

LAKELAND  
ELECTRIC & WATER UTILITIES  
C.D. MCINTOSH, JR.  
POWER PLANT

*Submitted to:*

**Florida Department of  
Environmental Protection**

*Prepared by:*



KBN Engineering and Applied Sciences, Inc.  
Gainesville, Florida

TITLE V  
AIR OPERATING  
PERMIT APPLICATION



Letter of Transmittal

RECEIVED

JUN 17 1996

BUREAU OF AIR REGULATION

Date: 06/14/96

Project No.: 14262-0900

To: Mr. Clair Fancy
Florida Department of Environmental Protection

RECEIVED

JUN 17 1996

BUREAU OF AIR REGULATION

Re: Title V Permit Applications: Lakeland
Larsen and McIntosh Plants

The following items are being sent to you: with this letter under separate cover

Table with 2 columns: Copies, Description. Row 1: 1, Cover letter for Title V Permit Applications for City of Lakeland C.D. McIntosh and Larsen Power Plants. Row 2: 4, Title V Permit Applications for C.D. McIntosh and Larsen Plants hand delivered Friday, June 14, 1996.

These are transmitted:

- As requested, For approval, For review, For your information, For review and comment, For Submittal

Remarks:

Sender: Ken Kosky/LCB

Copy to:

FORMS/WP61/LOT (06/14/96)



Letter of  
Transmittal

Date: 06/14/96

Project No.: 14262-0900

To: Florida Dept. of Environmental Prot.  
2600 Blair Stone Road  
Tallahassee, Florida 32399

Re: City of Lakeland  
McIntosh Facility

*IO# 1050004*

**RECEIVED**  
JUN 14 1996  
BUREAU OF  
AIR REGULATION

The following items are being sent to you:  with this letter  under separate cover

Copies

Description

<u>Copies</u>	<u>Description</u>
<u>4</u>	<u>Title V Air Operating Permit Application (Hard Copy)</u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
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<u> </u>	<u> </u>

These are transmitted:

- As requested
- For review
- For review and comment
- For approval
- For your information
- See Below

Remarks: As indicated on the enclosed bulletin, we will be submitting the above  
referenced application electronically after June 15, 1996

RECEIVED BY: \_\_\_\_\_

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

14422Y/F1/WP/ALL-LOT-18 (06/14/96)

6241 Northwest 23rd Street  
Suite 500  
Gainesville, Florida 32653-1500  
352-336-5600 FAX 352-336-6603

5405 West Cypress Street  
Suite 215  
Tampa, Florida 33607  
813-287-1717 FAX 813-287-1716

1801 Clint Moore Road  
Suite 105  
Boca Raton, Florida 33487  
407-994-9910 FAX 407-994-9393

7785 Baymeadows Way  
Suite 105  
Jacksonville, Florida 32256  
904-739-5600 FAX 904-739-7777

1616 'P' Street NW  
Suite 350  
Washington, DC 20036  
202-462-1100 FAX 202-462-2270



June 13, 1996

**RECEIVED** HAND DELIVERED

JUN 17 1996

BUREAU OF  
AIR REGULATION

Clair Fancy, Chief  
Bureau of Air Regulation  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399

**RE: Title V Permit Application for Lakeland Electric & Water Utilities -  
C. D. McIntosh and Larsen Power Plants.**

Dear Clair:

Pursuant to Rule 62-4.050 and 62-213.100 Florida Administrative Code, the Lakeland Electric and Water Utilities hereby submits to the Florida Department of Environmental Protection's Bureau of Air Regulation (Department) a Title V Permit Application, in quadruplicate, for its above referenced facilities. These applications are submitted timely and complete in accordance with the Rule 62-213.420(1) Florida Administrative Code.

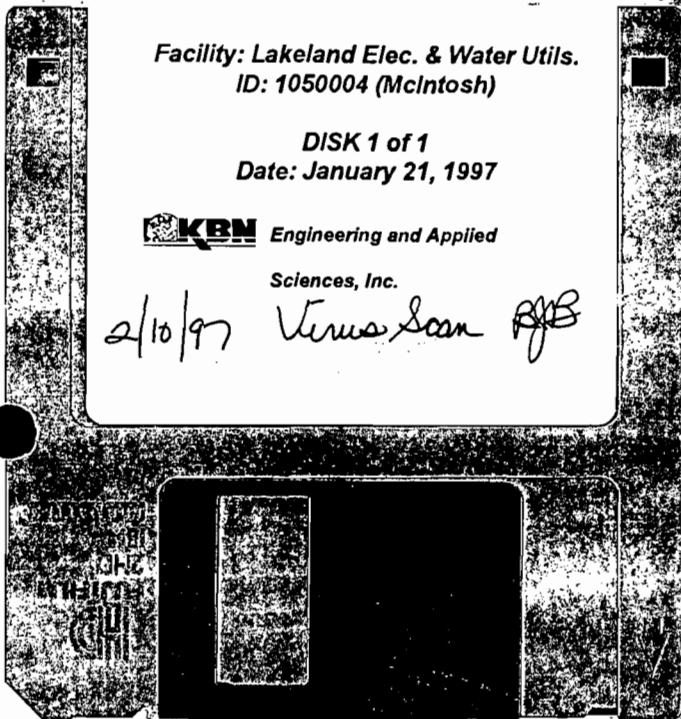
Please note that we are not submitting an electronic formatted version of this application, as we are under impression that the Department has recalled the latest version of ELSA due to some software problems. However, if required, at a later date we would endeavor to submit an electronic version of this application when a workable version of ELSA is issued by the Department.

Thank you for your cooperation and assistance in this matter. If you have any questions, please feel free to call me at 941-499-6603.

Sincerely,

Farzie Shelton  
Environmental Coordinator

Enclosures



Facility: Lakeland Elec. & Water Utils.  
ID: 1050004 (McIntosh)

DISK 1 of 1  
Date: January 21, 1997

**KBN** Engineering and Applied  
Sciences, Inc.

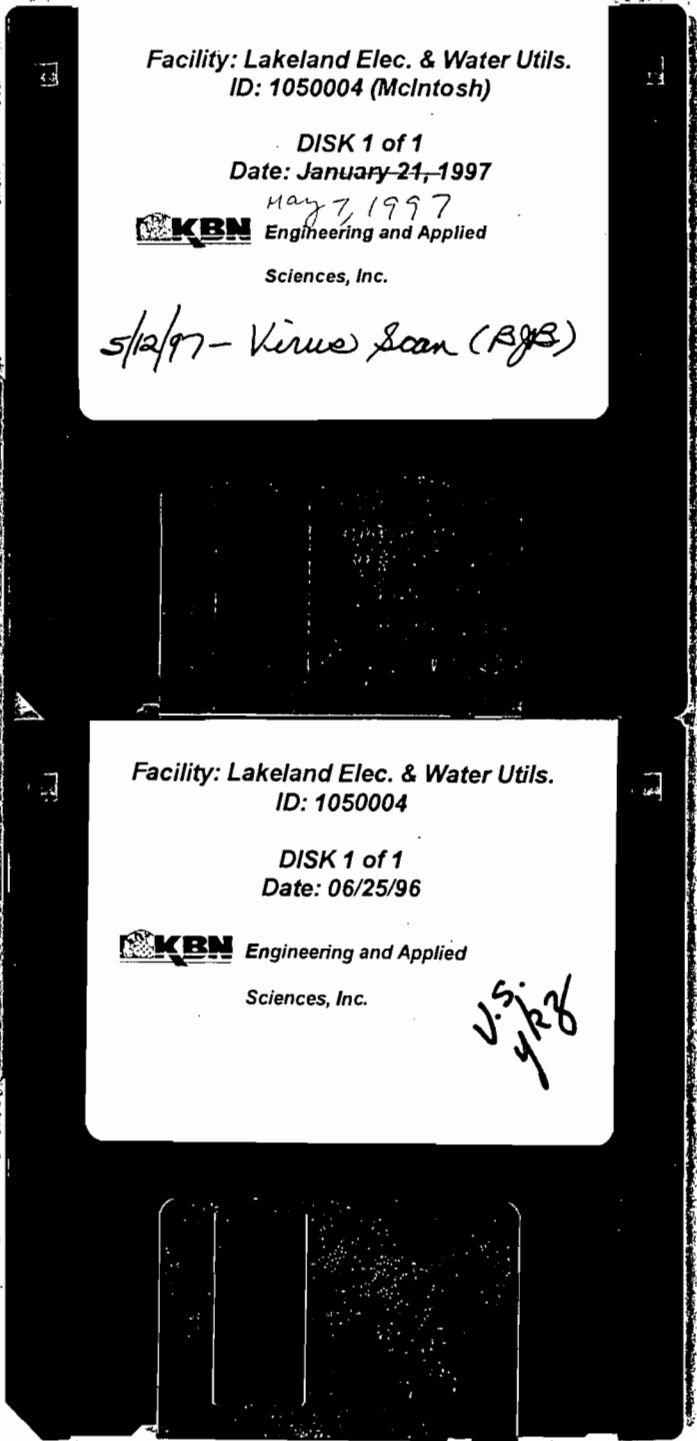
2/10/97 Virus Scan *AB*

Facility: Lakeland Elec. & Water Utils.  
ID: 1050004 (McIntosh)

DISK 1 of 1  
Date: January 21, 1997

*May 7, 1997*  
**KBN** Engineering and Applied  
Sciences, Inc.

5/12/97 - Virus Scan (*AB*)



Facility: Lakeland Elec. & Water Utils.  
ID: 1050004

DISK 1 of 1  
Date: 06/25/96

**KBN** Engineering and Applied  
Sciences, Inc.

*V.S.  
4/28*

# Department of Environmental Protection

## DIVISION OF AIR RESOURCES MANAGEMENT

### APPLICATION FOR AIR PERMIT - LONG FORM

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

#### I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

#### Identification of Facility Addressed in This Application

Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: <b>Lakeland Electric &amp; Water Utilities</b>	
2. Site Name: <b>C.D. McIntosh, Jr. Power Plant</b>	
3. Facility Identification Number: <b>1050004</b> [ ] Unknown	
4. Facility Location Information: Street Address or Other Locator: <b>3030 East Lake Parker Drive</b> City: <b>Lakeland</b> County: <b>Polk</b> Zip Code: <b>33805</b>	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

**Owner/Authorized Representative or Responsible Official**

1. Name and Title of Owner/Authorized Representative or Responsible Official: <b>Ronald W. Tomlin, Assistant Managing Director</b>
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: <b>Lakeland Electric &amp; Water Utilities</b> Street Address: <b>501 East Lemon Street</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801-5079</b>
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: <b>(941) 499-6300</b> Fax: <b>(941) 499-6344</b>
4. Owner/Authorized Representative or Responsible Official Statement:  <i>I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. 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. 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 any permitted emissions unit.</i>  _____ Signature  _____ Date <i>June 13, 1996</i>

\* Attach letter of authorization if not currently on file.

**Scope of Application**

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

**Emissions Unit ID**                      **Description of Emissions Unit**                      **Permit Type**

Unit #	Unit ID	
1R	001	FFFSG Unit 1
2R	005	FFFSG Unit 2
3R	006	FFFSG Unit 3
4R	*	Diesel Peaking Units 2 and 3
5R	004	Gas Turbine Peaking Unit 1
6R		Material Handling
7		Unregulated Emission Activities

See individual Emissions Unit (EU) sections for more detailed descriptions.  
Multiple EU IDs indicated with an asterisk (\*). Regulated EU indicated with an "R".



**Purpose of Application and Category**

Check one (except as otherwise indicated):

**Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.**

This Application for Air Permit is submitted to obtain:

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: \_\_\_\_\_

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: \_\_\_\_\_

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: \_\_\_\_\_

Operation permit to be renewed: \_\_\_\_\_

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: \_\_\_\_\_

\_\_\_\_\_

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

Operation permit to be revised: \_\_\_\_\_

Reason for revision: \_\_\_\_\_

\_\_\_\_\_

**Category II: All Air Construction Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.**

This Application for Air Permit is submitted to obtain:

- Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s): \_\_\_\_\_  
\_\_\_\_\_

- Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: \_\_\_\_\_

- Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit to be revised: \_\_\_\_\_

Reason for revision: \_\_\_\_\_  
\_\_\_\_\_

**Category III: All Air Construction Permit Applications for All Facilities and Emissions Units.**

This Application for Air Permit is submitted to obtain:

- Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: \_\_\_\_\_  
\_\_\_\_\_

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

Current operation permit number(s): \_\_\_\_\_  
\_\_\_\_\_

- Air construction permit for one or more existing, but unpermitted, emissions units.

**Application Processing Fee**

Check one:

[ ] Attached - Amount: \$ \_\_\_\_\_

[ **x** ] Not Applicable.

**Construction/Modification Information**

1. Description of Proposed Project or Alterations:
2. Projected or Actual Date of Commencement of Construction :
3. Projected Date of Completion of Construction :

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Kennard F. Kosky</b> Registration Number: <b>14996</b>
2. Professional Engineer Mailing Address: Organization/Firm: <b>KBN Eng. and Applied Sciences, Inc.</b> Street Address: <b>6241 NW 23rd Street, Suite 500</b> City: <b>Gainesville</b> State: <b>FL</b> Zip Code: <b>32653-1500</b>
3. Professional Engineer Telephone Numbers: Telephone: <b>(352) 336-5600</b> Fax: <b>(352) 336-6603</b>

4. Professional Engineer's Statement:

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

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

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

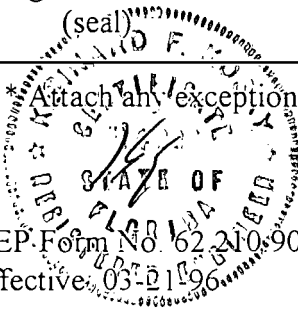
*If the purpose of this application is to obtain a Title V source air operation permit (check here [] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this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

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

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

*Howard F. Kauf*  
\_\_\_\_\_  
Signature

*6/12/96*  
\_\_\_\_\_  
Date



Attach an exception to certification statement.

**Application Contact**

1. Name and Title of Application Contact: <b>Ms. Farzie Shelton, Environmental Coordinator</b>
2. Application Contact Mailing Address:  Organization/Firm: <b>Lakeland Electric &amp; Water Utilities</b> Street Address: <b>501 East Lemon Street</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801-5079</b>
3. Application Contact Telephone Numbers:  Telephone: <b>(941) 499-6603</b> Fax: <b>(941) 499-6688</b>

**Application Comment**

<b>See Attachment LMC-AI-1</b>
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**ATTACHMENT LMC-AI-1**  
**APPLICATION INFORMATION**

ATTACHMENT LMC-AI-1  
APPLICATION STRUCTURE - MCINTOSH POWER PLANT

INFORMATION SUPPLIED	MCINTOSH POWER PLANT EMISSION UNITS						
	EU1 (1 of 7)	EU2 (2 of 7)	EU3 (3 of 7)	EU4 (4 of 7)	EU5 (5 of 7)	EU6 (6 of 7)	EU7 (7 of 7)
FDEP EU Identification	001	005	006	002 & 003	004		
GENERAL	FFFSG Unit 1 Existing AO Permit	FFFSG Unit 2 Existing AO Permit	FFFSG Unit 3 PPSA Certification	Diesel Peaking Units 2 and 3 Existing AO Permit	Gas Turbine Unit 1 Existing AO Permit	Materials Handling	Unregulated Emission Units
EMISSION POINTS	1 Stack for EU	1 Stack for EU	1 Stack for EU	1 Stack for each diesel unit	1 Stack for EU	Various vents and fugitive points	Various vents
SEGMENTS	1. No. 6 Oil 2. Natural Gas Propane (Ignition) 3. Used Oil	1. No. 6 Oil 2. Natural Gas Propane (Ignition)	1. Coal 2. Coal & RDF 3. No. 6 Oil 4. Oil & RDF 5. Coal & Pet Coke 6. Coal, Pet Coke & RDF 7. Natural Gas	1. No. 2 Distillate Oil	1. No. 2 Distillate Oil 2. Natural Gas	1. Coal 2. Pet Coke 3. Limestone 4. MSW/RDF 5. Fly Ash 6. FGD By-Product	1. No. 6 Residual Oil 2. No. 2 Distillate Oil
REGULATED POLLUTANTS	1. Particulate Matter 2. Sulfur Dioxide	1. Particulate Matter 2. Sulfur Dioxide 3. Nitrogen Oxides	1. Particulate Matter 2. Sulfur Dioxide 3. Nitrogen Oxides	2. Sulfur Dioxide	2. Sulfur Dioxide	1. Particulate Matter	None
VISIBLE EMISSIONS	1. VE20 2. VE60 3. VE99	1. VE20 2. VE60 3. VE99	1. VE20 2. VE99	1. VE20 2. VE99	1. VE20 2. VE99	1. VE20 2. VE99	Not Applicable
CONTINUOUS MONITORING	1. Sulfur Dioxide 2. Nitrogen Oxides 3. Opacity (VE) 4. Carbon Dioxide 5. Flow	1. Sulfur Dioxide 2. Nitrogen Oxides 3. Opacity (VE) 4. Carbon Dioxide 5. Flow	1. Sulfur Dioxide 2. Nitrogen Oxides 3. Opacity (VE) 4. Carbon Dioxide 5. Flow	Not Required	Not Required	Not Required	Not Required
PREVENTION OF SIGNIFICANT DETERIORATION	EU in Baseline	EU in Baseline	EU Increment Consuming	EU in Baseline	EU in Baseline	EU in Baseline	Not Applicable

Legend: EU = Emission Unit; FFFSG = Fossil fuel-fired steam generator; AO = Air Operating; PPSA = Power Plant Siting Act

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility Location and Type

1. Facility UTM Coordinates: Zone: <b>17</b> East (km): <b>409.0</b> North (km): <b>3106.2</b>			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): <b>28 / 4 / 50</b> Longitude: (DD/MM/SS): <b>81 / 55 / 32</b>			
3. Governmental Facility Code: <b>4</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>49</b>	6. Facility SIC(s):
7. Facility Comment (limit to 500 characters):  <p><b>The McIntosh Power Plant consists of 3 fossil fuel fired-steam generators (FFFSG), 2 diesel powered generators, and 1 gas turbine. FFFSG Units 1 and 2 are fired with No.6 fuel oil and natural gas (distillate oil is used as an ignitor). FFFSG Unit 3 is primarily fired with coal, refuse derived fuel and petroleum coke.</b></p>			

#### Facility Contact

1. Name and Title of Facility Contact: <b>Ms. Farzie Shelton, Environmental Coordinator</b>			
2. Facility Contact Mailing Address: Organization/Firm: <b>Lakeland Electric &amp; Water Utilities</b> Street Address: <b>501 East Lemon Street</b> City: <b>Lakeland</b> State: <b>FL</b> Zip Code: <b>33801-5079</b>			
3. Facility Contact Telephone Numbers: Telephone: <b>(941) 499-6603</b> Fax: <b>(941) 499-6688</b>			



**Facility Regulatory Classifications**

1. Small Business Stationary Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
2. Title V Source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3. Synthetic Non-Title V Source? <input type="checkbox"/> Yes, <input checked="" type="checkbox"/> No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Synthetic Minor Source of Pollutants Other than HAPs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6. Major Source of Hazardous Air Pollutants (HAPs)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7. Synthetic Minor Source of HAPs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8. One or More Emissions Units Subject to NSPS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9. One or More Emissions Units Subject to NESHAP? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
10. Title V Source by EPA Designation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
11. Facility Regulatory Classifications Comment (limit to 200 characters):  <b>FFFSG Units 2 and 3 are subject to Subpart D NSPS. Coal Handling subject to Subpart Y NSPS. Facility subject to NESHAP Subpart M (asbestos).</b>

**B. FACILITY REGULATIONS**

**Rule Applicability Analysis** (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

**Not Applicable**

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

**See Attachment LMC-FE-B**

## C. FACILITY POLLUTANTS

### Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
PM Particulate Matter - Total	A
VOC Volatile Organic Compounds	A
SO2 Sulfur Dioxide	A
H106 Hydrochloric acid	A
NOX Nitrogen Oxides	A
HAPS Total Hazardous Air Pollutants	A
CO Carbon Monoxide	A
PM10 Particulate Matter - PM10	A
HCL Hydrogen Chloride	A

**D. FACILITY POLLUTANT DETAIL INFORMATION**

**Facility Pollutant Detail Information:**

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

**Facility Pollutant Detail Information:**

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

## E. FACILITY SUPPLEMENTAL INFORMATION

### Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-FE-1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-FE-2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input checked="" type="checkbox"/> Attached, Document ID(s): <u>LMC-FE-3</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-FE-4</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-FE-5</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

### Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: <input checked="" type="checkbox"/> Attached, Document ID: <u>LCM-FE-7</u> <input type="checkbox"/> Not Applicable
8. List of Equipment/Activities Regulated under Title VI: <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-FE-8</u> <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
9. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

<p>11. Identification of Additional Applicable Requirements:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>12. Compliance Assurance Monitoring Plan:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>13. Risk Management Plan Verification:</p> <p><input type="checkbox"/> Plan Submitted to Implementing Agency - Verification Attached Document ID: _____</p> <p><input checked="" type="checkbox"/> Plan to be Submitted to Implementing Agency by Required Date</p> <p><input type="checkbox"/> Not Applicable</p>
<p>14. Compliance Report and Plan</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-FE-14</u></p> <p><input type="checkbox"/> Not Applicable</p>
<p>15. Compliance Statement (Hard-copy Required)</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-FE-15</u></p> <p><input type="checkbox"/> Not Applicable</p>

**ATTACHMENT LMC-FE-B**  
**FACILITY REGULATIONS**



ATTACHMENT LMC-FE-B  
Applicable Requirements Listing - Power Plant Facility

FACILITY ID: Lakeland Electric & Water Utilities - McIntosh Plant

FDEP Rules:

General Permits:

- 62-4.030 - All Permits
- 62-4.040(1)(a) - All Permits (Exemptions from permitting)
- 62-4.040(1)(b) - All Permits (Exemptions from permitting)
- 62-4.100 - All Permits
- 62-4.130 - All Permits

Asbestos NESHAP:

- 62-204.800(8)(b)8.(State Only) - Asbestos Removal
- 62-204.800(8)(d) (State Only) - General Provisions (Asbestos)

Stationary Sources-General:

- 62-210.300(2)[except (b) Exemptions - All Permits
- 62-210.300(3)(a)4. - Plant Specific:
  - comfort heating < 1 mmBtu/hr
  - mobile sources
  - non-industrial vacuum cleaning
  - refrigeration units
  - vacuum pumps for labs
  - steam cleaning equipment
  - sanders < 5 ft<sup>2</sup>
  - space heating equip.; (non-boilers)
  - bakery ovens
  - lab equipment
  - brazing, soldering or welding
  - laundry dryers
  - emergency generators < 32,000 gal/yr
  - general purpose engines < 32,000 gal.yr
  - fire and safety equipment
  - surface coating > 5% VOC; 6 gal. or less/month (avg.)
  - surface coating < 5% VOC
- 62-210.300(3)(a)5. - mobile sources
- 62-210.300(3)(a)7. - non-industrial vacuum cleaning
- 62-210.300(3)(a)8. - refrigeration units
- 62-210.300(3)(a)9. - vacuum pumps for labs
- 62-210.300(3)(a)10. - steam cleaning equipment
- 62-210.300(3)(a)11. - sanders < 5 ft<sup>2</sup>
- 62-210.300(3)(a)12. - space heating equip.; (non-boilers)
- 62-210.300(3)(a)14. - bakery ovens
- 62-210.300(3)(a)15. - lab equipment
- 62-210.300(3)(a)16. - brazing, soldering or welding
- 62-210.300(3)(a)17. - laundry dryers
- 62-210.300(3)(a)20. - emergency generators < 32,000 gal/yr
- 62-210.300(3)(a)21. - general purpose engines < 32,000 gal.yr
- 62-210.300(3)(a)22. - fire and safety equipment
- 62-210.300(3)(a)23. - surface coating > 5% VOC; 6 gal. or less/month (avg.)
- 62-210.300(3)(a)24. - surface coating < 5% VOC
- 62-210.300(3)(b) - Tempory Exemptions
- 62-210.370(3) - All Permits (AOR's)
- 62-210.900(5) - All Permits (AOR Form)

Title V Permits:

- 62-213.205(1)(a) - All Permits (Fees)
- 62-213.205(1)(b) - All Permits
- 62-213.205(1)(c) - All Permits
- 62-213.205(1)(e) - All Permits
- 62-213.205(1)(f) - All Permits
- 62-213.205(1)(g) - All Permits

- 62-213.205(1)(j) - All Permits
- 62-213.400 - All Permits (Permits/Revisions)
- 62-213.410 - All permits (Changes without permit revisions)
- 62-213.420.(1)(b)2. - All Permits (Permits-allows continued operation)
- 62-213.420.(1)(b)3. - All Permits (Permits-additional information)
- 62-213.460 - All Permits (Permit Shield)
- 62-213.900(1) - All Permits (Fee Form)

Open Burning:

- 62-256.300 (State Only) - Prohibitions
- 62-256.500 (State Only) - Land Clearing
- 62-256.700 (State Only) - Open burning Allowed

Asbestos Removal:

- 62-257.301 (State Only) - Notification and Fee
- 62-257.400 (State Only) - Fee Schedule
- 62-257.900 (State Only) - Form

Stationary Sources-Emission Standards:

- 62-296.320(2) (State Only) - All Permits (Odor)
- 62-296.320(3)(b)(State Only) - Emergency Open Burning
- 62-296.320(4)(b) - General VE
- 62-296.320(4)(c) - Unconfined PM

Stationary Sources-Emission Monitoring

- 62-297.310(7)(a)10. - Exemption of annual VE for 210.300(3)(a) sources/Gen. Per.

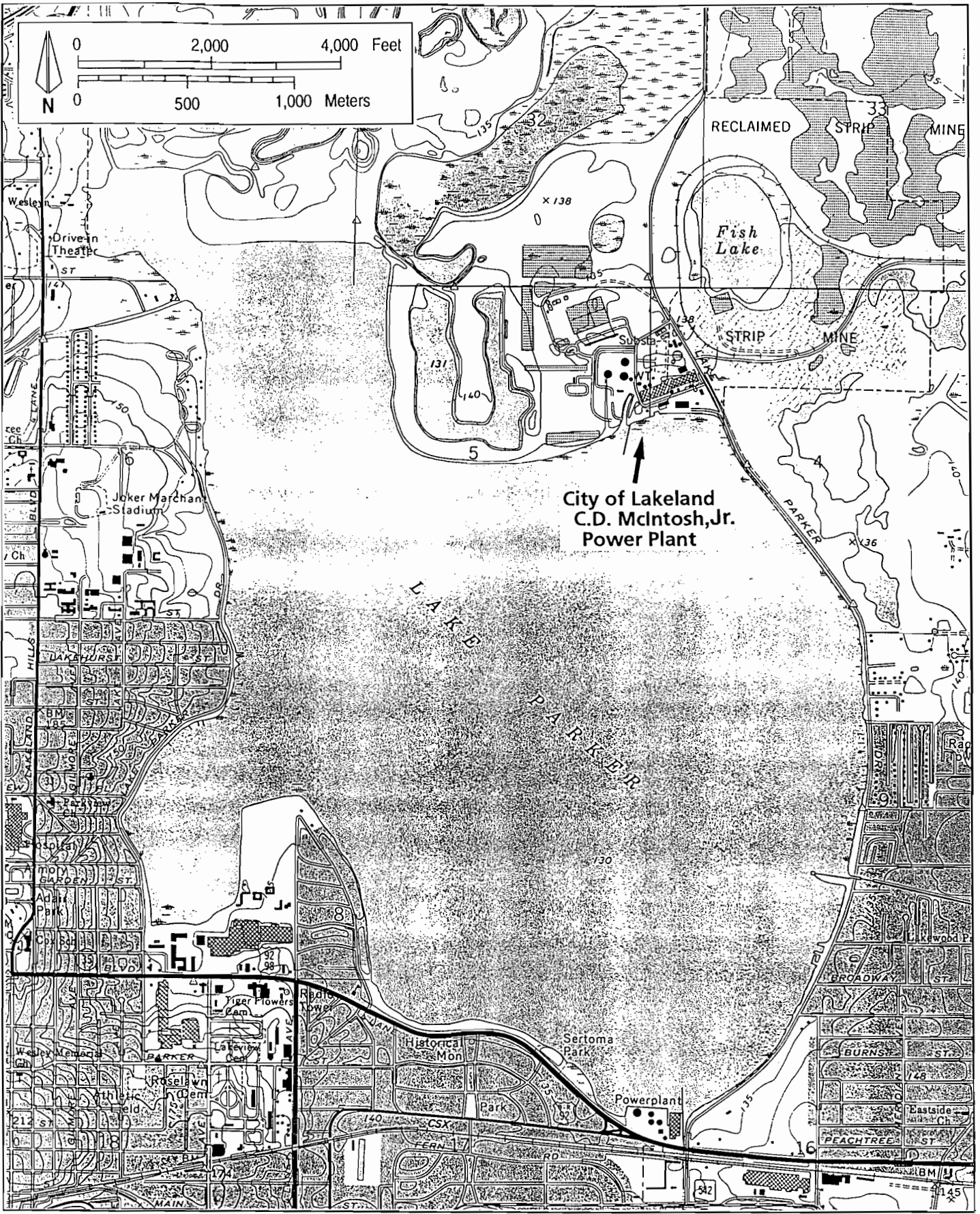
Federal Regulations:

Asbestos Removal:

- 40 CFR 61.05(b) - Prohibited Activities
- 40 CFR 61.05(c) - Prohibited Activities
- 40 CFR 61.05(d) - Prohibited Activities
- 40 CFR 61.12(b) - Compliance with work practice standard
- 40 CFR 61.12(c) - Compliance with work practice standard
- 40 CFR 61.19 - Circumvention
- 40 CRF 61.145 - Demolition and Renovation
- 40 CFR 61.148 - Standard for Insulating Material

**ATTACHMENT LMC-FE-1**

**AREA MAP**



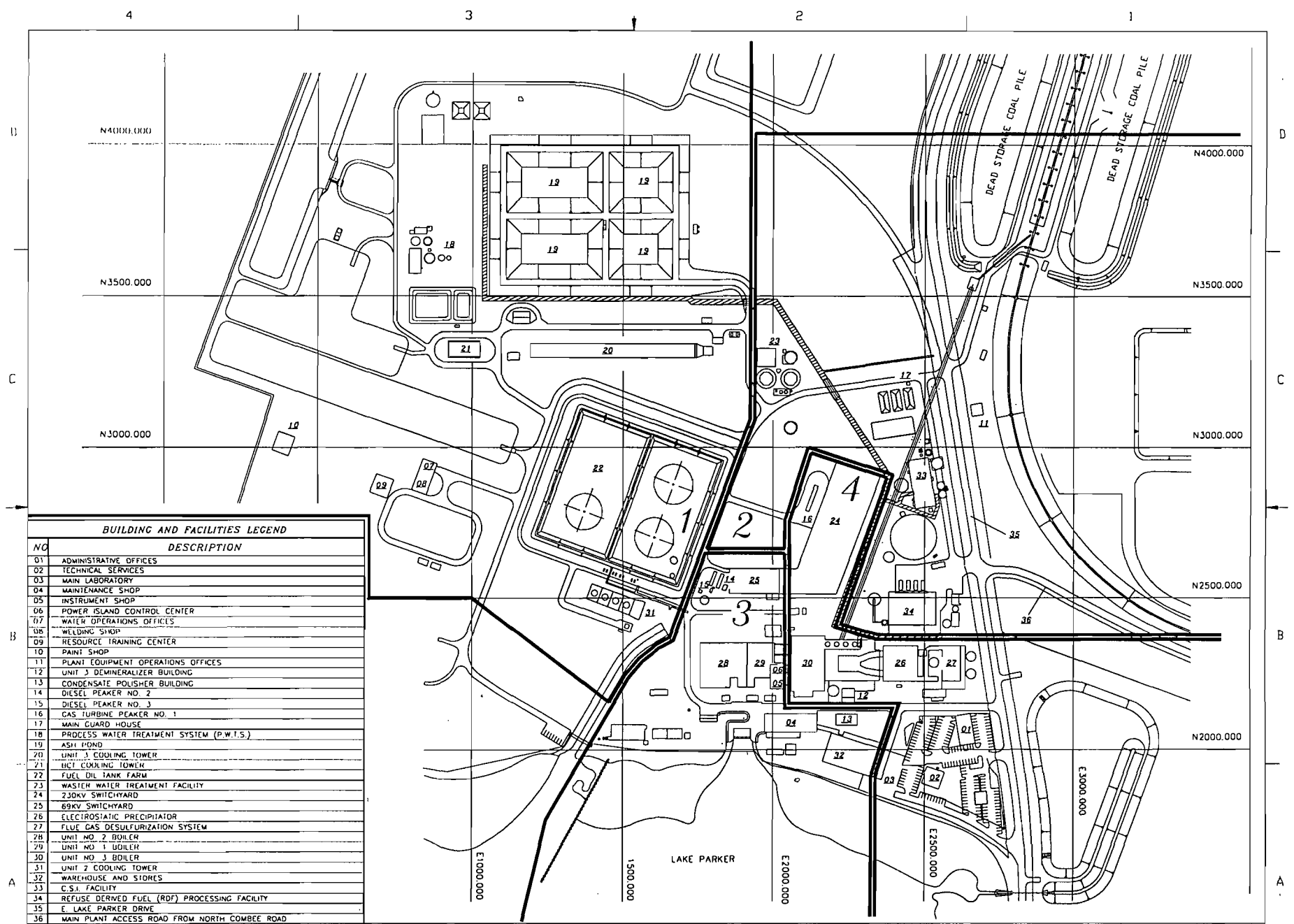
Attachment LMC-FE-1  
Area Map

Source: USGS, 1987.



**ATTACHMENT LMC-FE-2**

**FACILITY PLOT PLAN**



**BUILDING AND FACILITIES LEGEND**

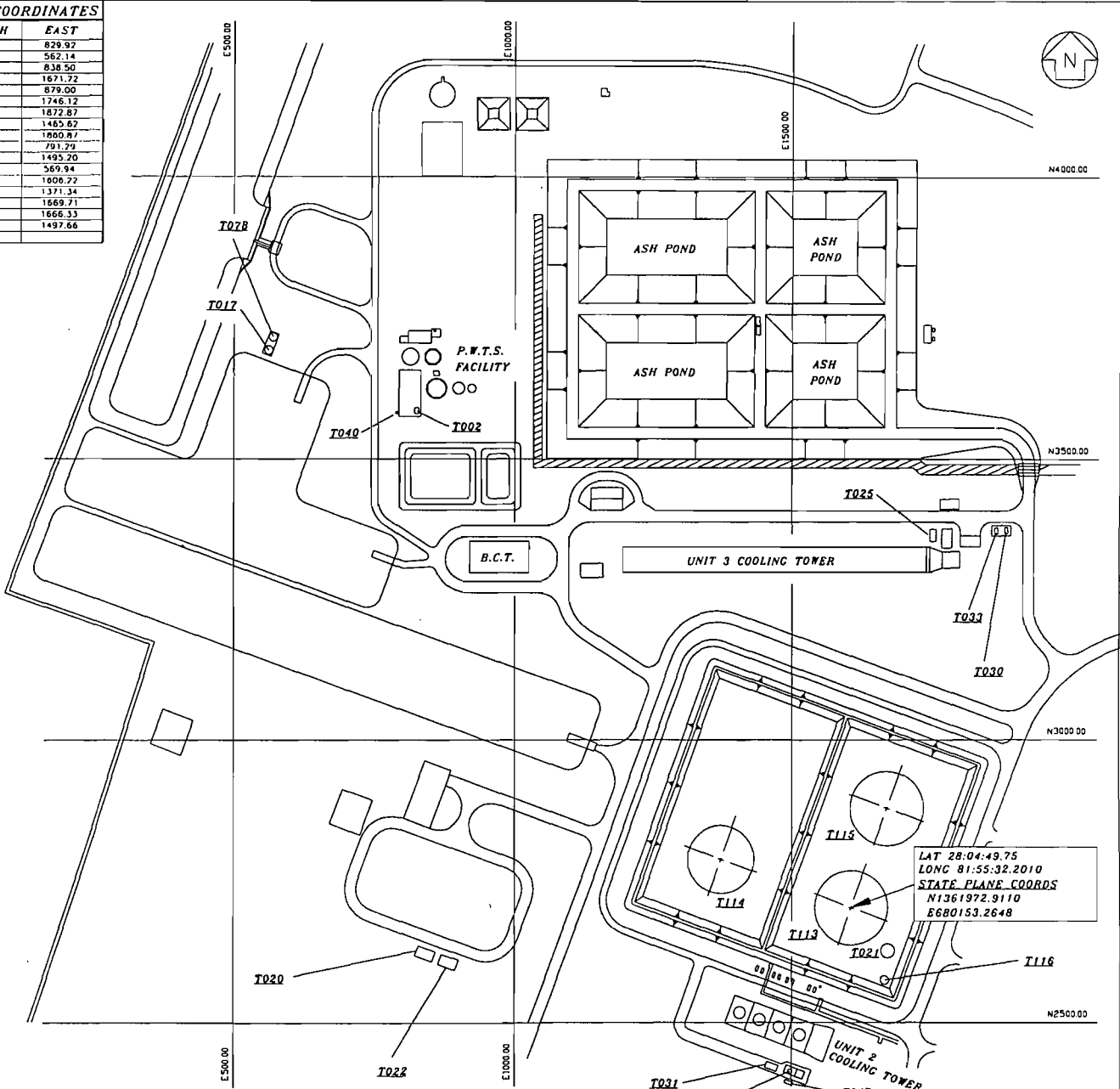
NO	DESCRIPTION
01	ADMINISTRATIVE OFFICES
02	TECHNICAL SERVICES
03	MAIN LABORATORY
04	MAINTENANCE SHOP
05	INSTRUMENT SHOP
06	POWER ISLAND CONTROL CENTER
07	WATER OPERATIONS OFFICES
08	WELDING SHOP
09	RESOURCE TRAINING CENTER
10	PAINT SHOP
11	PLANT EQUIPMENT OPERATIONS OFFICES
12	UNIT 3 DEMINERALIZER BUILDING
13	CONDENSATE POLISHER BUILDING
14	DIESEL PEAKER NO. 2
15	DIESEL PEAKER NO. 3
16	CAS TURBINE PEAKER NO. 1
17	MAIN GUARD HOUSE
18	PROCESS WATER TREATMENT SYSTEM (P.W.T.S.)
19	ASH POND
20	UNIT 3 COOLING TOWER
21	UNIT 3 COOLING TOWER
22	FUEL OIL TANK FARM
23	WASTE WATER TREATMENT FACILITY
24	230KV SWITCHYARD
25	69KV SWITCHYARD
26	ELECTROSTATIC PRECIPITATOR
27	FLUE GAS DESULFURIZATION SYSTEM
28	UNIT NO. 2 BOILER
29	UNIT NO. 1 BOILER
30	UNIT NO. 3 BOILER
31	UNIT 2 COOLING TOWER
32	WAREHOUSE AND STORES
33	C.S.A. FACILITY
34	REFUSE DERIVED FUEL (RDF) PROCESSING FACILITY
35	E LAKE PARKER DRIVE
36	MAIN PLANT ACCESS ROAD FROM NORTH COMBEE ROAD

REV. NO.	BY	DATE	APPR.	REVISION
B	MG	5-18-94		ISSUED FOR COMMENT
C	MG	9-22-94		CHANGE DWG. NO.
D	MC	5-13-96		CHANGE TITLE



DESCRIPTION	DIVISION	PROJ. NO.	SCALE
LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT POTENTIAL EMISSION SOURCES FACILITY PLOT PLAN INDEX	PRODUCTION ENGINEERING	- AIR PERMIT	NONE
ENGINEER PATERSON	DRN. BY: MDIEGER	DATE: 5-12-94	DWG. NO. LMC-FE-2/SKM-1
APPR. BY:			REV. D

LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
T002	CAUSTIC SODA TANK	3580.41	829.92
T017	SODIUM ALUMINATE/CAUSTIC TANK NO 31 (ABANDONED)	3692.73	562.14
T020	GASOLINE TANK	2614.62	838.50
T021	DIESEL STORAGE TANK	2627.22	1671.72
T022	DIESEL TANK	2598.57	879.00
T023	SULFURIC ACID STORAGE TANK	3353.31	1746.12
T030	CONTROL AGENT, MALCO 1336 AD, TRIAZOLE SALT	3367.10	1672.87
T051	SCALE INHIBITOR, DYNACOR, MALCO 13710	2476.75	1465.62
T055	SCALE INHIBITOR, DYNACOR, MALCO 13710	3367.10	1800.87
T040	MISC. TANK NO 31 AND NO 32 (COMMON MAIN)	3581.70	791.29
T047	SULFURIC TANK (STORAGE)	2396.01	1495.20
T078	SODIUM ALUMINATE/CAUSTIC TANK NO 32 (ABANDONED)	3214.78	569.94
T111	16 FUEL OIL TANK	2703.00	1606.72
T114	16 FUEL OIL TANK	2788.49	1371.34
T115	16 FUEL OIL TANK	2877.34	1669.71
T116	USED OIL STORAGE TANK	2757.95	1666.33
T163	SCALE INHIBITOR DAY-TANK	2413.44	1497.66



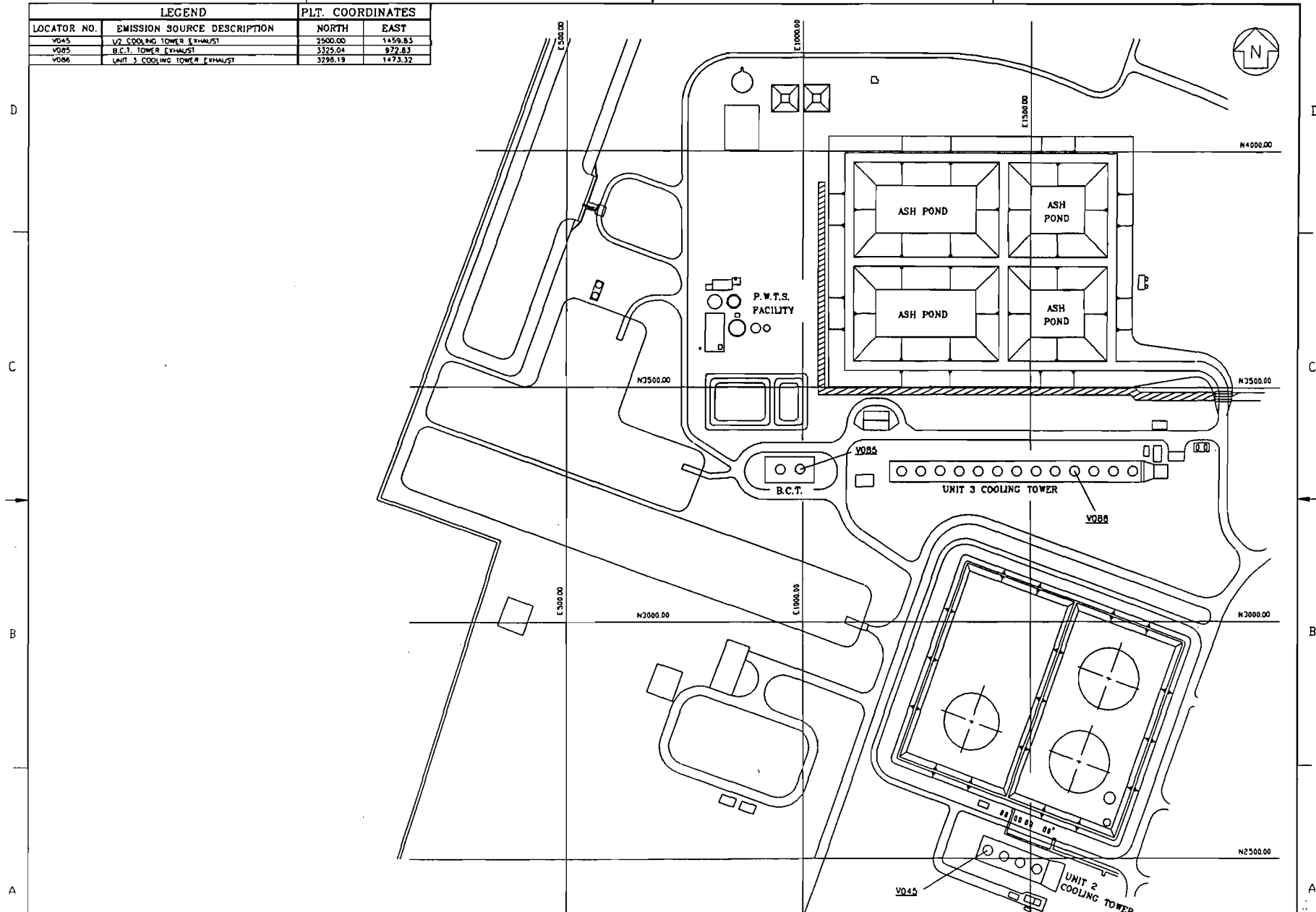
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REV. NO.	BY	DATE	APPR.	REVISION
C	MG	7-1-94		ISSUED FOR COMMENT
D	MG	9-22-94		ADD UTM COORD. & CHANGE DWG. NO.
E	MG	10-23-94		ADDED PLANT COORDINATES
F	MC	5-10-96	HP	CHANGE TITLE & LEGEND



DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE
LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT POTENTIAL EMISSION SOURCES FACILITY PLOT PLAN TANKS - SECTION 1	ENGINEER	PATTERSON	PROJ. NO.	-	AIR PERMIT
	DRN. BY:	MOEGER	DATE	5-12-94	DWG. NO.
	APPR. BY:				LMC-FE-2/SKM-2
					REV. F

LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
V045	L2 COOLING TOWER EXHAUST	2500.00	1459.83
V085	B.E.T. TOWER EXHAUST	3325.04	927.83
V086	UNIT 3 COOLING TOWER EXHAUST	3258.19	1473.32



C	MG	9-22-94		ADD PLT. CDL. & CHANGE DVG. NCL
D	MG	10-23-94		ADDED PLANT COORDINATES
E	MG	5-10-96		CHANGE TITLE & LEGEND
F	MG	5-28-96	HP	ISSUED FOR TITLE V
REV. NO.	BY	DATE	APPR.	REVISION

