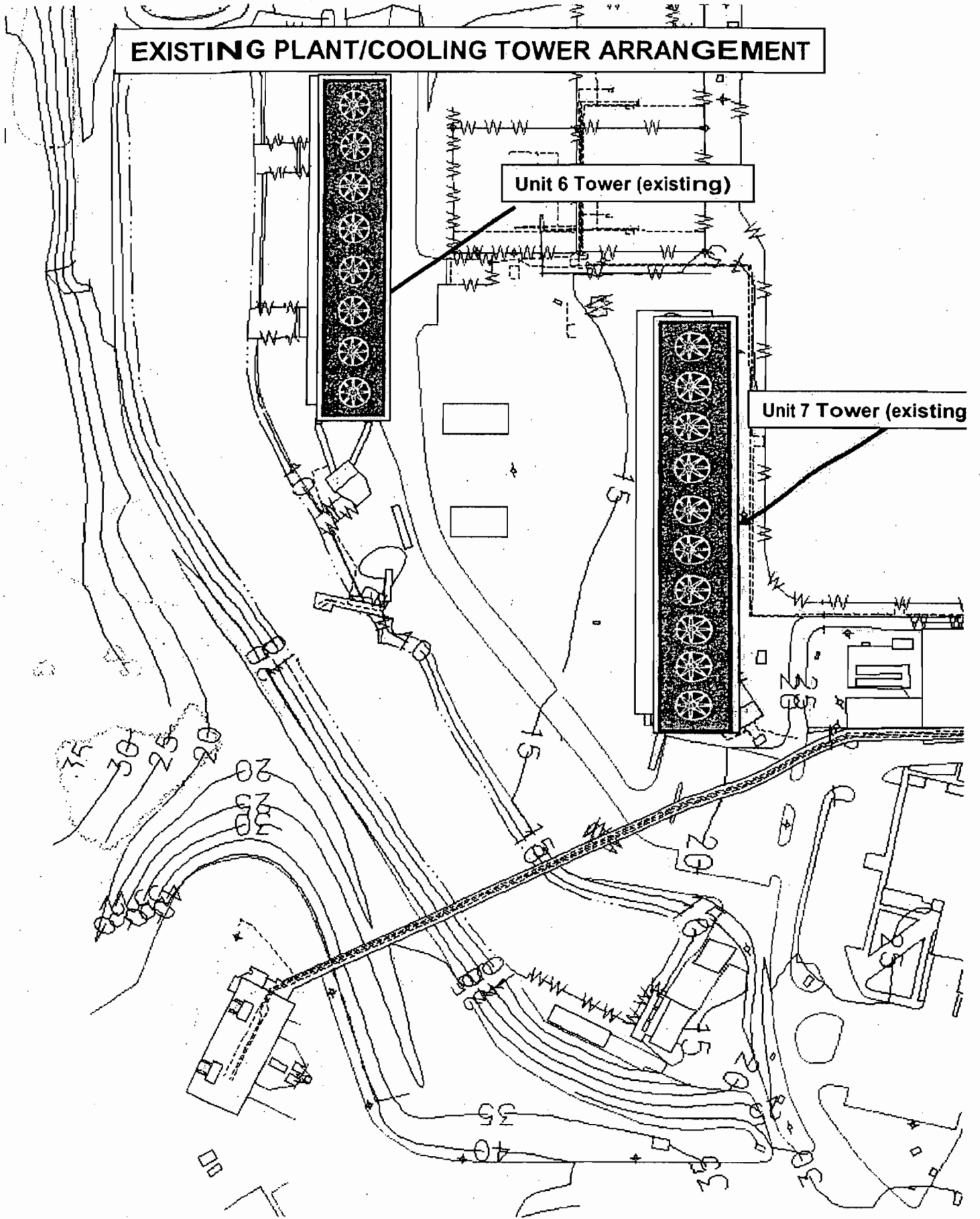
DR. <i>Fit</i>	SUBJECT <u>CRIST ELECTRIC GENERATING PLANT</u>	
TR.	DETAIL <u>PROPERTY LINES</u>	
DATE <u>11-13-80</u> <i>updated 08/14/02</i>	SCALE <u>1:24,000</u>	SH. <u> </u> OF <u> </u> SHEETS <u>A-4237</u>