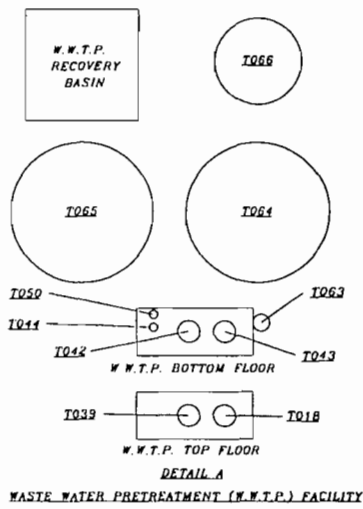
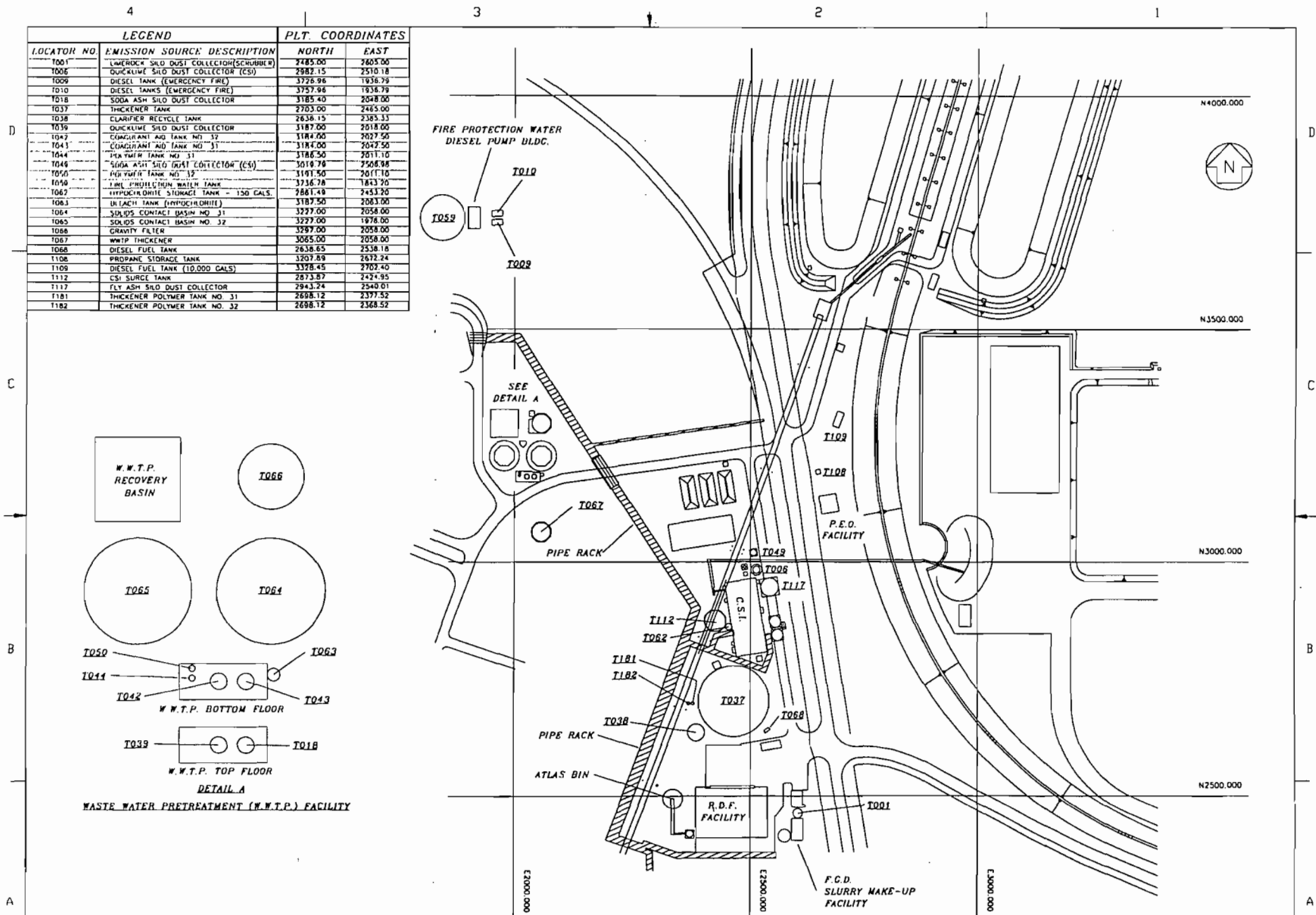


DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE
LAKELAND ELECTRIC & WATER UTILITIES C.B. MCINTOSH POWER PLANT TITLE V SOURCES FACILITY PLOT PLAN VENTS/EXHAUSTS - SECTION 1	ENGINEER	PATTERSON	PROJ. NO.	-	AIR PERMIT
	DRN. BY:	MCIEGER	DATE	5-12-94	DWG. NO.
	APPR. BY:				LMC-FE-2/SKM-4
					REV. F

SIZE C



LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
T001	LOWBOCK SILD DUST COLLECTOR(SCHUBBER)	2485.00	2405.00
T006	QUICKLIME SILD DUST COLLECTOR (CS)	2982.15	2510.18
T009	DIESEL TANK (EMERGENCY FIRE)	3726.96	1936.79
T010	DIESEL TANKS (EMERGENCY FIRE)	3757.96	1936.79
T018	SODA ASH SILD DUST COLLECTOR	3185.40	2048.00
T037	THICKENER TANK	2703.00	2465.00
T038	CLARIFIER RECYCLE TANK	2636.15	2385.33
T039	QUICKLIME SILD DUST COLLECTOR	3187.00	2018.00
T047	CONDENSANT AND TANK NO. 32	3184.00	2027.50
T041	CONDENSANT AND TANK NO. 31	3184.00	2042.50
T044	PIR TANK NO. 31	3186.50	2011.10
T046	SODA ASH SILD DUST COLLECTOR (CS)	3016.76	2506.98
T040	PIR TANK NO. 32	3191.50	2011.10
T059	T.M.B. SPINNING MUM. WASH TANK	3716.78	1813.70
T067	HYPOCHROMITE STORAGE TANK - 150 GALS.	2861.48	2453.20
T083	ULTRACH TANK (HYPOCHROMITE)	3187.50	2083.00
T064	SOLIDS CONTACT BASIN NO. 31	3227.00	2058.00
T065	SOLIDS CONTACT BASIN NO. 32	3227.00	1976.00
T068	GRAVITY FILTER	3257.00	2058.00
T087	WWTP THICKENER	3085.00	2058.00
T068	DIESEL FUEL TANK	2636.65	2336.16
T108	PROPANE STORAGE TANK	3307.89	2672.24
T109	DIESEL FUEL TANK (10,000 GALS)	3378.45	2702.40
T112	CSI SURGE TANK	2873.87	2474.95
T117	FLY ASH SILD DUST COLLECTOR	2943.24	2540.01
T181	THICKENER POLYMER TANK NO. 31	2698.12	2377.52
T182	THICKENER POLYMER TANK NO. 32	2698.12	2368.52



REV. NO.	BY	DATE	APPR.	REVISION
C	MG	7-1-94		ISSUED FOR COMMENT
D	MG	9-22-94		ADD UTM CDL. CHANGE DVG. NO. REV. 1010
E	MG	10-23-94		ADDED PLANT COORDINATES
F	MC	5-13-98	HP	CHANGE TITLE & LEGEND

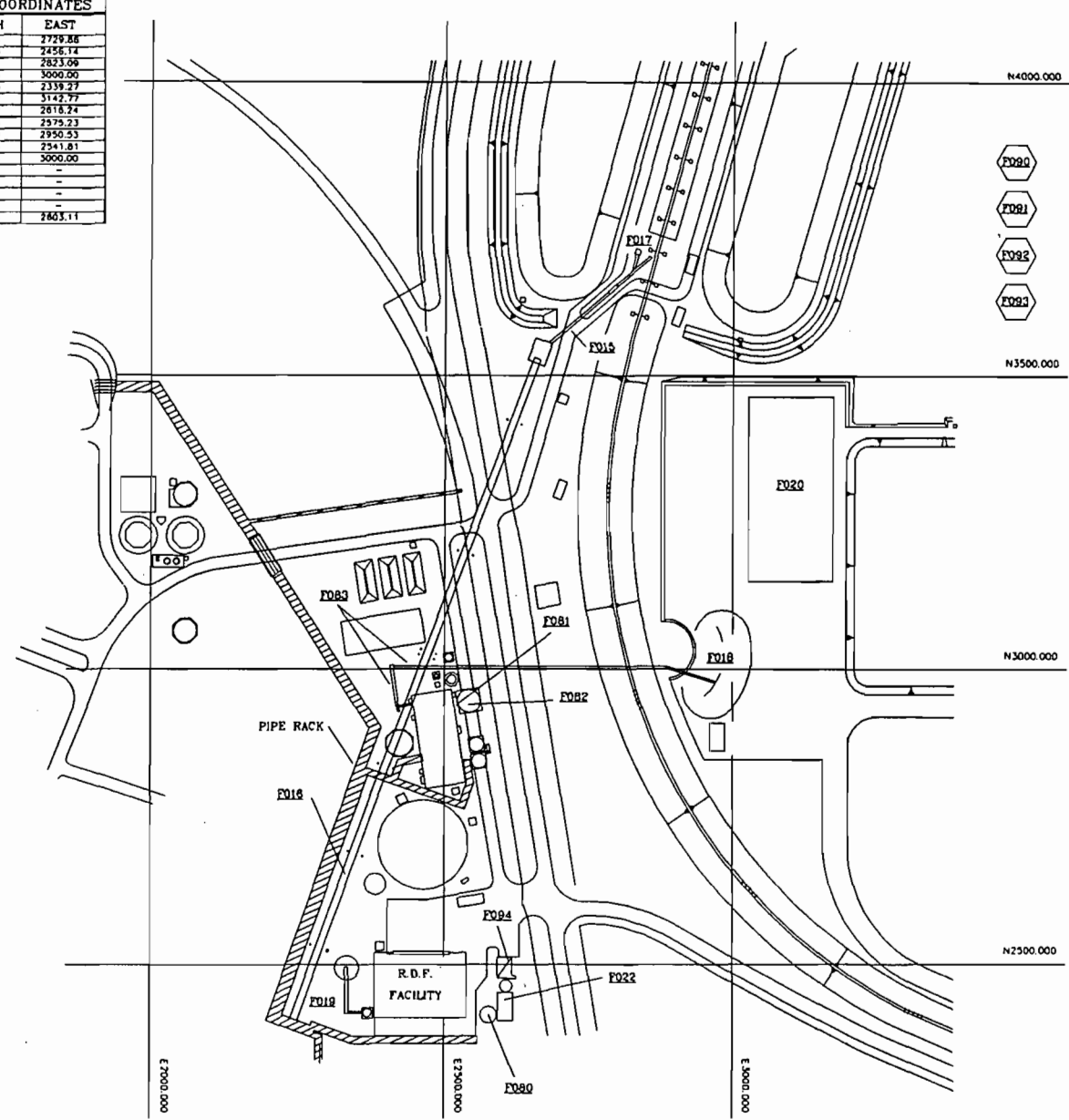


DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE
LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT POTENTIAL EMISSION SOURCES FACILITY PLOT PLAN TANKS - SECTION 2	ENGINEER	PATERSON	PROJ. NO. -	AIR PERMIT
	DRN. BY:	MCIEGER	DWG. NO.	LMC-FE-2/SKM-5
	APPR. BY:		DATE	5-12-94
			REV.	F

REFERENCE DRAWINGS



LEGEND		UTM COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
FD15	COAL CONVEYOR NO. 2	3547.81	2729.88
FD16	COAL CONVEYOR NO. 3	2967.13	2456.14
FD17	TEMPORARY CONVEYOR NO. 2	3572.81	2823.06
FD18	RADIAL STACKOUT CONVEYOR	3023.45	3000.00
FD19	CONVEYORS TO ATLAS BIN	2437.85	2339.27
FD20	SLUDGE-LOADER MIXING/STORAGE AREA	3332.82	3143.77
FD22	LIMEROCK CONVEYOR	2427.87	2818.24
FD80	LIMEROCK DUST TO SLURRY STORAGE TANK	2412.06	2379.23
FD81	C.S.I. BUILDING ASH SCREW CONVEYOR	2520.99	2950.53
FD82	C.S.I. FLY ASH LOAD SLEEVE	2945.75	2541.81
FD83	C.S.I. BELT CONVEYORS (3)	3014.98	3000.00
FD84	COAL STORAGE (SEE DWG. NO. SKM-18)	-	-
FD85	OPEN SLUDGE LANDFILL (SEE DWG. NO. SKM-18)	-	-
FD87	SITE PAVED ROADS (SEE DWG. NO. SKM-18)	-	-
FD83	SITE PAVED ROADS (SEE DWG. NO. SKM-18)	-	-
FD84	LIMEROCK UNLOADING AREA	2485.75	2803.11



- FD80
- FD81
- FD82
- FD83

<table border="1"> <tr> <td>F</td> <td>HPW</td> <td>12-21-94</td> <td>MISC. CORRECTIONS</td> </tr> <tr> <td>G</td> <td>MG</td> <td>5-13-96</td> <td>CHANGE TITLE &amp; LEGEND</td> </tr> <tr> <td>H</td> <td>MG</td> <td>5-29-96</td> <td>ISSUED FOR TITLE V</td> </tr> <tr> <td>REV. NO.</td> <td>BY</td> <td>DATE</td> <td>APPR.</td> </tr> <tr> <td></td> <td></td> <td></td> <td>REVISION</td> </tr> </table>				F	HPW	12-21-94	MISC. CORRECTIONS	G	MG	5-13-96	CHANGE TITLE & LEGEND	H	MG	5-29-96	ISSUED FOR TITLE V	REV. NO.	BY	DATE	APPR.				REVISION	<p>LAKELAND ELECTRIC &amp; WATER</p>	<p>DESCRIPTION</p> <p>LAKELAND ELECTRIC &amp; WATER UTILITIES C.D. McINTOSH POWER PLANT TITLE V EMISSION SOURCES FACILITY LAYOUT PLAN FUGITIVE - SECTION 2</p>	<p>DIVISION PRODUCTION ENGINEERING</p> <p>ENGINEER PATTERSON</p> <p>DRN. BY: MOEGER</p> <p>APPR. BY:</p>	<p>CAD</p> <p>SCALE NONE</p> <p>PROJ. NO. AIR PERMIT</p> <p>DWG. NO. LMC-FE-2/SKM-6</p>	<p>REV. H</p>
F	HPW	12-21-94	MISC. CORRECTIONS																									
G	MG	5-13-96	CHANGE TITLE & LEGEND																									
H	MG	5-29-96	ISSUED FOR TITLE V																									
REV. NO.	BY	DATE	APPR.																									
			REVISION																									
<p>REFERENCE DRAWINGS</p>																												

SIZE C

4

3

2

1

LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
S008	FIRE PROTECTION WATER U.P.S. DIESEL NO. 31	3747.30	2028.20
S009	FIRE PROTECTION WATER U.P.S. DIESEL NO. 32	3771.30	2028.20
S010	DIESEL DRIVE COAL TUNNEL	3748.96	2881.19
S011	FIRE PROTECTION WATER U.P.S. SPARE DIESEL (STORED IN WAREHOUSE)	-	-
S012	TUNNEL LIGHTING GENERATOR (EMERGENCY)	3170.53	2847.92
V062	SHREDDER EXPLOSION VENT	2443.75	2524.58
V063	KLEISLER FILTER	2442.00	2368.40
V084	BUILDING FANS (TYP. FOR 3)	2493.75	2484.58
V065	REFUSE PIT	2497.75	2540.08
V074	DUST COLLECTOR	3543.03	2660.25
V075	DUST COLLECTOR	3845.96	2787.96
V076	ESCAPE TUNNEL	4055.58	3097.98
V077	C.S.T. FACILITY EXHAUST FANS (TYP. FOR 3)	2385.33	2490.98
V078	SHREDDER & MISC. CONVEYOR MFC DUST COLLECTOR	2418.25	2418.00
V079	C3 R.D.F. CONVEYOR DUST COLLECTOR	2418.25	2353.00
V104	PUGMILL NO. 31 DUST COLLECTOR	2822.55	2484.84
V105	PUGMILL NO. 32 DUST COLLECTOR	2822.55	2464.84

D

C

B

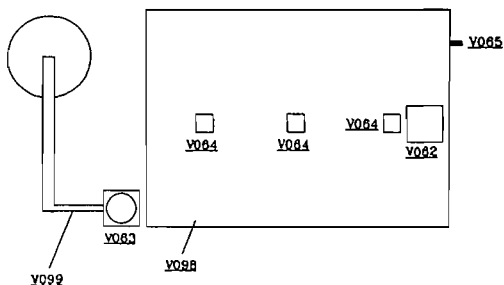
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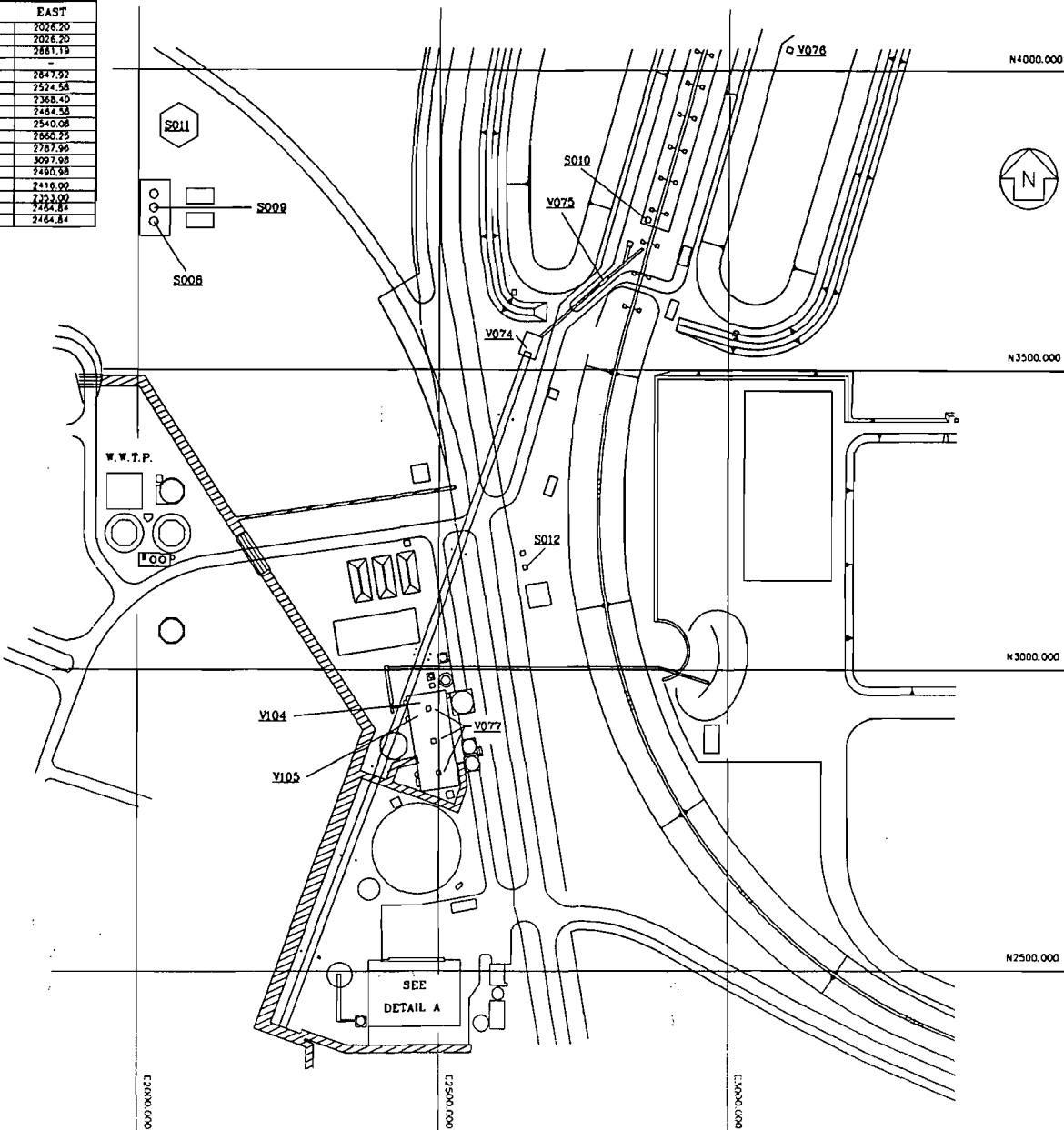
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B

A



DETAIL A  
REFUSE DERIVED FUEL (RDF) FACILITY



	F	MPV	12-22-94	REMOVED V061									
	G	MPV	5-10-96	CHANGE TITLE & LEGEND									
	H	MG	5-28-98	ISSUED FOR TITLE V									
REFERENCE DRAWINGS	REV. NO.	BY	DATE	APPR.	REVISION								



DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE
LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT TITLE V EMISSION SOURCES FACILITY PLOT PLAN VENTS/EXHAUSTS, & STACKS-SECTION 2	ENGINEER	PATTERSON	PROJ. NO.	-	AIR PERMIT
	DRN. BY	MGIEGER	DATE	5-12-94	DWG. NO.
	APPR. BY				LMC-FE-2/SKM-7
					REV. H

4

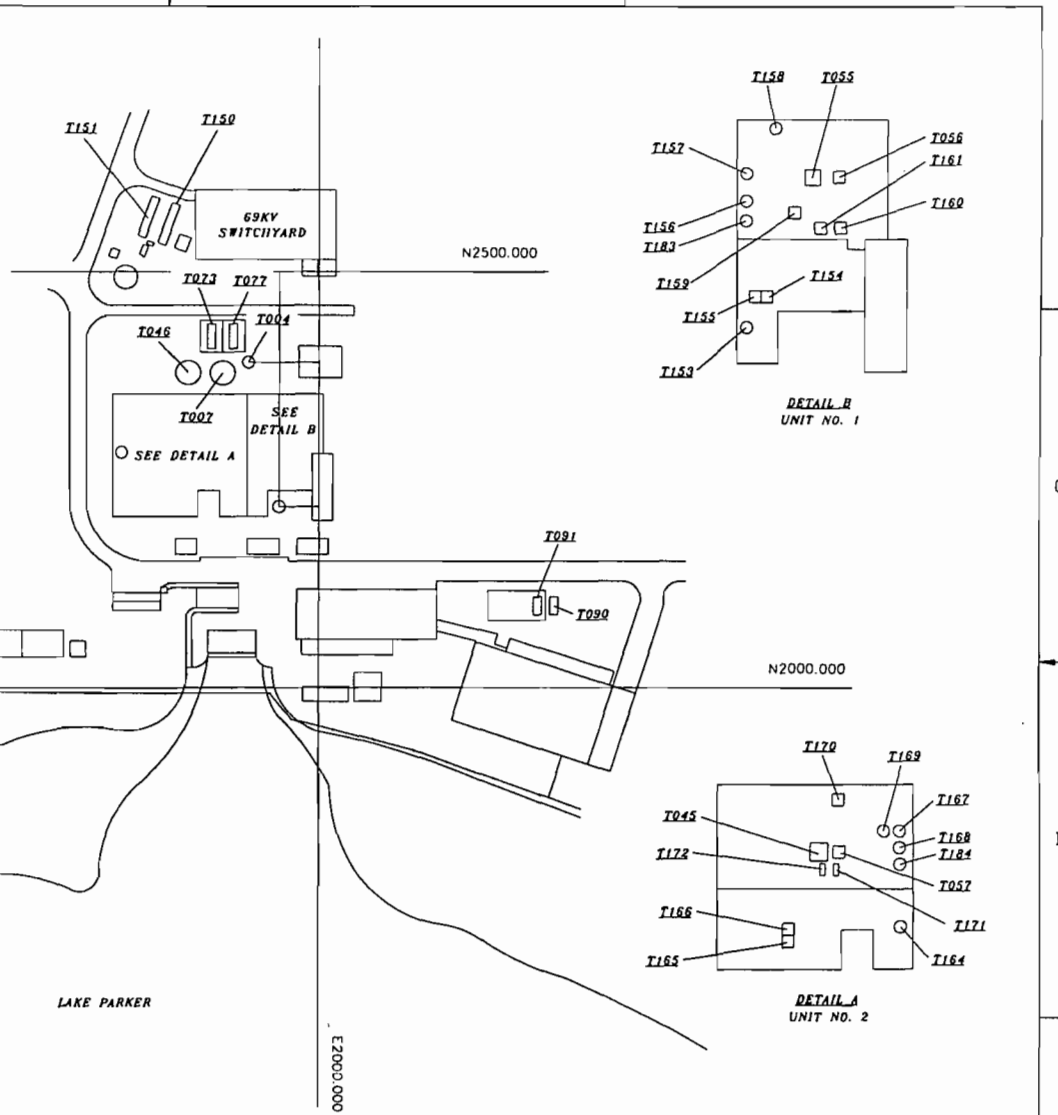
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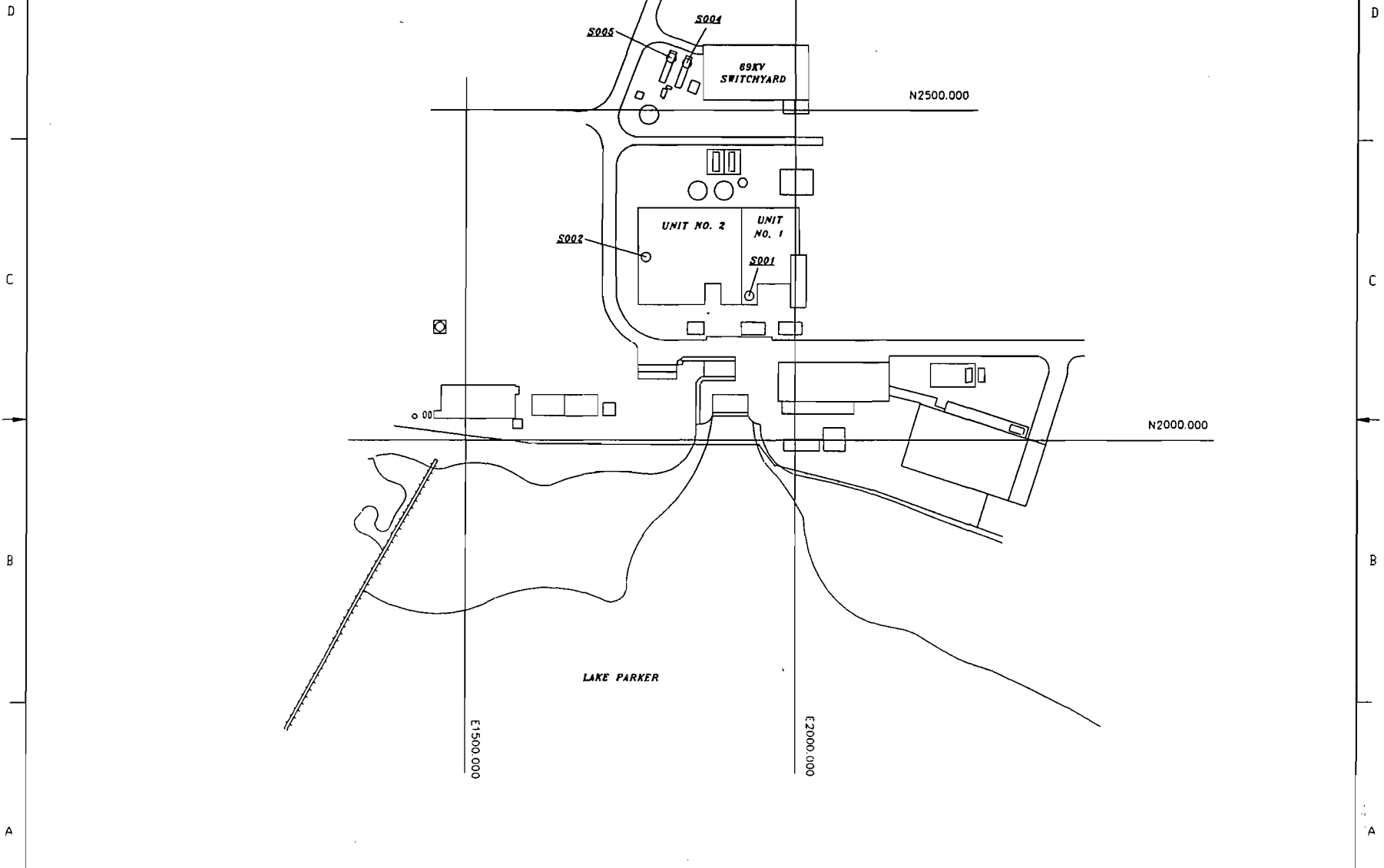
SIZE C

LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
T004	MAGNESIUM HYDROXIDE TANK - 20,000 GALS.	2390.83	1916.85
T007	UNIT 1 CONDENSATE STORAGE TANK - 100,000 GALS.	2378.15	1887.77
T045	LUBE OIL RESERVOIR TANK AND VAPOR EXTRACTOR	2308.85	1852.57
T046	UNIT 2 CONDENSATE STORAGE TANK - 100,000 GALS.	2378.15	1847.77
T055	LUBE OIL RESERVOIR TANK AND VAPOR EXTRACTOR - 3,000 GALS.	2339.49	1923.00
T056	LUBE OIL BOWSER FILTER VAPOR EXTRACTOR	2339.49	1925.50
T057	LUBE OIL BOWSER FILTER VAPOR EXTRACTOR	2310.85	1861.57
T060	CAUSTIC STORAGE TANK - 10,000 GALS.	2717.84	1460.27
T073	CAUSTIC STORAGE TANK (SEMI-BULK) - 4,400 GALS.	2422.19	1879.61
T077	SULFURIC ACID STORAGE TANK - 4,000 GALS.	2422.19	1904.40
T060	SULFURIC ACID STORAGE TANK (COND. POLISHER) - 4,000 GALS.	2710.46	2295.92
T091	CAUSTIC STORAGE TANK (COND. POLISHER) - 5,000 GALS.	2710.46	2276.16
T150	FUEL DAY-TANK	2555.50	1829.97
T151	FUEL DAY-TANK	2584.09	1806.48
T153	LUBE OIL HEADER TEST DRAIN TANK	2218.15	1892.07
T154	LUBE OIL RESERVOIR AIR PRE HEATER NO. 11 BEARINGS	2218.01	1952.89
T155	LUBE OIL RESERVOIR AIR PRE HEATER NO. 12 BEARINGS	2218.01	1952.89
T156	AMINE DAY-TANK	2314.49	1894.60
T157	CONCENTRATED CAUSTIC DAY-TANK	2324.49	1894.60
T158	CONCENTRATED SULFURIC ACID DAY-TANK	2339.49	1894.60
T159	E.H.C. RESERVOIR	2584.09	1806.48
T160	BOILER FEED PUMP NO. 11 LUBE OIL RESERVOIR	2306.49	1927.00
T161	BOILER FEED PUMP NO. 12 LUBE OIL RESERVOIR	2306.49	1913.00
T162	FUEL OIL HEADER TEST DRAIN TANK	2218.15	1860.27
T165	LUBE OIL RESERVOIR AIR PRE HEATER NO. 21 BEARINGS	2282.58	1769.60
T166	LUBE OIL RESERVOIR AIR PRE HEATER NO. 22 BEARINGS	2282.58	1769.60
T167	CAUSTIC DAY-TANK	2312.09	1884.60
T168	AMINE DAY-TANK	2314.49	1884.60
T169	SULFURIC ACID DAY-TANK	2312.09	1874.60
T170	E.H.C. RESERVOIR	2319.90	1852.57
T171	BOILER FEED PUMP NO. 21 LUBE OIL RESERVOIR	2285.15	1856.27
T172	BOILER FEED PUMP NO. 22 LUBE OIL RESERVOIR	2285.15	1839.27
T183	ELUMINOX DAY-TANK	2312.09	1894.60
T184	ELUMINOX DAY-TANK	2312.09	1884.60



	D	MG	9-22-94		ADD WITH COR. & CHANGE DWG. NO.	 LAKELAND ELECTRIC & WATER	DESCRIPTION LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT POTENTIAL EMISSION SOURCES FACILITY PLOT PLAN TANKS - SECTION 3	DIVISION PRODUCTION ENGINEERING ENGINEER PATTERSON DRN. BY: MCIEGER APPR. BY:	CAD PROJ NO - AIR PERMIT DWG NO LMC-FE-2/SKM-8	SCALE NONE REV. F
	E	MG	10-23-94		ADDED PLANT COORDINATES					
	F	MC	5-13-98	HP	CHANGE TITLE & LEGEND					
REFERENCE DRAWINGS	REV. NO.	BY	DATE	APPR.	REVISION					

LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
S001	UNIT NO. 1 MAIN STACK (UNIT ID 001)	2218.84	1927.59
S002	UNIT NO. 2 MAIN STACK (UNIT ID 005)	2277.79	1776.52
S004	NO. 1 DIESEL GENERATOR EXHAUST STACK (UNIT ID 003)	2570.84	1830.81
S005	NO. 2 DIESEL GENERATOR EXHAUST STACK (UNIT ID 003)	2570.21	1807.17



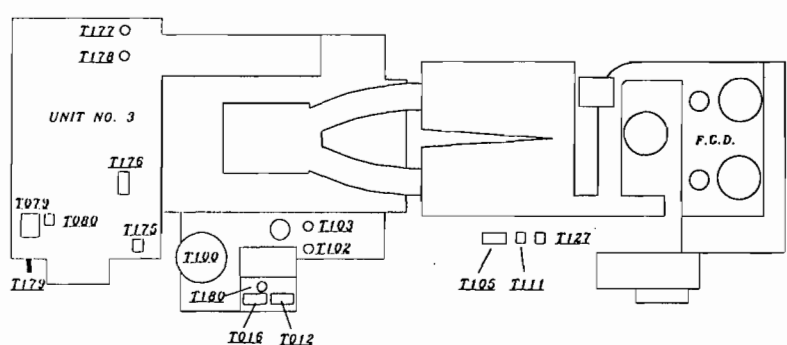
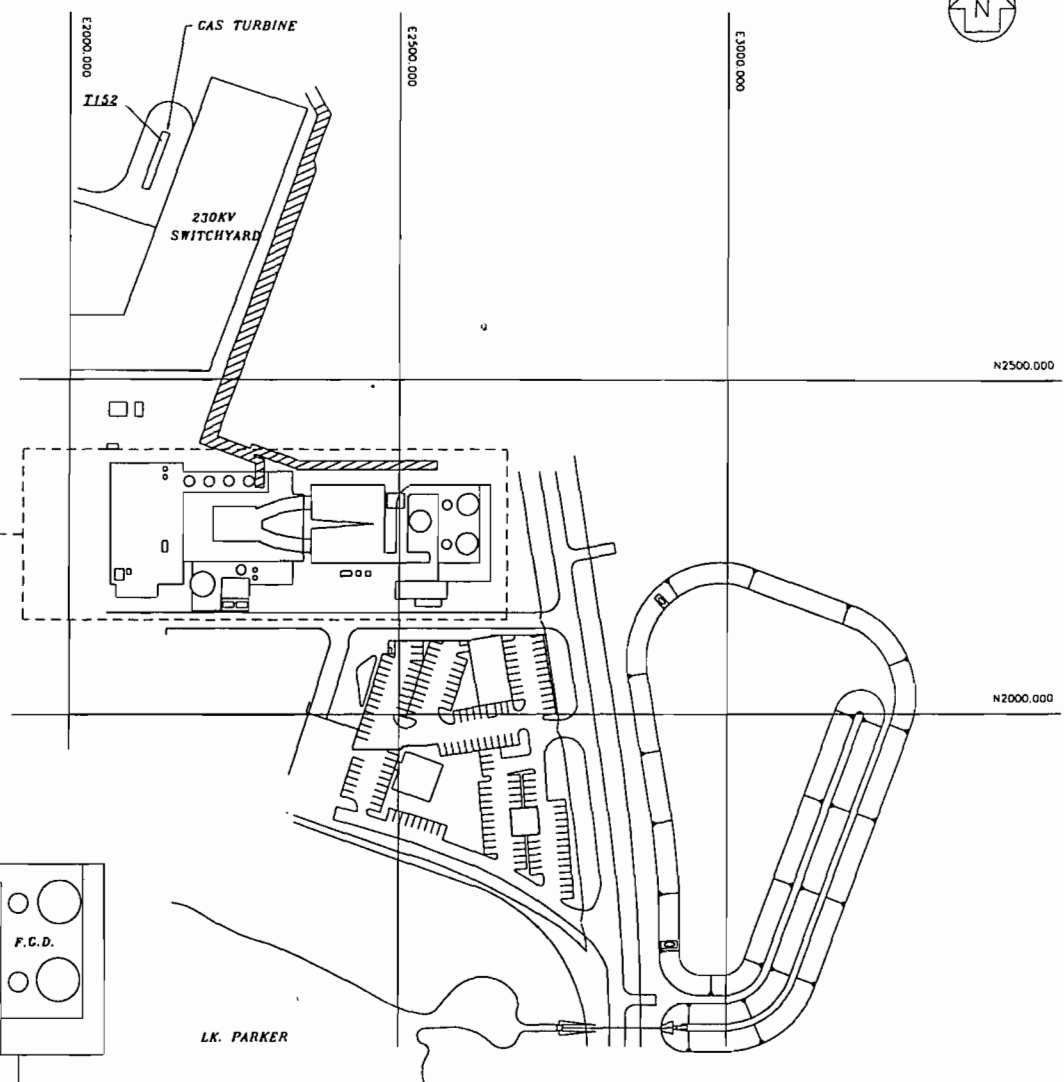
REV. NO.	BY	DATE	APPR.	REVISION	DESCRIPTION	DIVISION	ENGINEER	DATE	PROJ. NO.	SCALE
D	MG	10-23-94		ADDED PLANT COORDINATES	LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT TITLE V EMISSION SOURCES FACILITY PLOT PLAN STACKS - SECTION 3	PRODUCTION ENGINEERING	PATTERSON	5-12-94	-	NONE
E	MG	5-13-96	HP	CHANGE TITLE		ENGINEER			AIR PERMIT	
F	MG	5-28-98	HP	ISSUED FOR TITLE V		DRN. BY:	MOEGER			
REFERENCE DRAWINGS						APPR. BY:			LMC-FE-2/SKM-11	DWG. NO.
										REV. F



LAKELAND  
ELECTRIC  
& WATER

3  
SIZE

LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
T012	CAUSTIC STORAGE TANK (U3 DEMIN.)	2295.91	2295.91
T016	SULFURIC ACID STORAGE TANK (U3 DEMIN.)	2210.28	2278.21
T079	LUBE OIL TANK	2257.51	2153.39
T080	LUBE OIL BOWSER FILTER (VAPOR EXTRACTOR)	2257.51	2162.13
T100	CONDENSATE STORAGE TANK (U3 DEMIN.)	2237.64	2244.89
T102	DEMINEALIZER PRETREATMENT FILTER NO. 31	2224.56	2299.19
T103	DEMINEALIZER PRETREATMENT FILTER NO. 32	2240.56	2299.19
T105	HYDROGEN STORAGE AND FILLING STATION	2246.74	2440.91
T111	CARBON DIOXIDE STORAGE AND FILLING STATION	2246.74	2460.91
T127	NITROGEN STORAGE AND FILLING STATION	2246.74	2250.74
T152	DIESEL DAY TANK	2873.50	2145.43
T175	L.H.C. RESERVOIR VENT	2244.99	2204.62
T176	START-UP BOILER FEED PUMP LUBE OIL RESERVOIR	2285.02	2196.86
T177	AMMONIA DAY TANK	2378.84	2176.74
T178	HYDRAZINE DAY TANK	2360.24	2176.74
T179	SIAL OIL TANK - VENT	2182.77	2075.11
T180	SULFURIC ACID DAY-TANK (U3 DEMIN.)	2199.59	2266.77



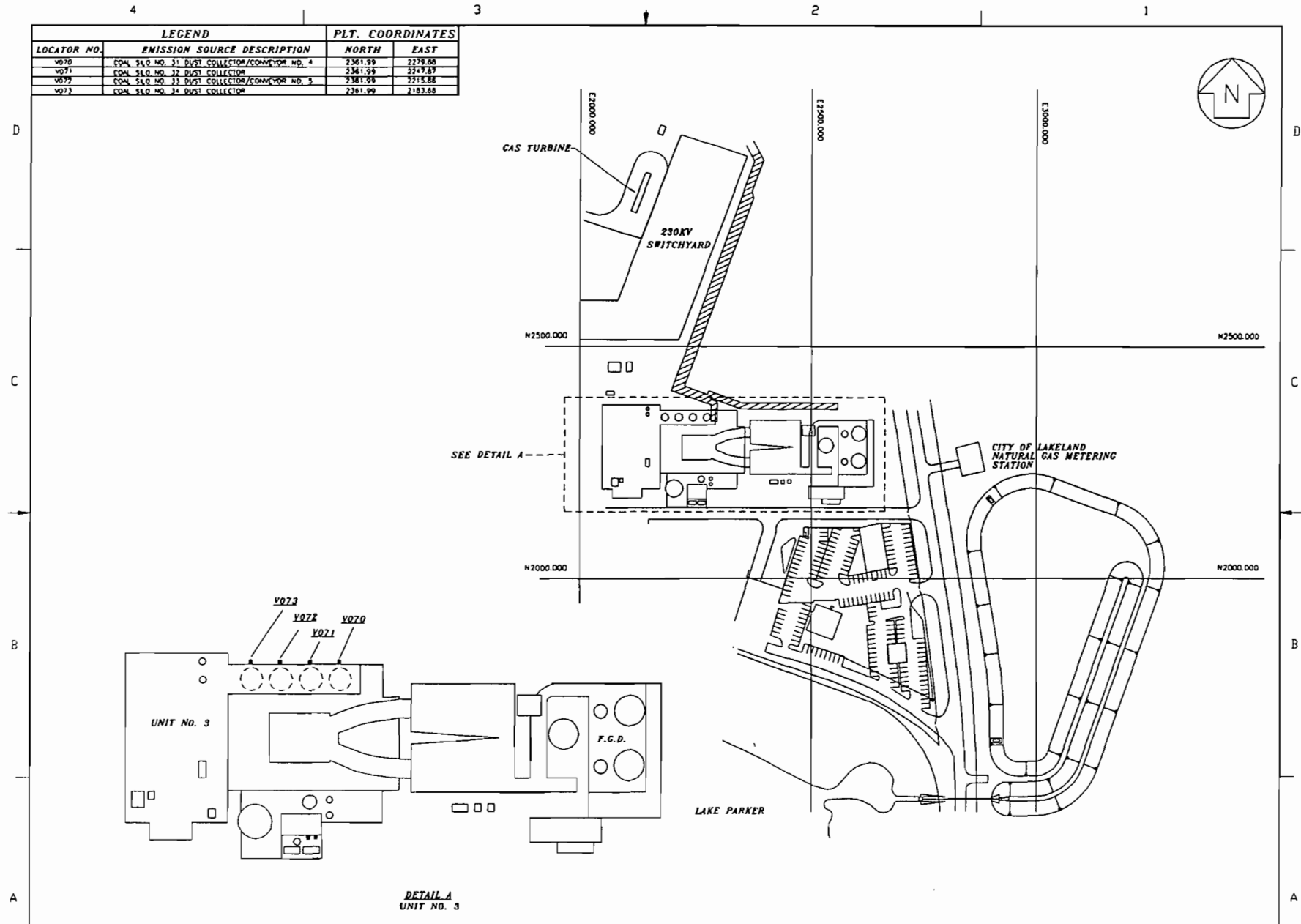
DETAIL A  
UNIT NO. 3

REV. NO.	BY	DATE	APPR.	REVISION	DESCRIPTION	DIVISION	ENGINEER	DATE	SCALE	PROJ. NO.	DWG. NO.	REV.
D	MG	9-22-94		ADD UTM COG. & CHANGE DWG. NO.	LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT POTENTIAL EMISSION SOURCES FACILITY PLOT PLAN TANKS - SECTION 4	PRODUCTION ENGINEERING	PATERSON	5-12-94	NONE	-	LMC-FE-2/SKM-12	F
E	MG	10-24-94		ADDED PLANAT COORDINATES								
F	MG	5-13-96	HP	CHANGE TITLE & LEGEND								



C 3215

LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
V070	COAL S.S.O. NO. 31 DUST COLLECTOR/CONVEYOR NO. 4	2361.99	2279.68
V071	COAL S.S.O. NO. 32 DUST COLLECTOR	2361.99	2277.87
V072	COAL S.S.O. NO. 33 DUST COLLECTOR/CONVEYOR NO. 5	2361.99	2215.88
V073	COAL S.S.O. NO. 34 DUST COLLECTOR	2361.99	2183.68

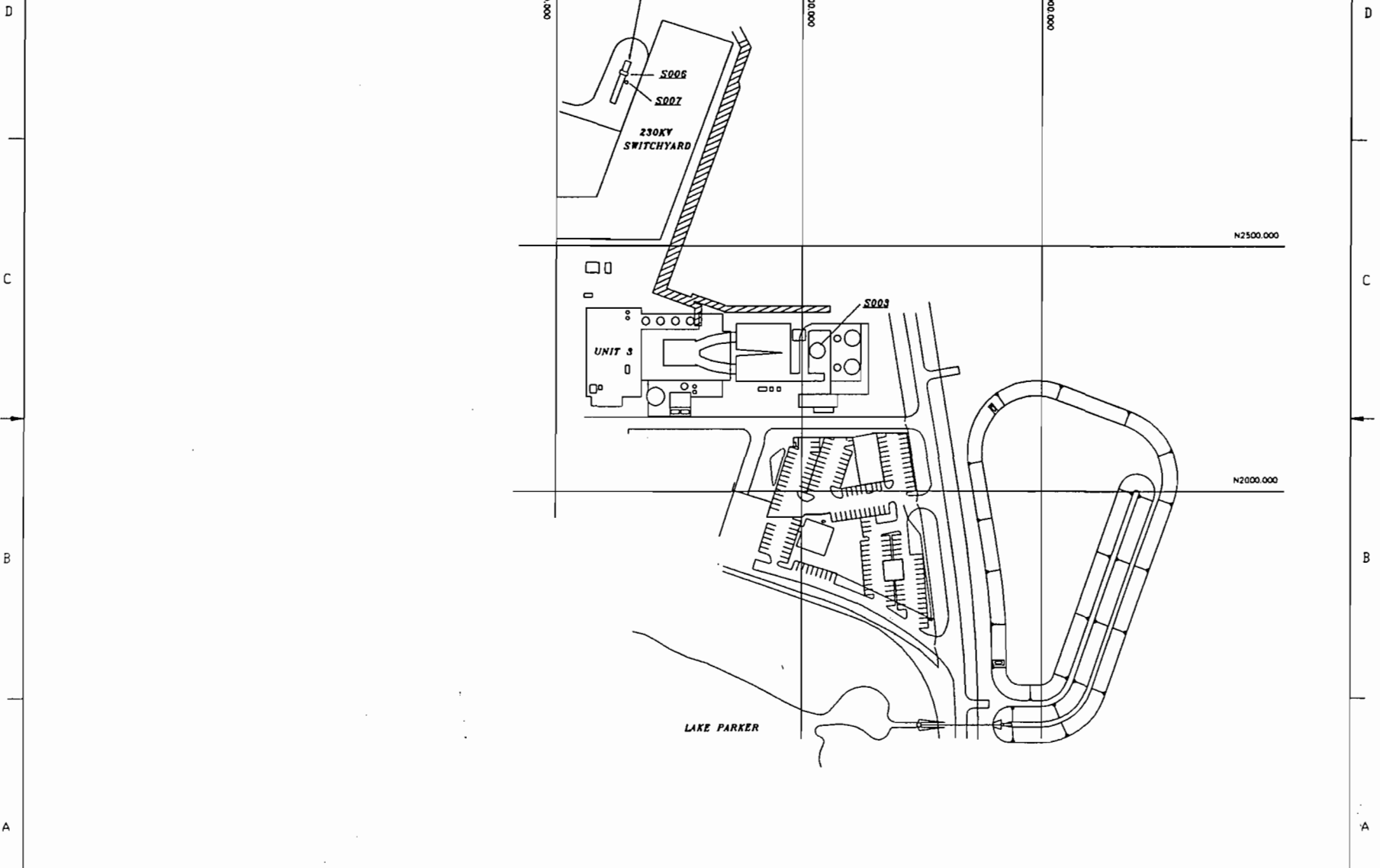


REV. NO.	BY	DATE	APPR.	REVISION
E	MG	10-23-93		ADDED PLANT COORDINATES
F	MG	05-14-96		REVISED TITLE
G	MG	5-28-98		ISSUED FOR TITLE V



DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE
LAKELAND ELECTRIC & WATER UTILITIES TITLE V EMISSION SOURCES FACILITY PLOT PLAN VENTS/EXHAUSTS - SECTION 4	ENGINEER	PATTERSON		PROJ. NO.	AIR PERMIT
	DRN. BY:	MGIEGER	DATE	5-12-94	DWG. NO.
	APPR. BY:				LMC-FE-2/SKM-14
					REV. C

LEGEND		PLT. COORDINATES	
LOCATOR NO.	EMISSION SOURCE DESCRIPTION	NORTH	EAST
S003	UNIT 3 MAIN STACK (UNIT ID 006)	224718	264057
S006	GAS TURBINE PEAKER NO. 1 MAIN STACK (UNIT ID 004)	287285	211915
S007	GAS TURBINE START-UP DIESEL EXHAUST STACK	284360	212859



REV. NO.	BY	DATE	APPR.	REVISION	DESCRIPTION	DIVISION	ENGINEER	DATE	PROJ. NO.	SCALE
	C	MG	10-23-94		ADDED PLANT COORDINATES	PRODUCTION ENGINEERING	PATERSON		-	NONE
	D	MG	5-14-96	HP	CHANGE TITLE & LEGEND				-	AIR PERMIT
	E	MG	5-28-98	HP	ISSUED FOR TITLE V			5-12-94		DWG. NO.
										LMC-FE-2/SKM-15
										REV. E



LAKELAND ELECTRIC & WATER UTILITIES  
 C.B. MCINTOSH POWER PLANT  
 TITLE V EMISSION SOURCES  
 FACILITY PLD: PLAN  
 STACKS - SECTION 4

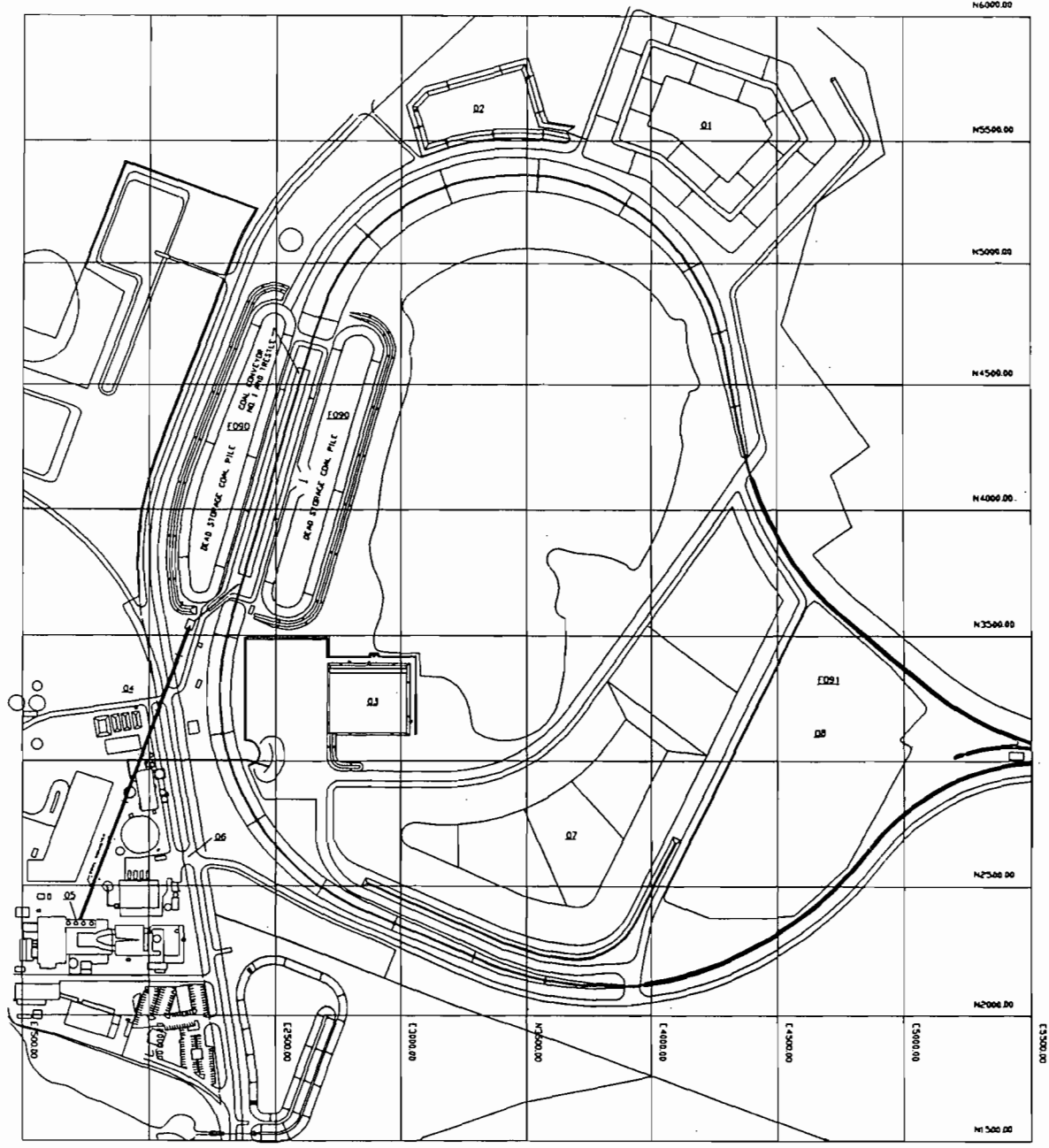
DIVISION: PRODUCTION ENGINEERING  
 ENGINEER: PATERSON  
 DRN. BY: MOEGER  
 APPR. BY:

CAD  
 SCALE: NONE  
 PROJ. NO.: -  
 AIR PERMIT  
 DVG. NO.:  
 LMC-FE-2/SKM-15  
 REV. E

SIZE: C



LOCATOR NO.	FACILITIES DESCRIPTION	PLT. COORDINATES	LOCATOR NO.	EMISSION SOURCE DESCRIPTION	PLT. COORDINATES
01	STABILIZED SLUDGE NORTH LANDFILL (CLOSED)	N5500.00 E4250.00	F045		
02	NORTH SEDIMENTATION POND	N5750.00 E3250.00	F090	COAL STORAGE YARD	N2727.87 E3708.73
03	SOUTH SEDIMENTATION POND	N3250.00 E2800.00	F091	STABILIZED SLUDGE LANDFILL (OPEN)	N3311.81 E4725.48
04	PLANT MAIN ENTRANCE (OCCUPIED)	N3250.00 E2100.00			
05	COAL SILOS	N2350.00 E2350.00			
06	LIMEROCK AND REFUSE TRUCK ENTRANCE	N2600.00 E2100.00			
07	STABILIZED SLUDGE SOUTH LANDFILL PHASE 1 (CLOSED)	N2750.00 E3750.00			
08	STABILIZED SLUDGE SOUTH LANDFILL EXPANSION (OPEN)	N3000.00 E4500.00			



REV. NO.	BY	DATE	APPR.	REVISION
G	MG	5-28-96	HP	ISSUED FOR TITLE V
F	MG	5-14-96	HP	CHANGE TITLE & ADDED MORE COORDINATES
E	MG	10-23-94		ADDED PLANT COORDINATES



DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE
LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT TITLE V EMISSION SOURCE COAL YARD, STABILIZED SLUDGE LANDFILL FACILITY FLDI PLAN FUGITIVE EMISSIONS	ENGINEER	PATTERSON	PROJ. NO.	-	AIR PERMIT
	DRN. BY:	MOEDER	DATE	5-8-94	276.00
	APPR. BY:				LUC-FE-2/SKM-16

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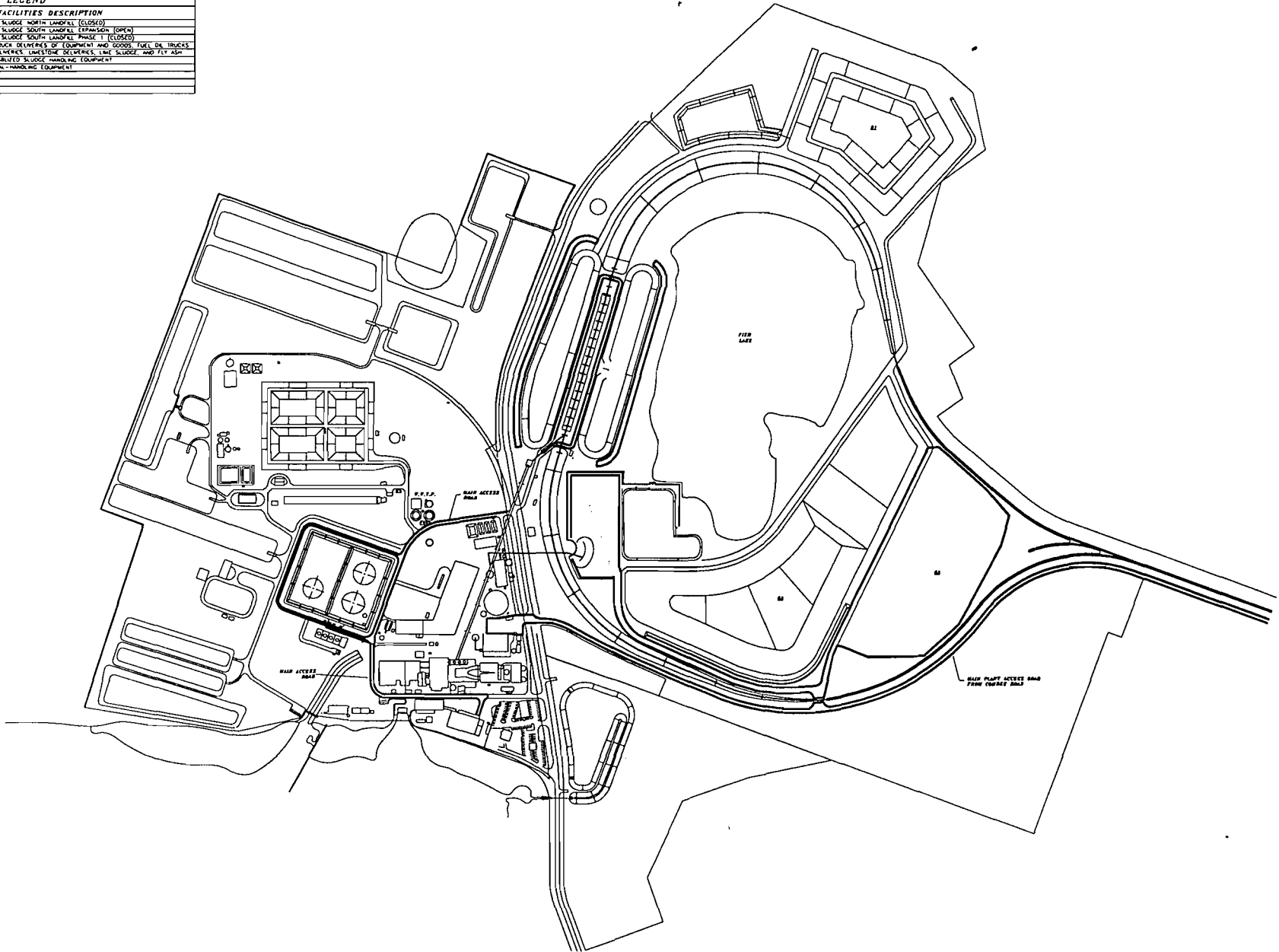
4

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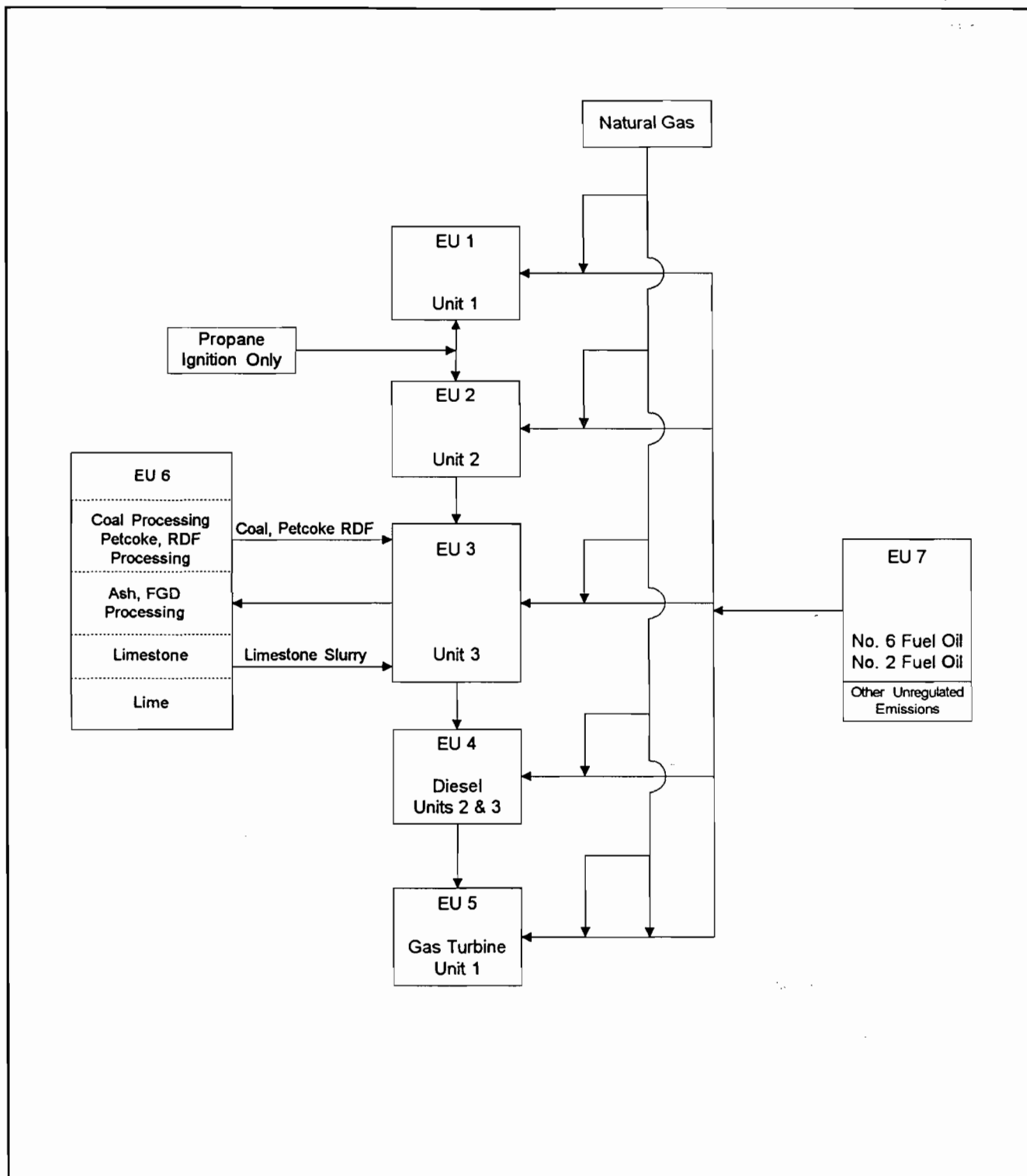
LEGEND	
NO.	FACILITIES DESCRIPTION
D1	STABILIZED SLUDGE NORTH LANDFILL (CLOSED)
D2	STABILIZED SLUDGE SOUTH LANDFILL EXPANSION (OPEN)
D3	STABILIZED SLUDGE SOUTH LANDFILL PHASE 1 (CLOSED)
D4	ROUTINE TRUCK DELIVERIES OF EQUIPMENT AND GOODS (FUEL, DIE, TRUCKS)
D5	REFUSE DELIVERIES (LIMESTONE DELIVERIES, LIME SLUDGE, AND FLY ASH)
D6	MOBILE STABILIZED SLUDGE HANDLING EQUIPMENT
D7	WORKER CDM - HANDLING EQUIPMENT



NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION
1				2				3				4			
5				6				7				8			
9				10											

 LAKELAND ELECTRIC & WATER	PROJECT NO.: 03-18-04 SHEET NO.: 11 TOTAL SHEETS: 15	DRAWN BY: [Name] CHECKED BY: [Name]	DATE: [Date] SCALE: [Scale]
	PROJECT NAME: [Project Name] PROJECT LOCATION: [Location]	CLIENT: [Client Name] ENGINEER: [Engineer Name]	ENGINEER FIRM: [Firm Name] ADDRESS: [Address]
	PROJECT NO.: 03-18-04 SHEET NO.: 11 TOTAL SHEETS: 15		

**ATTACHMENT LMC-FE-3**  
**PROCESS FLOW DIAGRAM**



Attachment LMC - FE-3  
 McIntosh Facility  
 Lakeland Electric & Water  
 Utilities  
 Lakeland, Florida

**Process Flow Legend**

**Material Flow** →

**Process Flow  
 Diagram**

Filename: lakeland.vsd

Date: 06/10/96



Engineering and Applied Sciences, Inc.

**ATTACHMENT LMC-FE-4**

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

## ATTACHMENT LMC-FE-4

### PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

The facility has small amounts of unconfined particulate matter as a result of the operation of the facility. The particulate matter includes:

- Fugitive dust from paved and unpaved roads,
- Fugitive particulates from the use of bagged chemical products
- Coal handling and storage
- Limestone handling and storage
- FGD/ash by-products/handling and storage
- Municipal solid waste
- Ash cleaning
- Paint removal

Operational measures are undertaken at the facility which also minimize particulate emissions, in accordance with 62-296.320(4)(c), F.A.C.:

- Maintenance of paved areas
- Regular mowing of grass and care of vegetation
- Limiting access to plant property by unnecessary vehicles
- Application of water to paved and unpaved roads and open stockpiles where active handling occurs
- Removal of dust from roads to limit particulate re-entrainment
- Use of vacuum trucks for ash cleaning when performing plant maintenance
- Enclosing, where practical, areas of paint removal

**ATTACHMENT LMC-FE-5**  
**FUGITIVE EMISSIONS IDENTIFICATION**

## ATTACHMENT LMC-FE-5 FUGITIVE EMISSIONS IDENTIFICATION

Many fugitive emissions at the plant site have been classified as either "trivial activities," or are requested to be exempted under Rule 62-213.430(b). The types of fugitive emissions that are included as trivial or exempt are discussed below.

### Criteria and Precursor Air Pollutants

Fugitive particulate emissions are addressed in Attachment LMC-FE-4. COL is not aware of fugitive emission of sulfur dioxide, nitrogen oxides, carbon monoxide, or lead compounds which would exceed the thresholds defined in the permit application instructions.

### Volatile Organic Compounds (VOCs)

Fugitive emissions of VOCs include those resulting from the use of cleaners and solvents for maintenance and operation. VOCs are also emitted by the various fuel oil storage tanks on the plant property, and by the combustion turbines and the fossil-fuel steam generators. VOC emissions for storage tanks are covered in the facility-wide fugitive *Emission Unit* section of this permit application.

### Fugitive HAPs Emissions

The following hazardous air pollutants are or may be present on the facility property and are potential sources of fugitive HAPs emissions:

- asbestos
- benzene
- chlorine
- hydrazine
- hydrochloric acid
- mercury compounds
- methyl ethyl ketone
- toluene
- xylene

Asbestos - Present in gasket material, pipe insulation, and various other locations. The facility complies with the federal NESHAPS (40 CFR 61 Subpart M) and state rules (62-257, F.A.C.) governing the abatement of asbestos-containing materials. No releases of asbestos are expected for the facility.



**Benzene** - Present in unleaded gasoline. The facility maintains a storage tank for unleaded gasoline. These emissions have been calculated to be significantly less than 1 TPY.

**Chlorine** - Used for water treatment at the facility.

**Hydrazine** - Hydrazine solution may be used for the treatment of boiler water.

**Hydrochloric Acid** - The facility may utilize hydrochloric acid in cleaning filter beds in the water treatment facility at the chemistry laboratory for use in analytical procedures.

**Mercury Compounds** - The facility uses mercury-containing compounds in the chemistry laboratory for use in analytical procedures and flow-measuring equipment.

**Methyl Ethyl Ketone, Toluene, Xylene** - The facility uses paint thinners and solvents (which may contain MEK, toluene, or xylene) for use in plant maintenance activities. These containers are kept closed and are stored in weather-tight buildings.

#### Regulated Toxic or Flammable Substances

The following regulated toxic or flammable substances are or may be present at the facility:

- ammonia (aqueous, concentration 20% or greater)
- chlorine
- hydrazine
- hydrochloric acid
- nitric acid
- acetylene
- methane (natural gas)

**Ammonia** - Used for boiler water treatment.

**Chlorine, Hydrazine, Hydrochloric Acid** - Considered on the preceding page.

**Nitric Acid** - Nitric acid may be used in the chemistry laboratory for use in analytical procedures.

**Acetylene** - Present on the facility property in 250-lb cylinders which are used for plant maintenance (welding and cutting).

**Methane** - Is a primary component of natural gas. The facility has a natural gas pipeline which delivers fuel to the generating units. This fuel delivery system is normally airtight, but does have safety valves which occasionally relieve (open) when an overpressure condition develops in the gas line.

**ATTACHMENT LMC-FE-7**  
**LIST OF PROPOSED EXEMPT ACTIVITIES**

**ATTACHMENT LMC-FE-7**  
**LIST OF PROPOSED EXEMPT ACTIVITIES**

Presented in Table LMC-FE-7A is a list of activities that are proposed to be exempted from Title V permitting under Rule 62-213.430(6). The exempt activities listed are also those activities that are included in Rule 62-210.300(3)(a) which would not exceed the thresholds in Rule 62-213.430(6)(b)3. Other units that are also on the exempt list, but together may exceed the thresholds in Rule 62-213.430(6)(b)3. are listed in Emission Unit Section 7.

A comprehensive emission inventory was prepared and the cumulative estimated emissions from those activities for which an exemption is sought. The total emissions are: VOCs: <3 tons/year; PM/PM10: <1 ton/year; total HAPs: <200 lb/yr; single HAP: <100 lb/yr. The VOCs estimates for the largest sources of VOCs, i.e., storage tanks, are included in this attachment. These estimates were performed using the EPA Tanks 2.0 program. The list does not include any fugitive PM sources from material handling or combustion sources. These are presented in separate emission unit sections; EU6 and EU8, respectively.

The trivial activities as identified in Attachment A of the May 15, 1996 letter from the Florida Electric Power Coordinating Group (FCG) and those trivial activities identified by the Division of Air Resources Management (DARM) guidance have not been included or identified in this application. It is understood that such activities do not have to be included in with the Title V Application. The trivial activities identified in the FCG list are consistent, in terms of amounts of emissions and types, with those activities listed in DARM's guidance.

Table LMC-FE-7A Lakeland Electric &amp; Water Utilities - McIntosh Power Plant: List of Activities Requested to be Exempted

---

Emission Point
Description

---

## STORAGE TANKS:

1. Diesel Storage Tank (T-021)
2. Heavy Oil Tank (T-113)
3. Heavy Oil Tank (T-114)
4. Heavy Oil Tank (T-115)
5. Used Oil Tank (T-116)
6. Sources exempt by Rule 62-210.300(3)(a)
  - 62-210.300(3)(a)4.- comfort heating < 1 mmBtu/hr
  - 62-210.300(3)(a)5.- mobile sources
  - 62-210.300(3)(a)7.- non-industrial vacuum cleaning
  - 62-210.300(3)(a)8.- refrigeration units
  - 62-210.300(3)(a)9.- vacuum pumps for labs
  - 62-210.300(3)(a)10.- steam cleaning equipment
  - 62-210.300(3)(a)11.- sanders < 5 ft<sup>2</sup>
  - 62-210.300(3)(a)12.- space heating equip.; (non-boilers)
  - 62-210.300(3)(a)14.- bakery ovens
  - 62-210.300(3)(a)15.- lab equipment
  - 62-210.300(3)(a)16.- brazing, soldering or welding
  - 62-210.300(3)(a)17.- laundry dryers
  - 62-210.300(3)(a)22.- fire and safety equipment
  - 62-210.300(3)(a)24.- surface coating <5% VOC

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

12/12/94  
PAGE 1

Identification

Identification No.: T-021 MAC  
City: Lakeland  
State: FL  
Company: City of Lakeland (COL)  
Type of Tank: Vertical Fixed Roof

Tank Dimensions

Shell Height (ft): 23  
Diameter (ft): 27  
Liquid Height (ft): 23  
Avg. Liquid Height (ft): 12  
Volume (gallons): 64252  
Turnovers: 277  
Net Throughput (gal/yr): 17800000

Paint Characteristics

Shell Color/Shade: Gray/Light  
Shell Condition: Good  
Roof Color/Shade: Gray/Light  
Roof Condition: Good

Roof Characteristics

Type: Cone  
Height (ft): 1.00  
Radius (ft) (Dome Roof): 0.00  
Slope (ft/ft) (Cone Roof): 0.0741

Breather Vent Settings

Vacuum Setting (psig): -0.03  
Pressure Setting (psig): 0.03

Meteorological Data Used in Emission Calculations: Tampa, Florida

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 LIQUID CONTENTS OF STORAGE TANK

12/12/94  
 PAGE 2

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Vapor Pressures (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight Calculations	Basis for Vapor Pressure
		Avg.	Min.	Max.	Temp. (deg F)	Avg.	Min.					
Distillate fuel oil no. 2	All	79.62	70.58	88.66	74.24	0.0121	0.0091	0.0159	130.000			130.00 Option 4: A=12.1010, B=8907.0

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 DETAIL CALCULATIONS (AP-42)

12/12/94  
 PAGE 3

Annual Emission Calculations

Standing Losses (lb): 40.5246  
 Vapor Space Volume (cu ft): 6488.95  
 Vapor Density (lb/cu ft): 0.0003  
 Vapor Space Expansion Factor: 0.063444  
 Vented Vapor Saturation Factor: 0.992789

Tank Vapor Space Volume  
 Vapor Space Volume (cu ft): 6488.95  
 Tank Diameter (ft): 27  
 Vapor Space Outage (ft): 11.33  
 Tank Shell Height (ft): 23  
 Average Liquid Height (ft): 12  
 Roof Outage (ft): 0.33

Roof Outage (Cone Roof)  
 Roof Outage (ft): 0.33  
 Roof Height (ft): 1.000  
 Roof Slope (ft/ft): 0.07407  
 Shell Radius (ft): 14

Vapor Density  
 Vapor Density (lb/cu ft): 0.0003  
 Vapor Molecular Weight (lb/lb-mole): 130.000000  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.012093  
 Daily Avg. Liquid Surface Temp.(deg. R): 539.29  
 Daily Average Ambient Temp. (deg. R): 531.67  
 Ideal Gas Constant R  
 (psia cuft / (lb-mole-deg R)): 10.731  
 Liquid Bulk Temperature (deg. R): 533.91  
 Tank Paint Solar Absorptance (Shell): 0.54  
 Tank Paint Solar Absorptance (Roof): 0.54  
 Daily Total Solar Insolation  
 Factor (Btu/sqftday): 1492.00

Vapor Space Expansion Factor  
 Vapor Space Expansion Factor: 0.063444  
 Daily Vapor Temperature Range (deg.R): 36.17  
 Daily Vapor Pressure Range (psia): 0.006752  
 Breather Vent Press. Setting Range(psia): 0.06  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.012093  
 Vapor Pressure at Daily Minimum Liquid  
 Surface Temperature (psia): 0.009125  
 Vapor Pressure at Daily Maximum Liquid  
 Surface Temperature (psia): 0.015877  
 Daily Avg. Liquid Surface Temp. (deg R): 539.29  
 Daily Min. Liquid Surface Temp. (deg R): 530.25  
 Daily Max. Liquid Surface Temp. (deg R): 548.33  
 Daily Ambient Temp. Range (deg.R): 18.90



TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
DETAIL CALCULATIONS (AP-42)

12/12/94  
PAGE 4

Annual Emission Calculations

Vented Vapor Saturation Factor

Vented Vapor Saturation Factor: 0.992789  
Vapor Pressure at Daily Average Liquid  
Surface Temperature (psia): 0.012093  
Vapor Space Outage (ft): 11.33

Withdrawal Losses (lb):

221.6671  
Vapor Molecular Weight (lb/lb-mole): 130.000000  
Vapor Pressure at Daily Average Liquid  
Surface Temperature (psia): 0.012093  
Annual Net Throughput (gal/yr): 17800000  
Turnover Factor: 0.3327  
Maximum Liquid Volume (cuft): 13169  
Maximum Liquid Height (ft): 23  
Tank Diameter (ft): 27  
Working Loss Product Factor: 1.00

Total Losses (lb):

262.19

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
INDIVIDUAL TANK EMISSION TOTALS

12/12/94  
PAGE 5

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Withdrawal	
----- Distillate fuel oil no. 2	40.52	221.67	262.19
Total:	40.52	221.67	262.19

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

12/12/94  
PAGE 1

Identification

Identification No.: T-113 MAC  
City: Lakeland  
State: FL  
Company: City of Lakeland (COL)  
Type of Tank: Vertical Fixed Roof

Tank Dimensions

Shell Height (ft): 48  
Diameter (ft): 120  
Liquid Height (ft): 48  
Avg. Liquid Height (ft): 24  
Volume (gallons): 4016700  
Turnovers: 28  
Net Throughput (gal/yr): 111060000

Paint Characteristics

Shell Color/Shade: Gray/Light  
Shell Condition: Good  
Roof Color/Shade: Gray/Light  
Roof Condition: Good

Roof Characteristics

Type: Cone  
Height (ft): 1.00  
Radius (ft) (Dome Roof): 0.00  
Slope (ft/ft) (Cone Roof): 0.0167

Breather Vent Settings

Vacuum Setting (psig): -0.03  
Pressure Setting (psig): 0.03

Meteorological Data Used in Emission Calculations: Tampa, Florida

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 LIQUID CONTENTS OF STORAGE TANK

12/12/94  
 PAGE 2

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. Vapor Pressures (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	(deg F)	Avg.	Min.					
Residual oil no. 6	All	79.62	70.58	88.66	74.24	0.0001	0.0001	0.0001	190.000			190.00 Option 4: A=10.1040, B=10475.0

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 DETAIL CALCULATIONS (AP-42)

12/12/94  
 PAGE 3

Annual Emission Calculations

Standing Losses (lb): 18.6203  
 Vapor Space Volume (cu ft): 275204.3  
 Vapor Density (lb/cu ft): 0.0000  
 Vapor Space Expansion Factor: 0.062992  
 Vented Vapor Saturation Factor: 0.999884

Tank Vapor Space Volume  
 Vapor Space Volume (cu ft): 275204.3  
 Tank Diameter (ft): 120  
 Vapor Space Outage (ft): 24.33  
 Tank Shell Height (ft): 48  
 Average Liquid Height (ft): 24  
 Roof Outage (ft): 0.33

Roof Outage (Cone Roof)  
 Roof Outage (ft): 0.33  
 Roof Height (ft): 1.000  
 Roof Slope (ft/ft): 0.01667  
 Shell Radius (ft): 60

Vapor Density  
 Vapor Density (lb/cu ft): 0.0000  
 Vapor Molecular Weight (lb/lb-mole): 190.000000  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.000090  
 Daily Avg. Liquid Surface Temp.(deg. R): 539.29  
 Daily Average Ambient Temp. (deg. R): 531.67  
 Ideal Gas Constant R  
 (psia cuft /((lb-mole-deg R)): 10.731  
 Liquid Bulk Temperature (deg. R): 533.91  
 Tank Paint Solar Absorptance (Shell): 0.54  
 Tank Paint Solar Absorptance (Roof): 0.54  
 Daily Total Solar Insolation  
 Factor (Btu/sqftday): 1492.00

Vapor Space Expansion Factor  
 Vapor Space Expansion Factor: 0.062992  
 Daily Vapor Temperature Range (deg.R): 36.17  
 Daily Vapor Pressure Range (psia): 0.000059  
 Breather Vent Press. Setting Range(psia): 0.06  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.000090  
 Vapor Pressure at Daily Minimum Liquid  
 Surface Temperature (psia): 0.000064  
 Vapor Pressure at Daily Maximum Liquid  
 Surface Temperature (psia): 0.000123  
 Daily Avg. Liquid Surface Temp. (deg R): 539.29  
 Daily Min. Liquid Surface Temp. (deg R): 530.25  
 Daily Max. Liquid Surface Temp. (deg R): 548.33  
 Daily Ambient Temp. Range (deg.R): 18.90

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
DETAIL CALCULATIONS (AP-42)

12/12/94  
PAGE 4

Annual Emission Calculations

Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.999884
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	0.000090
Vapor Space Outage (ft):	24.33
Withdrawal Losses (lb):	45.0374
Vapor Molecular Weight (lb/lb-mole):	190.000000
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia):	0.000090
Annual Net Throughput (gal/yr):	111060000
Turnover Factor:	1.0000
Maximum Liquid Volume (cuft):	542867
Maximum Liquid Height (ft):	48
Tank Diameter (ft):	120
Working Loss Product Factor:	1.00
Total Losses (lb):	63.66

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
INDIVIDUAL TANK EMISSION TOTALS

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PAGE 5

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Withdrawal	
Residual oil no. 6	18.62	45.04	63.66
Total:	18.62	45.04	63.66

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

12/12/94  
PAGE 1

Identification

Identification No.: T-114 MAC  
City: Lakeland  
State: FL  
Company: City of Lakeland (COL)  
Type of Tank: Vertical Fixed Roof

Tank Dimensions

Shell Height (ft): 48  
Diameter (ft): 120  
Liquid Height (ft): 48  
Avg. Liquid Height (ft): 24  
Volume (gallons): 4016700  
Turnovers: 28  
Net Throughput (gal/yr): 111060000

Paint Characteristics

Shell Color/Shade: Gray/Light  
Shell Condition: Good  
Roof Color/Shade: Gray/Light  
Roof Condition: Good

Roof Characteristics

Type: Cone  
Height (ft): 1.00  
Radius (ft) (Dome Roof): 0.00  
Slope (ft/ft) (Cone Roof): 0.0167

Breather Vent Settings

Vacuum Setting (psig): -0.03  
Pressure Setting (psig): 0.03

Meteorological Data Used in Emission Calculations: Tampa, Florida



TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 LIQUID CONTENTS OF STORAGE TANK

12/12/94  
 PAGE 2

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Vapor Pressures (psia)			Vapor	Liquid	Vapor	Mol. Basis for Vapor Pressure Calculations	
		Avg.	Min.	Max.	Temp. (deg F)	Avg.	Min.	Max.	Mol. Weight	Mass Fract.		Mass Fract.
Residual oil no. 6	All	79.62	70.58	88.66	74.24	0.0001	0.0001	0.0001	190.000			190.00 Option 4: A=10.1040, B=10475.0

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 DETAIL CALCULATIONS (AP-42)

12/12/94  
 PAGE 3

Annual Emission Calculations

Standing Losses (lb): 18.6203  
 Vapor Space Volume (cu ft): 275204.3  
 Vapor Density (lb/cu ft): 0.0000  
 Vapor Space Expansion Factor: 0.062992  
 Vented Vapor Saturation Factor: 0.999884

Tank Vapor Space Volume  
 Vapor Space Volume (cu ft): 275204.3  
 Tank Diameter (ft): 120  
 Vapor Space Outage (ft): 24.33  
 Tank Shell Height (ft): 48  
 Average Liquid Height (ft): 24  
 Roof Outage (ft): 0.33

Roof Outage (Cone Roof)  
 Roof Outage (ft): 0.33  
 Roof Height (ft): 1.000  
 Roof Slope (ft/ft): 0.01667  
 Shell Radius (ft): 60

Vapor Density  
 Vapor Density (lb/cu ft): 0.0000  
 Vapor Molecular Weight (lb/lb-mole): 190.000000  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.000090  
 Daily Avg. Liquid Surface Temp.(deg. R): 539.29  
 Daily Average Ambient Temp. (deg. R): 531.67  
 Ideal Gas Constant R  
 (psia cuft /(lb-mole-deg R)): 10.731  
 Liquid Bulk Temperature (deg. R): 533.91  
 Tank Paint Solar Absorptance (Shell): 0.54  
 Tank Paint Solar Absorptance (Roof): 0.54  
 Daily Total Solar Insolation  
 Factor (Btu/sqftday): 1492.00

Vapor Space Expansion Factor  
 Vapor Space Expansion Factor: 0.062992  
 Daily Vapor Temperature Range (deg.R): 36.17  
 Daily Vapor Pressure Range (psia): 0.000059  
 Breather Vent Press. Setting Range(psia): 0.06  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.000090  
 Vapor Pressure at Daily Minimum Liquid  
 Surface Temperature (psia): 0.000064  
 Vapor Pressure at Daily Maximum Liquid  
 Surface Temperature (psia): 0.000123  
 Daily Avg. Liquid Surface Temp. (deg R): 539.29  
 Daily Min. Liquid Surface Temp. (deg R): 530.25  
 Daily Max. Liquid Surface Temp. (deg R): 548.33  
 Daily Ambient Temp. Range (deg.R): 18.90

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
DETAIL CALCULATIONS (AP-42)

12/12/94  
PAGE 4

Annual Emission Calculations

Vented Vapor Saturation Factor

Vented Vapor Saturation Factor: 0.999884

Vapor Pressure at Daily Average Liquid

Surface Temperature (psia): 0.000090

Vapor Space Outage (ft): 24.33

Withdrawal Losses (lb):

45.0374

Vapor Molecular Weight (lb/lb-mole):

190.000000

Vapor Pressure at Daily Average Liquid

Surface Temperature (psia): 0.000090

Annual Net Throughput (gal/yr): 111060000

Turnover Factor: 1.0000

Maximum Liquid Volume (cuft): 542867

Maximum Liquid Height (ft): 48

Tank Diameter (ft): 120

Working Loss Product Factor: 1.00

Total Losses (lb):

63.66

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
INDIVIDUAL TANK EMISSION TOTALS

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PAGE 5

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Withdrawal	
Residual oil no. 6	18.62	45.04	63.66
Total:	18.62	45.04	63.66

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

12/12/94  
PAGE 1

Identification

Identification No.: T-115 MAC  
City: Lakeland  
State: FL  
Company: City of Lakeland (COL)  
Type of Tank: Vertical Fixed Roof

Tank Dimensions

Shell Height (ft): 48  
Diameter (ft): 120  
Liquid Height (ft): 48  
Avg. Liquid Height (ft): 24  
Volume (gallons): 4016700  
Turnovers: 28  
Net Throughput (gal/yr): 111060000

Paint Characteristics

Shell Color/Shade: Gray/Light  
Shell Condition: Good  
Roof Color/Shade: Gray/Light  
Roof Condition: Good

Roof Characteristics

Type: Cone  
Height (ft): 1.00  
Radius (ft) (Dome Roof): 0.00  
Slope (ft/ft) (Cone Roof): 0.0167

Breather Vent Settings

Vacuum Setting (psig): -0.03  
Pressure Setting (psig): 0.03

Meteorological Data Used in Emission Calculations: Tampa, Florida

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 LIQUID CONTENTS OF STORAGE TANK

12/12/94  
 PAGE 2

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Vapor Pressures (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.	Temp. (deg F)	Avg.	Min.					
Residual oil no. 6	All	79.62	70.58	88.66	74.24	0.0001	0.0001	0.0001	190.000			190.00 Option 4: A=10.1040, B=10475.0

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 DETAIL CALCULATIONS (AP-42)

12/12/94  
 PAGE 3

Annual Emission Calculations

Standing Losses (lb): 18.6203  
 Vapor Space Volume (cu ft): 275204.3  
 Vapor Density (lb/cu ft): 0.0000  
 Vapor Space Expansion Factor: 0.062992  
 Vented Vapor Saturation Factor: 0.999884

Tank Vapor Space Volume  
 Vapor Space Volume (cu ft): 275204.3  
 Tank Diameter (ft): 120  
 Vapor Space Outage (ft): 24.33  
 Tank Shell Height (ft): 48  
 Average Liquid Height (ft): 24  
 Roof Outage (ft): 0.33

Roof Outage (Cone Roof)  
 Roof Outage (ft): 0.33  
 Roof Height (ft): 1.000  
 Roof Slope (ft/ft): 0.01667  
 Shell Radius (ft): 60

Vapor Density  
 Vapor Density (lb/cu ft): 0.0000  
 Vapor Molecular Weight (lb/lb-mole): 190.000000  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.000090  
 Daily Avg. Liquid Surface Temp.(deg. R): 539.29  
 Daily Average Ambient Temp. (deg. R): 531.67  
 Ideal Gas Constant R  
 (psia cuft /(lb-mole-deg R)): 10.731  
 Liquid Bulk Temperature (deg. R): 533.91  
 Tank Paint Solar Absorptance (Shell): 0.54  
 Tank Paint Solar Absorptance (Roof): 0.54  
 Daily Total Solar Insolation  
 Factor (8tu/sqftday): 1492.00

Vapor Space Expansion Factor  
 Vapor Space Expansion Factor: 0.062992  
 Daily Vapor Temperature Range (deg.R): 36.17  
 Daily Vapor Pressure Range (psia): 0.000059  
 Breather Vent Press. Setting Range(psia): 0.06  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.000090  
 Vapor Pressure at Daily Minimum Liquid  
 Surface Temperature (psia): 0.000064  
 Vapor Pressure at Daily Maximum Liquid  
 Surface Temperature (psia): 0.000123  
 Daily Avg. Liquid Surface Temp. (deg R): 539.29  
 Daily Min. Liquid Surface Temp. (deg R): 530.25  
 Daily Max. Liquid Surface Temp. (deg R): 548.33  
 Daily Ambient Temp. Range (deg.R): 18.90

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
DETAIL CALCULATIONS (AP-42)

12/12/94  
PAGE 4

Annual Emission Calculations

Vented Vapor Saturation Factor

Vented Vapor Saturation Factor: 0.999884

Vapor Pressure at Daily Average Liquid

Surface Temperature (psia): 0.000090

Vapor Space Outage (ft): 24.33

Withdrawal Losses (lb):

45.0374

Vapor Molecular Weight (lb/lb-mole):

190.000000

Vapor Pressure at Daily Average Liquid

Surface Temperature (psia): 0.000090

Annual Net Throughput (gal/yr):

111060000

Turnover Factor:

1.0000

Maximum Liquid Volume (cuft):

542867

Maximum Liquid Height (ft):

48

Tank Diameter (ft):

120

Working Loss Product Factor:

1.00

Total Losses (lb):

63.66



TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
INDIVIDUAL TANK EMISSION TOTALS

12/12/94  
PAGE 5

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Withdrawal	
Residual oil no. 6	18.62	45.04	63.66
Total:	18.62	45.04	63.66

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

12/12/94  
PAGE 1

Identification

Identification No.: T-116 MAC  
City: Lakeland  
State: FL  
Company: City of Lakeland (COL)  
Type of Tank: Vertical Fixed Roof

Tank Dimensions

Shell Height (ft): 25  
Diameter (ft): 15  
Liquid Height (ft): 25  
Avg. Liquid Height (ft): 12  
Volume (gallons): 22500  
Turnovers: 264  
Net Throughput (gal/yr): 5940000

Paint Characteristics

Shell Color/Shade: Gray/Light  
Shell Condition: Good  
Roof Color/Shade: Gray/Light  
Roof Condition: Good

Roof Characteristics

Type: Cone  
Height (ft): 1.00  
Radius (ft) (Dome Roof): 0.00  
Slope (ft/ft) (Cone Roof): 0.1333

Breather Vent Settings

Vacuum Setting (psig): -0.03  
Pressure Setting (psig): 0.03

Meteorological Data Used in Emission Calculations: Tampa, Florida

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 LIQUID CONTENTS OF STORAGE TANK

12/12/94  
 PAGE 2

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Vapor Pressures (psia)			Vapor	Liquid	Vapor	Mol. Basis for Vapor Pressure Calculations	
		Avg.	Min.	Max.	Temp. (deg F)	Avg.	Min.	Max.	Mol. Weight	Mass Fract.		Mass Fract.
Distillate fuel oil no. 2	All	79.62	70.58	88.66	74.24	0.0121	0.0091	0.0159	130.000			130.00 Option 4: A=12.1010, B=8907.0

TANKS PROGRAM 2.0  
 EMISSIONS REPORT - DETAIL FORMAT  
 DETAIL CALCULATIONS (AP-42)

12/12/94  
 PAGE 3

Annual Emission Calculations

Standing Losses (lb): 14.6961  
 Vapor Space Volume (cu ft): 2356.19  
 Vapor Density (lb/cu ft): 0.0003  
 Vapor Space Expansion Factor: 0.063444  
 Vented Vapor Saturation Factor: 0.991527

Tank Vapor Space Volume

Vapor Space Volume (cu ft): 2356.19  
 Tank Diameter (ft): 15  
 Vapor Space Outage (ft): 13.33  
 Tank Shell Height (ft): 25  
 Average Liquid Height (ft): 12  
 Roof Outage (ft): 0.33

Roof Outage (Cone Roof)

Roof Outage (ft): 0.33  
 Roof Height (ft): 1.000  
 Roof Slope (ft/ft): 0.13333  
 Shell Radius (ft): 8

Vapor Density

Vapor Density (lb/cu ft): 0.0003  
 Vapor Molecular Weight (lb/lb-mole): 130.000000  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.012093  
 Daily Avg. Liquid Surface Temp.(deg. R): 539.29  
 Daily Average Ambient Temp. (deg. R): 531.67  
 Ideal Gas Constant R  
 (psia cuft /(lb-mole-deg R)): 10.731  
 Liquid Bulk Temperature (deg. R): 533.91  
 Tank Paint Solar Absorptance (Shell): 0.54  
 Tank Paint Solar Absorptance (Roof): 0.54  
 Daily Total Solar Insolation  
 Factor (Btu/sqftday): 1492.00

Vapor Space Expansion Factor

Vapor Space Expansion Factor: 0.063444  
 Daily Vapor Temperature Range (deg.R): 36.17  
 Daily Vapor Pressure Range (psia): 0.006752  
 Breather Vent Press. Setting Range(psia): 0.06  
 Vapor Pressure at Daily Average Liquid  
 Surface Temperature (psia): 0.012093  
 Vapor Pressure at Daily Minimum Liquid  
 Surface Temperature (psia): 0.009125  
 Vapor Pressure at Daily Maximum Liquid  
 Surface Temperature (psia): 0.015877  
 Daily Avg. Liquid Surface Temp. (deg R): 539.29  
 Daily Min. Liquid Surface Temp. (deg R): 530.25  
 Daily Max. Liquid Surface Temp. (deg R): 548.33  
 Daily Ambient Temp. Range (deg.R): 18.90

TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
DETAIL CALCULATIONS (AP-42)

12/12/94  
PAGE 4

Annual Emission Calculations

Vented Vapor Saturation Factor

Vented Vapor Saturation Factor:	0.991527
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.012093
Vapor Space Outage (ft):	13.33

Withdrawal Losses (lb):

Vapor Molecular Weight (lb/lb-mole):	130.000000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.012093
Annual Net Throughput (gal/yr):	5940000
Turnover Factor:	0.3336
Maximum Liquid Volume (cuft):	4418
Maximum Liquid Height (ft):	25
Tank Diameter (ft):	15
Working Loss Product Factor:	1.00

Total Losses (lb):	88.86
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TANKS PROGRAM 2.0  
EMISSIONS REPORT - DETAIL FORMAT  
INDIVIDUAL TANK EMISSION TOTALS

12/12/94  
PAGE 5

Annual Emissions Report

Liquid Contents	Losses (lbs.):		Total
	Standing	Withdrawal	
----- Distillate fuel oil no. 2	14.70	74.17	88.86
Total:	14.70	74.17	88.86

FLORIDA ELECTRIC POWER COORDINATING GROUP, INC. (FCG)  
405 RED STREET, SUITE 100 • (813) 289-5644 • FAX (813) 289-5646  
TAMPA, FLORIDA 33609-1004

MAY 16 1996



TITLE V

May 15, 1996

VIA HAND DELIVERY

Howard Rhodes, Director  
Division of Air Resources Management  
Florida Department of Environmental Protection  
Magnolia Park Courtyard  
Tallahassee, FL 32301

RECEIVED

MAY 15 1996

BUREAU OF  
AIR REGULATION

RE: Categorizing Trivial Activities

Dear Howard:

The Florida Electric Power Coordinating Group, Inc. (FCG) is submitting this letter to convey its understanding and intent regarding the categorizing of "trivial activities" at air emission facilities. As you know, the FCG is a nonprofit association of 36 investor-owned, municipally-owned, and cooperatively-owned electric utilities engaged in the business of providing a great majority of electric power to the public in the state of Florida. The FCG appreciates the Department of Environmental Protection's (DEP) issuance of guidance on this topic - DARM-PER/V-15 - which adopted EPA's July 10 "White Paper" list of trivial activities and stated that "these activities are [to be] treated as if they emit no air pollutants." Because EPA specifically described its White Paper list as a "starter list," the FCG understands that there are other activities that are appropriate for categorization as trivial and intends to not include such activities in Title V applications based on this categorization.