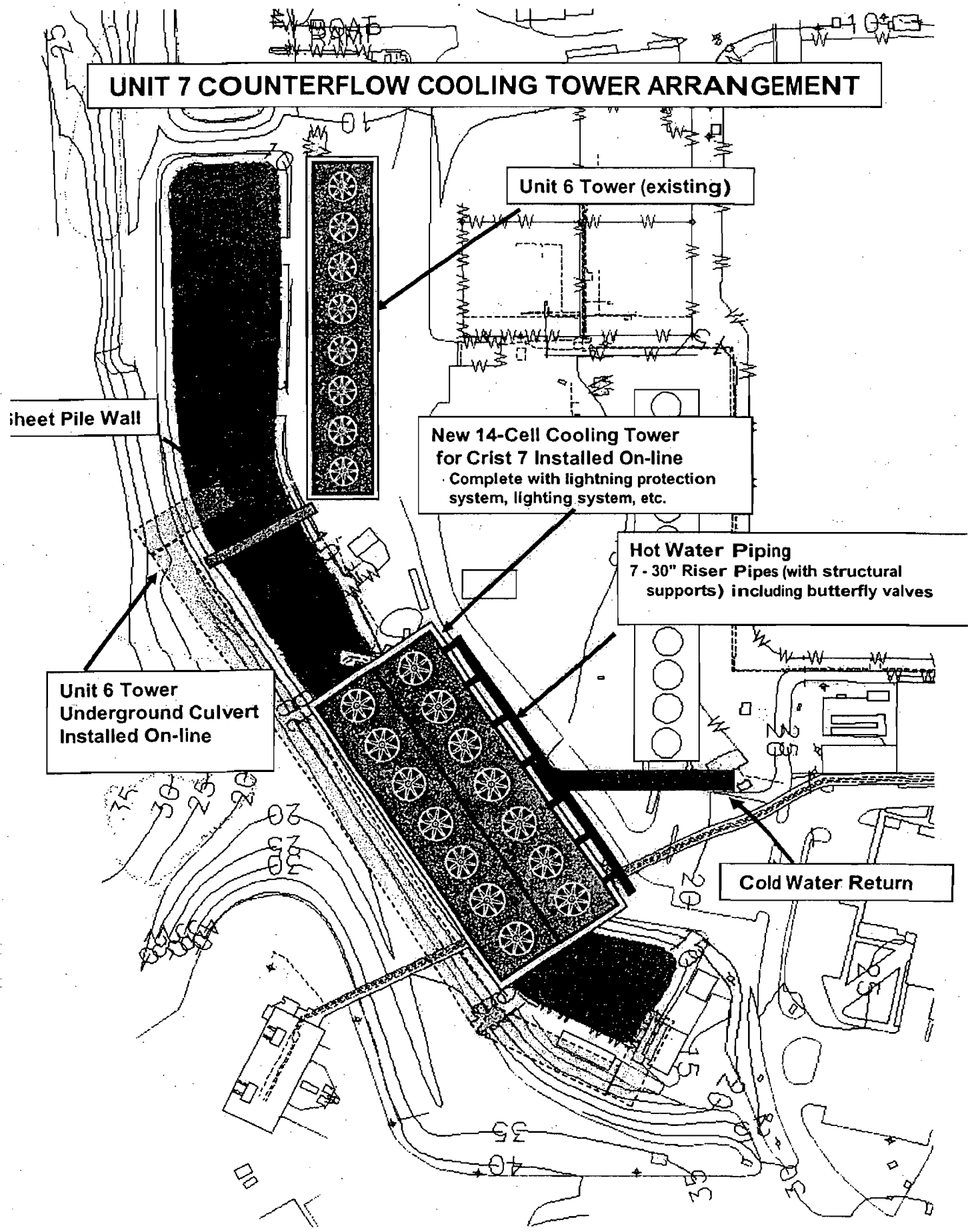
FOR CONTINUATION SEE DWG EPS-3016-140

Plant Crst pre SCR, ESP
and Cooling Tower Re location
2005

MATCH LINE



UNIT 7 COUNTERFLOW COOLING TOWER ARRANGEMENT



Unit 6 Tower (existing)

New 14-Cell Cooling Tower for Crist 7 Installed On-line
Complete with lightning protection system, lighting system, etc.

Hot Water Piping
7 - 30" Riser Pipes (with structural supports) including butterfly valves

Unit 6 Tower Underground Culvert Installed On-line

Cold Water Return

Sheet Pile Wall

ATTACHMENT: CRIST 7 TOWER

REVISED PROJECT DESCRIPTION: Crist Unit 7 Cooling Tower Replacement (09/12/07)

Gulf Power is in the process of designing a Wet Flue Gas Desulphurization (WFGD) scrubber system at Plant Crist to comply with future CAIR and CAMR regulation. The conceptual design plot plan reveals that the present Unit 7 Cooling Tower must be removed to accommodate the installation of the new scrubber system. A new more efficient Unit 7 Cooling Tower is being proposed as a replacement. The proposed replacement tower will be slightly larger (12 to 14 cells) and will include a drift elimination system to reduce particulate emissions. With the new tower design capability there will be a reduction of actual to potential PM and PM-10 emissions of approximately 8978 and 449 tons per year, respectively. Crist Unit 7 unit is projected to experience a heat rate improvement of less than 1% during the summer months due to the more efficient thermal system but this slight change in heat rate will not impact the plant dispatch or