In previous comment letters, the FCG requested that the concept of trivial activities (as well as a specific list of such activities) be incorporated into Florida's regulations. Because DEP had reservations about this approach, however, the FCG agreed that guidance could be issued to accomplish basically the same goal, as long as either a comprehensive list of trivial activities was included in the guidance, or common sense could be used to exclude similar activities. DEP included only the limited EPA "starter list" in DARM-PER/V-15. Rather than specifically request the addition of numerous other activities to DEP's list, and burden DEP and industry with continually updating it, the FCG is simply conveying its intention to exclude additional trivial activities from the Title V process, [based on a reasonable interpretation of what constitutes a trivial activity - e.g., activities with no unit-specific applicable requirements and very minimal, if any, regulated air pollutant emissions.] DEP representatives specifically affirmed this understanding and approach at the "Phase V" Permit Simplification workshop on March 26, 1996. For purposes of illustration, the FCG is including a non-exclusive list of activities it considers to be "trivial" and thus excludable from Title V applications, that are not included in DEP's list. (Attachment A). As you can see from the attached list, while it is

Howard Rhodes, Director  
Division of Air Resources Management, DEP  
May 15, 1996  
Page 2

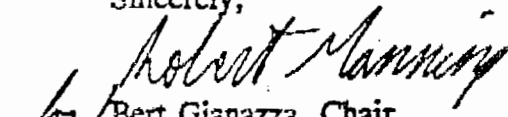
possible that minute quantities of regulated air pollutants, such as PM or VOCs, could be emitted from such activities, the quantities would be extremely small, and likely unquantifiable.

Because the FCG understands that this is a reasonable and previously agreed upon approach regarding a common sense issue, specific rule amendments should not be necessary, although clarification of DARM-PER/V-15 would certainly be acceptable to the FCG. To the extent an emissions unit or activity cannot be categorized as trivial, either because it is not included in DEP's guidance or has potential emissions exceeding a reasonable understanding of trivial, such units and activities will be included in the Title V process as exempt, unregulated, or regulated.

Similarly, because trivial activities are treated as if they have no air emissions, such activities should be excluded from all state air permitting requirements, not just Title V. DARM-PER/V-15 is currently limited to Title V permitting, although when DEP establishes a *de minimis* emission threshold for emissions units and activities below which state permitting would not be required, in accordance with its expressed intention, this issue should be moot. Therefore, as long as DEP incorporates an appropriate *de minimis* exemption into Florida's rules during "Phase V" of the Permit Simplification rulemaking proceeding, the FCG does not feel compelled to pursue this issue in the context of DARM-PER/V-15.

Thank you for your attention to this matter. As always, the FCG appreciates DEP's cooperation regarding the implementation of Florida's air rules. If you have any questions or wish to discuss this letter further, please contact me at (904) 632-6247.

Sincerely,

  
for Bert Gianazza, Chair  
FCG Air Subcommittee

cc: Clair Fancy, DEP  
Pat Comer, Esq., DEP  
John Brown, DEP  
Larry George, DEP  
FCG Air Subcommittee  
Robert Manning, HGSS



## ATTACHMENT A

### EXAMPLES OF TRIVIAL ACTIVITIES THAT ARE NOT INCLUDED IN DARM-PER/V-15 INCLUDE:

- (a) Freshwater/reuse water cooling towers.
- (b) Cooling ponds.
- (c) Coal pile runoff ponds.
- (d) Venting for storage rooms, transformer vaults and buildings, maintenance and welding buildings, operating equipment, degasifiers, dearators, decarbonators, air blowers, evacuators, air locks, feedwater heaters, generators and turbine cooling.
- (f) Maintenance of transformers, switches, switchgear processing, and venting (including cleaning and changing).
- (g) Nitrogen caps used during steam generator boiler shutdown.
- (h) Transfer sumps.
- (i) Firefighting training facilities.
- (j) Waste accumulation and consolidation in 55-gallon drums (or smaller) that are closed when not in use.
- (k) Nuclear gauges used for the purpose of process monitoring.
- (l) Oil/water separators.
- (m) Storage and use of chemicals solely for water/wastewater treatment.
- (n) Neutralization basins/ponds, ash pits/ponds, totally enclosed treatment facilities, ENU, percolation ponds.
- (o) Storage of materials in sealed containers.
- (p) Residual oil tanks and piping system vents and relief valves.
- (q) Lube oil tanks and piping system vents and relief valves.
- (r) Steam system vents.
- (s) Boiler water treatment chemical systems.
- (t) Water treatment equipment and chemicals.
- (u) Wastewater treatment equipment and basins.
- (v) Instrument air system vents and relief valves.
- (w) Service water system vents and relief valves.

**ATTACHMENT LMC-FE-8**

**LIST OF EQUIPMENT/ACTIVITIES REGULATED UNDER TITLE VI**

**ATTACHMENT LMC-FE-8**

**LIST OF EQUIPMENT / ACTIVITIES REGULATED — TITLE VI**

The McIntosh Plant currently has no refrigeration and air-conditioning units on the plant site over the 50-pound threshold established by 40 CFR, Part 82.

**ATTACHMENT LMC-FE-14**  
**COMPLIANCE REPORT AND PLAN**

**ATTACHMENT LMC-FE-14**

**COMPLIANCE REPORT AND PLAN**

The facility and emissions units identified in this application are in compliance with the Applicable Requirements identified in Sections B and D of the application form and attachments referenced in Section E. 11. and L. 12. (if included). Compliance is certified as of the date this application and is submitted to the Florida Department of Environmental Regulation as required in Rule 62-213.420(1)(a) F.A.C. Compliance will be certified annually as required.

**ATTACHMENT LMC-FE-15**  
**COMPLIANCE CERTIFICATION STATEMENT**

ATTACHMENT LMC-FE-15

COMPLIANCE CERTIFICATION STATEMENT

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

The City of Lakeland proposes that an annual statement of compliance shall be submitted with the annual operating report by March 1 of each year.

Ronald W. Tomlin

Signature, Responsible Official

6/13/96

Date

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

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

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

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

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



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

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>McIntosh Unit 1-Fossil Fuel-Fired Steam Generator (FFFSG)</b>		
2. Emissions Unit Identification Number: <input type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown <b>001</b>		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters): <b>This Emission Unit is a gas and oil-fired steam generating unit.</b>		

**Emissions Unit Control Equipment Information**

**A.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**B.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

**Emissions Unit Details**

1. Initial Startup Date: <b>1 Jan 1971</b>		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	<b>90 MW</b>	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	<b>985</b>	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		
<p><b>Maximum heat input based on high heating value (HHV) for natural gas. Heat input for residual oil is 950 MMBtu/hr. Heat Input based on fuel flow and sampling.</b></p>		

**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/yr	<b>8,760</b> hours/yr

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

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

**Not Applicable**

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment LMC-EU1-D

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: See Att. LMC-EU1-L1	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): <b>Exhausts through a single stack.</b>	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	<b>150</b> feet
7. Exit Diameter:	<b>9</b> feet
8. Exit Temperature:	<b>277</b> °F

9. Actual Volumetric Flow Rate:	310,000 acfm	
10. Percent Water Vapor:	%	
11. Maximum Dry Standard Flow Rate:	dscfm	
12. Nonstack Emission Point Height:	feet	
13. Emission Point UTM Coordinates:		
Zone: 17	East (km): 409.2	North (km): 3106.2
14. Emission Point Comment (limit to 200 characters):		

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 1 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Residual (No.6) Oil</b>	
2. Source Classification Code (SCC):  <b>1-01-004-01</b>	
3. SCC Units:  <b>1,000 gallons</b>	
4. Maximum Hourly Rate:  <b>6.33</b>	5. Maximum Annual Rate:  <b>55,451</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>2.5</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <b>150</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly rate based on maximum heat input for oil firing. Unit can be co-fired with natural gas. No.2 fuel oil can be used.</b>	



**Segment Description and Rate:** Segment 2 of 3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Natural Gas</b>	
2. Source Classification Code (SCC): <b>1-01-006-01</b>	
3. SCC Units: <b>Million Cubic Feet</b>	
4. Maximum Hourly Rate: <b>0.97</b>	5. Maximum Annual Rate: <b>8,497</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: <b>16</b>	
10. Segment Comment (limit to 200 characters): <b>Million Btu per SCC Unit = 15.5 (rounded to 16). Maximum hourly rate based on maximum heat input. Propane is used for ignition only (SCC 1-01-010-02).</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment  3  of  3

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>On-Specification used oil as defined in 40 CFR 279.11 and generated by City of Lakeland</b>	
2. Source Classification Code (SCC):  <p style="text-align: center;"><b>1-01-013-02</b></p>	
3. SCC Units:  <p style="text-align: center;"><b>1,000 gallons</b></p>	
4. Maximum Hourly Rate:  <p style="text-align: center;"><b>6.33</b></p>	5. Maximum Annual Rate:  <p style="text-align: center;"><b>42</b></p>
6. Estimated Annual Activity Factor:  	
7. Maximum Percent Sulfur:  <p style="text-align: center;"><b>2.5</b></p>	8. Maximum Percent Ash:  
9. Million Btu per SCC Unit:  <p style="text-align: center;"><b>150</b></p>	
10. Segment Comment (limit to 200 characters):  <p style="text-align: center;"><b>Sampling of each 1,000 gallons burned is required by operation permit. Maximum hourly rate same as residual oil.</b></p>	

**Segment Description and Rate:** Segment       of      

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
SO <sub>2</sub>			EL
NO <sub>x</sub>			NS
CO			NS
VOC			NS
HCL			NS
PM <sub>10</sub>			NS

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>119 lb/hour</b> <b>520 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor:	<b>0.125 lb/MMBtu</b>
Reference:	
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.125 lb/MMBtu x 950 MMBtu/hr = 118.75 lb/hr; 118.75 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 520.1 TPY</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Based on oil firing. Includes allowance for soot blowing &amp; load changing. Emissions=0.125 lb/MMBtu avg &amp; 118.8 lb/hr. Annual emissions = 520 TPY. Emission Factor Ref: 62-296.405(1)(b)/-210.700(3).</b>	

Emissions Unit Information Section 1 of 7  
Allowable Emissions (Pollutant identified on front page)

**A.**

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.1 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>95 lb/hour</b>	<b>416 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 5,5B,5F or 17; if &gt;400 hr/yr oil</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Liquid firing only. Steady state emission limit Rule 62-296.405(1)(b). Does not include excess emissions allowed under Rule 62-210.700</b>		

**B.**

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.3 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>285 lb/hour</b>	<b>156 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; if &gt; 400 hr/yr oil</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Liquid firing only allowed for 3 hours per 24 hours for soot blowing and load changing [FDEP Rule 62-210.700(3)]. 1 hour of 3 runs performed to determine compliance.</b>		

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

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>SO2</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>2,613 lb/hour</b> <b>11,443 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>2.75 lb/MMBtu</b>  Reference: 62-296.405(1)(c)j	
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>2.75 lb/MMBtu x 950 MMBtu/hr = 2,612.5 lb/hr; 2,612.5 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 11,442.8 TPY</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Emissions based on maximum heat input.</b>	

Emissions Unit Information Section 1 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>2.75 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>2,613 lb/hour</b>	<b>11,443 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Fuel Analysis</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Liquid fuel only based on FDEP Rule 62-296.405(1)(c)1. ASTM Methods D-4294-83 and D-240.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		



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

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 3

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20.</b> %      Exceptional Conditions: <b>40.</b> % Maximum Period of Excess Opacity Allowed: <b>2</b> min/hour
4.	Method of Compliance: <b>Annual Compliance Test; EPA Method 9</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>For exceptional conditions 27% opacity for 6 minutes allowed as an alternative to 40% standard under FDEP Rule 62-296.405(1)(a)</b>

**Visible Emissions Limitations:** Visible Emissions Limitation 2 of 3

1.	Visible Emissions Subtype: <b>VE60</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>60.</b> %      Exceptional Conditions: <b>100</b> % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: <b>Annual Compliance test; EPA Method 9; (if &gt;400 hrs)</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-210.700(3). 100% for 4 6-minute periods in 3 hours; 60% for 3-hour/24-hrs allowed for soot blowing/load changing.</b>

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

**Visible Emissions Limitations:** Visible Emissions Limitation 3 of 3

1.	Visible Emissions Subtype: <b>VE99</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>100</b> %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour
4.	Method of Compliance: <b>None</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-210.700(1) and (2); (1) malfunction for 2 hours (120 minutes) per 24 hour period for malfunction; (2) startup/shutdown; requires best operational practices.</b>

**Visible Emissions Limitations:** Visible Emissions Limitation \_\_\_\_\_ of \_\_\_\_\_

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions:      %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

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

**Continuous Monitoring System** Continuous Monitor 1 of 5

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO2</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Advanced Pollution Inst.</b> Model Number: <b>152</b> Serial Number: <b>169</b>	
5. Installation Date: <b>29 Dec 1994</b>	
6. Performance Specification Test Date: <b>18 Jan 1996</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75</b>	

**Continuous Monitoring System** Continuous Monitor 2 of 5

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NOX</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Advanced Pollution Inst.</b> Model Number: <b>252</b> Serial Number: <b>135</b>	
5. Installation Date: <b>29 Dec 1994</b>	
6. Performance Specification Test Date: <b>18 Jan 1996</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75</b>	

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

**Continuous Monitoring System** Continuous Monitor 3 of 5

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>United Sciences Inc.</b> Model Number: <b>500C</b> Serial Number: <b>0993686</b>	
5. Installation Date: <b>29 Dec 1994</b>	
6. Performance Specification Test Date: <b>18 Jan 1996</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>COM required pursuant to 40 CFR Part 75</b>	

**Continuous Monitoring System** Continuous Monitor 4 of 5

1. Parameter Code: <b>CO2</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Milton Roy</b> Model Number: <b>3300</b> Serial Number: <b>N4A1172T</b>	
5. Installation Date: <b>29 Dec 1994</b>	
6. Performance Specification Test Date: <b>18 Jan 1996</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75</b>	

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

**Continuous Monitoring System** Continuous Monitor 5 of 5

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Air Monitor</b> Model Number: <b>CEM</b> Serial Number: <b>6231D</b>	
5. Installation Date: <b>29 Dec 1994</b>	
6. Performance Specification Test Date: <b>18 Jan 1996</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>FLOW monitor required pursuant to 40 CFR Part 75</b>	

**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: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

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

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
	SO <sub>2</sub>	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
	NO <sub>2</sub>	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO <sub>2</sub>	lb/hour		tons/year
	NO <sub>2</sub>			tons/year
5.	PSD Comment (limit to 200 characters):			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU1-L1</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU1-L2</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
3.	Detailed Description of Control Equipment	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
		<input checked="" type="checkbox"/> Not Applicable	
4.	Description of Stack Sampling Facilities	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU1-L4</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Not Applicable
		<input checked="" type="checkbox"/> Previously Submitted, Date: <u>1 Jul 1995</u>	
6.	Procedures for Startup and Shutdown	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU1-L6</u>	<input type="checkbox"/> Not Applicable
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
8.	Supplemental Information for Construction Permit Application	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
9.	Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable



**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU1-L10</u> <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input checked="" type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: <u>LMC-EU1-L14</u> <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

**ATTACHMENT LMC-EU1-D**  
**EMISSIONS UNIT REGULATIONS**

**ATTACHMENT LMC-EU1-D**

**Applicable Requirements Listing - Power Plants Acid Rain Units**

EMISSION UNIT ID: EU1 - McIntosh Plant - FFFSG Unit 1

FDEP Rules:

**Air Pollution Control-General Provisions:**

- 62-204.800(12) (State Only) - Acid Rain Program
- 62-204.800(13) (State Only) - Allowances
- 62-204.800(14) (State Only) - Acid Rain Program Monitoring
- 62-204.800(16) (State Only) - Excess Emissions (Potentially applicable over term of permit)

**Stationary Sources-General:**

- 62-210.700(1) - Excess Emissions; Malfunction only for FFGS
- 62-210.700(2) - Existing FFGS; startup/shut down
- 62-210.700(3) - Existing FFGS; sootblowing/load change
- 62-210.700(4) - Excess Emissions; poor maintenance
- 62-210.700(6) - Excess Emissions; notification

**Acid Rain:**

- 62-214.300 - All Acid Rain Units (Applicability)
- 62-214.320(1)(a),(2) - All Acid Rain Units (Application Shield)
- 62-214.330(1)(a)1. - Compliance Options (if 214.430)
- 62-214.340 - Exemptions (new units, retired units)
- 62-214.350(2);(3);(6) - All Acid Rain Units (Certification)
- 62-214.370 - All Acid Rain Units (Revisions; correction; potentially applicable if a need arises)
- 62-214.430 - All Acid Rain Units (Compliance Options-if required)

**Stationary Sources-Emission Standards:**

- 62-296.405(1)(a) - FFGS;VE
- 62-296.405(1)(b) - FFGS; PM
- 62-296.405(1)(c)1.j. - FFGS;Oil-SO2
- 62-296.405(1)(e) - FFGS;Test Methods
- 62-296.405(1)(f) - FFGS; CEMS (if required)
- 62-296.405(1)(f)1.a.(i) - FFGS; Opacity CEMS exempted for oil/gas units
- 62-296.405(1)(f)1.b. - FFGS; SO2 CEMS exempted for non-controlled units (oil/gas)

**Stationary Sources-Emission Monitoring (where stack test is required):**

- 62-297.310(1) - All Units (Test Runs-Mass Emission)
- 62-297.310(2)(b) - All Units (Operating Rate; other than CTs;no CT)
- 62-297.310(3) - All Units (Calculation of Emission)
- 62-297.310(4)(a) - All Units (Applicable Test Procedures;Sampling time)
- 62-297.310(4)(b) - All Units (Sample Volume)

- 62-297.310(4)(c)
  - 62-297.310(4)(d)
  - 62-297.310(4)(e)
  - 62-297.310(5)
  - 62-297.310(6)(a)
  - 62-297.310(6)(c)
  - 62-297.310(6)(d)
  - 62-297.310(6)(e)
  - 62-297.310(6)(f)
  - 62-297.310(6)(g)
  - 62-297.310(7)(a)1.
  - 62-297.310(7)(a)2.
  - 62-297.310(7)(a)3.
  - 62-297.310(7)(a)4.a
  - 62-297.310(7)(a)5.
  - 62-297.310(7)(a)9.
  - 62-297.310(7)(c)
  - 62-297.310(8)
- All Units (Required Flow Rate Range-PM/H2SO4/F)
  - All Units (Calibration)
  - All Units (EPA Method 5-only)
  - All Units (Determination of Process Variables)
  - All Units (Permanent Test Facilities-general)
  - All Units (Sampling Ports)
  - All Units (Work Platforms)
  - All Units (Access)
  - All Units (Electrical Power)
  - All Units (Equipment Support)
  - Applies mainly to CTs/Diesels
  - FFSG excess emissions
  - Permit Renewal Test Required
    - Annual Test
    - PM exemption if <400 hrs/yr
    - FDEP Notification - 15 days
    - Waiver of Compliance Tests (Fuel Sampling)
  - Test Reports

#### Federal Rules:

##### Acid Rain-Permits:

- 40 CFR 72.9(a)
  - 40 CFR 72.9(b)
  - 40 CFR 72.9(c)(1)
  - 40 CFR 72.9(c)(2)
  - 40 CFR 72.9(c)(3)(iii)
  - 40 CFR 72.9(c)(3)(iv)
  - 40 CFR 72.9(c)(4)
  - 40 CFR 72.9(c)(5)
  - 40 CFR 72.9(d)
  - 40 CFR 72.9(e)
  - 40 CFR 72.9(f)
  - 40 CFR 72.9(g)
  - 40 CFR 72.20(a)
  - 40 CFR 72.20(b)
  - 40 CFR 72.20(c)
  - 40 CFR 72.21
  - 40 CFR 72.22
  - 40 CFR 72.23
  - 40 CFR 72.24
  - 40 CFR 72.30(a)
  - 40 CFR 72.30(b)(2)
  - 40 CFR 72.30(c)
  - 40 CFR 72.30(d)
  - 40 CFR 72.31
  - 40 CFR 72.32
  - 40 CFR 72.33(b)
- Permit Requirements
  - Monitoring Requirements
  - SO2 Allowances-hold allowances
  - SO2 Allowances-violation
  - SO2 Allowances-Phase II Units (listed)
  - SO2 Allowances- other utility units not listed
  - SO2 Allowances-allowances held in ATS
  - SO2 Allowances-no deduction for 72.9(c)(1)(i)
  - NOx Requirements
  - Excess Emission Requirements
  - Recordkeeping and Reporting
  - Liability
  - Designated Representative; required
  - Designated Representative; legally binding
  - Designated Representative; certification requirements
  - Submissions
  - Alternate Designated Representative
  - Changing representatives; owners
  - Certificate of representation
  - Requirements to Apply (operate)
  - Requirements to Apply (Phase II-Complete)
  - Requirements to Apply (reapply before expiration)
  - Requirements to Apply (submittal requirements)
  - Information Requirements; Acid Rain Applications
  - Permit Application Shield
  - Dispatch System ID;unit/system ID

- 40 CFR 72.33(c) - Dispatch System ID; ID requirements
  - 40 CFR 72.33(d) - Dispatch System ID; ID change
  - 40 CFR 72.40(a) - General; compliance plan
  - 40 CFR 72.40(b) - General; multi-unit compliance options
  - 40 CFR 72.40(c) - General; conditional approval
  - 40 CFR 72.40(d) - General; termination of compliance options
  - 40 CFR 72.51 - Permit Shield
  - 40 CFR 72.90 - Annual Compliance Certification
- Monitoring Part 75:
- 40 CFR 75.4 - Compliance Dates;
  - 40 CFR 75.5 - Prohibitions
  - 40 CFR 75.10(a)(1) - Primary Measurement; SO<sub>2</sub>;
  - 40 CFR 75.10(a)(2) - Primary Measurement; NO<sub>x</sub>;
  - 40 CFR 75.10(a)(3)(i) - Primary Measurement; CO<sub>2</sub>; monitor
  - 40 CFR 75.10(a)(3)(ii) - Primary Measurement; CO<sub>2</sub>; Appendix G
  - 40 CFR 75.10(a)(4) - Primary Measurement; Opacity;
  - 40 CFR 75.10(b) - Primary Measurement; Performance Requirements
  - 40 CFR 75.10(c) - Primary Measurement; Heat Input; Appendix F
  - 40 CFR 75.10(d) - Primary Measurement; Hourly Operating ; Opacity; SO<sub>2</sub>
  - 40 CFR 75.10(f) - Primary Measurement; Minimum Measurement
  - 40 CFR 75.10(g) - Primary Measurement; Minimum Recording
  - 40 CFR 75.11(d) - SO<sub>2</sub> Monitoring; Gas- and Oil-fired units
  - 40 CFR 75.11(e) - SO<sub>2</sub> Monitoring; Gaseous firing
  - 40 CFR 75.12(a) - NO<sub>x</sub> Monitoring; Coal; Non-peaking oil/gas units
  - 40 CFR 75.12(b) - NO<sub>x</sub> Monitoring; Determination of NO<sub>x</sub> emission rate; Appendix F
  - 40 CFR 75.13(a) - CO<sub>2</sub> Monitoring; Continuous monitor
  - 40 CFR 75.13(b) - CO<sub>2</sub> Monitoring; Appendix G
  - 40 CFR 75.14(a) - Opacity Monitoring; Coal and oil units
  - 40 CFR 75.20(a) - Initial Certification Approval Process; Loss of Certification
  - 40 CFR 75.20(b) - Recertification Procedures (if recertification necessary)
  - 40 CFR 75.20(c) - Certification Procedures (if recertification necessary)
  - 40 CFR 75.20(f) - Alternate Monitoring system
  - 40 CFR 75.20(g) - Exceptions to CEMS; oil/gas/diesel; Appendix D & E
  - 40 CFR 75.21(a) - QA/QC; CEMS; Appendix B (Suspended 7/17/95-12/31/96)
  - 40 CFR 75.21(b) - QA/QC; Opacity; Part 51 Appendix M
  - 40 CFR 75.21(c) - QA/QC; Calibration Gases
  - 40 CFR 75.21(d) - QA/QC; Notification of RATA
  - 40 CFR 75.21(e) - QA/QC; Audits
  - 40 CFR 75.21(f) - QA/QC; CEMS (Effective 7/17/96-12/31/96)
  - 40 CFR 75.22 - Reference Methods
  - 40 CFR 75.24 - Out-of-Control Periods; CEMS
  - 40 CFR 75.30(a)(1) - General Missing Data Procedures; SO<sub>2</sub>
  - 40 CFR 75.30(a)(2) - General Missing Data Procedures; flow
  - 40 CFR 75.30(a)(3) - General Missing Data Procedures; NO<sub>x</sub>
  - 40 CFR 75.30(a)(4) - General Missing Data Procedures; SO<sub>2</sub>

- 40 CFR 75.30(b)
  - 40 CFR 75.30(c)
  - 40 CFR 75.30(d)
  - 40 CFR 75.30(e)
  - 40 CFR 75.31
  - 40 CFR 75.32
  - 40 CFR 75.33
  - 40 CFR 75.35
  - 40 CFR 75.36
  - 40 CFR 75.40
  - 40 CFR 75.41
  - 40 CFR 75.42
  - 40 CFR 75.43
  - 40 CFR 75.44
  - 40 CFR 75.45
  - 40 CFR 75.46
  - 40 CFR 75.47
  - 40 CFR 75.48
  - 40 CFR 75.53
  - 40 CFR 75.54(a)
  - 40 CFR 75.54(b)
  - 40 CFR 75.54(c)
  - 40 CFR 75.54(d)
  - 40 CFR 75.54(e)
  - 40 CFR 75.54(f)
  - 40 CFR 75.55(c)
  - 40 CFR 75.55(e)
  - 40 CFR 75.56
  - 40 CFR 75.60
  - 40 CFR 75.61
  - 40 CFR 75.62
  - 40 CFR 75.63
  - 40 CFR 75.64(a)
  - 40 CFR 75.64(b)
  - 40 CFR 75.64(c)
  - 40 CFR 75.64(d)
  - 40 CFR 75.65
  - 40 CFR 75.66
  - Appendix A-1
  - Appendix A-2.
  - Appendix A-3.
  - Appendix A-4.
  - Appendix A-5.
  - Appendix A-6.
  - Appendix A-7.
  - Appendix B
  - Appendix C-1.
  - Appendix C-2.
- General Missing Data Procedures; certified backup monitor
  - General Missing Data Procedures; certified backup monitor
  - General Missing Data Procedures; SO2 (optional before 1/1/97)
  - General Missing Data Procedures; bypass/multiple stacks
  - Initial Missing Data Procedures (new/re-certified CMS)
  - Monitoring Data Availability for Missing Data
  - Standard Missing Data Procedures
  - Missing Data for CO2
  - Missing Data for Heat Input
  - Alternate Monitoring Systems-General
  - Alternate Monitoring Systems-Precision Criteria
  - Alternate Monitoring Systems-Reliability Criteria
  - Alternate Monitoring Systems-Accessability Criteria
  - Alternate Monitoring Systems-Timeliness Criteria
  - Alternate Monitoring Systems-Daily QA
  - Alternate Monitoring Systems-Missing data
  - Alternate Monitoring Systems-Criteria for Class
  - Alternate Monitoring Systems-Petition
  - Monitoring Plan ; revisions
  - Recordkeeping-general
  - Recordkeeping-operating parameter
  - Recordkeeping-SO2
  - Recordkeeping-NOx
  - Recordkeeping-CO2
  - Recordkeeping-Opacity
  - General Recordkeeping (Specific Situations)
  - General Recordkeeping (Specific Situations)
  - Certification; QA/QC Provisions
  - Reporting Requirements-General
  - Reporting Requirements-Notification cert/recertification
  - Reporting Requirements-Monitoring Plan
  - Reporting Requirements-Certification/Recertification
  - Reporting Requirements-Quarterly reports; submission
  - Reporting Requirements-Quarterly reports; DR statement
  - Rep. Req.; Quarterly reports; Compliance Certification
  - Rep. Req.; Quarterly reports; Electronic format
  - Opacity Reports
  - Petitions to the Administrator (if required)
  - Installation and Measurement Locations
  - Equipment Specifications
  - Performance Specifications
  - Data Handling and Acquisition Systems
  - Calibration Gases
  - Certification Tests and Procedures
  - Calculations
  - QA/QC Procedures
  - Missing Data; SO2/NOx for controlled sources
  - Missing Data; Load-Based Procedure; NOx & flow

- Appendix D - Optional SO<sub>2</sub>; Oil-/gas-fired units
- Appendix F - Conversion Procedures
- Appendix G-2. - Determination of CO<sub>2</sub>; from combustion sources
- Appendix H - Traceability Protocol

Acid Rin Program-NO<sub>x</sub> Emission Reduction (these are future requirements that may become applicable during the term of the Title V permit):

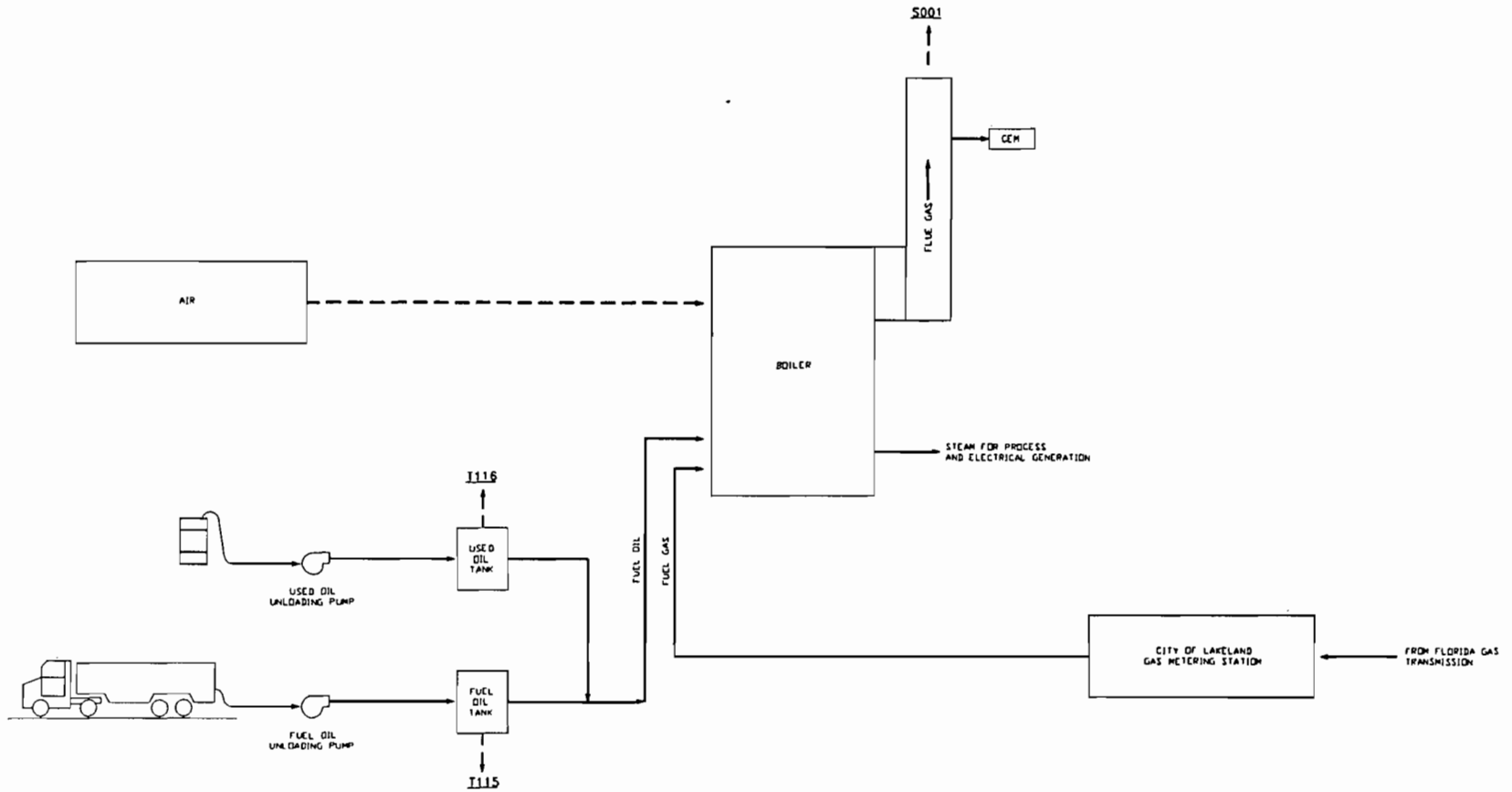
- 40 CFR 76.5(g) - NO<sub>x</sub> emission limitations; Group 1; Phase II; Jan.1, 2000
- 40 CFR 76.8 - Early Election; Group 1; Phase II (this is a elective regulation)
- 40 CFR 76.9(2) - Permit Application/Compliance Plans; Phase II (1/1/98); Early Election (1/1/97 )
- 40 CFR 76.10 - Alternative Emission Limitations (elective)
- 40 CFR 76.11 - Emission Averaging (elective)
- 40 CFR 76.13 - Compliance and Excess Emissions
- 40 CFR 76.14 - Monitoring Recordkeeping and Reporting

Acid Rain Program-Excess Emissions (these are future requirements that may become applicable during the term of the Title V permit):

- 40 CFR 77.3 - Offset Plans (future)
- 40 CFR 77.5(b) - Deductions of Allowances (future)
- 40 CFR 77.6 - Excess Emissions Penalties (SO<sub>2</sub> and NO<sub>x</sub>;future)

**ATTACHMENT LMC-EU1-L1**  
**PROCESS FLOW DIAGRAM**





3	MG	5-28-96	HP	ISSUED FOR TITLE V
2	MG	5-15-96	HP	CHANGE TITLE
1	MG	8-9-95		ADDED USED OIL TANK AND PUMP
REV. NO.	BY	DATE	APPR.	REVISION



DESCRIPTION  
**LAKELAND ELECTRIC & WATER UTILITIES  
 C.D. McINTOSH POWER PLANT  
 UNIT NO. 1  
 PROCESS FLOW DIAGRAM**

DIVISION		PRODUCTION ENGINEERING		CAD		SCALE		NONE	
ENGINEER		PATTERSON		PROJ. NO.		AIR PERMIT			
DRN. BY:	MCIEGER	DATE	9-19-94	DWG. NO.		REV.			
APPR. BY:		DATE		LMC-EUI-L1/SKM-25		3			

SIZE B

**ATTACHMENT LMC-EU1-L2**  
**FUEL ANALYSIS OR SPECIFICATION**

**ATTACHMENT LMC-EU1-L2**

**FUEL ANALYSIS  
NATURAL GAS**

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
Relative density	0.58 (compared to air)	
heat content	950 - 1124 Btu/cu ft. (HHV)	
% sulfur	0.43 grains/CCF <sup>1</sup>	1 grain/100 CF
% nitrogen	0.8% by volume	
% ash	negligible	

Note: The values listed are "typical" values based upon information supplied by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data from laboratory analysis

Attachment LMC-EU1-L2

Fuel Analysis

No. 6 Fuel Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	8 <sup>1</sup>	-
Relative density	8.2 lb/gal <sup>2</sup>	
Heat content	18,300 Btu / lb (HHV)	
% sulfur	2.5 <sup>2</sup>	2.5 <sup>3</sup>
% nitrogen	0.25 - 0.50	
% ash	negligible	0.01 <sup>1</sup>

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from the fuel procurement specification

<sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data from current air permit.

Attachment LMC-EU1-L2

Fuel Analysis

No. 2 Fuel Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	30 <sup>1</sup>	-
Relative density	6.92 lb/gal <sup>2</sup>	-
Heat content	18,400 Btu / lb (LHV)	-
% sulfur	<0.5 <sup>2</sup>	0.5 <sup>3</sup>
% nitrogen	0.025 - 0.030	-
% ash	negligible	0.01 <sup>1</sup>

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from the fuel procurement specification

<sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data from current air permit.

Attachment LMC-EU1-L2

Fuel Analysis

On-Spec Used Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	28 <sup>1</sup>	-
Relative density	7.4lb/gal <sup>2</sup>	
Heat content	18,700 Btu / lb (HHV)	
% sulfur	0.3 - 0.5 <sup>2</sup>	2.5 <sup>3</sup>
% nitrogen	0.3	
% ash	0.4 - 0.9	

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from the FPC fuel procurement specification

<sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data from current air permit.

Attachment LMC-EU1-L2

Fuel Analysis

Propane Analysis

<u>Parameter</u>	<u>Typical Value</u>
heat content	81 Btu/gal
% sulfur	negligible
% nitrogen	0.8% by volume
% ash	negligible

**ATTACHMENT LMC-EU1-L4**  
**DESCRIPTION OF STACK SAMPLING FACILITIES**



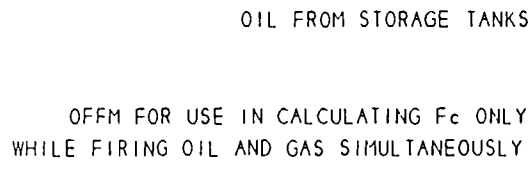
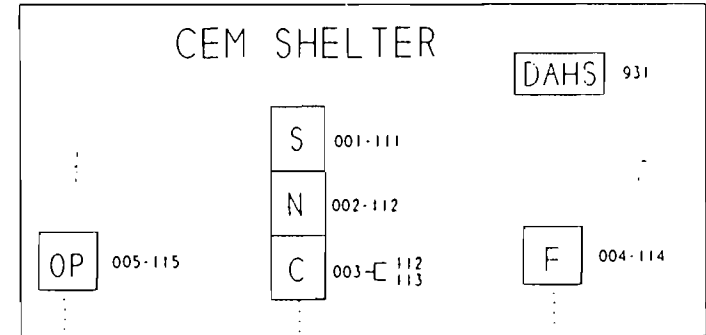
# ATTACHMENT #2

PAGE 1 OF 3 PAGES

Schematic Diagram for Unit 1 for  
C.D. McIntosh Jr. Power Plant

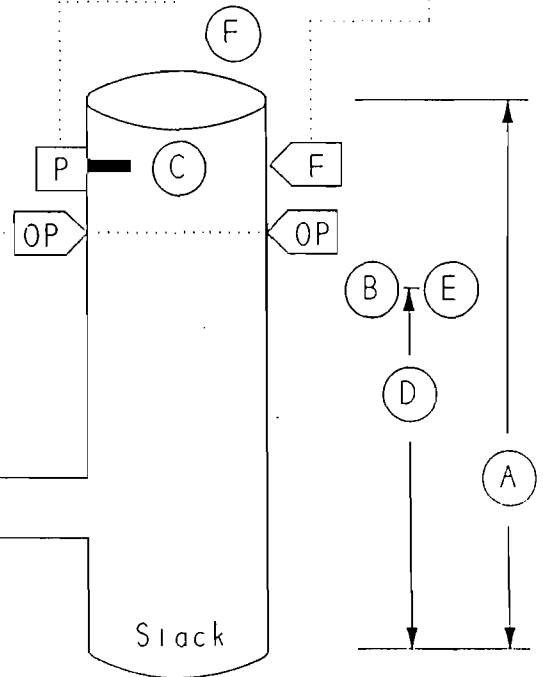
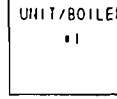
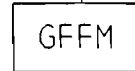
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C.D. McIntosh Jr. Plant  
ORIS Code: 676  
NADB Boiler ID: 1



Natural Gas Pipeline

006-116



## MONITOR LOCATION INFORMATION

- A. STACK HEIGHT ABOVE GRADE (FT) \_\_\_\_\_ 150'0"
- B. STACK DIAMETER AT TEST PORT \_\_\_\_\_ 9'0"
- C. INSIDE CROSS-SECTIONAL AREA AT TEST PORT (FT<sup>2</sup>) \_\_\_\_\_ 63.62
- D. TEST PORT ELEVATION
  - 1. ABOVE GRADE (FT) \_\_\_\_\_ 111'6"
  - 2. ABOVE LAST DISTURBANCE
    - A. FEET \_\_\_\_\_ 43'6"
    - B. STACK DIAMETERS \_\_\_\_\_ 4.83
  - 3. PRIOR TO NEXT DISTURBANCE
    - A. FEET \_\_\_\_\_ 38'6"
    - B. STACK DIAMETERS \_\_\_\_\_ 4.27
- E. LOCATION OF SAMPLE PROBE. GASEOUS EXTRACTION PROBE IS IN SAME PLANE AS TEST PORT. OPACITY PROBE AT 1.0 FT. ABOVE SAMPLE PROBE ELEVATION.
- F. INSIDE CROSS-SECTIONAL AREA AT FLUE EXIT (FT<sup>2</sup>) \_\_\_\_\_ 63.62

**ATTACHMENT LMC-EU1-L6**

**PROCEDURES FOR STARTUP AND SHUTDOWN**

**ATTACHMENT LMC-EU1-L6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**  
**MINIMIZING EXCESS EMISSIONS**

Startup of the fossil-fuel boilers begins when fuel (propane, natural gas, spec used oil or No. 2 fuel oil) is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized and the megawatt load on the unit is stable and above 10-15 percent load.

Shutdown of the fossil-fuel boilers begins when unit megawatt load is decreased to below 10-15 percent of maximum and continues until the final burner gun is removed from service.

Emissions may be detected during all modes of boiler operation by various continuous emissions monitors. Continuous monitors are currently in place for NO<sub>x</sub>, CO<sub>2</sub>, SO<sub>2</sub>, flow and opacity. Audible and visual alarms are activated whenever the permitted value for opacity is approached.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- burner elevation loading
- proper excess air adjustments
- recognizing and removal of faulty burners
- fuel oil temperature adjustments
- proper and timely operation of boiler cleaning devices
- removal of the unit from system-dispatch mode (load control)
- reduction of unit megawatt load
- stopping and restarting of boiler cleaning devices
- lowering load ramp rate
- pressure rate changes
- placing boiler controls on manual
- adjusting burner dampers to increase windbox/furnace air pressure

Knowledge of the appropriate countermeasures to take when excess emissions occur is a part of the routine operator training for those who operate the boilers. Topics include current permit limits,

maximum allowable duration of excess emissions, appropriate countermeasures for excess emissions, duty to notify, and fuels and combustion training.

**ATTACHMENT LMC-EU1-L10**  
**ALTERNATIVE METHODS OF OPERATION**

**ATTACHMENT LMC-EU1-L10**  
**ALTERNATIVE METHODS OF OPERATION**  
**FOSSIL FUEL STEAM GENERATOR**

The fossil fuel steam generator can operate on both natural gas and fuel oil (No. 6 through No. 2 fuel oil). The maximum sulfur content in the fuel oil shall not exceed 2.5 percent. The No. 2 fuel oil is used as pilot fuel during startup, shutdown, and malfunctions. On-spec oil is co-fired with other fuels. This unit can operate for the entire year at varying loads (i.e., 8,760 hours 0 to 100% load) and can fire fuels, alone or in combination, with no restrictions on hours of operation.

**ATTACHMENT LMC-EU1-L14**  
**ACID RAIN PERMIT APPLICATION**



Mr. John C Brown (MS5505)  
Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

December 20, 1995

**RE: ACID RAIN TITLE IV PHASE II APPLICATION  
FOR LAKELAND ELECTRIC & WATER UTILITIES**

Dear Mr. Brown:

In compliance with 40 CFR Part 72 and Rule 62-210 F.A.C. we are submitting a revised completed form 62-210.900(1)(a) and three copies of same for our Larsen Power Plant.

Additionally, enclosed you will find a copy of **Certificate of Representation** (OMB No. 2060-0221) for each respective facility together with **Title IV Compliance Plan**.

With this submittal we are hoping to have satisfied all the requirements of Acid Rain Phase II Permit Application.

If you should have any questions, please do not hesitate to contact me at (941) 499-6603.

Sincerely

Farzie Shelton (Ms)  
Environmental Division

Enc.





# Certificate of Representation

For more information, see instructions and refer to 40 CFR 72.24

This submission is:  New  Revised

**STEP 1**  
Identify the source by  
plant name, State, and  
ORIS code from NADB

Plant Name	C. D. McIntosh Jr.	State	FL	676 ORIS Code
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**STEP 2**  
Enter requested  
information for the  
designated  
representative

Name	Ronald W. Tomlin, Assistant Managing Director		
Address	Lakeland Electric & Water Utilities 501 East Lemon Street Lakeland, Florida 33801-5050		
Phone Number	813/499-8474	Fax Number	813/499-6362

**STEP 3**  
Enter requested  
information for the  
alternate designated  
representative  
(optional)

Name	Timothy C. Bates, Plant Manager		
Address	C. D. McIntosh Power Plant 3030 East Lake Parker Drive Lakeland, Florida 33805-9513		
Phone Number	813/499-6601	Fax Number	813/499-6688

**STEP 4**  
Complete Step 5, read  
the certifications and  
sign and date

I certify that I was selected as the designated representative or alternate designated representative, as applicable, by an agreement binding on the owners and operators of the affected source and each affected unit at the source.

I certify that I have given notice of the agreement, selecting me as the designated representative or alternate designated representative, as applicable for the affected source and each affected unit at the source identified in this certificate of representation, daily for a period of one week in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice.

I certify that I have all necessary authority to carry out my duties and responsibilities under the Acid Rain Program on behalf of the owners and operators of the affected source and of each affected unit at the source and that each such owner and operator shall be fully bound by my actions, inactions, or submissions.

I certify that I shall abide by any fiduciary responsibilities imposed by the agreement by which I was selected as designated representative or alternate designated representative, as applicable.

I certify that the owners and operators of the affected source and of each affected unit at the source shall be bound by any order issued to me by the Administrator, the permitting authority, or a court regarding the source or unit.

Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, an affected unit, or where a utility or industrial customer purchases power from an affected unit under life-of-the-unit, firm power contractual arrangements, I certify that:

I have given a written notice of my selection as the designated representative or alternate designated representative, as applicable, and of the agreement by which I was selected to each owner and operator of the affected source and of each affected unit at the source; and

Allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement or, if such multiple holders have expressly provided for a different distribution of allowances by contract, that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in accordance with the contract.

The agreement by which I was selected as the alternate designated representative includes a procedure for the owners and operators of the source and affected units at the source to authorize the alternate designated representative to act in lieu of the designated representative.



December 14, 1995

**Lakeland Electric & water Utilities  
Title IV Compliance Plan**

Lakeland Electric & Water utilities will hold sufficient SO<sub>2</sub> allowances to cover all SO<sub>2</sub> emissions for the generating units listed below. If it becomes apparent that Lakeland Electric & Water utilities will have insufficient SO<sub>2</sub> allowances, Lakeland Electric & Water Utilities will purchase additional allowances on the open market, or switch to lower sulfur content fuel in order to cover any shortfall.

PLANT NAME	BOILER ID	ORIS CODE
C.D. MCINTOSH.Jr,	1	676
	2	676
	3	676
LARSEN MEMORIAL	7	675
	8	675

# Phase II Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is:  New  Revised

**STEP 1**  
Identify the source by plant name, State, and ORIS code from NADB

Larsen Memorial Power Plant, FL, 675

**STEP 2**  
Enter the boiler ID# from NADB for each affected unit, and indicate whether a repowering plan is being submitted for the unit by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e

a Boiler ID#	Compliance Plan		d New Units  Commence Operation Date	e New Units  Monitor Certification Deadline
	b Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	c Repowering Plan		
7	Yes	No		
8	Yes	No	11/92	1/1/96
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

**STEP 3**  
Check the box if the response in column c of Step 2 is "Yes" for any unit

For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Petition form has been submitted or will be submitted by June 1, 1997.

**STEP 4**  
Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Plant Name (from Step 1)  
*Larsen Memorial Power Plant*

**Standard Requirements**

Permit Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72, Rules 62-214.320 and 330, F.A.C. in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
  - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the permitting authority; and
  - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
  - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from Step 1)  
*Larsen Memorial Power Plant*

Recordkeeping and Reporting Requirements (cont.)

- (iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name <i>Charles D. Garing, Plant Manager</i>	
Signature <i>Charles D. Garing</i>	Date <i>12/20/95</i>

**STEP 5 (optional)**  
Enter the source AIRS  
and FINDS identification  
numbers, if known

AIRS
FINDS

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

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

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

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

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

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

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>McIntosh Unit 2-Fossil Fuel-Fired Steam Generator (FFFSG)</b>		
2. Emissions Unit Identification Number: <input type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown <b>005</b>		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters): <b>This Emission Unit is a gas and oil fired steam generating unit.</b>		



**Emissions Unit Control Equipment Information**

**A.**

1. Description (limit to 200 characters):  <b>NOx Control incorporated in furnace design through the use of flue gas recirculation.</b>
2. Control Device or Method Code: <b>26</b>

**B.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

**Emissions Unit Details**

1. Initial Startup Date: <b>1 Apr 1976</b>		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	<b>115 MW</b>	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	<b>1,185</b>	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		
<p><b>Maximum heat input based on HHV for natural gas. Heat input for residual oil is 1,115 MMBtu/hr. Heat input based on fuel flow and sampling.</b></p>		

**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/yr	<b>8,760</b> hours/yr

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

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment LMC-EU2-D

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: See Att. LMC-EU2-L1	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): <b>Exhausts through a single stack.</b>	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	157 feet
7. Exit Diameter:	10.5 feet
8. Exit Temperature:	277 °F

9. Actual Volumetric Flow Rate:	<b>380,100</b> acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone: <b>17</b>	East (km): <b>409.2</b> North (km): <b>3106.2</b>
14. Emission Point Comment (limit to 200 characters):	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Residual (No.6) Oil</b>	
2. Source Classification Code (SCC):  <b>1-01-004-01</b>	
3. SCC Units: <b>1,000 gallons</b>	
4. Maximum Hourly Rate:  <b>7.43</b>	5. Maximum Annual Rate:  <b>65,087</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>0.7</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <b>150</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly rate based on maximum heat input for oil firing. Unit can be co-fired with natural gas. No.2 fuel oil can be used.</b>	

**Segment Description and Rate:** Segment  2  of  2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Natural Gas</b>	
2. Source Classification Code (SCC): <b>1-01-006-01</b>	
3. SCC Units: <b>Million Cubic Feet</b>	
4. Maximum Hourly Rate: <b>1.157</b>	5. Maximum Annual Rate: <b>10,133</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: <b>1,024</b>	
10. Segment Comment (limit to 200 characters): <b>Maximum hourly rate based on maximum heat input. Propane is used for ignition/start-up only (SCC 1-01-010-02)</b>	



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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
SO2			EL
NOx	026		EL
CO			NS
VOC			NS
HCL			NS
PM10			NS

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**  
**(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>112 lb/hour</b> <b>488 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.1 lb/MMBtu</b>  Reference: <b>See Comment</b>	
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.1 lb/MMBtu x 1,115 MMBtu/hr = 111.5 lb/hr; 111.5 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 488.4 TPY</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Emission Factor Reference: FDEP Rule 62-296.405(2)(b), 40 CFR Part 60; Subpart D. Emissions based on oil firing.</b>	

Emissions Unit Information Section 2 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.1 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>112 lb/hour</b>	<b>488 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Method 5 or 17; if &gt; 400 hr/yr oil</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Oil firing only; does not include allowance for excess emissions for startup, shutdown and malfunction [FDEP Rule 62-210.700(1) and 40 CFR 60.13]</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION  
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)****Pollutant Detail Information:**

1. Pollutant Emitted: <b>SO<sub>2</sub></b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>892 lb/hour</b>	<b>3,907 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor:		<b>0.8 lb/MMBtu</b>
Reference: See Comment		
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):  <b>0.8 lb/MMBtu x 1,115 MMBtu/hr = 892 lb/hr; 892 lb/hr x 8,760 hr/yr x 1 ton/2,000 = 3,907.0 TPY</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Emission Factor Reference: FDEP Rule 62-296.405(2)(c), 40 CFR Part 60; Subpart D. Emissions based on maximum heat input.</b>		

Emissions Unit Information Section 2 of 7  
**Allowable Emissions (Pollutant identified on front page)**

A.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.8 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>892 lb/hour</b>	<b>3,907 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Fuel Analysis</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):  <b>Based on FDEP Rule 62-296.405(2)(c) and 40 CFR Part 60 Subpart D. Oil only methods PARR 1760 and D-240. 40 CFR 60.43(c) allows co-firing.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

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

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>NOx</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>335 lb/hour</b> <b>1,465 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor:	<b>0.3 lb/MMBtu</b>
Reference: <b>See Comment</b>	
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.3 lb/MMBtu x 1,115 MMBtu/hr = 334.5 lb/hr; 334.5 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 1,465.1 TPY</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Emission Factor Reference: FDEP Rule 62-296.405(2)(d), 40 CFR Part 60; Subpart D. NOx control is integral to the boiler. Potential emissions based on oil firing.</b>	

Emissions Unit Information Section 2 of 7  
**Allowable Emissions (Pollutant identified on front page)**

A.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.3 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>335 lb/hour</b>	<b>1,465 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Method 7, 7A, 7C, 7D, 7E</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):  <b>Allowable based on oil firing pursuant to 62-296.405(2)(d) and 62-296.800 FAC; 40 CFR Part 60, Subpart D, Sect. 60.44. If co-firing of oil and gas, the emission limit is prorated based on heat input.</b>		

B.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>237 lb/hour</b>	<b>1,038 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Method 7, 7A, 7C, 7D, 7E</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):  <b>Allowable based on natural gas firing pursuant to 62-296.405(2)(d) and 62-296.800 FAC; 40 CFR Part 60, Subpart D, Sect. 60.44. If co-firing oil and gas, emission limit is prorated based on heat input.</b>		

Emissions Unit Information Section 2 of 7  
**Allowable Emissions (Pollutant identified on front page)**

A.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.2 lb/MMBtu/hr</b>		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Requested Allowable Emissions 0.2 to 0.3 lb/MMBtu/hr. 40 CFR 60.44(b) allows simultaneous firing of fuels.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		



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

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 2

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20.</b> %      Exceptional Conditions: <b>27.</b> % Maximum Period of Excess Opacity Allowed: <b>6</b> min/hour
4.	Method of Compliance: <b>Annual VE testing; EPA Method 9</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-296.800; 40 CFR Part 60, Subpart D, Section 60.42(a).</b>

**Visible Emissions Limitations:** Visible Emissions Limitation 2 of 2

1.	Visible Emissions Subtype: <b>VE99</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions:      %      Exceptional Conditions: <b>100</b> % Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour
4.	Method of Compliance: <b>None</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-210.700(1). 40 CFR 60; 60.8(c); 60.11(c). Allowed for 2 hours (120 minutes) per 24 hour period for start-up, shut-down and malfunction.</b>

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

**Continuous Monitoring System** Continuous Monitor 1 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO2</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Advanced Pollution Inst.</b> Model Number: <b>152</b> Serial Number: <b>170</b>	
5. Installation Date: <b>14 Dec 1994</b>	
6. Performance Specification Test Date: <b>10 Nov 1995</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75.</b>	

**Continuous Monitoring System** Continuous Monitor 2 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NOX</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Advanced Pollution Inst.</b> Model Number: <b>252</b> Serial Number: <b>139</b>	
5. Installation Date: <b>14 Dec 1994</b>	
6. Performance Specification Test Date: <b>10 Nov 1995</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75.</b>	

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

**Continuous Monitoring System** Continuous Monitor 3 of 8

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>United Sciences Inc.</b> Model Number: <b>500C</b> Serial Number: <b>0993687</b>	
5. Installation Date: <b>14 Dec 1994</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>COM required pursuant to 40 CFR Part 75</b>	

**Continuous Monitoring System** Continuous Monitor 4 of 8

1. Parameter Code: <b>CO2</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Milton Roy</b> Model Number: <b>3300</b> Serial Number: <b>N3K4430T</b>	
5. Installation Date: <b>14 Dec 1994</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75.</b>	

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

**Continuous Monitoring System** Continuous Monitor 5 of 8

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement: [ <input checked="" type="checkbox"/> ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Air Monitor</b> Model Number: <b>CEM</b> Serial Number: <b>6232D</b>	
5. Installation Date: <b>14 Dec 1994</b>	
6. Performance Specification Test Date: <b>10 Nov 1995</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>FLOW monitor required pursuant to 40 CFR Part 75.</b>	

**Continuous Monitoring System** Continuous Monitor 6 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO2</b>
3. CMS Requirement: [ <input checked="" type="checkbox"/> ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Lear Siegler</b> Model Number: <b>SM810</b> Serial Number: <b>114994U</b>	
5. Installation Date: <b>26 Feb 1985</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR 60.45</b>	

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

**Continuous Monitoring System** Continuous Monitor 7 of 8

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Lear Siegler</b> Model Number: <b>RM41</b> Serial Number: <b>598</b>	
5. Installation Date: <b>26 Aug 1980</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>COM required pursuant to 40 CFR 60.45</b>	

**Continuous Monitoring System** Continuous Monitor 8 of 8

1. Parameter Code: <b>O2</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Lear Siegler</b> Model Number: <b>CM50</b> Serial Number: <b>080798</b>	
5. Installation Date: <b>26 Aug 1980</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR 60.45</b>	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

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

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	<input type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input checked="" type="checkbox"/> ] Unknown
	SO <sub>2</sub>	<input type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input checked="" type="checkbox"/> ] Unknown
	NO <sub>2</sub>	<input type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input checked="" type="checkbox"/> ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO <sub>2</sub>	lb/hour		tons/year
	NO <sub>2</sub>			tons/year
5.	PSD Comment (limit to 200 characters):			
	<b>Unit commenced construction prior to January 6, 1975.</b>			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU2-L1</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU2-L2</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
3.	Detailed Description of Control Equipment	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
		<input checked="" type="checkbox"/> Not Applicable	
4.	Description of Stack Sampling Facilities	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU2-L4</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Not Applicable
		<input checked="" type="checkbox"/> Previously Submitted, Date: <u>1 Aug 1995</u>	
6.	Procedures for Startup and Shutdown	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU2-L6</u>	<input type="checkbox"/> Not Applicable
		<input type="checkbox"/> Not Applicable	
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Not Applicable	
8.	Supplemental Information for Construction Permit Application	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Not Applicable	
9.	Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Not Applicable	



**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU2-L10</u> <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU2-L12</u> <input type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required)  <input checked="" type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: <u>LMC-EU1-L14</u>  <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____  <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____  <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____  <input type="checkbox"/> Not Applicable

**ATTACHMENT LMC-EU2-D**  
**EMISSIONS UNIT REGULATIONS**

## ATTACHMENT LMC-EU2-D

### Applicable Requirements Listing - Power Plants Acid Rain Units

EMISSION UNIT ID: EU2 - McIntosh Plant - FFFSG Unit 2

#### FDEP Rules:

##### Air Pollution Control-General Provisions:

- 62-204.800(7)(b)1. (State Only) - NSPS Subpart D
- 62-204.800(7)(c) (State Only) - NSPS authority
- 62-204.800(7)(d)(State Only) - NSPS General Provisions

- 62-204.800(12) (State Only) - Acid Rain Program
- 62-204.800(13) (State Only) - Allowances
- 62-204.800(14) (State Only) - Acid Rain Program Monitoring
- 62-204.800(16) (State Only) - Excess Emissions (Potentially applicable over term of permit)

##### Stationary Sources-General:

- 62-210.650 - Circumvention; EUs with control device
- 62-210.700(1) - Excess Emissions; Malfunction, startup/shutdown
- 62-210.700(4) - Excess Emissions; poor maintenance
- 62-210.700(6) - Excess Emissions; notification

##### Acid Rain:

- 62-214.300 - All Acid Rain Units (Applicability)
- 62-214.320(1)(a),(2) - All Acid Rain Units (Application Shield)
- 62-214.330(1)(a)1. - Compliance Options (if 214.430)
- 62-214.340 - Exemptions (new units, retired units)
- 62-214.350(2);(3);(6) - All Acid Rain Units (Certification)
- 62-214.370 - All Acid Rain Units (Revisions; correction; potentially applicable if a need arises)
- 62-214.430 - All Acid Rain Units (Compliance Options-if required)

##### Stationary Sources-Emission Standards:

- 62-296.405(2) - New Sources

##### Stationary Sources-Emission Monitoring (where stack test is required):

- 62-297.310(1) - All Units (Test Runs-Mass Emission)
- 62-297.310(2)(b) - All Units (Operating Rate; other than CTs;no CT)
- 62-297.310(3) - All Units (Calculation of Emission)
- 62-297.310(4)(a) - All Units (Applicable Test Procedures;Sampling time)
- 62-297.310(4)(b) - All Units (Sample Volume)
- 62-297.310(4)(c) - All Units (Required Flow Rate Range-PM/H2SO4/F)
- 62-297.310(4)(d) - All Units (Calibration)
- 62-297.310(4)(e) - All Units (EPA Method 5-only)
- 62-297.310(5) - All Units (Determination of Process Variables)

- 62-297.310(6)(a) - All Units (Permanent Test Facilities-general)
- 62-297.310(6)(c) - All Units (Sampling Ports)
- 62-297.310(6)(d) - All Units (Work Platforms)
- 62-297.310(6)(e) - All Units (Access)
- 62-297.310(6)(f) - All Units (Electrical Power)
- 62-297.310(6)(g) - All Units (Equipment Support)
- 62-297.310(7)(a)1. - Applies mainly to CTs/Diesels
- 62-297.310(7)(a)2. - FFSG excess emissions
- 62-297.310(7)(a)3. - Permit Renewal Test Required
- 62-297.310(7)(a)4. a; - Annual Test
- 62-297.310(7)(a)5. - PM exemption if < 400 hrs/yr
- 62-297.310(7)(a)6. - PM FFSG semi annual test required if > 200 hrs/yr
- 62-297.310(7)(a)7. - PM quarterly monitoring if > 100 hrs/yr
- 62-297.310(7)(a)9. - FDEP Notification - 15 days
- 62-297.310(7)(c) - Waiver of Compliance Tests (Fuel Sampling)
- 62-297.310(8) - Test Reports

**Federal Rules:**

**NSPS Subpart D:**

- 40 CFR 60.42(a)(1) - PM (0.1 lb/mmBtu)
- 40 CFR 60.42(a)(2) - VE (20%; 1-6min 27%)
- 40 CFR 60.43(a)(1) - SO<sub>2</sub>; liquid fuel (0.8 lb/mmBtu)
- 40 CFR 60.43(a)(2) - SO<sub>2</sub>; solid fuel (1.2 lb/mmBtu)
- 40 CFR 60.43(b) - SO<sub>2</sub>; Simultaneous firing
- 40 CFR 60.43(c) - SO<sub>2</sub>; compliance; allows gas co-firing
- 40 CFR 60.44(a)(1) - NO<sub>x</sub>; gas (0.2 lb/mmBtu)
- 40 CFR 60.44(a)(2) - NO<sub>x</sub>; oil (0.3 lb/mmBtu)
- 40 CFR 60.44(a)(3) - NO<sub>x</sub>; coal (0.7 lb/mmBtu)
- 40 CFR 60.44(b) - NO<sub>x</sub>; Simultaneous firing
- 40 CFR 60.45 (a) - Monitoring; Requires CEMS; VE, SO<sub>2</sub> & NO<sub>x</sub>
- 40 CFR 60.45(b)(2) - Exempts SO<sub>2</sub> CEMS for non-FGD units
- 40 CFR 60.45(b)(3) - Exempts CEMS when tests 70% of standard
- 40 CFR 60.45(b)(4) - If no CEMS than no O<sub>2</sub> or CO<sub>2</sub> required
- 40 CFR 60.45(c) - Performance Requirements for CEMS
- 40 CFR 60.45(e) - Conversion Procedures for CEMS
- 40 CFR 60.45(g)(1) - Excess Emission Reports-Opacity
- 40 CFR 60.45(g)(2) - Excess Emission Reports-SO<sub>2</sub>
- 40 CFR 60.45(g)(3) - Excess Emission Reports-NO<sub>x</sub> (currently exempt < 70% STD)
- 40 CFR 60.46 (a) - Test Methods for Performance tests
- 40 CFR 60.46 (b) - Test Methods for PM, SO<sub>2</sub> and NO<sub>x</sub>
- 40 CFR 60.46 (c) - Fuel combinations

**NSPS General Requirements:**

- 40 CFR 60.7(a)(4) - Notification and Recordkeeping (Physical/Operational change)
- 40 CFR 60.7(b) - Notification and Recordkeeping (startup/shutdown/malfunction)

- 40 CFR 60.7(c) - Notification and Recordkeeping (startup/shutdown/malfunction)
- 40 CFR 60.7(d) - Notification and Recordkeeping (startup/shutdown/malfunction)
- 40 CFR 60.7(f) - Notification and Recordkeeping (maintain records-2 yrs)
- 40 CFR 60.8(c) - Performance Tests (representative conditions)
- 40 CFR 60.8(e) - Provide Stack Sampling Facilities
  
- 40 CFR 60.8(f) - Test Runs
- 40 CFR 60.11(a) - Compliance (ref. S. 60.8 or Subpart; other than opacity)
- 40 CFR 60.11(b) - Compliance (opacity determined EPA Method 9)
- 40 CFR 60.11(c) - Compliance (opacity; excludes startup/shutdown/malfunction)
- 40 CFR 60.11(d) - Compliance (maintain air pollution control equip.)
- 40 CFR 60.11(e)(2) - Compliance (opacity; ref. S. 60.8)
- 40 CFR 60.12 - Circumvention
- 40 CFR 60.13(a) - Monitoring (Appendix B; Appendix F)
- 40 CFR 60.13(c) - Monitoring (Opacity COMS)
- 40 CFR 60.13(d)(1) - Monitoring (CEMS; span, drift, etc.)
- 40 CFR 60.13(d)(2) - Monitoring (COMS; span, system check)
- 40 CFR 60.13(e) - Monitoring (frequency of operation)
- 40 CFR 60.13(f) - Monitoring (frequency of operation)
- 40 CFR 60.13(h) - Monitoring (COMS; data requirements)
  
- Acid Rain-Permits:
- 40 CFR 72.9(a) - Permit Requirements
- 40 CFR 72.9(b) - Monitoring Requirements
- 40 CFR 72.9(c)(1) - SO2 Allowances-hold allowances
- 40 CFR 72.9(c)(2) - SO2 Allowances-violation
- 40 CFR 72.9(c)(3)(iii) - SO2 Allowances-Phase II Units (listed)
- 40 CFR 72.9(c)(4) - SO2 Allowances-allowances held in ATS
- 40 CFR 72.9(c)(5) - SO2 Allowances-no deduction for 72.9(c)(1)(i)
- 40 CFR 72.9(d) - NOx Requirements
- 40 CFR 72.9(e) - Excess Emission Requirements
- 40 CFR 72.9(f) - Recordkeeping and Reporting
- 40 CFR 72.9(g) - Liability
- 40 CFR 72.20(a) - Designated Representative; required
- 40 CFR 72.20(b) - Designated Representative; legally binding
- 40 CFR 72.20(c) - Designated Representative; certification requirements
- 40 CFR 72.21 - Submissions
- 40 CFR 72.22 - Alternate Designated Representative
- 40 CFR 72.23 - Changing representatives; owners
- 40 CFR 72.24 - Certificate of representation
- 40 CFR 72.30(a) - Requirements to Apply (operate)

- 40 CFR 72.30(b)(2) - Requirements to Apply (Phase II-Complete)
  - 40 CFR 72.30(c) - Requirements to Apply (reapply before expiration)
  - 40 CFR 72.30(d) - Requirements to Apply (submittal requirements)
  - 40 CFR 72.31 - Information Requirements; Acid Rain Applications
  - 40 CFR 72.32 - Permit Application Shield
  - 40 CFR 72.33(b) - Dispatch System ID;unit/system ID
  - 40 CFR 72.33(c) - Dispatch System ID;ID requirements
  - 40 CFR 72.33(d) - Dispatch System ID;ID change
  - 40 CFR 72.40(a) - General; compliance plan
  - 40 CFR 72.40(b) - General; multi-unit compliance options
  - 40 CFR 72.40(c) - General; conditional approval
  - 40 CFR 72.40(d) - General; termination of compliance options
  - 40 CFR 72.51 - Permit Shield
  - 40 CFR 72.90 - Annual Compliance Certification
- Monitoring Part 75:
- 40 CFR 75.4 - Compliance Dates;
  - 40 CFR 75.5 - Prohibitions
  - 40 CFR 75.10(a)(1) - Primary Measurement; SO<sub>2</sub>;
  - 40 CFR 75.10(a)(2) - Primary Measurement; NO<sub>x</sub>;
  - 40 CFR 75.10(a)(3)(i) - Primary Measurement; CO<sub>2</sub>; monitor
  - 40 CFR 75.10(a)(3)(ii) - Primary Measurement; CO<sub>2</sub>; Appendix G
  - 40 CFR 75.10(a)(4) - Primary Measurement; Opacity;
  - 40 CFR 75.10(b) - Primary Measurement; Performance Requirements
  - 40 CFR 75.10(c) - Primary Measurement; Heat Input; Appendix F
  - 40 CFR 75.10(d) - Primary Measurement; Hourly Operating ; Opacity; SO<sub>2</sub>
  - 40 CFR 75.10(f) - Primary Measurement; Minimum Measurement
  - 40 CFR 75.10(g) - Primary Measurement; Minimum Recording
  - 40 CFR 75.11(d) - SO<sub>2</sub> Monitoring; Gas- and Oil-fired units
  - 40 CFR 75.11(e) - SO<sub>2</sub> Monitoring; Gaseous firing
  - 40 CFR 75.12(a) - NO<sub>x</sub> Monitoring; Coal; Non-peaking oil/gas units
  - 40 CFR 75.12(b) - NO<sub>x</sub> Monitoring; Determination of NO<sub>x</sub> emission rate;  
Appendix F
  - 40 CFR 75.13(a) - CO<sub>2</sub> Monitoring; Continuous monitor
  - 40 CFR 75.13(b) - CO<sub>2</sub> Monitoring; Appendix G
  - 40 CFR 75.14(a) - Opacity Monitoring; Coal and oil units
  - 40 CFR 75.20(a) - Initial Certification Approval Process; Loss of Certification
  - 40 CFR 75.20(b) - Recertification Procedures (if recertification necessary)
  - 40 CFR 75.20(c) - Certification Procedures (if recertification necessary)
  - 40 CFR 75.20(f) - Alternate Monitoring system
  - 40 CFR 75.20(g) - Exceptions to CEMS; oil/gas/diesel; Appendix D & E
  - 40 CFR 75.21(a) - QA/QC; CEMS; Appendix B  
(Suspended 7/17/95-12/31/96)
  - 40 CFR 75.21(b) - QA/QC; Opacity; Part 51 Appendix M

- 40 CFR 75.21(c) - QA/QC; Calibration Gases
- 40 CFR 75.21(d) - QA/QC; Notification of RATA
- 40 CFR 75.21(e) - QA/QC; Audits
- 40 CFR 75.21(f) - QA/QC; CEMS (Effective 7/17/96-12/31/96)
- 40 CFR 75.22 - Reference Methods
- 40 CFR 75.24 - Out-of-Control Periods; CEMS
- 40 CFR 75.30(a)(1) - General Missing Data Procedures; SO<sub>2</sub>
- 40 CFR 75.30(a)(2) - General Missing Data Procedures; flow
- 40 CFR 75.30(a)(3) - General Missing Data Procedures; NO<sub>x</sub>
- 40 CFR 75.30(a)(4) - General Missing Data Procedures; SO<sub>2</sub>
- 40 CFR 75.30(b) - General Missing Data Procedures; certified backup monitor
- 40 CFR 75.30(c) - General Missing Data Procedures; certified backup monitor
- 40 CFR 75.30(d) - General Missing Data Procedures; SO<sub>2</sub> (optional before 1/1/97)
- 40 CFR 75.30(e) - General Missing Data Procedures; bypass/multiple stacks
- 40 CFR 75.31 - Initial Missing Data Procedures (new/re-certified CMS)
- 40 CFR 75.32 - Monitoring Data Availability for Missing Data
- 40 CFR 75.33 - Standard Missing Data Procedures
- 40 CFR 75.35 - Missing Data for CO<sub>2</sub>
- 40 CFR 75.36 - Missing Data for Heat Input
- 40 CFR 75.40 - Alternate Monitoring Systems-General
- 40 CFR 75.41 - Alternate Monitoring Systems-Precision Criteria
- 40 CFR 75.42 - Alternate Monitoring Systems-Reliability Criteria
- 40 CFR 75.43 - Alternate Monitoring Systems-Accessibility Criteria
- 40 CFR 75.44 - Alternate Monitoring Systems-Timeliness Criteria
- 40 CFR 75.45 - Alternate Monitoring Systems-Daily QA
- 40 CFR 75.46 - Alternate Monitoring Systems-Missing data
- 40 CFR 75.47 - Alternate Monitoring Systems-Criteria for Class
- 40 CFR 75.48 - Alternate Monitoring Systems-Petition
- 40 CFR 75.53 - Monitoring Plan ; revisions
- 40 CFR 75.54(a) - Recordkeeping-general
- 40 CFR 75.54(b) - Recordkeeping-operating parameter
- 40 CFR 75.54(c) - Recordkeeping-SO<sub>2</sub>
- 40 CFR 75.54(d) - Recordkeeping-NO<sub>x</sub>
- 40 CFR 75.54(e) - Recordkeeping-CO<sub>2</sub>
- 40 CFR 75.54(f) - Recordkeeping-Opacity
- 40 CFR 75.55(c) - General Recordkeeping (Specific Situations)
- 40 CFR 75.55(c) - General Recordkeeping (Specific Situations)
- 40 CFR 75.56 - Certification; QA/QC Provisions
- 40 CFR 75.60 - Reporting Requirements-General
- 40 CFR 75.61 - Reporting Requirements-Notification cert/recertification
- 40 CFR 75.62 - Reporting Requirements-Monitoring Plan

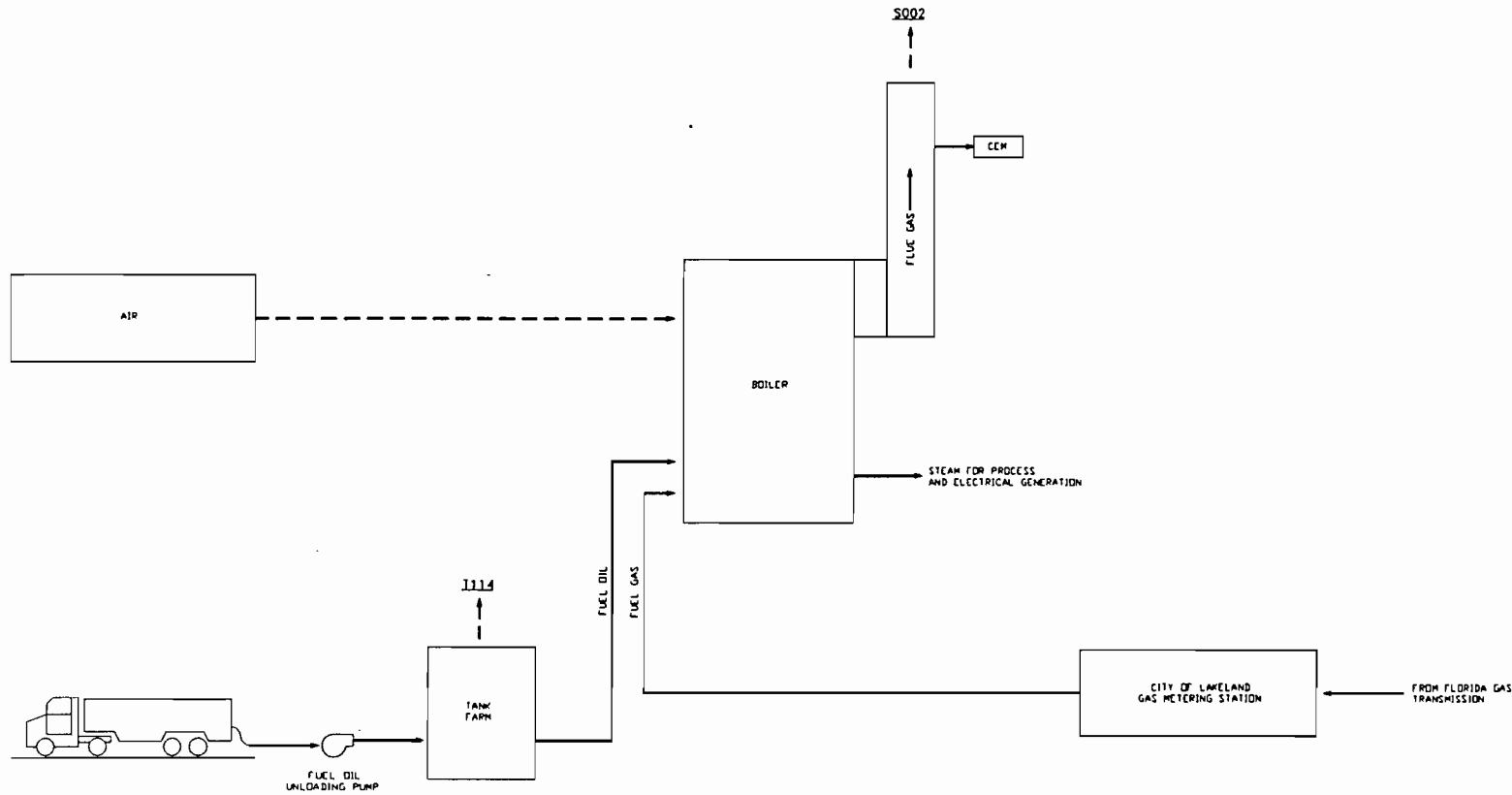
- 40 CFR 75.63
  - 40 CFR 75.64(a)
  - 40 CFR 75.64(b)
  - 40 CFR 75.64(c)
  - 40 CFR 75.64(d)
  - 40 CFR 75.65
  - 40 CFR 75.66
  - Appendix A-1.
  - Appendix A-2.
  - Appendix A-3.
  - Appendix A-4.
  - Appendix A-5.
  - Appendix A-6.
  - Appendix A-7.
  - Appendix B
  - Appendix C-1.
  - Appendix C-2.
  - Appendix D
  - Appendix F
  - Appendix G-2.
  - Appendix H
- Reporting Requirements-Certification/Recertification
  - Reporting Requirements-Quarterly reports; submission
  - Reporting Requirements-Quarterly reports; DR statement
  - Rep. Req.; Quarterly reports; Compliance Certification
  - Rep. Req.; Quarterly reports; Electronic format
  - Opacity Reports
  - Petitions to the Administrator (if required)
  - Installation and Measurement Locations
  - Equipment Specifications
  - Performance Specifications
  - Data Handling and Acquisition Systems
  - Calibration Gases
  - Certification Tests and Procedures
  - Calculations
  - QA/QC Procedures
  - Missing Data; SO<sub>2</sub>/NO<sub>x</sub> for controlled sources
  - Missing Data; Load-Based Procedure; NO<sub>x</sub> & flow
  - Optional SO<sub>2</sub>; Oil-/gas-fired units
  - Conversion Procedures
  - Determination of CO<sub>2</sub>; from combustion sources
  - Traceability Protocol

Acid Rain Program-Excess Emissions (these are future requirements that may become applicable during the term of the Title V permit):

- 40 CFR 77.3
  - 40 CFR 77.5(b)
  - 40 CFR 77.6
- Offset Plans (future)
  - Deductions of Allowances (future)
  - Excess Emissions Penalties (SO<sub>2</sub> and NO<sub>x</sub>;future)



**ATTACHMENT LMC-EU2-L1**  
**PROCESS FLOW DIAGRAM**



2	MG	5-28-96	HP	ISSUED FOR TITLE V
1	MG	5-15-96	HP	CHANGE TITLE
REV. NO.	BY	DATE	APPR.	REVISION



LAKELAND  
ELECTRIC  
& WATER

DESCRIPTION		DIVISION		CAD	SCALE
LAKELAND ELECTRIC & WATER UTILITIES C.D. McINTOSH POWER PLANT UNIT NO. 2 PROCESS FLOW DIAGRAM		PRODUCTION ENGINEERING			NONE
		ENGINEER		PATTERSON	PROJ. NO.
		DRN. BY:		MCIEGER	AIR PERMIT
		DATE		9-19-94	DWG. NO.
		APPR. BY:			LMC-EU2-L1/SKM-26
					REV. 2

SIZE B

**ATTACHMENT LMC-EU2-L2**  
**FUEL ANALYSIS OR SPECIFICATION**

Attachment LMC-EU2-L2

Fuel Analysis

Natural Gas Analysis

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
Relative density	0.58 (compared to air)	
heat content	950 - 1124 Btu/cu ft. (HHV)	
% sulfur	0.43 grains/CCF <sup>1</sup>	1 grain/100 CF
% nitrogen	0.8% by volume	
% ash	negligible	

Note: The values listed are "typical" values based upon information supplied by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data from laboratory analysis

Attachment LMC-EU2-L2

Fuel Analysis

No. 6 Fuel Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	8 <sup>1</sup>	-
Relative density	8.2 lb/gal <sup>2</sup>	-
Heat content	18,300 Btu / lb (HHV)	-
% sulfur	0.7 <sup>2</sup>	0.728 <sup>3</sup>
% nitrogen	0.25 - 0.50	-
% ash	negligible	0.01 <sup>1</sup>

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from the fuel procurement specification

<sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data to meet 0.8 lb/10<sup>6</sup> BTU<sup>3</sup> for oil firing only; when co-firing with natural gas, the sulfur content can be as high as 2.5 percent.

Attachment LMC-EU2-L2

Fuel Analysis

No. 2 Fuel Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	30 <sup>1</sup>	-
Relative density	6.92 lb/gal <sup>2</sup>	
Heat content	18,400 Btu / lb (LHV)	
% sulfur	<0.5 <sup>2</sup>	0.5 <sup>3</sup>
% nitrogen	0.025 - 0.030	
% ash	negligible	0.01 <sup>1</sup>

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from the fuel procurement specification

<sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data from current air permit.

Attachment LMC-EU2-L2

Fuel Analysis

Propane Analysis

<u>Parameter</u>	<u>Typical Value</u>
heat content	81 Btu/gal
% sulfur	negligible
% nitrogen	0.8% by volume
% ash	negligible

**ATTACHMENT LMC-EU2-L4**

**DESCRIPTION OF STACK SAMPLING FACILITIES**



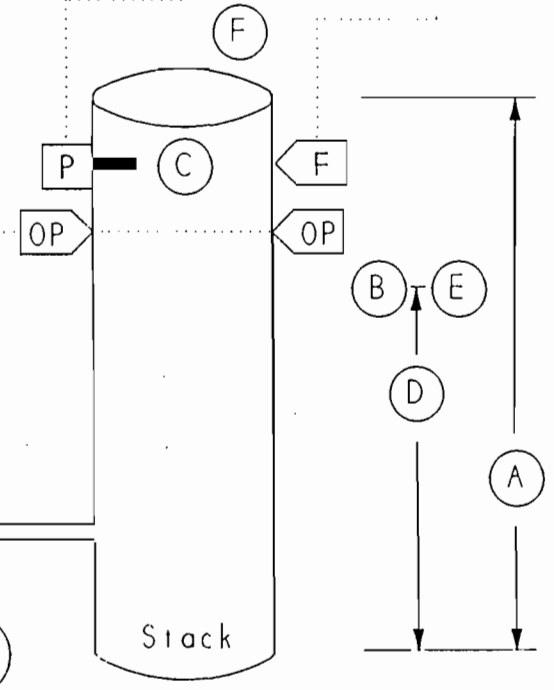
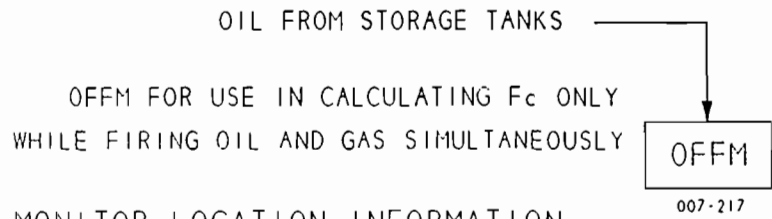
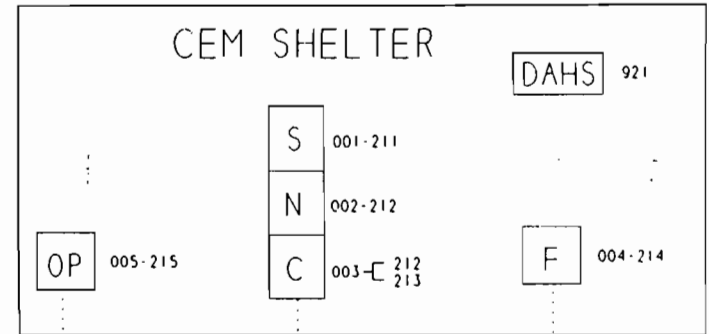
# ATTACHMENT #2

PAGE 2 OF 3 PAGES

Schematic Diagram for Unit 2 for  
C.D. McIntosh Jr. Power Plant

B:\VCADD\U2CEH

C.D. McIntosh Jr. Plant  
ORIS Code: 676  
NADB Boiler ID: 2



## MONITOR LOCATION INFORMATION

- A. STACK HEIGHT ABOVE GRADE (FT) \_\_\_\_\_ 156'6"
- B. STACK DIAMETER AT TEST PORT \_\_\_\_\_ 10'6"
- C. INSIDE CROSS-SECTIONAL AREA AT TEST PORT (FT<sup>2</sup>) \_\_\_\_\_ 86.59
- D. TEST PORT ELEVATION
  - 1. ABOVE GRADE (FT) \_\_\_\_\_ 134'2"
  - 2. ABOVE LAST DISTURBANCE
    - A. FEET \_\_\_\_\_ 26'7"
    - B. STACK DIAMETERS \_\_\_\_\_ 2.13
  - 3. PRIOR TO NEXT DISTURBANCE
    - A. FEET \_\_\_\_\_ 22'4"
    - B. STACK DIAMETERS \_\_\_\_\_ 2.13
- E. LOCATION OF SAMPLE PROBE. GASEOUS EXTRACTION PROBE IS IN SAME PLANE AS TEST PORT. OPACITY PROBE AT 1.0 FT. ABOVE SAMPLE PROBE ELEVATION.
- F. INSIDE CROSS-SECTIONAL AREA AT FLUE EXIT (FT<sup>2</sup>) \_\_\_\_\_ 86.59

**ATTACHMENT LMC-EU2-L6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

**ATTACHMENT LMC-EU2-L6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**  
**MINIMIZING EXCESS EMISSIONS**

Startup of the fossil-fuel boilers begins when fuel (propane, natural gas or No. 2 fuel oil) is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized and the megawatt load on the unit is stable and above 10-15 percent load.

Shutdown of the fossil-fuel boilers begins when unit megawatt load is decreased to below 10-15 percent of maximum and continues until the final burner gun is removed from service.

Emissions may be detected during all modes of boiler operation by various continuous emissions monitors. Continuous monitors are currently in place for NO<sub>x</sub>, CO<sub>2</sub>, SO<sub>2</sub>, flow and opacity. Audible and visual alarms are activated whenever the permitted value for opacity is approached.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- burner elevation loading
- proper excess air adjustments
- recognizing and removal of faulty burners
- fuel oil temperature adjustments
- proper and timely operation of boiler cleaning devices
- removal of the unit from system-dispatch mode (load control)
- reduction of unit megawatt load
- stopping and restarting of boiler cleaning devices
- lowering load ramp rate
- pressure rate changes
- placing boiler controls on manual
- adjusting burner dampers to increase windbox/furnace air pressure

Knowledge of the appropriate countermeasures to take when excess emissions occur is a part of the routine operator training for those who operate the boilers. Topics include current permit limits,

maximum allowable duration of excess emissions, appropriate countermeasures for excess emissions, duty to notify, and fuels and combustion training.

o

**ATTACHMENT LMC-EU2-L10**  
**ALTERNATIVE METHODS OF OPERATION**

**ATTACHMENT LMC-EU2-L10**  
**ALTERNATIVE METHODS OF OPERATION**  
**FOSSIL FUEL STEAM GENERATOR**

The fossil fuel steam generator can operate on both natural gas and fuel oil (No. 6 through No. 2 fuel oil). The maximum sulfur content in the fuel oil shall not exceed 2.5 percent. The No. 2 fuel oil is used as pilot fuel during startup, shutdown, and malfunctions. This unit can operate for the entire year at varying loads (i.e., 8,760 hours 0 to 100 percent load) and can fire fuels, alone or in combination, with no restrictions on hours of operation.

**ATTACHMENT LMC-EU2-L12**

**IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS**

**ATTACHMENT LMC-EU2-L12**

**REQUEST TO CHANGE CONDITIONS OF THE  
AIR CONSTRUCTION/PSD PERMIT THAT ARE OBSOLETE AND OUTDATED**

This request is to exclude from the Title V permit, several conditions of the FDEP issued air construction permit (AC53-2244) that are obsolete and outdated. This request is made pursuant to FDEP's Guidance on Implementation of Existing Permit Conditions Into Title V Permits (DARM-PER/V-14; February 8, 1996).

Specific Conditions 1,2, 4, 5, 6 and 10 deal with initial operation and compliance activities that have already been completed. These conditions are outdated and obsolete. Specific Condition 7 is outdated by Rule 62-297.310(6). Specific Condition 9 is not unit specific and is outdated by Rule 62-296.320(4)(c).



### **ADDITIONAL APPLICABLE REQUIREMENTS**

Applicable Requirements as defined in Rule 62-210.200(29) not identified in Section D of this emission unit section are included in this attachment of the application. Any air operation permit issued by the Department (or local program designee) and included in this attachment is provided for information purposes. The specific conditions of the operating permit are not Applicable Requirements as defined in Rule 62-210.200(29) unless implementing a specific Applicable Requirement of the Department's rules (e.g., emission limitations and consent orders).

444  
MAY 27 1976

Best Available Copy

J. A. LIBEY, Supt. of Generation  
DEPT. OF ELECTRIC & WATER UTILITIES  
STATE OF FLORIDA  
TALLAHASSEE, FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

CENTRAL SUBDISTRICT

P.O. BOX 9205

500 E. CENTRAL AVENUE

WINTER HAVEN, FLORIDA 33880

JOSEPH W. LANDERS JR.  
SECRETARY

REUBEN O'D. ASKEW  
GOVERNOR

May 25, 1976

Mr. C. D. McIntosh, Jr., Director  
Department of Electric & Water Utilities  
P. O. Box 368  
Lakeland, Florida 33801

POLK CO. AP  
DEPT. OF ELECTRIC &  
WATER UTILITIES

Dear Mr. McIntosh:

Pursuant to your recent application, please find enclosed  
a permit (No. AC53-2244 ) dated 10-9-73 to construct/  
~~XXXXXX~~ the subject pollution source.