load capability of the unit. The basic design of the cooling system for Crist Unit 7 will remain the same as a closed loop system. The new tower is a standard forced draft design available in today's market. Site preparation will begin in June, 2006. Construction is projected to begin in July, 2006 with startup earmarked for April 15, 2007. The original flow permitted in 2006 was designed at 180k gallons per minute. An upgrade of the pumps to supply 190k gallons per minute is planned for November, 2007. Below are the revised design specifications for the Crist Unit 7 Cooling Tower:

Design Conditions:	Flow	190,000 gal/min (+/- 10%)
	Hot Water	121 degrees F.
	Cold Water	88 degrees F.
	Wet Bulb	80 degrees F.
	Exit Gas Temperature	115 degrees F.
Tower Description:	Model	NA
	Number of Cells	14
	Pump Head	42.1 ft.
	Fan Diameter	32.8 ft.
	Motor Size	14@ 200 hp
	Brake Horsepower	14@ 200 hp
	Evaporation	not specified
	Drift Rate	.0005 %
Tower Dimension:	Tower Width	105.0 +/- 5% ft.
	Tower Length	367.5 +/- 5% ft.
	Tower Height	68.0 +/- 5% ft.
	Fan Deck Height	55.0 +/- 5% ft.
Basin Dimension:	Basin Width	125.0 +/- 5% ft.
	Basin Length	370.0 +/- 5% ft.

Crist 7 Cooling Tower Netting Analysis Revised (09/12/07)

Old Crist 7 Cooling Tower Baseline Calculation

Assumptions: 165k gallons flow/min; drift = 0.2%; Max TDS = 14,700 ppm @ 5% PM10 fraction ; Avg TDS = 1935 ppm @ 60% PM10 fraction

Maximum Past Actual Particulate

Max PM lb/hr = 165,000 gal/min * 0.2 gal drift/100 gall flow * 14,700 lb PM/ million lbs H2O * 8.345 lb/gal H2O * 60 min/hr = **2428.9**