This permit will expire on 8-30-76 , and will be  
subject to the conditions, requirements and restrictions  
checked or indicated otherwise in the attached sheet  
"Construction/~~XXXXXXXXXX~~ Permit Conditions".

This permit is issued under the authority of Florida Statute  
403.061(16). The time limits imposed herein are a condition  
to this permit and are enforceable under Florida Statute  
403.161. You are hereby placed on Notice that the Department  
will review this permit before the scheduled date of expiry  
and will seek court action for violation of the conditions  
and requirements of this permit.

You have ten days from the date of receipt hereof within  
which to seek a review of the conditions and requirements  
contained in this permit. Failure to file a written request  
to review or modify the conditions or requirements contained  
in this permit shall be deemed a waiver of any objections  
thereto.

Your continued cooperation in this matter is appreciated and  
in future communication please refer to your permit number.

Yours very truly,



J. H. Kerns, P.E.  
Chief of Permitting

JHK:bat

cc: Central Files

CONSTRUCTION PERMIT PROVISOS

AIR POLLUTION SOURCES

Permit No. AC53-2244

Date: 10-9-73

1. Construction of this installation shall be completed by December 1, 1975. Application for Permit to Operate to be submitted by August 30, 1976.
- (X) 2. This construction permit expires on August 30, 1976 following an initial period of operation for appropriate testing to determine compliance with the Rules of the Florida Department of Environmental Regulation Commission.
- (X) 3. All applicable rules of the Department including design discharge limitations specified in the application shall be adhered to. The permit holder may also need to comply with county, municipal, federal, or other state regulations prior to construction.
- (X) 4. The applicant shall continue the retention of the engineer of record for the inspection of the construction of this project. Upon completion the engineer shall inspect for conformity to construction permit applications and associated documents. A report of such inspection shall be submitted by the engineer to the Department of Environmental Regulation for consideration toward the issuance of an operation permit.  
steam boiler
- (X) 5. This Unit #2 shall be tested\* for particulates, sulfur dioxides, and nitrogen oxides within 30 days after it is placed in operation. These test results are required prior to our issuance of an operation permit and shall be submitted in duplicate to the Florida Department of Environmental Regulation 500 East Central Avenue, Suite 238, Winter Haven, FL 33880.

---

\* Fuel Analysis May be Submitted for Required Sulfur Dioxide Emission Test.

- (X) 6. The operation of this installation shall be observed for visible emissions in accordance with Method 9-Visible Determination of the Opacity of Emissions from Stationary Sources (36FR24895; Federal Register, December 23, 1971). The observation results are required prior to our issuance of an operation permit, and shall be submitted in duplicate to the Department of Environmental Regulation District Office, 500 East Central Avenue, Suite 238, Winter Haven, Florida 33880
- (X) 7. Satisfactory ladders, platforms, and other safety devices shall be provided/available as well as necessary ports to facilitate the carrying out of an adequate sampling program.
- ( ) 8. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.
- (X) 9. All fugitive dust generated at this site shall be adequately controlled.
- (X) 10. Issuance of this permit does not indicate an endorsement or PERM 12-3 approval of any other required permits by this Department.

STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL REGULATION

NEDS 0004  
POINT ID \_\_\_\_\_

**CONSTRUCTION PERMIT**

FOR City of Lakeland  
Dept. Electric & Water Utilities  
P. O. Box 368  
Lakeland, Florida 33803  
PERMIT NO. AC53-2244 DATE OF ISSUE 10-9-73  
PURSUANT TO THE PROVISIONS OF SECTIONS 403.061(16) AND 403.707 OF CHAPTER 403, FLORIDA STATUTES AND CHAPTERS 17-4 AND 17-7 FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:  
Mr. C. D. McIntosh, Jr., Director  
FOR THE CONSTRUCTION OF THE FOLLOWING:  
Plant No. 3, Unit No. 2, Babcock & Wilcox steam generator  
producing 19,500,000 lbs of steam per day consuming 4,213.5  
barrels per day of 0.77% sulfur fuel oil. -Subject to attached  
conditions nos. 1, 2, 3, 4, 5, 6, 7, 9, and 10

LOCATED AT Plant No. 3 on Northern shore of Lake Parker,  
Lakeland, Polk Co., FL UTM: 17409.1E 3106.0N

IN ACCORDANCE WITH THE APPLICATION DATED February 14, 1976

ANY CONDITIONS OR PROVISOS WHICH ARE ATTACHED HERETO ARE INCORPORATED INTO AND MADE A PART OF THIS PERMIT AS THOUGH FULLY SET FORTH HEREIN. FAILURE TO COMPLY WITH SAID CONDITIONS OR PROVISOS SHALL CONSTITUTE A VIOLATION OF THIS PERMIT AND SHALL SUBJECT THE APPLICANT TO SUCH CIVIL AND CRIMINAL PENALTIES AS PROVIDED BY LAW.

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ISSUE UNTIL August 30, 1976

OR UNTIL REVOKED OR SURRENDERED AND SHALL BE SUBJECT TO ALL LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

J. H. Kesus  
DISTRICT ENGINEER

Joseph Landers, Jr.  
JOSEPH LANDERS, JR.  
SECRETARY  
DISTRICT MANAGER

JLT

This permit is an extension of construction permit AC53-2244.

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

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

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

2. Single Process, Group of Processes, or Fugitive Only? Check one:

[ X ] 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.

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

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>McIntosh Unit 3-Fossil Fuel-Fired Steam Generator (FFFSG)</b>		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown <b>006</b>		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? <input checked="" type="checkbox"/> Yes [ ] No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters): <b>This Emission Unit is a coal fired steam generating unit which also co-fires refuse-derived fuel and petroleum coke.</b>		

**Emissions Unit Control Equipment Information**

A.

1. Description (limit to 200 characters):  <b>Electrostatic Precipitator (ESP)</b>
2. Control Device or Method Code: <b>10</b>

B.

1. Description (limit to 200 characters):  <b>Flue Gas Desulfurization (FGD) System</b>
2. Control Device or Method Code: <b>67</b>

C.

1. Description (limit to 200 characters):  <b>Low-NOx Burner</b>
2. Control Device or Method Code: <b>24</b>

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

**Emissions Unit Details**

1. Initial Startup Date: <b>1 Sep 1982</b>		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	<b>364 MW</b>	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	<b>3,640</b>	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		
<p><b>Emissions unit co-fires coal and refuse-derived fuel (RDF) and coal, petroleum coke and/or RDF; The EU is also authorized to burn residual oil and gas. Heat Input based on fuel flow and sampling.</b></p>		

**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/yr	<b>8,760</b> hours/yr



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

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

**Not Applicable**

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment LMC-EU3-D

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: <b>See Att. LMC-EU3-L1</b>	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): <b>Exhausts through a single stack</b>	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>Not Applicable</b>	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	<b>250</b> feet
7. Exit Diameter:	<b>18</b> feet
8. Exit Temperature:	<b>167</b> °F

9. Actual Volumetric Flow Rate:	1,260,536 acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone: 17	East (km): 409.3      North (km): 3106.3
14. Emission Point Comment (limit to 200 characters):	
	<p><b>Stack parameters reflect design conditions. Exit temp is operated &gt;167°F during normal operation. For oil firing with no SO2 scrubbing, the estimated exit gas temp= 250°F, Flow= 1,093,685 ACFM</b></p>

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 1 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Coal</b>	
2. Source Classification Code (SCC):  <b>1-01-001-01</b>	
3. SCC Units:  <b>Tons</b>	
4. Maximum Hourly Rate:  <b>159.6</b>	5. Maximum Annual Rate:  <b>1,398,096</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>3.3</b>	8. Maximum Percent Ash:  <b>16</b>
9. Million Btu per SCC Unit:  <b>23</b>	
10. Segment Comment (limit to 200 characters):  <b>See Attachment LMC-EU3-F10</b>	

**Segment Description and Rate:** Segment 2 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Coal and RDF (90/10 heat input basis)</b>	
2. Source Classification Code (SCC): <b>1-01-001-01</b>	
3. SCC Units: <b>Tons</b>	
4. Maximum Hourly Rate: <b>184.1</b>	5. Maximum Annual Rate: <b>1,612,716</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>2.9</b>	8. Maximum Percent Ash: <b>17</b>
9. Million Btu per SCC Unit: <b>22</b>	
10. Segment Comment (limit to 200 characters): <b>See Attachment LMC-EU3-F10</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 3 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Oil</b>	
2. Source Classification Code (SCC):  <b>1-01-004-01</b>	
3. SCC Units: <b>1,000 gallons</b>	
4. Maximum Hourly Rate:  <b>24.268</b>	5. Maximum Annual Rate:  <b>212,584</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>0.73</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <b>150</b>	
10. Segment Comment (limit to 200 characters):  <b>See Attachment LMC-EU3-F10</b>	

Segment Description and Rate: Segment 4 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Oil and RDF (90/10 heat input basis)</b>	
2. Source Classification Code (SCC): <b>1-01-004-01</b>	
3. SCC Units: <b>1,000 gallons</b>	
4. Maximum Hourly Rate: <b>21.84</b>	5. Maximum Annual Rate: <b>192,318</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0.73</b>	8. Maximum Percent Ash: <b>2</b>
9. Million Btu per SCC Unit: <b>150</b>	
10. Segment Comment (limit to 200 characters): <b>See Attachment LMC-EU3-F10</b>	



**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 5 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Coal and petroleum coke (80/20 weight basis)</b>	
2. Source Classification Code (SCC):  <b>1-01-001-01</b>	
3. SCC Units:  <b>Tons</b>	
4. Maximum Hourly Rate:  <b>152.6</b>	5. Maximum Annual Rate:  <b>1,336,776</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>3.3</b>	8. Maximum Percent Ash:  <b>15</b>
9. Million Btu per SCC Unit:  <b>24</b>	
10. Segment Comment (limit to 200 characters):  <b>See Attachment LMC-EU3-F10</b>	

**Segment Description and Rate:** Segment 6 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Coal, petroleum coke, and RDF. (80/20 weight basis at 90% of heat input; RDF at 10% heat input)</b>	
2. Source Classification Code (SCC): <b>1-01-001-01</b>	
3. SCC Units: <b>Tons</b>	
4. Maximum Hourly Rate: <b>168.8</b>	5. Maximum Annual Rate: <b>1,478,688</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>3.3</b>	8. Maximum Percent Ash: <b>15</b>
9. Million Btu per SCC Unit: <b>22</b>	
10. Segment Comment (limit to 200 characters): <b>See Attachment LMC-EU3-F10</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 7 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Natural Gas</b>	
2. Source Classification Code (SCC):  <b>1-01-006-01</b>	
3. SCC Units:  <b>Million Cubic Feet</b>	
4. Maximum Hourly Rate:  <b>3.555</b>	5. Maximum Annual Rate:  <b>31,139</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <b>1,024</b>	
10. Segment Comment (limit to 200 characters):  <b>Natural gas is proposed as a supplementary fuel. Heat content of mixture based on maximum hourly rate (TPH) and maximum heat input rating for unit of 3,640 MMBtu/hr.</b>	

**Segment Description and Rate:** Segment   of

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	010		EL
SO2	067		EL
NOx	024		EL
CO			NS
VOC			NS
H107	067		NS
HCL	067		NS
PM10	010		NS

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

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>PM</b>	
2. Total Percent Efficiency of Control:	<b>99.1 %</b>
3. Potential Emissions:	<b>273 lb/hour                      1,196 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.075 lb/MMBtu</b>  Reference: PSD-FL-008(B)	
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>0.075 lb/MMBtu x 3,640 MMBtu/hr = 273.0 lb/hr; 273 lb/hr x 8,760 hr/yr x 1 ton/2,000 = 1,195.7 TPY</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>See Attachment LMC-EU3-H9</b>	

Emissions Unit Information Section 3 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.075 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>273 lb/hour</b>	<b>1,196 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 5 and 5B; if &gt; 400 hrs</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>The allowable emission limit is based on PSD-FL-008(B) for Oil/RDF Firing.</b>		

B.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.07 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>254.8 lb/hour</b>	<b>1,116 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 5 and 5B; if &gt; 400 hrs</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>The allowable emission limit is based on PSD-FL-008(B) for oil firing.</b>		

Emissions Unit Information Section 3 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.05 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>182 lb/hour</b>	<b>797 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 5 and 5B</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):  <b>The allowable emission limit is based on PSD-FL-008(B) for coal/RDF firing and coal/RDF/pet coke firing.</b>		

B.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.044 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>160 lb/hour</b>	<b>702 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 5 and 5B</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):  <b>The allowable emission limit is based on PSD-FL-008(B) for coal firing and coal/pet coke.</b>		



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

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>SO2</b>	
2. Total Percent Efficiency of Control:	<b>85 %</b>
3. Potential Emissions:	<b>4,368 lb/hour                      19,132 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor:	<b>1.2 lb/MMBtu</b>  Reference: See Comment
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>1.2 lb/MMBtu x 3,640 MMBtu/hr = 4,368 lb/hr; 4,368 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 19,131.8 TPY</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Emission Factor Reference: 40 CFR 60.43(a)(2), PSD-FL-008(B). Emissions based on maximum heat input.</b>	

Emissions Unit Information Section 3 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>1.2 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>4,368 lb/hour</b>	<b>19,131 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 6 and 6C</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>See Attachment LMC-EU3-H6</b>		

B.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.8 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>2,912 lb/hour</b>	<b>12,754.6 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Fuel Analysis test</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Oil Firing; the allowable emission limit is based on 40 CFR Part 60, Subpart D, Section 60.43(a)(1) for oil firing; PSD-FL-008(B).</b>		

Emissions Unit Information Section 3 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.718 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>2,613.5 lb/hour</b>	<b>11,447 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>CEM</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>See Attachment LMC-EU3-H6</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

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

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>NOx</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>2,548</b> lb/hour	<b>11,160</b> tons/year
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor:		<b>0.7</b> lb/MMBtu
Reference: See Comment		
7. Emissions Method Code:		
<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>0.7 lb/MMBtu x 3,640 MMBtu/hr = 2,548 lb/hr; 2,548 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 11,160.2 TPY</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Emission Factor Reference: FDEP Rule 62-204.800(7)(b)1. 40 CFR 60.44. Potential emissions based on coal firing.</b>		

Emissions Unit Information Section 3 of 7  
Allowable Emissions (Pollutant identified on front page)

**A.**

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.7 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>2,548 lb/hour</b>	<b>11,160 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 7,7A,7C,7D,7E</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Coal/Pet Coke/RDF firing; based on FDEP Rule 62-204.800(7)(b)1.; 40 CFR Part 60, Subpart D, Section 60.44(a)(3); PSD-FL-008.</b>		

**B.**

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.3 lb/MMBtu</b>		
4. Equivalent Allowable Emissions:	<b>1,092 lb/hour</b>	<b>4,783 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 7,7A,7C,7D,7E</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Oil firing, based on FDEP Rule 62-204.800; 40 CFR 60.44(a)(2); PSD-FL-008.</b>		

Emissions Unit Information Section 3 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.2 lb/MMBtu/hr</b>		
4. Equivalent Allowable Emissions:	<b>728 lb/hour</b>	<b>3,188.6 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Annual stack test; EPA Methods 7,7A,7C,7D,7E</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Gas firing; based on FDEP Rule 62-204.800(7)(b)1.; 40 CFR 60, Subpart D, Section 60.44(a)(1); PSD-FL-008.</b>		

B.

1. Basis for Allowable Emissions Code: <b>RULE</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>See Comment</b>		
4. Equivalent Allowable Emissions:	<b>lb/hour</b>	<b>tons/year</b>
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Requested Allowable Emissions and Units = 0.2 to 0.7 lb/MMBtu. 40 CFR 60.44(b) allows co-firing of fuels.</b>		

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

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 2

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20.</b> %      Exceptional Conditions: <b>27.</b> % Maximum Period of Excess Opacity Allowed: <b>6</b> min/hour
4.	Method of Compliance: <b>Annual VE testing; EPA Method 9</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-204.800(7)(b)1.; 40 CFR 60.42(a)(2); PSD-FL-008.</b>

**Visible Emissions Limitations:** Visible Emissions Limitation 2 of 2

1.	Visible Emissions Subtype: <b>VE99</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions:      %      Exceptional Conditions: <b>100</b> % Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour
4.	Method of Compliance: <b>None</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>Excess VE emissions allowed under FDEP Rule 62-210.700(1) and 40 CFR 60.8(c)/60.11(c) for startup, shut down, or malfunction conditions. Allowed for 2 hours (120 minutes) per 24 hours.</b>

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

**Continuous Monitoring System** Continuous Monitor 1 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO2</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Advanced Pollution Inst.</b> Model Number: <b>152</b> Serial Number: <b>172</b>	
5. Installation Date: <b>09 Nov 1994</b>	
6. Performance Specification Test Date: <b>01 Dec 1995</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75; PSD-FL-008.</b>	

**Continuous Monitoring System** Continuous Monitor 2 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>NOX</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Advanced Pollution Inst.</b> Model Number: <b>252</b> Serial Number: <b>165</b>	
5. Installation Date: <b>09 Nov 1994</b>	
6. Performance Specification Test Date: <b>01 Dec 1995</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75; PSD-FL-008.</b>	



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

**Continuous Monitoring System** Continuous Monitor 3 of 8

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>United Sciences Inc.</b> Model Number: <b>500C</b> Serial Number: <b>0993688</b>	
5. Installation Date: <b>09 Nov 1994</b>	
6. Performance Specification Test Date: <b>01 Dec 1995</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>COM required pursuant to 40 CFR Part 75; PSD-FL-008.</b>	

**Continuous Monitoring System** Continuous Monitor 4 of 8

1. Parameter Code: <b>CO2</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: <b>Milton Roy</b> Model Number: <b>3300</b> Serial Number: <b>N3L2487T</b>	
5. Installation Date: <b>09 Nov 1994</b>	
6. Performance Specification Test Date: <b>01 Dec 1995</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR Part 75</b>	

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

**Continuous Monitoring System** Continuous Monitor 5 of 8

1. Parameter Code: <b>FLOW</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Air Monitor</b> Model Number: <b>CEM</b> Serial Number: <b>6233D</b>	
5. Installation Date: <b>09 Nov 1994</b>	
6. Performance Specification Test Date: <b>10 Nov 1995</b>	
7. Continuous Monitor Comment (limit to 200 characters): <b>FLOW monitor required pursuant to 40 CFR Part 75</b>	

**Continuous Monitoring System** Continuous Monitor 6 of 8

1. Parameter Code: <b>EM</b>	2. Pollutant(s): <b>SO2</b>
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Lear Siegler</b> Model Number: <b>SM810</b> Serial Number: <b>29259M</b>	
5. Installation Date: <b>17 Sep 1982</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>CEM required pursuant to 40 CFR 60.45</b>	

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

**Continuous Monitoring System** Continuous Monitor 7 of 8

1. Parameter Code: <b>VE</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Lear Siegler</b> Model Number: <b>CM50</b> Serial Number: <b>291230</b>	
5. Installation Date: <b>17 Sep 1982</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>COM required pursuant to 40 CFR 60.45.</b>	

**Continuous Monitoring System** Continuous Monitor 8 of 8

1. Parameter Code: <b>O2</b>	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: <b>Lear Siegler</b> Model Number: <b>RM41</b> Serial Number:	
5. Installation Date: <b>17 Sep 1982</b>	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters): <b>O2 required pursuant to 40 CFR 60.45</b>	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

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

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	<input checked="" type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input type="checkbox"/> ] Unknown
	SO <sub>2</sub>	<input checked="" type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input type="checkbox"/> ] Unknown
	NO <sub>2</sub>	<input type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input checked="" type="checkbox"/> ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO <sub>2</sub>	lb/hour		tons/year
	NO <sub>2</sub>			tons/year
5.	PSD Comment (limit to 200 characters):			
	PSD Review under PSD-FL-008.			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU3-L1</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU3-L2</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
3.	Detailed Description of Control Equipment	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU3-L3</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
4.	Description of Stack Sampling Facilities	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU3-L4</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Not Applicable
		<input checked="" type="checkbox"/> Previously Submitted, Date: <u>1 Aug 1995</u>	
6.	Procedures for Startup and Shutdown	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU3-L6</u>	<input type="checkbox"/> Not Applicable
		<input type="checkbox"/> Not Applicable	
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Not Applicable	
8.	Supplemental Information for Construction Permit Application	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Not Applicable	
9.	Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Not Applicable	

**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU3-L10</u> <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU3-L12</u> <input type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input checked="" type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: <u>LMC-EU1-L14</u> <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

**ATTACHMENT LMC-EU3-D**  
**EMISSIONS UNIT REGULATIONS**



## ATTACHMENT LMC-EU3-D

### Applicable Requirements Listing - Power Plants Acid Rain Units

EMISSION UNIT ID: EU3 - McIntosh Plant - FFFSG Unit 3

#### FDEP Rules:

##### Air Pollution Control-General Provisions:

- 62-204.800(7)(b)1. (State Only) - NSPS Subpart D
- 62-204.800(7)(c) (State Only) - NSPS authority
- 62-204.800(7)(d)(State Only) - NSPS General Provisions

- 62-204.800(12) (State Only) - Acid Rain Program
- 62-204.800(13) (State Only) - Allowances
- 62-204.800(14) (State Only) - Acid Rain Program Monitoring
- 62-204.800(15) (State Only) - NOx
- 62-204.800(16) (State Only) - Excess Emissions  
(Potentially applicable over term of permit)

##### Stationary Sources-General:

- 62-210.650 - Circumvention; EUs with control device
- 62-210.700(1) - Excess Emissions;
- 62-210.700(4) - Excess Emissions; poor maintenance
- 62-210.700(6) - Excess Emissions; notification

##### Acid Rain:

- 62-214.300 - All Acid Rain Units (Applicability)
- 62-214.320(1)(a),(2) - All Acid Rain Units (Application Shield)
- 62-214.330(1)(a)1. - Compliance Options (if 214.430)
- 62-214.340 - Exemptions (new units, retired units)
- 62-214.350(2);(3);(6) - All Acid Rain Units (Certification)
- 62-214.370 - All Acid Rain Units (Revisions; correction; potentially applicable if a need arises)
- 62-214.430 - All Acid Rain Units (Compliance Options-if required)

##### Stationary Sources-Emission Standards:

- 62-296.405(2) - New Sources

##### Stationary Sources-Emission Monitoring (where stack test is required):

- 62-297.310(1) - All Units (Test Runs-Mass Emission)
- 62-297.310(2)(b) - All Units (Operating Rate; other than CTs;no CT)
- 62-297.310(3) - All Units (Calculation of Emission)
- 62-297.310(4)(a)1. - All Units (Applicable Test Procedures;Sampling time)
- 62-297.310(4)(b) - All Units (Sample Volume)

- 62-297.310(4)(c)
  - 62-297.310(4)(d)
  - 62-297.310(4)(e)
  - 62-297.310(5)
  - 62-297.310(6)(a)
  - 62-297.310(6)(c)
  - 62-297.310(6)(d)
  - 62-297.310(6)(e)
  - 62-297.310(6)(f)
  - 62-297.310(6)(g)
  - 62-297.310(7)(a)1.
  - 62-297.310(7)(a)2.
  - 62-297.310(7)(a)3.
  - 62-297.310(7)(a)4.a;
  - 62-297.310(7)(a)5.
  - 62-297.310(7)(a)6.
  - 62-297.310(7)(a)7.
  - 62-297.310(7)(a)9.
  - 62-297.310(7)(c)
  - 62-297.310(8)
- All Units (Required Flow Rate Range-PM/H2SO4/F)
  - All Units (Calibration)
  - All Units (EPA Method 5-only)
  - All Units (Determination of Process Variables)
  - All Units (Permanent Test Facilities-general)
  - All Units (Sampling Ports)
  - All Units (Work Platforms)
  - All Units (Access)
  - All Units (Electrical Power)
  - All Units (Equipment Support)
  - Applies mainly to CTs/Diesels
  - FFSG excess emissions
  - Permit Renewal Test Required
    - Annual Test
    - PM exemption if < 400 hrs/yr
    - PM FFSG semi annual test required if > 200 hrs/yr
    - PM quarterly monitoring if > 100 hrs/yr
  - FDEP Notification - 15 days
  - Waiver of Compliance Tests (Fuel Sampling)
  - Test Reports

### Federal Rules:

#### NPS Subpart D:

- 40 CFR 60.42(a)(1)
  - 40 CFR 60.42(a)(2)
  - 40 CFR 60.43(a)(1)
  - 40 CFR 60.43(a)(2)
  - 40 CFR 60.43(b)
  - 40 CFR 60.43(c)
  - 40 CFR 60.44(a)(1)
  - 40 CFR 60.44(a)(2)
  - 40 CFR 60.44(a)(3)
  - 40 CFR 60.44(b)
  - 40 CFR 60.45 (a)
  - 40 CFR 60.45(b)(3)
  - 40 CFR 60.45(b)(4)
  - 40 CFR 60.45(c)
  - 40 CFR 60.45(e)
  - 40 CFR 60.45(g)(1)
  - 40 CFR 60.45(g)(2)
  - 40 CFR 60.45(g)(3)
  - 40 CFR 60.46 (a)
- PM (0.1 lb/mmBtu)
  - VE (20%; 1-6min 27%)
  - SO<sub>2</sub>; liquid fuel (0.8 lb/mmBtu)
  - SO<sub>2</sub>; solid fuel (1.2 lb/mmBtu)
  - SO<sub>2</sub>; Simultaneous firing
  - SO<sub>2</sub>; compliance; allows gas co-firing
  - NO<sub>x</sub>; gas (0.2 lb/mmBtu)
  - NO<sub>x</sub>; oil (0.3 lb/mmBtu)
  - NO<sub>x</sub>; coal (0.7 lb/mmBtu)
  - NO<sub>x</sub>; Simultaneous firing
  - Monitoring; Requires CEMS; VE, SO<sub>2</sub> & NO<sub>x</sub>
  - Exempts CEMS when tests 70% of standard
  - If no CEMS than no O<sub>2</sub> or CO<sub>2</sub> required
  - Performance Requirements for CEMS
  - Conversion Procedures for CEMS
  - Excess Emission Reports-Opacity
  - Excess Emission Reports-SO<sub>2</sub>
  - Excess Emission Reports-NO<sub>x</sub>
  - Test Methods for Performance tests

- 40 CFR 60.46 (b) - Test Methods for PM, SO<sub>2</sub> and NO<sub>x</sub>
- 40 CFR 60.46 (c) - Fuel combinations

NSPS General Requirements:

- 40 CFR 60.7(a)(4) - Notification and Recordkeeping (Physical/Operational Change)
- 40 CFR 60.7(b) - Notification and Recordkeeping (startup/shutdown/malfunction)
- 40 CFR 60.7(c) - Notification and Recordkeeping (startup/shutdown/malfunction)
- 40 CFR 60.7(d) - Notification and Recordkeeping (startup/shutdown/malfunction)
- 40 CFR 60.7(f) - Notification and Recordkeeping (maintain records-2 yrs)
- 40 CFR 60.8(c) - Performance Tests (representative conditions)
- 40 CFR 60.8(e) - Provide Stack Sampling Facilities
- 40 CFR 60.8(f) - Test Runs
- 40 CFR 60.11(a) - Compliance (ref. S. 60.8 or Subpart; other than opacity)
- 40 CFR 60.11(b) - Compliance (opacity determined EPA Method 9)
- 40 CFR 60.11(c) - Compliance (opacity; excludes startup/shutdown/malfunction)
- 40 CFR 60.11(d) - Compliance (maintain air pollution control equip.)
- 40 CFR 60.11(e)(2) - Compliance (opacity; ref. S. 60.8)
- 40 CFR 60.12 - Circumvention
- 40 CFR 60.13(a) - Monitoring (Appendix B; Appendix F)
- 40 CFR 60.13(c) - Monitoring (Opacity COMS)
- 40 CFR 60.13(d)(1) - Monitoring (CEMS; span, drift, etc.)
- 40 CFR 60.13(d)(2) - Monitoring (COMS; span, system check)
- 40 CFR 60.13(e) - Monitoring (frequency of operation)
- 40 CFR 60.13(f) - Monitoring (frequency of operation)
- 40 CFR 60.13(h) - Monitoring (COMS; data requirements)

Acid Rain-Permits:

- 40 CFR 72.9(a) - Permit Requirements
- 40 CFR 72.9(b) - Monitoring Requirements
- 40 CFR 72.9(c)(1) - SO<sub>2</sub> Allowances-hold allowances
- 40 CFR 72.9(c)(2) - SO<sub>2</sub> Allowances-violation
- 40 CFR 72.9(c)(3)(iii) - SO<sub>2</sub> Allowances-Phase II Units (listed)
- 40 CFR 72.9(c)(4) - SO<sub>2</sub> Allowances-allowances held in ATS
- 40 CFR 72.9(c)(5) - SO<sub>2</sub> Allowances-no deduction for 72.9(c)(1)(i)
- 40 CFR 72.9(d) - NO<sub>x</sub> Requirements
- 40 CFR 72.9(e) - Excess Emission Requirements
- 40 CFR 72.9(f) - Recordkeeping and Reporting
- 40 CFR 72.9(g) - Liability
- 40 CFR 72.20(a) - Designated Representative; required

- 40 CFR 72.20(b) - Designated Representative; legally binding
  - 40 CFR 72.20(c) - Designated Representative; certification requirements
  - 40 CFR 72.21 - Submissions
  - 40 CFR 72.22 - Alternate Designated Representative
  - 40 CFR 72.23 - Changing representatives; owners
  - 40 CFR 72.24 - Certificate of representation
  - 40 CFR 72.30(a) - Requirements to Apply (operate)
  - 40 CFR 72.30(b)(2) - Requirements to Apply (Phase II-Complete)
  - 40 CFR 72.30(c) - Requirements to Apply (reapply before expiration)
  - 40 CFR 72.30(d) - Requirements to Apply (submittal requirements)
  - 40 CFR 72.31 - Information Requirements; Acid Rain Applications
  - 40 CFR 72.32 - Permit Application Shield
  - 40 CFR 72.33(b) - Dispatch System ID;unit/system ID
  - 40 CFR 72.33(c) - Dispatch System ID;ID requirements
  - 40 CFR 72.33(d) - Dispatch System ID;ID change
  - 40 CFR 72.40(a) - General; compliance plan
  - 40 CFR 72.40(b) - General; multi-unit compliance options
  - 40 CFR 72.40(c) - General; conditional approval
  - 40 CFR 72.40(d) - General; termination of compliance options
  - 40 CFR 72.51 - Permit Shield
  - 40 CFR 72.90 - Annual Compliance Certification
- Allowances:
- 40 CFR 73.33(a),(c) - Authorized account representative
  - 40 CFR 73.35(c)(1) - Compliance: ID of allowances by serial number
- Monitoring Part 75:
- 40 CFR 75.4 - Compliance Dates;
  - 40 CFR 75.5 - Prohibitions
  - 40 CFR 75.10(a)(1) - Primary Measurement; SO<sub>2</sub>;
  - 40 CFR 75.10(a)(2) - Primary Measurement; NO<sub>x</sub>;
  - 40 CFR 75.10(a)(3)(i) - Primary Measurement; CO<sub>2</sub>; monitor
  - 40 CFR 75.10(a)(4) - Primary Measurement; Opacity;
  - 40 CFR 75.10(b) - Primary Measurement; Performance Requirements
  - 40 CFR 75.10(c) - Primary Measurement; Heat Input; Appendix F
  - 40 CFR 75.10(d) - Primary Measurement; Hourly Operating ; Opacity; SO<sub>2</sub>
  - 40 CFR 75.10(e) - Primary Measurement; Optional Backup Monitor
  - 40 CFR 75.10(f) - Primary Measurement; Minimum Measurement
  - 40 CFR 75.10(g) - Primary Measurement; Minimum Recording
  - 40 CFR 75.11(a) - SO<sub>2</sub> Monitoring; Coal Units  
(Suspended 7/17/96 - 12/31/96)
  - 40 CFR 75.11(e) - SO<sub>2</sub> Monitoring; Gaseous firing
  - 40 CFR 75.11(g) - SO<sub>2</sub> Monitoring; Coal Units
  - 40 CFR 75.12(a) - NO<sub>x</sub> Monitoring; Coal; Non-peaking oil/gas units

- 40 CFR 75.12(b) - NOx Monitoring; Determination of NOx emission rate; Appendix F
- 40 CFR 75.13(a) - CO2 Monitoring; Continuous monitor
- 40 CFR 75.13(b) - CO2 Monitoring; Appendix G
- 40 CFR 75.14(a) - Opacity Monitoring; Coal and oil units
- 40 CFR 75.14(b) - Opacity Monitoring; FGD Units; exemption
- 40 CFR 75.14(d) - Opacity Monitoring; Diesel/dual fuel units; exemption
- 40 CFR 75.20(a) - Initial Certification Approval Process; Loss of Certification
- 40 CFR 75.20(b) - Recertification Procedures (if recertification necessary)
- 40 CFR 75.20(c) - Certification Procedures (if recertification necessary)
- 40 CFR 75.20(d) - Recertification Backup/portable monitor
- 40 CFR 75.20(f) - Alternate Monitoring system
- 40 CFR 75.20(g) - Exceptions to CEMS; oil/gas/diesel; Appendix D & E
- 40 CFR 75.21(a) - QA/QC; CEMS; Appendix B  
(Suspended 7/17/95-12/31/96)
- 40 CFR 75.21(b) - QA/QC; Opacity; Part 51 Appendix M
- 40 CFR 75.21(c) - QA/QC; Calibration Gases
- 40 CFR 75.21(d) - QA/QC; Notification of RATA
- 40 CFR 75.21(e) - QA/QC; Audits
- 40 CFR 75.21(f) - QA/QC; CEMS (Effective 7/17/96-12/31/96)
- 40 CFR 75.22 - Reference Methods
- 40 CFR 75.24 - Out-of-Control Periods; CEMS
- 40 CFR 75.30(a)(1) - General Missing Data Procedures; SO2
- 40 CFR 75.30(a)(2) - General Missing Data Procedures; flow
- 40 CFR 75.30(a)(3) - General Missing Data Procedures; NOx
- 40 CFR 75.30(a)(4) - General Missing Data Procedures; SO2
- 40 CFR 75.30(b) - General Missing Data Procedures;  
certified backup monitor
- 40 CFR 75.30(c) - General Missing Data Procedures;  
certified backup monitor
- 40 CFR 75.30(d) - General Missing Data Procedures; SO2  
(optional before 1/1/97)
- 40 CFR 75.30(e) - General Missing Data Procedures; bypass/multiple stacks
- 40 CFR 75.31 - Initial Missing Data Procedures (new/re-certified CMS)
- 40 CFR 75.32 - Monitoring Data Availability for Missing Data
- 40 CFR 75.33 - Standard Missing Data Procedures
- 40 CFR 75.34 - Units with add-on controls
- 40 CFR 75.35 - Missing Data for CO2
- 40 CFR 75.36 - Missing Data for Heat Input
- 40 CFR 75.40 - Alternate Monitoring Systems-General
- 40 CFR 75.41 - Alternate Monitoring Systems-Precision Criteria
- 40 CFR 75.42 - Alternate Monitoring Systems-Reliability Criteria
- 40 CFR 75.43 - Alternate Monitoring Systems-Accessibility Criteria
- 40 CFR 75.44 - Alternate Monitoring Systems-Timeliness Criteria

- 40 CFR 75.45 - Alternate Monitoring Systems-Daily QA
- 40 CFR 75.46 - Alternate Monitoring Systems-Missing data
- 40 CFR 75.47 - Alternate Monitoring Systems-Criteria for Class
- 40 CFR 75.48 - Alternate Monitoring Systems-Petition
- 40 CFR 75.53 - Monitoring Plan ; revisions
- 40 CFR 75.54(a) - Recordkeeping-general
- 40 CFR 75.54(b) - Recordkeeping-operating parameter
- 40 CFR 75.54(c) - Recordkeeping-SO2
- 40 CFR 75.54(d) - Recordkeeping-NOx
- 40 CFR 75.54(e) - Recordkeeping-CO2
- 40 CFR 75.54(f) - Recordkeeping-Opacity
- 40 CFR 75.55(c) - General Recordkeeping (Specific Situations)
- 40 CFR 75.55(e) - General Recordkeeping (Specific Situations)
- 40 CFR 75.56 - Certification; QA/QC Provisions
- 40 CFR 75.60 - Reporting Requirements-General
- 40 CFR 75.61 - Reporting Requirements-Notification cert/recertification
- 40 CFR 75.62 - Reporting Requirements-Monitoring Plan
- 40 CFR 75.63 - Reporting Requirements-Certification/Recertification
- 40 CFR 75.64(a) - Reporting Requirements-Quarterly reports; submission
- 40 CFR 75.64(b) - Reporting Requirements-Quarterly reports; DR statement
- 40 CFR 75.64(c) - Rep. Req.; Quarterly reports; Compliance Certification
- 40 CFR 75.64(d) - Rep. Req.; Quarterly reports; Electronic format
- 40 CFR 75.65 - Opacity Reports
- 40 CFR 75.66 - Petitions to the Administrator (if required)
- Appendix A-1. - Installation and Measurement Locations
- Appendix A-2. - Equipment Specifications
- Appendix A-3. - Performance Specifications
- Appendix A-4. - Data Handling and Acquisition Systems
- Appendix A-5. - Calibration Gases
- Appendix A-6. - Certification Tests and Procedures
- Appendix A-7. - Calculations
- Appendix B - QA/QC Procedures
- Appendix C-1. - Missing Data; SO2/NOx for controlled sources
- Appendix C-2. - Missing Data; Load-Based Procedure; NOx & flow
- Appendix D - Optional SO2; Oil-/gas-fired units
- Appendix F - Conversion Procedures
- Appendix H - Traceability Protocol

Acid Rain Program-NOx Emission Reduction (these are future requirements that may become applicable during the term of the Title V permit):

- 40 CFR 76.5(g) - NOx emission limitations; Group 1; Phase II; Jan.1, 2000
- 40 CFR 76.8 - Early Election; Group 1; Phase II  
(this is a elective regulation)

- 40 CFR 76.9(2) - Permit Application/Compliance Plans; Phase II (1/1/98);  
Early Election (1/1/97 )
- 40 CFR 76.10 - Alternative Emission Limitations (elective)
- 40 CFR 76.11 - Emission Averaging (elective)
- 40 CFR 76.13 - Compliance and Excess Emissions
- 40 CFR 76.14 - Monitoring Recordkeeping and Reporting

Acid Rain Program-Excess Emissions (these are future requirements that may overlap with the term of the Title V permit):

- 40 CFR 77.3 - Offset Plans (future)
- 40 CFR 77.5(b) - Deductions of Allowances (future)
- 40 CFR 77.6 - Excess Emissions Penalties (SO<sub>2</sub> and NO<sub>x</sub>;future)

**ATTACHMENT LMC-EU3-F10**

**SEGMENT COMMENT**



## ATTACHMENT LMC-EU3-F10

### SEGMENT COMMENTS

For Segment #1, Coal; the maximum hourly rates and percent sulfur will vary depending upon coal source but will not exceed 3.3 percent. Heat content is based on maximum hourly rate of tons per hour (TPH) and maximum heat input rating for unit of 3,640 MMBtu/hr.

For Segment #2, Coal and RDF (90/10 heat input basis); there is another SCC of 1-01-012-02. The maximum hourly rates and percent sulfur will vary depending upon mixture. Sulfur content assumption - coal and RDF blended to a sulfur content of 2.9 percent with coal at 3.3 percent sulfur and RDF at 0.1 percent sulfur. Maximum hourly rate calculated using tons/hour (TPH) 143.7 TPH coal and 40.4 TPH RDF. Heat content of mixture based on the maximum heat input rating for unit of 3,640 MMBtu/hr. Typical heat contents for coal and RDF are 24.6 and 9 MMBtu/ton, respectively.

For Segment #3 Heat content based on maximum hourly rate (1,000 gal) and maximum heat input rating for unit of 3,640 MMBtu/hr. Distillate oil (1-01-005-01) is used for unit startup and load stabilization (could be used as primary fuel-fired). Maximum sulfur based on firing oil without FGD System. Higher sulfur oil allowed with FGD.

For Segment #4, Oil and RDF (90/10 heat input basis); there is another SCC of 1-01-012-02. The maximum hourly rates and percent sulfur will vary depending upon mixture. Oil and RDF (40.4 tons/hour and 353,904 tons/year) blended to a sulfur content of 0.73 percent. Heat content of mixture based on the maximum heat input rating for unit of 3,640 MMBtu/hr. RDF has heat value of 9 MMBtu/ton. Higher sulfur oil is allowed if FGD is used to meet SO<sub>2</sub> limit.

For Segment #5, Coal and Petroleum coke (80/20 weight basis); the maximum hourly rates and percent sulfur will vary depending upon mixture. Coal and petroleum coke will be blended to a maximum sulfur content of 3.3 percent. Typical sulfur content of petroleum coke is 5 percent. Maximum hourly rate calculated using 122.1 TPH coal and 30.5 TPH petroleum coke. Heat content of mixture based on the maximum heat input rating for unit of 3,640 MMBtu/hr. Heat contents of coal and petroleum coke are 22.81 and 20.0 MMBtu/ton.

For Segment #6, Coal, Petroleum Coke and RDF (80/20 weight basis at 90% of heat input; RDF at 10% of heat input); the maximum hourly rates and percent sulfur will vary depending upon mixture. Coal, RDF, and petroleum coke will be blended to a maximum sulfur content of 3.3 percent. Maximum hourly rate calculated using 100.9 TPH coal, 40.4 TPH RDF, and 27.5 TPH petroleum coke. Heat content of mixture based on the maximum heat input rating for unit of 3,640 MMBtu/hr.

**ATTACHMENT LMC-EU3-H6**  
**POLLUTANT ALLOWABLE EMISSIONS COMMENT**

**ATTACHMENT LMC-EU3-H6**

**POLLUTANT ALLOWABLE EMISSIONS COMMENT**

Coal and petroleum coke: the allowable emission limit is based on FDEP Rule 62-204.800(7)(b)1.; 40 CFR 60, Subpart D, Section 60.43(a)(2) for coal firing; PSD-FL-008(B). Maximum of 1.2 lb/MMBtu and 90 percent reduction or when emissions less than 0.75 lb/MMBtu then 65 percent reduction allowed. Compliance with SO<sub>2</sub> limits and percent reduction determined on 30-day rolling average, coal and coal/RDF. Refer to Attachment LMC-EU3-L12 (Identification of Additional Applicable Requirements) for more information.

**ATTACHMENT LMC-EU3-H9**

**POLLUTANT POTENTIAL/ESTIMATED EMISSIONS COMMENT**

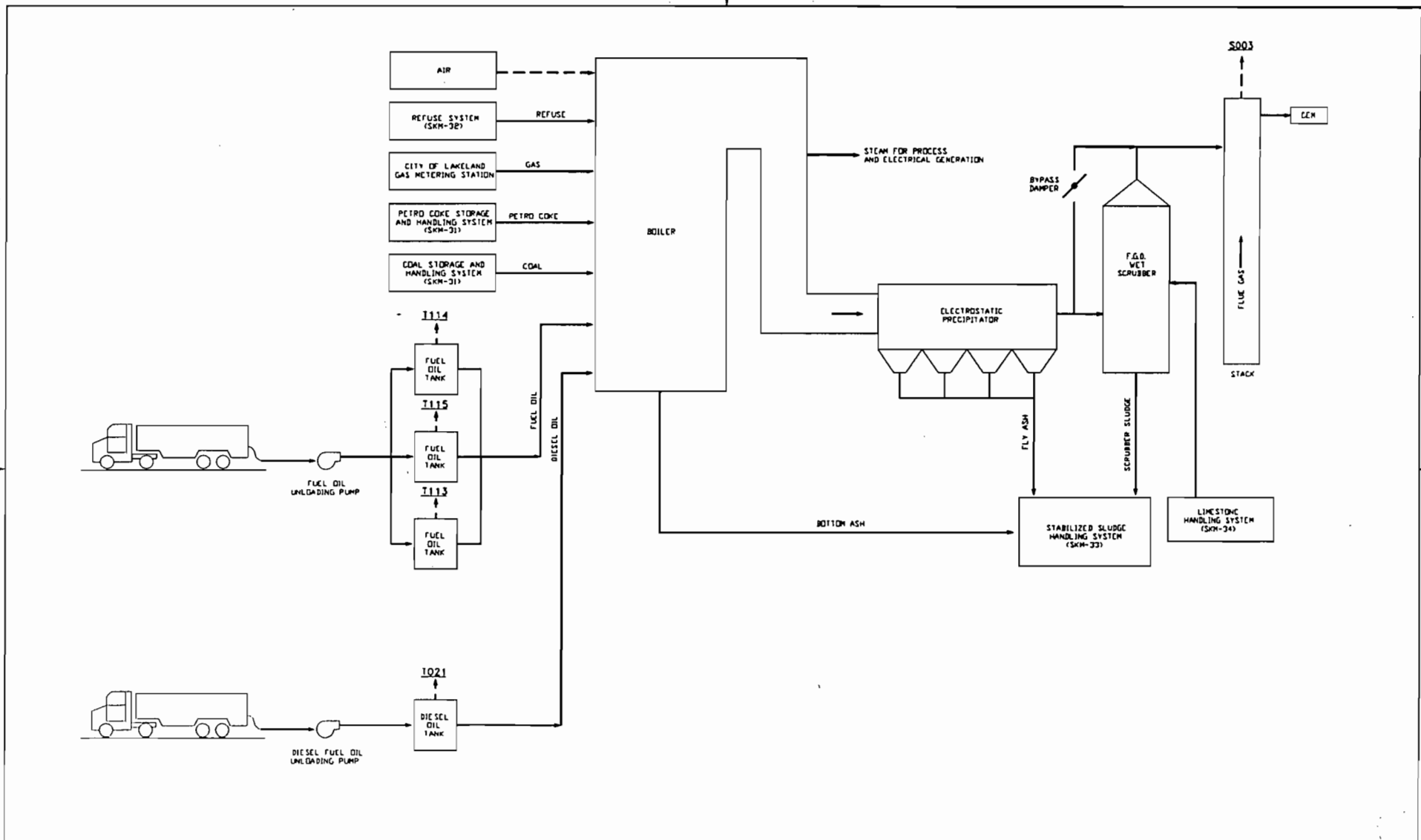
**ATTACHMENT LMC-EU3-H9**

**POLLUTANT POTENTIAL/ESTIMATED EMISSIONS COMMENT**

PSD permit (PSD-FL-008) has emission limitations of 0.044 lb/MMBtu for coal; 0.05 lb/MMBtu for coal/refuse (RDF); 0.07 lb/MMBtu for oil, and 0.075 lb/MMBtu for oil/refuse (RDF). The maximum potential emissions are based on oil/RDF firing.