Max PM10 lb/hr = PM hr * 5% fraction = **121.44 lb/hr**

Year	Hours of Operation	Max	Max
		PM annual Tons/Yr	PM10 annual Tons/Yr
2001	6621	8040.9	402.0
2002	6891	8368.8	418.4
2003	7945	9648.8	482.4
2004	6243	7581.8	379.1
2005	6013	7302.5	365.1
Avg	6742.6	8188.5	409.4
Highest 24 month Avg	7418	9008.8	450.4

Average Past Actual Particulate

Avg PM lb/hr = 165,000 gal/min * 0.2 gal drift/100 gall flow * 1935 lb PM/ million lbs H2O * 8.345 lb/gal H2O * 60 min/hr = **319.7**

Avg PM10 lb/hr = PM hr * 60% fraction = **191.83 lb/hr**

Year	Hours of Operation	Avg	Avg
		PM annual Tons/Yr	PM10 annual Tons/Yr
2001	6621	1058.4	635.1
2002	6891	1101.6	661.0
2003	7945	1270.1	762.1
2004	6243	998.0	598.8
2005	6013	961.2	576.7
Avg	6742.6	1077.9	646.7
Highest 24 month Avg	7418	1185.8	711.5

New Crist 7 Cooling Tower Emissions Calculation

Future Potential Particulate

Assumptions: 190k gallons flow/min; drift = 0.0005%; Max TDS = 14,700 ppm @ 5% PM10 fraction; Avg TDS = 1935 ppm @ 60% PM 10 fraction

Max PM lb/hr = 190,000 gal/min * 0.0005 gal drift/100 gall flow * 14,700 lb PM/ million lbs H2O * 8.345 lb/gal H2O * 60 min/hr = **6.99**

Max PM10 lb/hr = PM hr * 5% fraction = **0.35 lb/hr**

Avg PM lb/hr = 190,000 gal/min * 0.0005 gal drift/100 gall flow * 1935 lb PM/ million lbs H2O * 8.345 lb/gal H2O * 60 min/hr = **0.92**

Avg PM10 lb/hr = PM hr * 60% fraction = **0.55 lb/hr**

Future Year	Hours of Operation	Max	Max	Avg	Avg
		PM annual Tons/Yr	PM10 annual Tons/Yr	PM annual Tons/Yr	PM10 annual Tons/Yr
	8760	30.6	1.531	4.0	2.419

Net Analysis:

Hourly

Max PM Past Actual - Max Future Potential = 2428.9 - 6.99 = **2421.9 lbs/hr**

Max PM 10 Past Actual - Max Future Potential = 121.44 - 0.35 = **121.1 lbs/hr**

Annual

Max PM Past Actual - Future Max Potential = 9008.8 - 30.6 tons = **8978.1 tons/yr**

Max PM10 Past Actual - Future Max Potential = 450.4 - 1.53 tons = **448.9 tons/yr**

Avg PM Past Actual - Future Avg Potential = 1185.8 - 4.0 tons = **1181.8 tons/yr**

Avg PM10 Past Actual - Future Avg Potential = 711.5 - 2.42 tons = **709.1 tons/yr**

Gulf Power Plant Crist FGD Project

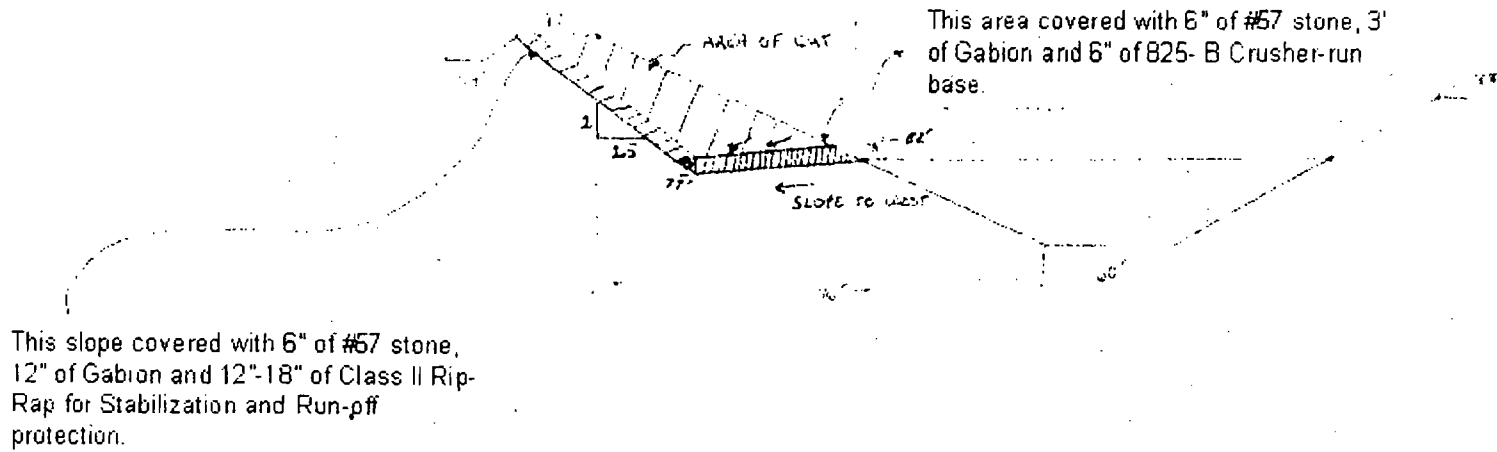
Site Preparation Work Scope

In preparation for relocating the Crist Unit 7 Cooling Tower, an area adjacent to the Unit 6 cooling water canal will be graded to (plant) elevation 77' and covered with stone up to elevation 82'. The new slope will be cut at 1.5 to 1 and covered with rip rap for erosion protection.