**ATTACHMENT LMC-EU3-L1**

**PROCESS FLOW DIAGRAM**



3	MG	5-28-96	HP	ISSUED FOR TITLE V
2	MG	5-15-96	HP	CHANGE TITLE & ADDED LIMESTONE
1	MG	8-9-95		DELETED T116
REV	BY	DATE	APPR.	REVISION



DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE
LAKELAND ELECTRIC & WATER UTILITIES C.D. McINTOSH POWER PLANT UNIT NO. 3 PROCESS FLOW DIAGRAM	ENGINEER	PATTERSON	PROJ. NO.	AIR PERMIT	
	DRN. BY:	MOEGER	DATE	9-19-94	DWG. NO.
	APPR. BY:				LMC-EU3-L1/SKM-27

REV	BY	DATE	APPR.	REVISION
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**ATTACHMENT LMC-EU3-L2**  
**FUEL ANALYSIS OR SPECIFICATION**

Attachment LMC-EU3-L2

Fuel Analysis

Coal

<u>Parameter</u>	<u>Typical Value</u>	<u>Maximum<sup>a</sup>, Minimum<sup>b</sup>, or Design<sup>c</sup> Value</u>
heat content (Btu/lb)	13,000	11,200 <sup>b</sup> - 12,174 <sup>c</sup>
% sulfur	1.0 - 1.5	2.5 <sup>c</sup> - 3.3 <sup>a</sup>
% nitrogen	1.3 - 1.7	1.54% <sup>c</sup> (dry)
% ash	5 - 13	16.3 <sup>c</sup>

Attachment LMC-EU3-L2

Fuel Analysis

RDF

<u>Parameter</u>	<u>Typical Value</u>
heat content (Btu/lb)	4,300 - 6,340
% moisture	5 - 49
% ash	3 - 35
% sulfur	0.1

From laboratory analysis

Attachment LMC-EU3-L2

Fuel Analysis

Petroleum Coke

<u>Parameter</u>	<u>Typical Value</u>
heat content (Btu/lb)	14,000
% sulfur	5
% ash	0.35

From laboratory analysis

Attachment LMC-EU3-L2

Fuel Analysis

Natural Gas Analysis

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
Relative density	0.58 (compared to air)	
heat content	950 - 1124 Btu/cu ft. (HHV)	
% sulfur	0.43 grains/CCF <sup>1</sup>	1 grain/100
CF		
% nitrogen	0.8% by volume	
% ash	negligible	

Note: The values listed are "typical" values based upon information supplied by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data from laboratory analysis

Attachment LMC-EU3-L2

Fuel Analysis

No. 6 Fuel Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	8 <sup>1</sup>	-
Relative density	8.2 lb/gal <sup>2</sup>	
Heat content	18,300 Btu / lb (HHV)	
% sulfur	0.7 <sup>2</sup>	0.725 <sup>3</sup>
% nitrogen	0.25 - 0.50	
% ash	negligible	0.01 <sup>1</sup>

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from the fuel procurement specification

<sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data from current air permit based on 0.8 lb/MMBtu for oil firing only; when using FGD system, or when co-firing with gas, sulfur content can be as high as 2.5 percent.

Attachment LMC-EU3-L2

Fuel Analysis

No. 2 Fuel Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	30 <sup>1</sup>	-
Relative density	6.92 lb/gal <sup>2</sup>	
Heat content	18,400 Btu / lb (LHV)	
% sulfur	<0.5 <sup>2</sup>	0.5
% nitrogen	0.025 - 0.030	
% ash	negligible	0.01 <sup>1</sup>

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from fuel procurement specification

<sup>2</sup> Data from laboratory analysis

**ATTACHMENT LMC-EU3-L3**

**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**



**ATTACHMENT LMC-EU3-L3**  
**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**

McIntosh Unit 3 has air pollution control equipment for nitrogen oxides (NO<sub>x</sub>), particulate matter (PM) and sulfur dioxide (SO<sub>2</sub>). The information that follows present a description of the equipment controlling these pollutants.

**NITROGEN OXIDES**

NO<sub>x</sub> is controlled using boiler design and dual register burners to achieve an emission rate of no greater than 0.7 lb/mmBtu. The burner zone has a heat release rate of 370 kBtu/hr-ft<sup>2</sup> which reduces the NO<sub>x</sub> emissions to 0.7 lb/mmBtu or less. The boiler and burner was manufactured by Babcock and Wilcox (B&W).

**PARTICULATE MATTER**

The PM from the combustion of fuels in Unit 3 is controlled by an electro-static precipitator (ESP). The ESP has the following design parameters:

- Plate Height - 47.6 ft.
- Number of Casings - 2
- Field Depth - 16.4 ft
- Number of Lanes per Casing - 50
- Number of Fields/Casing - 5
- Effective Area/Plate - 1,559.3 ft<sup>2</sup>
- Total Effective Area - 779,700 ft<sup>2</sup>

**SULFUR DIOXIDE**

SO<sub>2</sub> is controlled using a wet limestone scrubbing system. The scrubber is of a tray tower type consisting of two absorber modules. Each module provides a 55 percent capacity of total unit output. The components of the scrubbing system are listed below:

Quencher - Flue gases exiting the ESP enter the quenchers for each absorber which condition the flue gas. Each absorber has a venturi-type quencher with a throat of 27 feet long and 5 feet wide. The quench water is recirculated from the quencher sump.

Absorber Tray Tower - After adiabatic saturation in the quencher, the gases pass up through the tray tower absorber for SO<sub>2</sub> removal. The limestone slurry is introduced at the top of the tray absorber from a series of spray headers. The flow is countercurrent through the 36 foot wide (diameter) absorber.

Demister - Before exiting the absorber, aerosols in the flue gas are removed in a z-shaped demister made from reinforced fiberglass material.

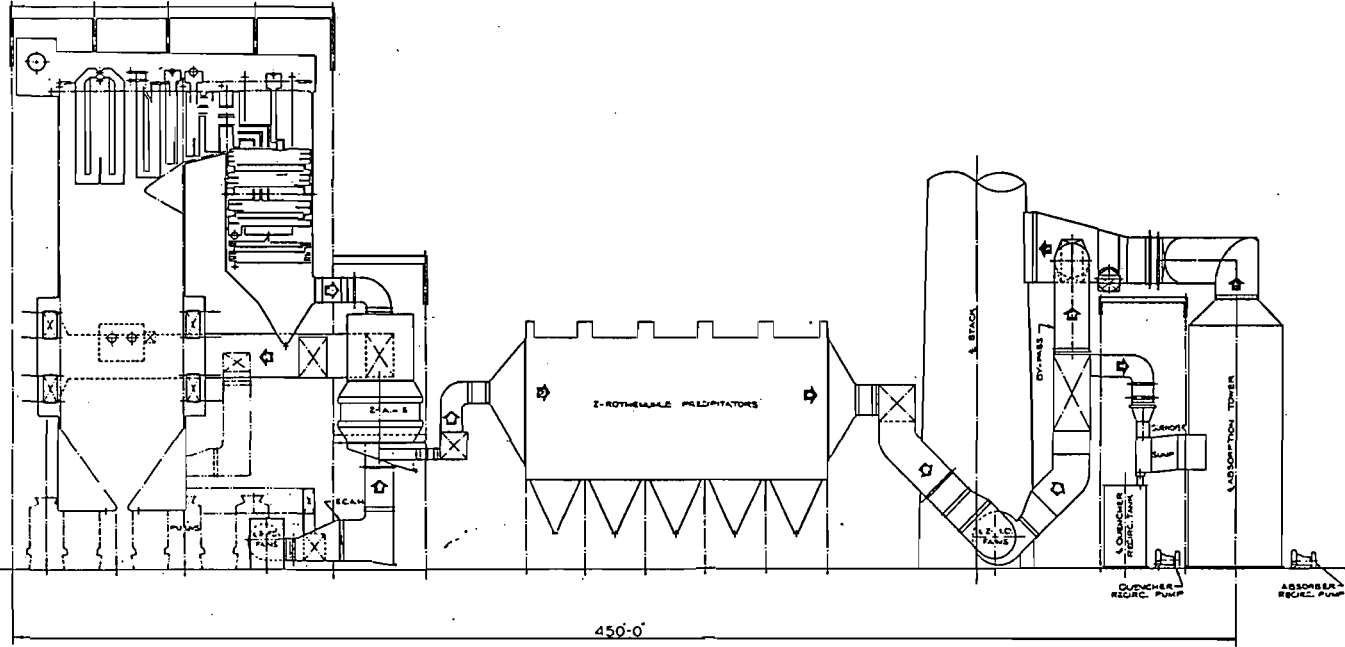
Associated Equipment - Supporting the operation of the scrubber are the following equipment: absorber recirculation tank, quencher recirculation tank, and quencher and absorber recirculation pumps. The scrubber is equipped with a hot air reheat system (steam coil) and a bypass flue. The latter bypasses flue gases around the absorber system and mixes with air exiting the absorber tower. This increases the exit gas temperatures. A continuous emission monitoring system is installed to assure compliance with the SO<sub>2</sub> emission limit.

Additional equipment/processes supporting the scrubber system include limestone slurry preparation system, slurry storage and transfer system, and dewatering system. The process flow diagram in Attachment LMC-EU6-L1 provides information on the input and output processes from the scrubber.

The scrubber is of a Babcock & Wilcox design.

PI2-4640 - 710

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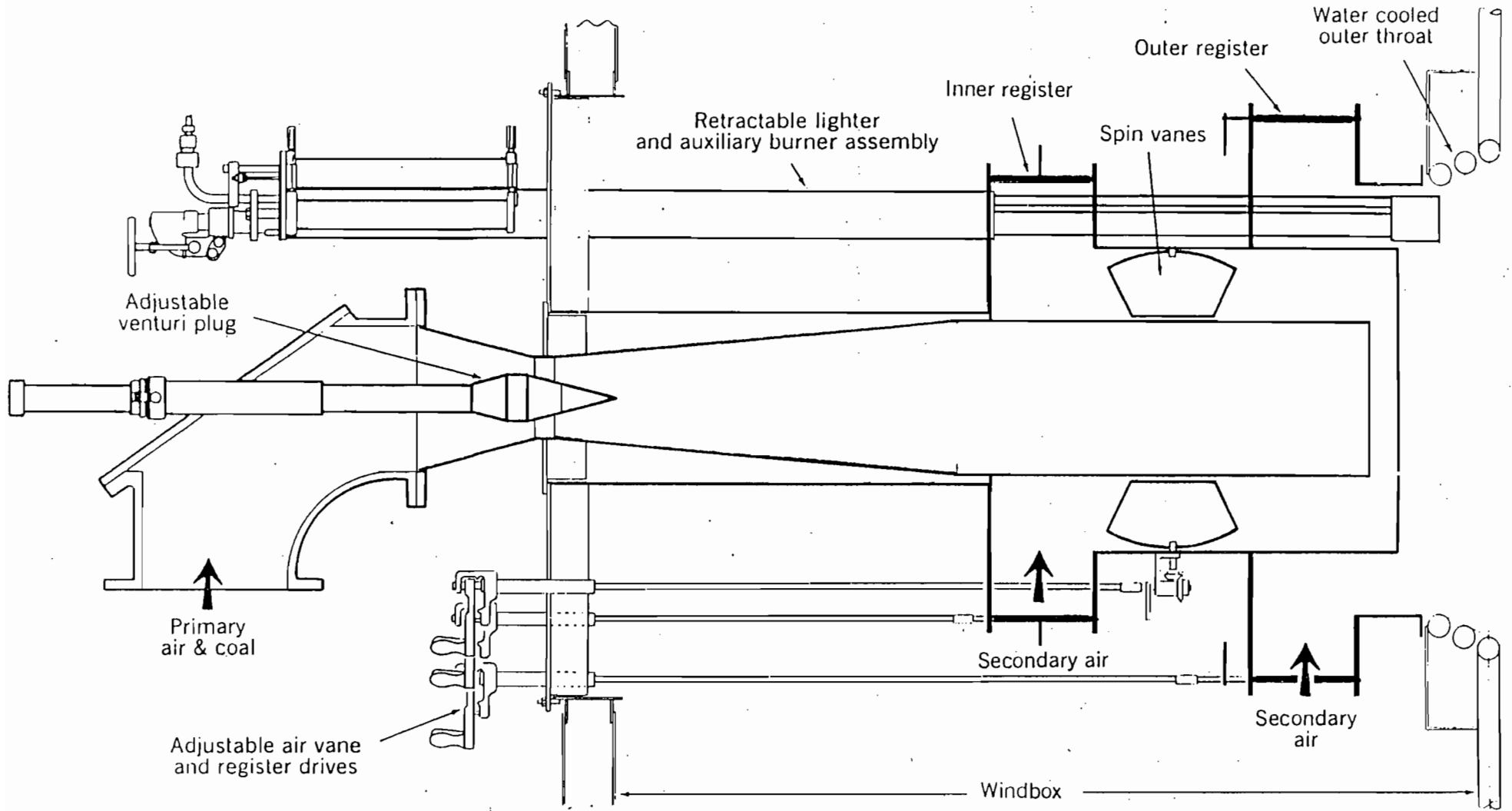
CITY OF LAKELAND

THE BABCOCK & WILCOX COMPANY  
ENGINEERS AND ARCHITECTS  
1000 W. 11TH AVENUE  
DENVER, COLORADO 80202

DEPARTMENT OF ELECTRIC AND WATER UTILITIES  
CITY OF LAKELAND  
CHAS. T. MAIN, INC.  
C. D. M'INTOSH PLANT, UNIT NO. 3

Babcock & Wilcox  
POWER GENERATION

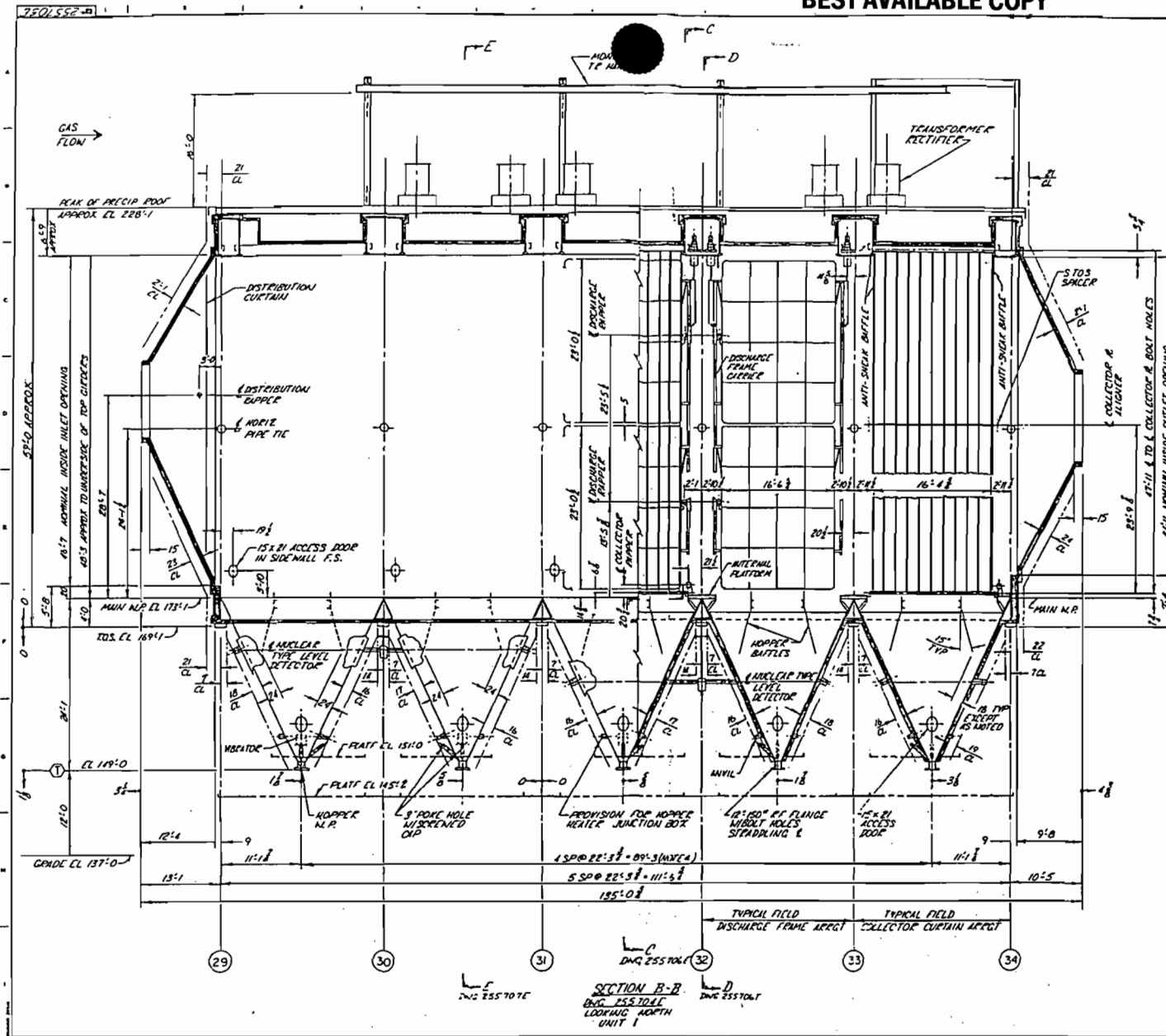
PI2-4640 - 710



Dual register burner

Figure 1

REVISIONS	
NO.	DESCRIPTION
1	AS SHOWN



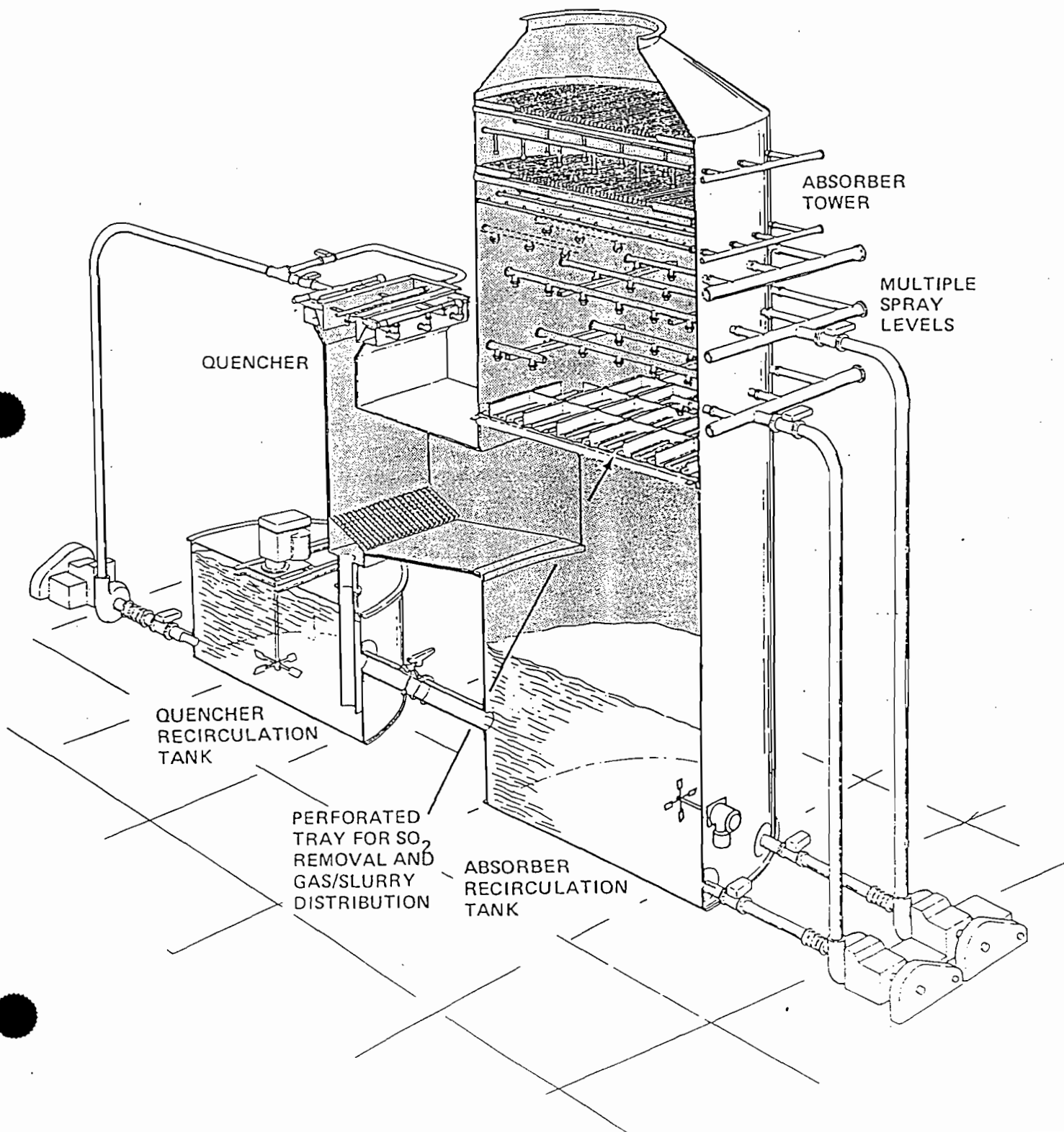
NOTES REFERENCE DWGS:  
SEE DWG. 255702E

DEPARTMENT OF  
ELECTRIC AND WATER UTILITIES  
CITY OF LAKELAND  
CHAS. T. MAIN, INC.  
C. D. MCINTOSH PLANT, UNIT NO. 3

SECTION B-B  
DWG. 255704E  
LOOKING NORTH  
UNIT 1

DRAWN BY: B. DEWARD CHECKED BY: R. R. RILEY DATE: 6-15-78 547-0023	GENERAL ARRANGEMENT PRECIPITATOR SECTIONAL SIDE VIEW	255705E
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# SULFUR DIOXIDE ABSORBER TRAY TOWER MODULE



**ATTACHMENT LMC-EU3-L4**  
**DESCRIPTION OF STACK SAMPLING FACILITIES**

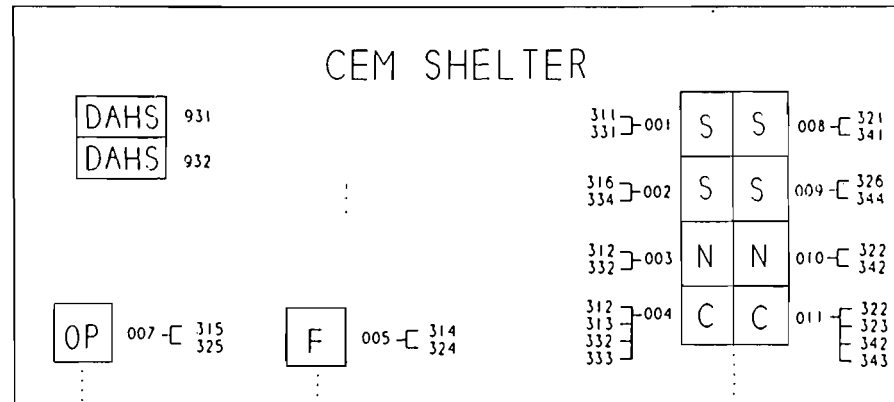
ATTACHMENT #2

PAGE 3 of 3 PAGES

Schematic Diagram for Unit 3 for  
C.D. McIntosh Jr. Power Plant

B:\VCADD\U3CEM

C.D. McIntosh Jr. Plant  
ORIS Code: 676  
NADB Boiler ID: 3



Natural Gas Pipeline

006 -C 317  
327

GFFM

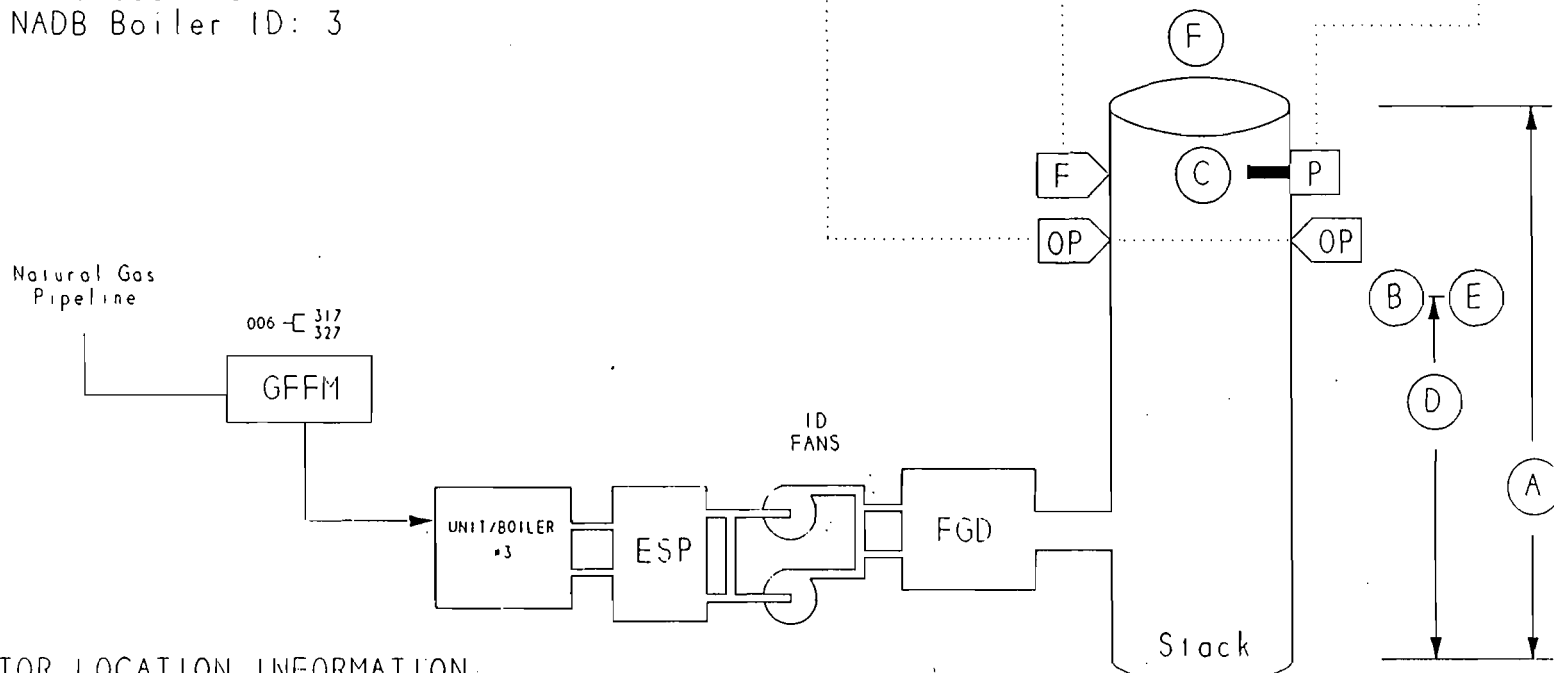
UNIT/BOILER #3

ESP

ID  
FANS

FGD

Stack



MONITOR LOCATION INFORMATION

- A. STACK HEIGHT ABOVE GRADE (FT) \_\_\_\_\_ 252'
- B. STACK DIAMETER AT TEST PORT \_\_\_\_\_ 18'7"
- C. INSIDE CROSS-SECTIONAL AREA AT TEST PORT (FT<sup>2</sup>) \_\_\_\_\_ 271.28
- D. TEST PORT ELEVATION \_\_\_\_\_
- 1. ABOVE GRADE (FT) \_\_\_\_\_ 222'9"
- 2. ABOVE LAST DISTURBANCE \_\_\_\_\_
- A. FEET \_\_\_\_\_ 82'9"
- B. STACK DIAMETERS \_\_\_\_\_ 4.45

- 3. PRIOR TO NEXT DISTURBANCE \_\_\_\_\_
- A. FEET \_\_\_\_\_ 29'3"
- B. STACK DIAMETERS \_\_\_\_\_ 1.57
- E. LOCATION OF SAMPLE PROBE. GASEOUS EXTRACTION PROBE IS IN SAME PLANE AS TEST PORT. OPACITY PROBE AT 2'6" BELOW SAMPLE PROBE ELEVATION. \_\_\_\_\_
- F. INSIDE CROSS-SECTIONAL AREA AT FLUE EXIT (FT<sup>2</sup>) \_\_\_\_\_ 254.47

LMC-EU3-L4



**ATTACHMENT LMC-EU3-L6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

**ATTACHMENT LMC-EU3-L6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**  
**MINIMIZING EXCESS EMISSIONS**

Startup of the fossil-fuel boilers begins when fuel (No. 2 fuel oil, natural gas or propane) is introduced into one or more burners within the boiler and lighted (commencement of combustion). Startup is complete and steady-state operation begins when the combustion process has stabilized and the megawatt load on the unit is stable and above 10-15 percent load.

Shutdown of the fossil-fuel boilers begins when unit megawatt load is decreased to below 10 percent of maximum and continues until the final burner gun is removed from service.

Emissions may be detected during all modes of boiler operation by various continuous emissions monitors. Continuous monitors are currently in place for NO<sub>x</sub>, CO<sub>2</sub>, SO<sub>2</sub>, flow and opacity. Audible and visual alarms are activated whenever the permitted value for opacity is approached.

Countermeasures which may be taken in the event of excess emissions include, but are not limited to:

- burner elevation loading
- proper excess air adjustments
- recognizing and removal of faulty burners
- fuel oil temperature adjustments
- proper and timely operation of boiler cleaning devices
- removal of the unit from system-dispatch mode (load control)
- reduction of unit megawatt load
- stopping and restarting of boiler cleaning devices
- lowering load ramp rate
- pressure rate changes
- placing boiler controls on manual
- adjusting burner dampers to increase windbox/furnace air pressure

Knowledge of the appropriate countermeasures to take when excess emissions occur is a part of the routine operator training for those who operate the boilers. Topics include current permit

maximum allowable duration of excess emissions, appropriate countermeasures for excess emissions, duty to notify, and fuels and combustion training.

**ATTACHMENT LMC-EU3-L10**  
**ALTERNATIVE METHODS OF OPERATION**

**ATTACHMENT LMC-EU3-L10**  
**ALTERNATIVE METHODS OF OPERATION**

The unit can be fired with multiple fuels up to 3,640 MMBtu/hour. The following fuels and fuel combinations may be burned:

1. Coal only with FGD
2. Low sulfur fuel oil ( $\leq 0.5$  percent sulfur by weight) with or without FGD
3. Coal and up to 10 percent refuse (based on heat input) with FGD
4. Low sulfur fuel oil and up to 10 percent refuse (based on heat input) with or without FGD
5. Coal and up to 20 percent petroleum coke (based on weight) with FGD
6. Coal and up to 20 percent petroleum coke (based on weight) and 10 percent refuse (based on heat input) with FGD
7. High sulfur fuel oil ( $> 0.5$  percent sulfur by weight) consistent with conditions 2.C. or 2.D. of PSD-FL-008(B); with or without FGD
8. Natural gas only, or in combination with any of the other fuels or fuel combinations listed above; with or without FGD

The FGD system can operate from 65 to 90 percent removal.

**ATTACHMENT LMC-EU3-L12**

**IDENTIFICATION OF ADDITIONAL APPLICABLE REQUIREMENTS**

**ATTACHMENT LMC-EU3-L12**

**REQUEST TO CHANGE CONDITIONS OF THE  
AIR CONSTRUCTION/PSD PERMIT THAT ARE OBSOLETE AND OUTDATED**

This request is to exclude from the Title V permit, several conditions of the FDEP issued air construction permit (AC53-2244) that are obsolete and outdated. This request is made pursuant to FDEP's Guidance on Implementation of Existing Permit Conditions Into Title V Permits (DARM-PER/V-14; February 8, 1996).

The FDEP issued on December 11, 1995, an amendment to the PSD permit issued by the Environmental Protection Agency (EPA) on December 28, 1978. The issuance of this amendment revised and/or replaced many of the conditions of the original permit. Conditions 1.A., 2.A through D., and 6 replace the original PSD permit conditions. Of the remaining conditions in the PSD permit issued by EPA, the following are outdated or obsolete conditions that should not be included in the Title V permit.

Condition 5.A.- this is an initial compliance condition and is outdated.

Condition 5.B. - this condition is outdated, since 40 CFR Part 60 Subpart D allows 7, 7A, 7C, 7D, and 7E for determining compliance with NOx.

Condition 5.C. and D. - these conditions are outdated, since FDEP now has delegated authority for specifying conditions for compliance tests including notification.

Condition 5.E. and F. - these conditions are redundant and less specific than the Department's and EPA's rules on testing and are therefore outdated.

On February 14, 1996, the FDEP issued a modification to the Site Certification for McIntosh Unit 3 under 403.500 Florida Statutes. Prior to the issuance of Title V permits for air pollution, the Site Certification was the sole license by the State of Florida specifying conditions for the construction and operation of power plants. As a result,

Unit 3 did not receive a construction permit from FDEP under a federally approved construction permit program. The modifications to the Specific Conditions of Certification made in February are consistent with those made to the PSD permit. Attached is a copy of the relevant portions of the original and the modified Conditions of Certification for Unit 3 dealing with air pollution.





# Department of Environmental Protection

Lawton Chiles  
Governor

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

Virginia B. Wetherell  
Secretary

December 11, 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Farzie Shelton, Ch.E.  
Environmental Coordinator  
City of Lakeland  
Department of Water and Electric Utilities  
501 East Lemon Street  
Lakeland, Florida 33801-5050

Dear Ms. Shelton:

Re: City of Lakeland, C.D. McIntosh Unit No. 3  
Amendment of Final Determination - PSD-FL-008(B)

The Department hereby amends the Conditions of Approval related to sulfur dioxide (SO<sub>2</sub>) emissions and fuel use in the subject Final Determination (dated December 27, 1978) pursuant to 40 CFR 52.21 - Prevention of Significant Deterioration (PSD Permit). The PSD Permit, previously amended on September 5, 1995, is amended as follows:

Condition 1.A.

FROM:

Particulate matter emitted into the atmosphere from the boiler shall not exceed:

<u>Mode of Firing</u>	<u>lb/10<sup>6</sup> Btu Heat Input</u>
Coal	0.044
Coal/Refuse	0.050
Oil	0.070
Oil/Refuse	0.075

Ms. Farzie Shelton  
December 11, 1995  
Page Two

TO:

Particulate matter emitted into the atmosphere from the boiler shall not exceed:

<u>Mode of Firing</u>	<u>lb/10<sup>6</sup> Btu Heat Input</u>
Coal	0.044
Coal/Petcoke	0.044
Coal/Refuse	0.050
Coal/Petcoke/Refuse	0.050
Oil	0.070
Oil/Refuse	0.075

Condition 2.A.

FROM:

Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 1.2 pound per million Btu heat input.

TO:

Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 1.2 pound per million Btu heat input in accordance with 40 CFR 60 Subpart D-Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971.

Condition 2.B.

FROM:

A flue gas desulfurization system will be installed to treat exhaust gases and will operate such that whenever coal is burned, sulfur dioxide in gases discharged to the atmosphere from the boiler shall not exceed 1.2 pounds per million Btu heat input and 10 percent of the potential combustion concentration (90 percent reduction), or 35 percent of the potential combustion concentration (65 percent reduction), when emissions are less than 0.75 pounds per million Btu heat input. Compliance with the sulfur dioxide emission limitation and percent reduction requirement shall be determined on a 30-day rolling average.

Ms. Farzie Shelton  
December 11, 1995  
Page Three

TO:

A flue gas desulfurization system will be installed to treat exhaust gases and will operate such that whenever coal or blends of coal and petroleum coke or refuse are burned, sulfur dioxide in gases discharged to the atmosphere from the boiler shall not exceed 10 percent of the potential combustion concentration (90 percent reduction), or 35 percent of the potential combustion concentration (65 percent reduction), when emissions are less than 0.75 pounds per million Btu heat input. Compliance with the percent reduction requirement shall be determined on a 30-day rolling average. This compliance information shall be retained for a period of three years and made available by the City upon request by the Department. Whenever blends of petroleum coke with other fuels are co-fired, sulfur dioxide emissions shall not exceed 0.718 pounds per million Btu heat input based on a 30-day rolling average and shall comply with the reduction requirements given above.

Condition 2.C.

FROM:

The burning of oil or a combination of oil and municipal refuse as an emergency fuel without the use of the SO<sub>2</sub> scrubber will be allowed only when the flue gas desulfurization system malfunctions to the extent that the burning of coal would cause emission limitations to be exceeded. Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 0.8 pound per million Btu under this condition.

TO:

The burning of high sulfur oil (greater than 0.5 percent sulfur by weight) or a combination of high sulfur oil and municipal refuse as an emergency fuel without the use of the SO<sub>2</sub> scrubber will be allowed only when the flue gas desulfurization system malfunctions to the extent that the burning of coal would cause emission limitations to be exceeded. Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 0.8 pound per million Btu under this condition.

Ms. Farzie Shelton  
December 11, 1995  
Page Four

Condition 2.D.

FROM:

During malfunctions of equipment which cause an interruption of the coal feed to the boiler, the burning of oil or a combination of oil and municipal refuse will be allowed only if all flue gases are fully scrubbed by the SO<sub>2</sub> scrubber. Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 0.8 pound per million Btu under this condition.

TO:

During malfunctions of equipment which cause an interruption of the coal feed to the boiler, the burning of high sulfur oil (greater than 0.5 percent sulfur by weight) or a combination of high sulfur oil and municipal refuse will be allowed only if all flue gases are fully scrubbed by the SO<sub>2</sub> scrubber. Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 0.8 pound per million Btu under this condition.

Condition 2.E. (new)

Continuous burning of natural gas, low sulfur fuel oil (less than or equal to 0.5 percent sulfur by weight), or combinations of these two fuels with or without the use of the SO<sub>2</sub> scrubber will be allowed.

Condition 6. Continuous Monitoring Requirements

FROM:

Continuous monitors shall be installed and operated in accordance with 40 CFR 60.45 and 60.13. In addition, an ASTM-certified automatic coal sampler shall be installed which produces a representative daily sample for analysis of sulfur, moisture, heating value and ash. The coal analysis data shall be used in conjunction with emission factors and the continuous monitoring data to calculate SO<sub>2</sub> reduction.

TO:

Continuous monitors shall be installed and operated in accordance with 40 CFR 60.45 and 60.13. In addition, an ASTM-certified automatic solid fossil fuel sampler shall be installed which produces a representative daily sample for analysis of sulfur, moisture, heating value and ash. The solid fossil fuel analysis data shall be used in conjunction with emission factors and the continuous monitoring data to calculate SO<sub>2</sub> reduction.

Ms. Farzie Shelton  
December 11, 1995  
Page Five

Condition 8 (new)

The following fuels may be burned:

Coal only  
Low sulfur fuel oil only ( $\leq$  0.5 percent sulfur by weight)  
Coal and up to 10 percent refuse (based on heat input)  
Low sulfur fuel oil and up to 10 percent refuse (based on heat input)  
Coal and up to 20 percent petroleum coke (based on weight)  
Coal and up to 20 percent petroleum coke (based on weight) and 10 percent refuse (based on heat input)  
High sulfur fuel oil ( $>$  0.5 percent sulfur by weight) consistent with Conditions 2.C. or 2.D.  
Natural gas only, or in combination with any of the other fuels or fuel combinations listed above

Condition 9 (new)

The City shall maintain and submit to the Department on an annual basis for a period of five years from the date the unit is initially co-fired with petroleum coke, information demonstrating in accordance with 40 CFR 52.21 (b)(33) and 40 CFR 52.21 (b)(21)(v) that the operational changes did not result in emissions increases of carbon monoxide, nitrogen oxides, or sulfuric acid mist.

A copy of this amendment letter shall be attached to and shall become a part of Permit PSD-FL-008.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Howard L. Rhodes, Director  
Division Air Resources Management

Ms. Farzie Shelton  
December 11, 1995  
Page Six

CERTIFICATE OF SERVICE

This is to certify that this PERMIT AMENDMENT and all copies were mailed to the listed persons before the close of business on

12-11-95

**FILING AND ACKNOWLEDGMENT**

FILED, on this date, pursuant to Chapter 120.52(9), Florida Statutes, with the designated Deputy Clerk, receipt of which is hereby acknowledged.

Kym Jober                      12-11-95  
Clerk    Date

cc: J. Harper, EPA  
J. Bunyak, NPS  
B. Oven, DEP  
B. Thomas, SWD  
R. Harwood, PCESD  
K. Kosky, KBN  
A. Morrison, HGSS

PSD-FL-0008  
McINTOSH #3  
LAKELAND

Final Determination

Review of a Proposed Air Pollution Source Pursuant to Environmental  
Protection Agency Rules for the Prevention of Significant Deterioration (PSD)

40 CFR 52.21

McIntosh Unit 3  
City of Lakeland, Florida

Roger O. Pfaff

U.S. Environmental Protection Agency  
345 Courtland Street, N.E.  
Atlanta, Georgia 30308

December 27, 1978

On November 26, 1978, EPA issued a Preliminary Determination that McIntosh Unit 3 could be approved with conditions under EPA Regulations for Prevention of Significant Deterioration, 40 CFR 52.21. During the 30 day public comment period, ending December 26, 1978, only the City of Lakeland commented on the determination. The City asked that a condition be added to the determination allowing the use of oil as a fuel during periods when the coal feed is lost due to equipment malfunctions.

EPA agreed to allow this request, but only if the flue gases are scrubbed by the SO<sub>2</sub> scrubber. The final conditions are the same as those in the Preliminary Determination except for this extra condition. The full list of conditions of approval follows:



### Conditions of Approval

1. For Particulate Emissions from the Boiler:

The source must meet an emission limit, as measured under part (5) as follows:

- A. Particulate matter emitted to the atmosphere from the boiler shall not exceed:

<u>Mode of Firing</u>	<u>lb/10<sup>6</sup> Btu Heat Input</u>
Coal	0.044
Coal/Refuse	0.050
Oil	0.070
Oil/Refuse	0.075

2. For Sulfur Dioxide from the Boiler:

The source must meet an emission limit, as measured under part (5) as follows:

- A. Sulfur dioxide emitted to the atmosphere from the boiler shall

not exceed 1.2 pound per million Btu heat input derived from solid fossil fuel.

- B. A flue gas desulfurization system will be installed to treat all exhaust gases and will operate at a minimum SO<sub>2</sub> removal efficiency of 85 percent whenever coal is burned.
- C. The burning of oil or a combination of oil and municipal refuse as an emergency fuel without the use of the SO<sub>2</sub> scrubber will be allowed only when the flue gas desulfurization system malfunctions to the extent that the burning of coal would cause emission limitations to be exceeded. Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 0.8 pound per million Btu under this condition.
- D. During malfunctions of equipment which cause an interruption of the coal feed to the boiler, the burning of oil or a combination of oil and municipal refuse will be allowed only if all flue gases are fully scrubbed by the SO<sub>2</sub> scrubber. Sulfur dioxide emitted to the atmosphere from the boiler

shall not exceed 0.3 pound per million Btu under this condition.

3. For Particulate Emissions from Materials Handling Operations:

The applicant shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, coal transfer and loading system, limestone handling or storage operation, or flyash handling or storage operation, gases which exhibit 20 percent opacity or greater.

4. For SO<sub>2</sub> Emissions from the Boiler:

The source must meet an emission limit, as measured under part (5) as follows:

A. SO<sub>2</sub> emitted to the atmosphere from the boiler shall not exceed 0.7 pound per million Btu heat input when firing coal or coal/refuse.

B. SO<sub>2</sub> emitted to the atmosphere from the boiler shall not

## Best Available Copy

5

exceed 0.3 pound per million Btu heat input when firing oil or oil/refuse.

### 6. Stack Testing:

1. Within 60 days after achieving the maximum production rate at which the facility will be operated, but no later than 180 days after initial startup, the owner or operator shall conduct performance tests and furnish EPA a written report of the results of such performance tests. Performance tests shall be conducted for the modes of boiler operation (i.e., coal, coal/refuse, oil, oil/refuse).
2. Performance tests shall be conducted and data reduced in accordance with methods and procedures specified by EPA. Reference Methods 1 through 5 as published in Appendix A of 40 CFR 60 will be used for particulate tests. Reference Method 6 will be used for SO<sub>2</sub> tests. Reference Method 7 will be used for NO<sub>x</sub> tests.
3. Performance tests shall be conducted under such conditions as

## Best Available Copy

EPA shall specify based on representative performance of the facility. The owner or operator shall make available to EPA such records as may be necessary to determine the conditions of the performance tests.

3. The owner or operator shall provide EPA 30 days prior notice of the performance test to afford the opportunity to have an observer present.

4. The owner or operator shall provide or cause to be provided, performance testing facilities as follows:

i. Coupling ports adequate for test methods applicable to the facility.

ii. Safe sampling platform(s).

iii. Safe access to sampling platform(s).

iv. Utilities for sampling and testing equipment.

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F. Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified by EPA. For the purpose of determining compliance with an emission limitation, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the approval of EPA, be determined by using the arithmetic mean of the other two runs.

### 6. Continuous Monitoring Requirements

Continuous monitors shall be installed and operated in accordance with 40 CFR 60.25 and 60.13. In addition, a continuous SO<sub>2</sub> monitor shall be installed prior to the flue gas desulfurization system for purposes of calculating SO<sub>2</sub> removal efficiencies.

7. Excess Emission Reporting Requirements

In addition to the requirements of 40 CFR 60.7, each excess emission report shall include the periods of oil consumption due to flue gas desulfurization system malfunction.

standards, a relaxation of conditions included in the permit due to state permitting requirements, or the inclusion of less restrictive air emission limitations in the air permits.

- c. All other modifications shall be made in accordance with Section 403.516, F.S.

CONDITIONS OF CERTIFICATION - SPECIAL

I. Air

The construction and operation of the Unit No. 3 at the McIntosh Plant shall be in accordance with all applicable provisions of the Chapters 62-210 - 62-297 ~~17-2, 17-5, and 17-7~~, Florida Administrative Code. The permittee shall comply with the following conditions of certification:

A. Emission Limitations

1. Stack emissions shall not exceed those specified in Chapter ~~17-2.04(6)(e)~~ 1. 62-296.405, and 62.296.800(2)(a)1., FAC.
2. ~~The permittee shall not burn a fuel oil containing more than an average of 0.7% sulfur unless it can be demonstrated that either, a) heat efficiency is such as to insure compliance with all applicable emission limitations, or b) that a flue gas desulfurization unit is installed that will insure compliance with applicable emission limitations.~~
  - a. Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 1.2 pounds per million BTU heat input in accordance with 40 CFR 60 Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for which Construction Started After August 17, 1971.
  - b. A flue gas desulfurization system will be



installed to treat exhaust gases and will operate such that whenever coal or blends of coal and petroleum coke or refuse are burned, sulfur dioxide in gases discharged to the atmosphere from the boiler shall not exceed 10 percent of the potential combustion concentration (90 percent reduction), or 35 percent of the potential combustion concentration (65 percent reduction), when emissions are less than 0.75 pounds per million BTU heat input. Compliance with the percent reduction requirement shall be determined on a 30-day rolling average. This compliance information shall be retained for a period of three years and made available by the City upon request by the Department. Whenever blends of petroleum coke are co-fired with other fuels, sulfur dioxide emissions shall not exceed 0.718 pounds per million BTU heat input based on a 30-day rolling average and shall comply with the reduction requirements given above.

c. Continuous burning of natural gas, low sulfur fuel oil (less than or equal to 0.5 percent sulfur by weight), or combinations of these two fuels with or without the use of the SO<sub>2</sub> scrubber will be allowed.

d. The burning of high sulfur oil (greater than 0.5 percent by weight) or a combination of high sulfur oil and municipal refuse as an emergency fuel without the use of the SO<sub>2</sub> scrubber will be allowed only when the flue gas desulfurization system malfunctions to the extent that the burning of coal would cause emission limitations to be exceeded. Sulfur dioxide emitted to the

atmosphere from the boiler shall not exceed 0.8 pounds per million BTU under this condition.

e. During malfunctions of equipment which cause an interruption of the coal feed to the boiler, the burning of high sulfur oil (greater than 0.5 percent by weight) or a combination of high sulfur oil and municipal refuse will be allowed only if all flue gases are fully scrubbed by the SO<sub>2</sub> scrubber. Sulfur dioxide emitted to the atmosphere from the boiler shall not exceed 0.8 pound per million Btu under this condition.