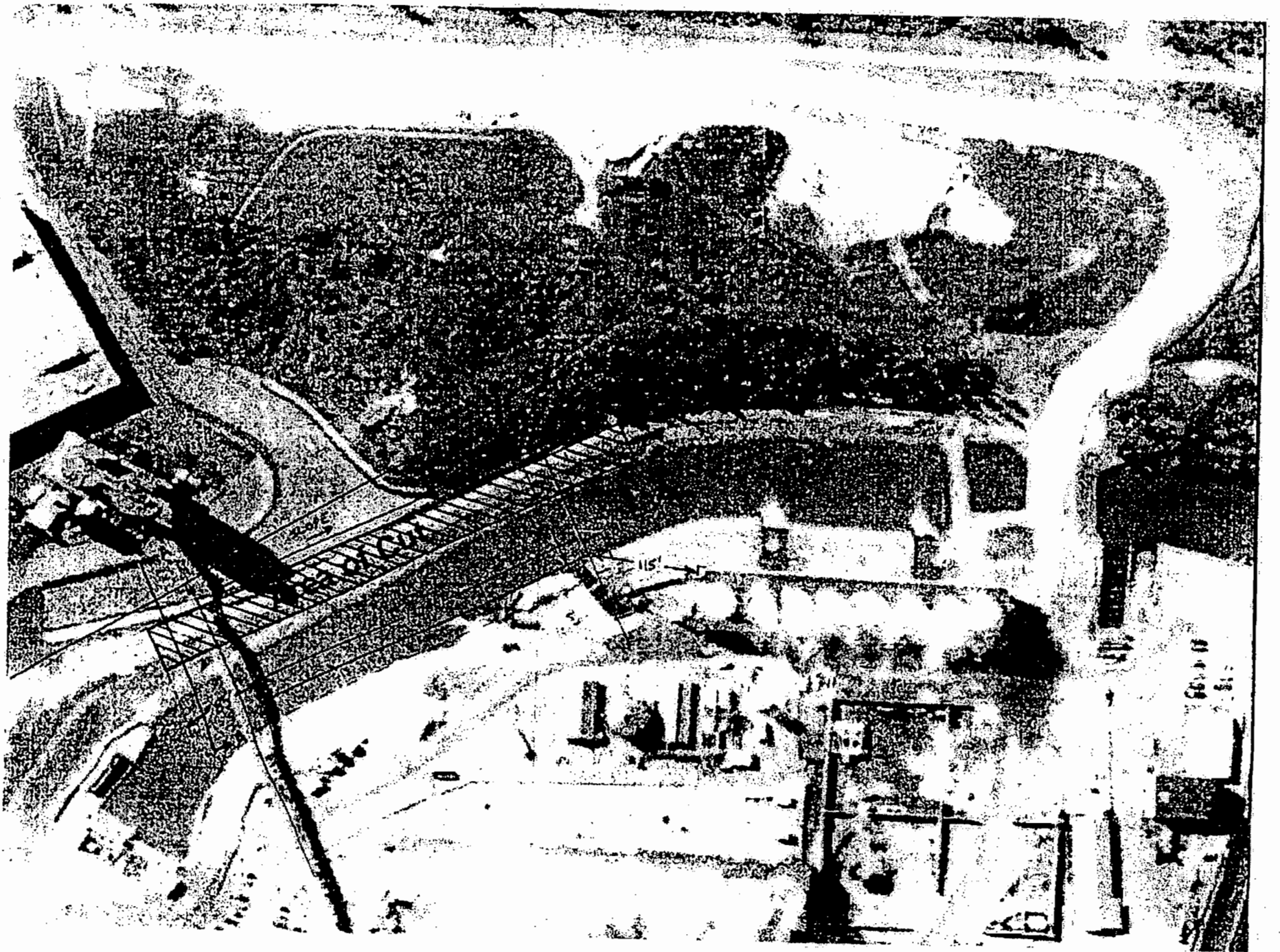
The area to be modified starts immediately south of the existing ash line pipe bridge and continues approximately 550' northward along the west bank of the Unit 6 cooling water canal. The existing concrete lined ditch at elevation 94' will be left undisturbed. The new work platform at elevation 82' will be sloped to the west (away from the canal) and to the north so that all storm water running off of the new slope and work platform is collected and directed northward to a point where it will be de-silted and deposited into the canal.

BEST AVAILABLE COPY

Looking North at Pipe Bridge



SECTION A-A



ATTACHMENT: COOLING TOWER CERTIFICATION

One Energy Place
Pensacola, Florida 32520



Certified Mail

April 30, 2007

Mr. Rick Bradburn
Florida Department of Environmental Protection
Northwest District
160 Governmental Center
Pensacola, FL 32501-5794

Dear Mr. Bradburn:

RE: CRIST ELECTRIC GENERATING FACILITY
UNIT 7 COOLING TOWER CERTIFICATION
PERMIT No: 0330045-014-AC

Please find attached a statement of certification that the Crist Unit 7 Cooling Tower was constructed and installed so as to achieve the specified drift rate of no more than 0.0005 percent of the circulating water flow rate. The submission is required under Specific Condition #5 of the above referenced air construction permit within 60 days of commencement of operation. The Cooling Tower was placed into service on April 23, 2007.

Please let me know if you have any questions regarding the statement of certification or if you need further information regarding the Crist Unit 7 Cooling Tower Project.

Sincerely,

A handwritten signature in black ink that reads "Dwain Waters, QEP".

G. Dwain Waters, QEP
Special Projects and Environmental Assets Coordinator

cc: w/att: John Dominey, Gulf Power Company
Jim Vick, Gulf Power Company
Terry Wright, Gulf Power Company
Jay Weston, Gulf Power Company
David Hollinger, Southern Company Services



Hwy. 19 East • PO Box 1485 • Chickasha, OK 73023
405 224 4622 Fax 405 224 4625
www.midwesttowers.com

April 20, 2007

Attention: David Hollinger, Project Manager
Reference: SCS, Gulf Power – Plant Crist Unit 7 Drift Test
Subject: Counterflow Cooling Tower, Inquiry 27269
Midwest Towers, Inc. Proposal No. MT-N-26132

Gentlemen:

Midwest offers the following regarding drift rate;

The Gulf Power – Crist 7 cooling tower was installed with Brentwood Industries, Inc product model DE-080 cellular drift eliminators. The DE-080 drift elimination system is the latest technology that will provide a maximum drift rate of 0.0005%.

Please advise if you need additional information or if you have any questions.

Sincerely,
MIDWEST TOWERS, INC.

Terry G. Ogburn
Vice President

TGO/se

Cc: James W. Cuchens – SCS
Doug Stinson – As-Tech

CTI



Project: SCS Gulf Power Plant Crist Unit 7
 Location: Pensacola, FL

Midwest Towers Proposal: MT-N-26132
 Rev. No: 1
 Date: July 31, 2006

COOLING TOWER DATA SHEET

Cooling Tower		Fans	
Type:	Induced draft	Number of Fans:	14
Air Flow:	Counterflow	Manufacturer:	Hudson Products Co.
Model No.:	CPT4884-3307-2x7	Type:	Axial Flow
Drawing No.:	A-110	Model No.:	APT-33H-10
No. Cells:	14	Diameter:	33 ft
Position:	2x7 Back-to-Back	Number of Blades:	10
Operating Conditions		Blade Material:	FRP
Water Flow (gpm):	180,000	Hub Material:	Galvanized Steel
Inlet Water Temp. (°F):	121.5	Rotation (rpm):	118
Exit Water Temp. (°F):	88.5	Fan Tip Speed:	12,163 (ft/min)
Wet Bulb Temp. (°F):	80	Motor Power Req'd.:	196
Relative Humidity (%):	50	Static Efficiency (%):	67.5
Heat Load (MMBtu/hr.):	2936	Air Flow (cfm):	1,325,662
Evaporation Loss (%):	2.93	Static Pressure (w.c.):	0.531"
Elevation (ft.):	0	Motors	
Dimensions		Number:	14
Each Cell (LxW):	48' x 54'	Manufacturer:	Siemens or equal
Overall Dims (LxW):	336' x 108'	Type:	TEFC, w/pace hb
Fan Stack Height (ft.):	10'	Frame Size:	447T
Ht. BWall to Fandk (ft.):	44'-11"	Rated Horsepower:	200
Distribution System		Service Factor:	1.15
Type:	Low pressure	Rotation (rpm):	1800
Material:	FRP & PVC	Voltage (volts):	460
Inlet Water Flange:	30" FRP w 125# Drill	Frequency (Hz):	60
Inlet Water Height:	33'-11"	Phase:	3
Tower Pump Head:	37'-11"	Gear Reducers	
Fill		Number:	14
Type:	VF19 Plus Cellular	Manufacturer:	Amarillo Gear Co.
Material:	PVC	Type:	Right angle
Fill Volume:	254,016 (ft ³)	Model No.:	1712
Water Loading:	4.94 (gpm/ft ²)	Reduction Ratio:	18.0 : 1
Air Inlets on two sides:	23 feet high	Service Factor:	2.0
Drift Eliminators		Gear Type:	Spiral Bevel
Type:	8W DE-080 Cellular	Lubrication:	Oil / Splash
Material:	PVC	Couplings	
Drift Loss (%):	0.0005	Number:	14
Structure Materials		Manufacturer:	Amarillo
Casing:	FR FRP	Model No.:	CF73 950X
Fan Stack:	FR FRP	Service Factor:	2.0
Structure:	FR FRP	Sleeve Material:	Composite
Stairway, 2 each:	FR FRP	Flexible Material:	Carbonfiber/Epoxy
Access Ladder:	NONE	Accessories	
		Vibration Switch:	Matrix 5550
		Oil Fill / Drain Line:	Stainless Steel Piping