3. - no change

4. Particulate emissions from the coal handling facilities:

a. The applicant shall not cause to be discharged into the atmosphere from any coal processing or conveying equipment, coal storage system, or coal transfer and loading system ~~processing coal,~~ visible emissions which exceed 20 percent opacity.

b. - no change

5. Particulate matter emitted into the atmosphere from the boiler shall not exceed:

<u>Mode of Firing</u>	<u>lb/10<sup>6</sup> BTU Heat Input</u>
<u>Coal</u>	<u>0.044</u>
<u>Coal/Petcoke</u>	<u>0.044</u>
<u>Coal/Refuse</u>	<u>0.050</u>
<u>Coal/Petcoke/Refuse</u>	<u>0.050</u>
<u>Oil</u>	<u>0.070</u>
<u>Oil/Refuse</u>	<u>0.075</u>

B. Air Monitoring Program

~~1. The permittee shall install and operate continuously monitoring devices for the Unit No. 3 boiler exhaust for sulfur dioxide, nitrogen dioxide and opacity. The~~

~~monitoring devices shall meet the applicable requirements of 17-2.08, F.A.C.~~ Continuous monitors shall be installed and operated in accordance with 40 CFR 60.45 and 60.13. In addition, the ASTM-certified automatic solid fossil fuel sampler shall be installed which produces a representative daily sample for analysis of sulfur, moisture, heating value and ash. The solid fossil fuel analysis data shall be used in conjunction with emission factors and the continuous monitoring data to calculate SO<sub>2</sub> reduction.

2. - 3. - no change

4. The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports, in accordance with ~~Standard Sampling Techniques and Methods of Analysis for The Determination of Air Pollutants from Point Sources, July 1975 Rule 62-297, F.A.C.~~

5. - no change

6. Emission Control Systems:

Prior to operation of the source, the owner or operator shall submit to the Department a standardized plan or procedure that will allow the company to monitor emission control equipment efficiency and enable the company to return malfunctioning equipment to proper operation as expeditiously as possible.

C. Stack Testing:

1. - no change

2. Performance tests shall be conducted and data reduced in accordance with methods and procedures in accordance with EPA or DEP-approved test methods. Standard Sampling Techniques and Methods of the Determination on Air Pollutants from Point Sources, July 1975.

3. - 4. - no change

5. Stack tests for particulates, NO<sub>x</sub> and SO<sub>2</sub> shall be performed annually in accordance with conditions 2, 3 and 4 above. CEMS and CEM's relative accuracy tests may be used to determine compliance as long as the source and test conditions are consistent with the applicable requirements.

D. Reporting

1. Stack monitoring, ~~fuel usage and fuel analysis~~ data shall be reported to the Department on a quarterly basis in accordance with 40 CFR, Part 60, Section 60.7(c), (d) and in accordance with 62-297.405(1)(g) ~~17-2-00~~, FAC. Fuel usage and fuel analysis data shall be reported to the Department on an annual basis.

2. - no change

E. - F. - no change

G. Reporting:

1. Beginning one month after certification the applicant shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of equipment (including control equipment). All reports and information required to be submitted under this condition shall be submitted to ~~Mr. Hamilton S. Owen, Jr.,~~ the Administrator, of Power Plant Siting Coordination Office, Department of Environmental Protection Regulation, 2600 Blair Stone Road, MS 48, Tallahassee, Florida 32399-2400.

2. Lakeland shall maintain and submit to the Department on an annual basis for a period of five years from the date the unit is initially in commercial operation, co-fired with petroleum coke, information demonstrating in accordance with 40 CFR 52.21 (b) (33) and 40 CFR 52.21

(b) (21) (v) that the operational changes did not result in emission increases of carbon monoxide, nitrogen oxides, or sulfuric acid mist.

H. Fuels:

The following fuels may be burned:

Coal only;

Low sulfur fuel oil only ( $\leq 0.5$  percent sulfur by weight);

Coal and up to 10 percent refuse (based on heat input)

Low sulfur fuel oil and up to 10 percent refuse (based on heat input);

Coal and up to 20 percent petroleum coke (based on weight);

Coal and up to 20 percent petroleum coke (based on weight) and 10 percent refuse (based on heat input);

High sulfur oil ( $> 0.5$  percent sulfur by weight) consistent with Conditions I.A.2.b. or I.A.2.c.;

Natural gas only or in combination with any of the other fuels or fuel combinations listed above;

II. Water Discharges

Discharges during construction and operation of the Unit No. 3 shall be in accordance with all applicable provisions of Chapter 62-302 17-3, Florida Administrative Code and 40 CFR 423, Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category. In addition, the permittee shall comply with the following conditions of certification:

A. Pretreatment Standards

Wastewater discharges from Unit No. 3 to the Lakeland wetlands treatment system shall comply with the effluent limitation guidelines contained in 40 CFR § 423.16, ~~Part 423.12~~ and amendments. The specific standards applicable to the

State of Florida Department of Environmental Regulation  
City of Lakeland  
Power Plant No. 3 - Unit No. 3  
Case No. PA 74-06  
CONDITIONS OF CERTIFICATION

SPECIAL

I. Air

The construction and operation of the Unit No. 3 at the McIntosh Plant shall be in accordance with all applicable provisions of Chapters 17-2, 17-5, and 17-7, Florida Administrative Code. The permittee shall comply with the following conditions of certification:

A. Emission Limitations

1. Stack emissions shall not exceed those specified in Chapter 17-2.04(5)(e) 1., FAC.
2. The permittee shall not burn a fuel oil containing more than an average of 0.7% sulfur unless it can be demonstrated that either, a) heat efficiency is such as to insure compliance with all applicable emission limitations, or b) that a flue gas desulfurization unit is installed that will insure compliance with applicable emission limitations.
3. The height of the boiler exhaust stack for Unit 3 shall be not less than 250 feet above grade. The height of stacks for future units shall be determined after review of supplemental applications.
4. Particulate emissions from the coal handling facilities:
  - a. The applicant shall not cause to be discharged into the atmosphere from any coal processing or conveying equipment, coal storage system or coal transfer and loading system processing coal, visible emissions which exceed 20 percent opacity.
  - b. The applicant must submit to the Department within five (5) working days after it becomes available, copies of technical data pertaining to the selected particulate emissions control for the coal handling facility. These data should include, but not be limited to, a copy of the formal bid from the successful bidder, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department may, upon review of these data, disapprove the use of such device if the Department determines the selected control device to be inadequate to meet the visible emission limit specified in 5 (a) above.

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### B. Air Monitoring Program

1. The permittee shall install and operate continuously monitoring devices for the Unit No. 3 boiler exhaust for sulfur dioxide, nitrogen dioxide and opacity. The monitoring devices shall meet the applicable requirements of 17-2.08, FAC.
2. The permittee shall operate two ambient monitoring device for sulfur dioxide in accordance with EPA reference methods in 40 CFR, Part 53 and two ambient monitoring device for suspended particulates. New and existing monitoring devices shall be located as designated by the Department. The frequency of operation shall be every six days or as specified by the Department.
3. The permittee shall maintain a daily log of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values to facilitate calculations of emissions.
4. The permittee shall provide sampling ports into the stack and shall provide access to the sampling ports, in accordance with Standard Sampling Techniques and Methods of Analysis for The Determination of Air Pollutants from Point Sources, July 1975.
5. The ambient monitoring program may be reviewed annually beginning two years after start-up of Unit No. 2 by the Department and the permittee.
6. Emission Control Systems:

Prior to operation of the source, the owner or operator shall submit to the Department a standardized plan or procedure that will allow the company to monitor emission control equipment efficiency and enable the company to return malfunctioning equipment to proper operation as expeditiously as possible.

### C. Stack Testing:

1. Within 60 days after achieving the maximum capacity at which the facility will be operated, but no later than 180 days after initial startup, the owner or operator shall conduct performance tests for particulates and SO<sub>2</sub> and promptly furnish the Department a written report of the results of such performance tests.

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2. Performance tests shall be conducted and data reduced in accordance with methods and procedures in accordance with Standard Sampling Techniques and Methods of the Determination on Air Pollutants from Point Sources, July 1975.
3. Performance tests shall be conducted under such conditions as the Department shall specify based on representative performance of the facility. The owner or operator shall make available to the Department such records as may be necessary to determine the conditions of the performance tests.
4. The owner or operator shall provide the Department with 30 days prior notice of the performance tests and afford the Department the opportunity to have an observer present.
5. Stack tests for particulates  $\text{NO}_x$  and  $\text{SO}_2$  shall be performed annually in accordance with conditions 2, 3 and 4 above.

### D. Reporting

1. Stack monitoring, fuel usage and fuel analysis data shall be reported to the Department on a quarterly basis in accordance with 40 CFR, Part 60, Section 60.7 and in accordance with 17-2.08, FAC.
2. Ambient air monitoring data shall be reported to the Department quarterly by the last day of the month following the quarterly reporting period utilizing the SAROAD or other format approved by the Department in writing.

### E. Coal Characteristics and Contracts

Before approval can be granted by the Department for use of control devices, characteristics of the coal to be fired must be known. Therefore, before these approvals are granted, the applicant must submit to the Department copies of coal contracts which should include the expected sulfur content, ash content, and heat content of the coal to be fired. These data will be used by the Department in its evaluation of the adequacy of the control devices.

### F. Coal Information

As an alternative to the <sup>E</sup>submittal of contracts for purchase of coal under condition ~~X~~ above, the applicant may submit the following information:

1. The name of the coal supplier;
2. The sulfur content, ash content, and heat content of the coal as specified in the purchase contracts;
3. The location of the coal deposits covered by the contract (including mine name and seam);
4. The date by which the first delivery of coal will be made;



## Best Available Copy

5. The duration of the contract; and
6. An opinion of counsel for the applicant that the contract(s) are legally binding enforceable.

### G. Reporting:

Beginning one month after certification the applicant shall submit to the Department a quarterly status report briefly outlining progress made on engineering design and purchase of major pieces of equipment (including control equipment). All reports and information required to be submitted under this condition shall be submitted to Mr. Hamilton S. Owen, Jr., Administrator of Power Plant Siting, Department of Environmental Regulation, 2500 Blair Stone Road, Tallahassee, Florida 32301.

## II. Water Discharges

Discharges during construction and operation of the Unit No. 3 shall be in accordance with all applicable provisions of Chapter 17-3, Florida Administrative Code and 40 CFR 423, Effluent Guidelines and Standards for Steam Electric Power Generating Point Source Category. In addition, the permittee shall comply with the following conditions of certification:

### A. Pretreatment Standards

Wastewater discharged from Unit No. 3 to the Lakeland municipal sewerage system shall comply with the pretreatment standards for new sources as contained in 40 CFR, Part 423.16 and amendments. The specific standards applicable to the facilities as planned are:

#### 1. Cooling Tower Blowdown

There shall be no detectable amounts of materials added for corrosion inhibition, including but not limited to zinc and chromium in cooling tower blowdown discharged to the sewer system.

#### 2. pH

The pH of all discharges shall be within the range of 6.0 to 9.0.

#### 3. Polychlorinated Biphenyl Compounds

There shall be no release to the environment of polychlorinated biphenyl compounds.

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

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

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

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

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

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

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Diesel Peaking Units 2 and 3</b>		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown *		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? [ ] Yes [ <b>x</b> ] No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters):  <b>*ARMS Identification Numbers: 002 and 003. Each diesel powered electric generating unit rated at 2.5 MW fired with diesel (No. 2 distillate) fuel only. These units are identical and previously permitted collectively.</b>		

**Emissions Unit Control Equipment Information**

**A.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**B.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

**Emissions Unit Details**

1. Initial Startup Date: <b>1 Jan 1970</b>		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	<b>5 MW</b>	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	<b>28</b>	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):  <b>Maximum heat input per diesel peaking unit.</b>		

**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/yr	<b>8,760</b> hours/yr

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

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

**Not Applicable**

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment LMC-EU4-D

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: See Att. LMC-EU4-L1	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): <b>Each emission unit (diesel) has separate stack.</b>	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: <b>S004 = Diesel Unit 2; S005 = Disel Unit 3</b>	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	20 feet
7. Exit Diameter:	2.6 feet
8. Exit Temperature:	715 °F



9. Actual Volumetric Flow Rate:	24,529 acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone: 17	East (km): 409.1      North (km): 3106.3
14. Emission Point Comment (limit to 200 characters):	
	<b>Data from APIS file for each diesel generator.</b>

**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Diesel Oil</b>	
2. Source Classification Code (SCC):  <b>2-01-001-02</b>	
3. SCC Units:  <b>1,000 gallons</b>	
4. Maximum Hourly Rate:  <b>0.2</b>	5. Maximum Annual Rate:  <b>1,766</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>0.5</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <b>138</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum Hourly Rate: 0.2016. Maximum hourly and annual rates based on operating permit limits for each Diesel Unit; based on 19,500 Btu/lb; 7.1 lb/gal diesel fuel.</b>	

**Segment Description and Rate:** Segment \_\_\_\_\_ of \_\_\_\_\_

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):	
2. Source Classification Code (SCC):	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			NS
SO <sub>2</sub>			EL
NO <sub>x</sub>			NS
CO			NS
VOC			NS
PM <sub>10</sub>			NS

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

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>SO2</b>		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	<b>14.3 lb/hour</b>	<b>62.7 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions:		
<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr		
6. Emission Factor:		<b>0.5 %S fuel oil</b>
Reference: Oper. Permit Limit		
7. Emissions Method Code:		
<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters):		
<b>201.6 gal/hr x 7.1 lb/gal x 0.005 lbs/lb fuel x 2 lb SO2/lbs = 14.3 lb/hr</b>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):		
<b>Potential emissions provided for each diesel unit. Limit not defined as applicable requirement in Rule 62-210.200.</b>		

Emissions Unit Information Section 4 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.5 %Sulfur Oil</b>		
4. Equivalent Allowable Emissions:	<b>14.3 lb/hour</b>	<b>62.7 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Fuel Analysis (vendor)</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Operating Permit Limi (AO53-244726); not an applicable requirement as defined in Rule 62-210.200.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

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

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 2

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20</b> %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour
4.	Method of Compliance: <b>Annual VE test if &gt; 400 HOURS</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-296.320(4)(b)1.</b>

**Visible Emissions Limitations:** Visible Emissions Limitation 2 of 2

1.	Visible Emissions Subtype: <b>VE99</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions:      %      Exceptional Conditions: <b>100</b> % Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour
4.	Method of Compliance: <b>None</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-210.700(1) allows up to 100% for 2 hours (120 minutes) per 24-hour period for startup, shutdown or malfunction.</b>

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

**Continuous Monitoring System** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**Continuous Monitoring System** Continuous Monitor \_\_\_\_ of \_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	



**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

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

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
	SO <sub>2</sub>	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
	NO <sub>2</sub>	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO <sub>2</sub>	lb/hour		tons/year
	NO <sub>2</sub>			tons/year
5.	PSD Comment (limit to 200 characters):			

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU4-L1</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU4-L2</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
3.	Detailed Description of Control Equipment	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
		<input checked="" type="checkbox"/> Not Applicable	
4.	Description of Stack Sampling Facilities	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
		<input checked="" type="checkbox"/> Not Applicable	
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU4-L6</u>	<input type="checkbox"/> Not Applicable
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
8.	Supplemental Information for Construction Permit Application	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
9.	Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable

**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU4-L10</u> <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**ATTACHMENT LMC-EU4-D**  
**EMISSIONS UNIT REGULATIONS**

ATTACHMENT LMC-EU4-D  
Applicable Requirements Listing - Power Plants Non-Acid/NSPS Rain Units

EMISSION UNIT ID: EU4 - McIntosh Plant - Diesel Peaking Units 2 and 3

FDEP Rules:

Stationary Sources-General:

- 62-210.700(1) - Excess Emissions (startup/shutdown/malfunction)
- 62-210.700(4) - Poor Maintenance
- 62-210.700(6) - Notification

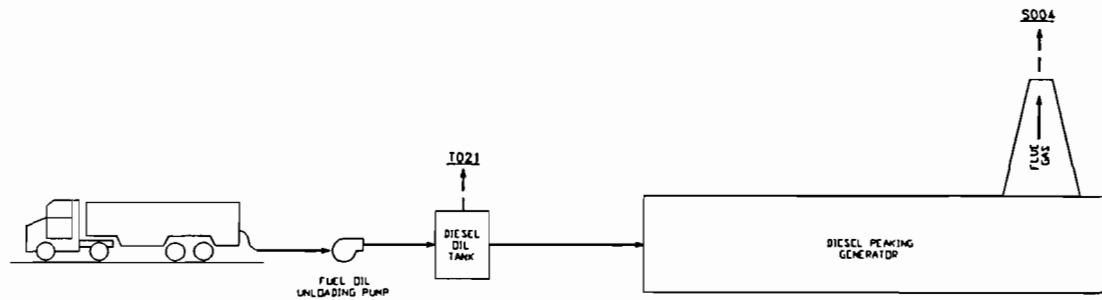
Stationary Sources-Emission Standards/RACT:


- 62-296.320(4)(b) - General VE

Stationary Sources-Emission Monitoring:

- 62-297.310(2)(b) - Operating Rate
- 62-297.310(4)(a)2. - Applicable Test Procedures; Sampling time
- 62-297.310(5) - Determination of Process Variables
- 62-297.310(7)(a)3. - Permit Renewal Test Required
- 62-297.310(7)(a)4.a. - Annual Test
- 62-297.310(7)(a)9. - FDEP Notification - 15 days
- 62-297.310(8) - Test Reports

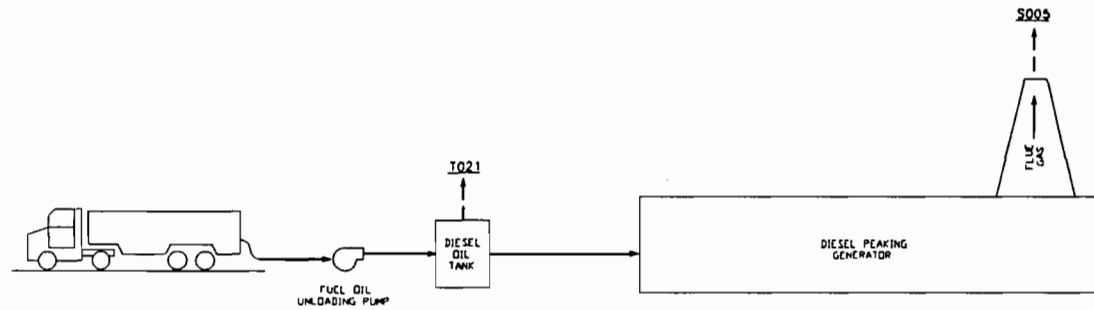
**ATTACHMENT LMC-EU4-L1**  
**PROCESS FLOW DIAGRAM**



3	MG	5-29-96	HP	ISSUED FOR TITLE V	 <b>LAKELAND ELECTRIC &amp; WATER</b>	DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE	
2	MG	5-15-96	HP	CHANGE TITLE		LAKELAND ELECTRIC & WATER UTILITIES	ENGINEER	PATTERSON	PROJ. NO.	AIR PERMIT		
1	HG	8-9-95		DELETED TITLE		C.D. McINTOSH POWER PLANT	DRN. BY:	MGIEGER	DATE	9-19-94	DWG. NO.	REV.
REV. NO.	BY	DATE	APPR.	REVISION		DIESEL PEAKER NO. 2 (DIESEL NO. 1)	APPR. BY:				LMC-EU4-L1/SKM-28	3
					PROCESS FLOW DIAGRAM							

SIZE B





1	MG	8-9-95		DELETED 1116
2	MG	5-15-96	HP	CHANGE TITLE
3	MG	5-29-96	HP	ISSUED FOR TITLE V
REV. NO	BY	DATE	APPR.	REVISION



LAKELAND  
ELECTRIC  
& WATER

DESCRIPTION		DIVISION		SCALE	
LAKELAND ELECTRIC & WATER UTILITIES C.D. McINTOSH POWER PLANT DIESEL PEAKER NO. 3 (DIESEL NO. 2) PROCESS FLOW DIAGRAM		PRODUCTION ENGINEERING		NONE	
		ENGINEER		PROJ. NO.	
		PATTERSON		AIR PERMIT	
		DRN. BY:	MGIEGER	DATE	9-19-94
		APPR. BY:		DWG. NO.	LMC-EU4-L1/SKM-29
				REV.	3

SIZE B

**ATTACHMENT LMC-EU4-L2**  
**FUEL ANALYSIS OR SPECIFICATION**

Attachment LMC-EU4-L2

Fuel Analysis

No. 2 Fuel Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	30 <sup>1</sup>	-
Relative density	6.92 lb/gal <sup>2</sup>	
Heat content	18,400 Btu / lb (LHV)	
% sulfur	<0.5 <sup>2</sup>	0.5 <sup>3</sup>
% nitrogen	0.025 - 0.030	
% ash	negligible	0.01 <sup>1</sup>

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from the fuel procurement specification

<sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data from current air permit AO53-244726.

**ATTACHMENT LMC-EU4-L6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

**ATTACHMENT LMC-EU4-L6  
PROCEDURES FOR STARTUP/SHUTDOWN**

Startup and shutdown for these units are fully automatic.

Startup for the diesel units begin at low loads using distillate oil (i.e., diesel).

Corrective actions may include switching the unit from automatic (remote) to local control, or changing load conditions. Best Operating Practices based on manufacturer recommendations are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (electrical production) to a minimum level, opening the breaker (which disconnects the unit from the system electrical grid), shutting off the fuel and coasting down to stop.

**ATTACHMENT LMC-EU4-L10**  
**ALTERNATIVE METHODS OF OPERATION**

**ATTACHMENT LMC-EU4-L10**  
**ALTERNATIVE METHODS OF OPERATION**

The diesel unit can operate from 0 to 100 percent load on diesel/distillate fuel oil with no limitation on the hours of operation.

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

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

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

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

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



**B. GENERAL EMISSIONS UNIT INFORMATION  
(Regulated and Unregulated Emissions Units)****Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Gas Turbine Peaking Unit 1</b>		
2. Emissions Unit Identification Number: [ ] No Corresponding ID [ ] Unknown <b>004</b>		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? [ ] Yes [ <b>x</b> ] No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters): <b>Fired with diesel (No.2) fuel and natural gas</b>		

**Emissions Unit Control Equipment Information**

**A.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**B.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

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

**Emissions Unit Details**

1. Initial Startup Date: <b>1 Jan 1973</b>		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	<b>20 MW</b>	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	<b>330</b>	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters):		
<b>Maximum heat input shown for natural gas. Maximum heat input for oil is 320 MMBtu/hr</b>		

**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/yr	<b>8,760</b> hours/yr

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

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

**Not Applicable**

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment LMC-EU5-D

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: See Att. LMC-EU5-L1	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	35 feet
7. Exit Diameter:	13.5 feet
8. Exit Temperature:	900 °F

9. Actual Volumetric Flow Rate:	682,334 acfm	
10. Percent Water Vapor:	%	
11. Maximum Dry Standard Flow Rate:	dscfm	
12. Nonstack Emission Point Height:	feet	
13. Emission Point UTM Coordinates:		
Zone: 17	East (km): 409.2	North (km): 3106.4
14. Emission Point Comment (limit to 200 characters):		
	<b>Exit diameter based on equiv diameter based on stack area. Stack dimensions: rectangular 13' 2" x 10' 11". Volumetric flow: given for distillate oil; for natural gas 742,174 acfm.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Distillate (No.2) Fuel Oil</b>	
2. Source Classification Code (SCC):  <b>2-01-001-01</b>	
3. SCC Units:  <b>1,000 gallons</b>	
4. Maximum Hourly Rate:  <b>2.31</b>	5. Maximum Annual Rate:  <b>20,236</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>0.5</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:  <b>138</b>	
10. Segment Comment (limit to 200 characters):  <b>Maximum hourly and annual rates based on operating permit limits (AO53-244727); MMBtu per SCC based on 19,500 Btu/lb, 7.1 lb/gal diesel fuel.</b>	



Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Natural Gas</b>	
2. Source Classification Code (SCC): <b>2-01-002-01</b>	
3. SCC Units: <b>Million Cubic Feet</b>	
4. Maximum Hourly Rate: <b>0.32</b>	5. Maximum Annual Rate: <b>2,803</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: <b>1,024</b>	
10. Segment Comment (limit to 200 characters): <b>Maximum hourly and annual rates based on permit limit; MMBtu per SCC based on 1,024 Btu/cf natural gas which a typical average.</b>	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			NS
SO2			EL
NOx			NS
CO			NS
VOC			NS
PM10			NS

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

**Pollutant Detail Information:**

1. Pollutant Emitted: <b>SO2</b>	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	<b>164 lb/hour                      718.4 tons/year</b>
4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3    _____ to _____ tons/yr	
6. Emission Factor: <b>0.5 %Sulfur fuel</b>  Reference: Oper. Permit Limit	
7. Emissions Method Code:  <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):  <b>2,320 gal/hr x 7.1 lb/gal x 0.005 lb S/lb fuel x 2 lb SO2/lb S = 164 lb/hr</b>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):  <b>Emissions for distillate oil firing. Limit based on AO53-244727; not an applicable requirement under Rule 62-210.200.</b>	

Emissions Unit Information Section 5 of 7  
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: <b>OTHER</b>		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: <b>0.5</b>		
4. Equivalent Allowable Emissions:	<b>164 lb/hour</b>	<b>718.4 tons/year</b>
5. Method of Compliance (limit to 60 characters): <b>Vendor Fuel Analysis</b>		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): <b>Operating Permit Limit (AO53-244727); not an applicable requirement as defined in Rule 62-210.200.</b>		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

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

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 2

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20.</b> %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour
4.	Method of Compliance: <b>Annual VE test EPA Method 9 if &gt; 400 hours</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-296.320(4)(b)1. and 62-297.310(7)(a)8.</b>

**Visible Emissions Limitations:** Visible Emissions Limitation 2 of 2

1.	Visible Emissions Subtype: <b>VE99</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions:      %      Exceptional Conditions: <b>100</b> % Maximum Period of Excess Opacity Allowed: <b>60</b> min/hour
4.	Method of Compliance: <b>None</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-210.700(1). Allowed for 2 hours (120 minutes) per 24 hours for startup, shutdown or malfunction.</b>

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

**Continuous Monitoring System** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**Continuous Monitoring System** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

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

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
	SO <sub>2</sub>	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
	NO <sub>2</sub>	<input type="checkbox"/> C	<input type="checkbox"/> E	<input checked="" type="checkbox"/> Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO <sub>2</sub>	lb/hour		tons/year
	NO <sub>2</sub>			tons/year
5.	PSD Comment (limit to 200 characters):			



**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU5-L1</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU5-L2</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
3.	Detailed Description of Control Equipment	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
		<input checked="" type="checkbox"/> Not Applicable	
4.	Description of Stack Sampling Facilities	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Waiver Requested
		<input checked="" type="checkbox"/> Not Applicable	
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Not Applicable
		<input checked="" type="checkbox"/> Previously Submitted, Date: <u>16 Jun 1995</u>	
6.	Procedures for Startup and Shutdown	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU5-L6</u>	<input type="checkbox"/> Not Applicable
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
8.	Supplemental Information for Construction Permit Application	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
9.	Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable

**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU5-L10</u> <input type="checkbox"/> Not Applicable.
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required)  <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____  <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____  <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____  <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____  <input checked="" type="checkbox"/> Not Applicable

**ATTACHMENT LMC-EU5-D**  
**EMISSIONS UNIT REGULATIONS**

ATTACHMENT LMC-EU5-D  
Applicable Requirements Listing - Power Plants Non-Acid/NSPS Rain Units

EMISSION UNIT ID: EU5 - McIntosh Plant - Gas Turbine Unit 1

FDEP Rules:

Stationary Sources-General:

- 62-210.700(1) - Excess Emissions (startup/shutdown/malfunction)
- 62-210.700(4) - Poor Maintenance
- 62-210.700(6) - Notification

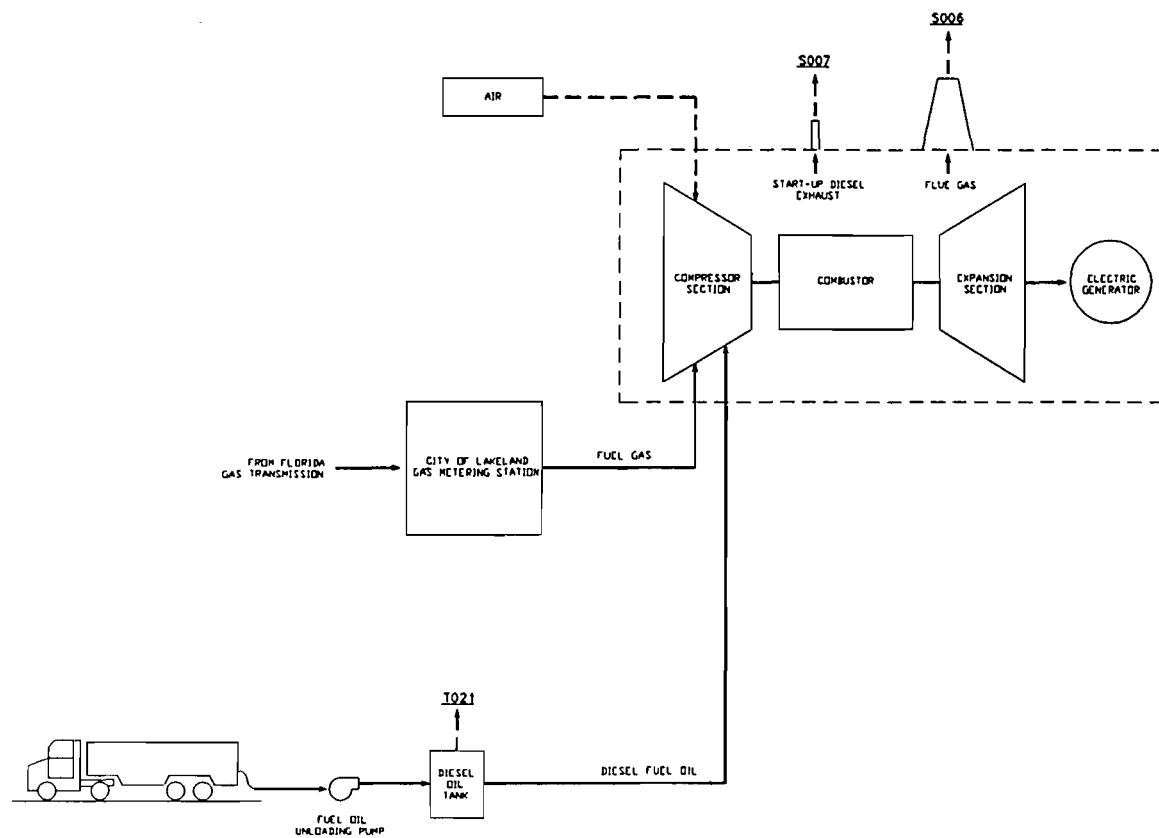
Stationary Sources-Emission Standards/RACT:

- 62-296.320(4)(b) - General VE

Stationary Sources-Emission Monitoring:

- 62-297.310(2)(a) - Operating Rate; reserved for CTs
- 62-297.310(4)(a)2. - Applicable Test Procedures; Sampling time
- 62-297.310(5) - Determination of Process Variables
- 62-297.310(7)(a)3. - Permit Renewal Test Required
- 62-297.310(7)(a)4.a. - Annual Test
- 62-297.310(7)(a)8 - CTs; Exempts Test <400hrs/yr; 1 per 5 yr
- 62-297.310(7)(a)9. - FDEP Notification - 15 days
- 62-297.310(8) - Test Reports

**ATTACHMENT LMC-EU5-L1**  
**PROCESS FLOW DIAGRAM**



1	MG	8-9-95		DELETED 1116
2	MG	5-15-96	HP	CHANGE TITLE
3	MG	5-29-96	HP	ISSUED FOR TITLE V
REV. NO.	BY	DATE	APPR.	REVISION



DESCRIPTION	DIVISION	PRODUCTION ENGINEERING
LAKELAND ELECTRIC & WATER UTILITIES C.D. MCINTOSH POWER PLANT GAS TURBINE PEAKER NO. 1 PROCESS FLOW DIAGRAM	ENGINEER	PATTERSON
	DRN. BY:	WGIEGER
	APPR. BY:	

CAD	SCALE	NONE
PROJ. NO.	AIR PERMIT	
DWG. NO.	REV.	
LMC-EU5-L1/SKM-30	3	

SIZE B

**ATTACHMENT LMC-EU5-L2**  
**FUEL ANALYSIS OR SPECIFICATION**

Attachment LMC-EU5-L2

Fuel Analysis

Natural Gas Analysis

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
Relative density	0.58 (compared to air)	
heat content	950 - 1124 Btu/cu ft. (hmv)	
% sulfur	0.43 grains/CCF <sup>1</sup>	1 grain/100 CF
% nitrogen	0.8% by volume	
% ash	negligible	

Note: The values listed are "typical" values based upon information supplied by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data from laboratory analysis



Attachment LMC-EU5-L2

Fuel Analysis

No. 2 Fuel Oil

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	30 <sup>1</sup>	-
Relative density	6.92 lb/gal <sup>2</sup>	-
Heat content	18,400 Btu / lb (LHV)	-
% sulfur	<0.5 <sup>2</sup>	0.5 <sup>3</sup>
% nitrogen	0.025 - 0.030	-
% ash	negligible	0.01 <sup>1</sup>

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

<sup>1</sup> Data taken from the fuel procurement specification

<sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data from current air permit (AO53-244727) not an applicable requirement under 62-210.200.

**ATTACHMENT LMC-EU5-L6**  
**PROCEDURES FOR STARTUP AND SHUTDOWN**

**ATTACHMENT LMC-EU5-L6  
PROCEDURES FOR STARTUP/SHUTDOWN**

Startup for the gas turbine begins with an electric control system using a switch to initiate the unit startup cycle. The unit generator is synchronized with the grid and can be "on line" (electrical power production) within 5 minutes from startup.

The gas turbine has no emission controls. If excess emissions are encountered during startup or shutdown, the nature and cause of any malfunction is identified, along with the corrective action taken or preventative measures adopted. Corrective actions may include switching the unit from automatic (remote) to local control. Best Operating Practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (electrical production) to a minimum level, opening the breaker (which disconnects the unit generator from the system electrical grid), shutting off the fuel, and coasting to a stop.

**ATTACHMENT LMC-EU5-L10**  
**ALTERNATIVE METHODS OF OPERATION**

**ATTACHMENT LMC-EU5-L10**  
**ALTERNATIVE METHODS OF OPERATION**  
**GAS TURBINE UNIT 1**

The gas turbine can operate on both natural gas and fuel oil (No. 2 fuel). The maximum sulfur content in the fuel oil will not exceed 0.5 percent. This unit can operate from 0 to 100 percent load for the entire year (i.e., 8,760 hours) and can fire either fuel oil or natural gas fire with no restrictions on hours of operation.

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

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

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

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

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

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

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Emissions Associated with Material Handling(fugitive &amp; vent)</b>		
2. Emissions Unit Identification Number:    [    ] No Corresponding ID    [ <b>X</b> ] Unknown		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? [    ] Yes [ <b>X</b> ] No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters):  <b>This emission unit information section addresses fugitive emissions and other emissions from materials handling. The materials handled include coal, petroleum coke, refuse, RDF, limestone, Quick Lime, fly ash, bottom ash and FGD by-products.</b>		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters):  <b>Water, Cyclones and bag filters used to control PM</b>
2. Control Device or Method Code: <b>99</b>

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:



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

**Emissions Unit Details**

1. Initial Startup Date: <b>1 Sep 1982</b>		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	MW	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:	See Comment	
4. Maximum Production Rate:	See Comment	
5. Operating Capacity Comment (limit to 200 characters):		
<p><b>Thru-puts in TPY: 1,398,121 coal;269,455 petcoke;132,334 Limestone;6,714 lime 75,000 MSW/RDF;167,775 flyash;41,944 Bottom ash;429,185 FGD by-prod. From input/output EU3</b></p>		

**Emissions Unit Operating Schedule**

1. Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/yr	<b>8,760</b> hours/yr

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

**Rule Applicability Analysis** (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

**List of Applicable Regulations** (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment LMC-EU6-D

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

**Emission Point Description and Type**

1. Identification of Point on Plot Plan or Flow Diagram: See Att. LMC-EU6-L1	
2. Emission Point Type Code:  <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:	
5. Discharge Type Code: <input type="checkbox"/> D <input checked="" type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	feet
7. Exit Diameter:	feet
8. Exit Temperature:	°F

9. Actual Volumetric Flow Rate:	acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone:	East (km):                      North (km):
14. Emission Point Comment (limit to 200 characters):	
	<b>Not Applicable</b>

**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 1 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Coal</b>	
2. Source Classification Code (SCC):  <b>A2530000040</b>	
3. SCC Units:  <b>Tons</b>	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:  <b>1,398,121</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):  <b>Annual rate based on inputs to Emission Unit 3.</b>	

**Segment Description and Rate:** Segment 2 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Petroleum Coke</b>	
2. Source Classification Code (SCC): <b>A253000000</b>	
3. SCC Units: <b>Tons</b>	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: <b>269,455</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): <b>Annual rate based on inputs to Emission Unit 3.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 3 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Limestone</b>	
2. Source Classification Code (SCC):  <b>A2530000100</b>	
3. SCC Units:  <b>Tons</b>	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:  <b>132,334</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):  <b>Annual rate based on input to FGD system associated with Emission Unit 3.</b>	



**Segment Description and Rate:** Segment 4 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>MSW/RDF</b>	
2. Source Classification Code (SCC): <b>A2530000000</b>	
3. SCC Units: <b>Tons</b>	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: <b>75,000</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): <b>Annual rate based on inputs to Emission Unit 3.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 5 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Flyash</b>	
2. Source Classification Code (SCC):  <b>A253000000</b>	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:  <b>167,775</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):  <b>Annual rate based on output from Emission Unit 3.</b>	

**Segment Description and Rate:** Segment 6 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>FGD Byproduct</b>	
2. Source Classification Code (SCC): <b>A253000000</b>	
3. SCC Units: <b>Tons</b>	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: <b>429,185</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): <b>Annual rate based on output from Emission Unit 3.</b>	

**F. SEGMENT (PROCESS/FUEL) INFORMATION  
(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 7 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Lime</b>	
2. Source Classification Code (SCC):  <p style="text-align: center;"><b>A253000000</b></p>	
3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:  <p style="text-align: center;"><b>6,714</b></p>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):  <p style="text-align: center;"><b>Annual rate based on requirements from EU3</b></p>	

Segment Description and Rate: Segment 8 of 8

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Bottom Ash</b>	
2. Source Classification Code (SCC): <b>A253000000</b>	
3. SCC Units: <b>Tons</b>	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: <b>41,944</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): <b>Annual rate based on output from EU3.</b>	

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

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	099		WP
PM10	099		NS

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

**Visible Emissions Limitations:** Visible Emissions Limitation 1 of 1

1.	Visible Emissions Subtype: <b>VE20</b>
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: <b>20.</b> %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour
4.	Method of Compliance: <b>NONE</b>
5.	Visible Emissions Comment (limit to 200 characters): <b>FDEP Rule 62-296.320(4)(b)1.; PSD-FL-008; 40 CFR 60.252(c)</b>

**Visible Emissions Limitations:** Visible Emissions Limitation \_\_\_\_ of \_\_\_\_

1.	Visible Emissions Subtype:
2.	Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions:      %      Exceptional Conditions:      % Maximum Period of Excess Opacity Allowed:      min/hour
4.	Method of Compliance:
5.	Visible Emissions Comment (limit to 200 characters):

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

**Continuous Monitoring System** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	

**Continuous Monitoring System** Continuous Monitor \_\_\_\_\_ of \_\_\_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date:	
6. Performance Specification Test Date:	
7. Continuous Monitor Comment (limit to 200 characters):	



**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

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

## 2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:		
PM	<input checked="" type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
SO <sub>2</sub>	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
NO <sub>2</sub>	<input type="checkbox"/> C	<input type="checkbox"/> E	<input type="checkbox"/> Unknown
4.	Baseline Emissions:		
PM	lb/hour		tons/year
SO <sub>2</sub>	lb/hour		tons/year
NO <sub>2</sub>			tons/year
5.	PSD Comment (limit to 200 characters):		

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION  
(Regulated Emissions Units Only)**

**Supplemental Requirements for All Applications**

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU6-L1</u>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
2.	Fuel Analysis or Specification	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
3.	Detailed Description of Control Equipment	<input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU6-L3</u>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
4.	Description of Stack Sampling Facilities	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Waiver Requested
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input type="checkbox"/> Previously Submitted, Date: _____	<input checked="" type="checkbox"/> Not Applicable
6.	Procedures for Startup and Shutdown	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	
8.	Supplemental Information for Construction Permit Application	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	
9.	Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable	

**Additional Supplemental Requirements for Category I Applications Only**

10. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU6-L10</u> <input type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <u>LMC-EU3-L12</u> <input type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**ATTACHMENT LMC-EU6-D**  
**EMISSIONS UNIT REGULATIONS**

**ATTACHMENT LMC-EU6-D**

**Applicable Requirements Listing - Power Plant Facility**

EMISSION UNIT: EU6 - McIntosh Plant - Material Handling

FDEP Rules

- 62-204.800(7)(b)29(State Only) - NSPS Subpart Y
- 62-204.800(7)(d)(State Only) - NSPS General Provisions

Stationary Sources-General:

- 62-210.700(1) - All EUs; (startup/Shutdown/Malfunction)
- 62-210.700(4) - All EUs; poor maintenance
- 62-210.700(6) - All EUs; reporting

Stationary Sources-Emission Standards:

- 62-296.320(4)(b) - General VE
- 62-296.320(4)(c) - Unconfined PM

Federal Rules:

NSPS Subpart Y

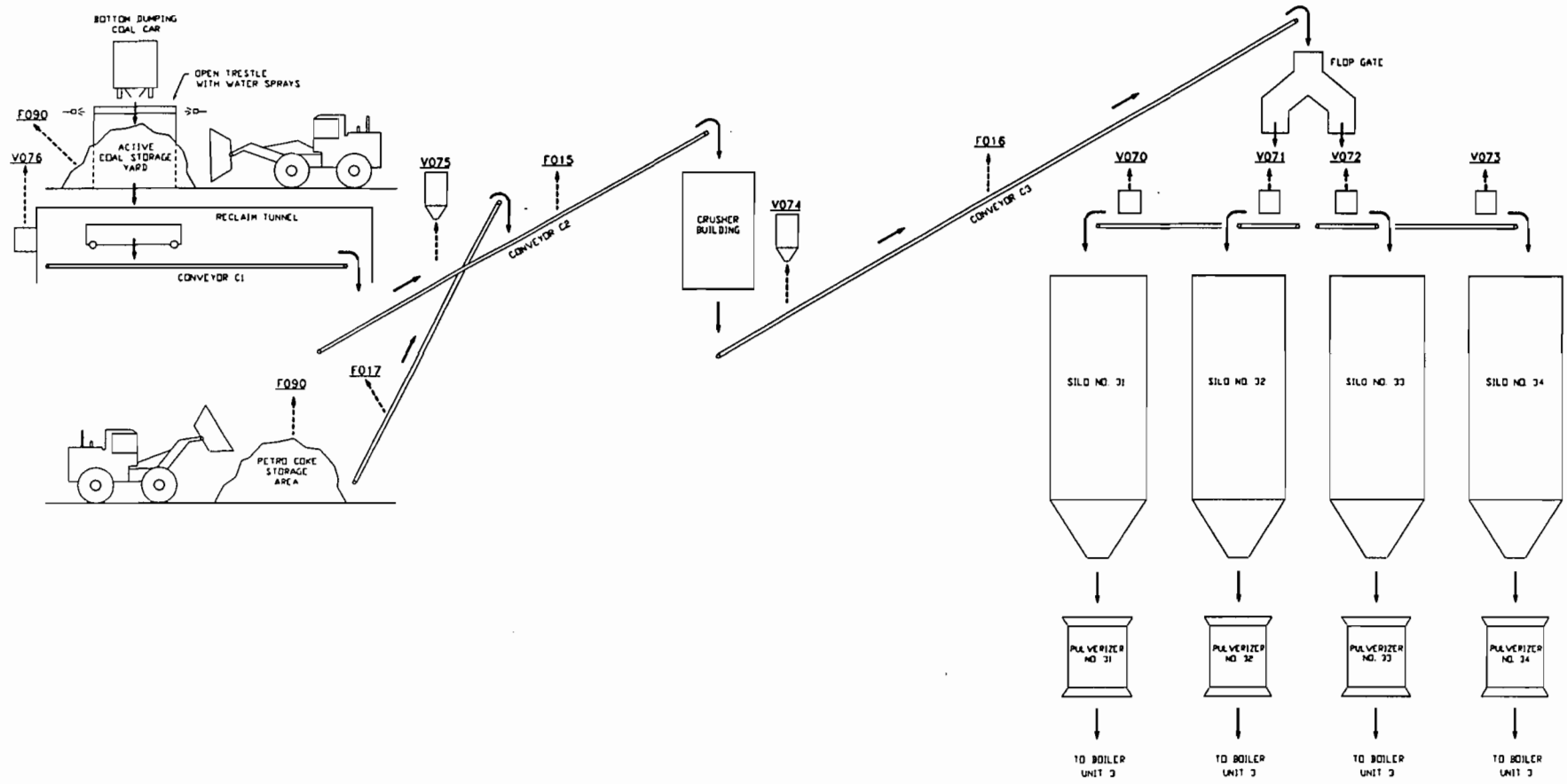
- 40 CFR 60.252(c) - VE (20%) Coal processing and conveying
- 40 CFR 60.254(b)(2) - Method 9

NSPS General Provisions

- 40 CFR 60.11(b) - Compliance (opacity determined by EPA Method 9)
- 40 CFR 60.11(c) - Compliance (opacity; excludes startup/shutdown/malfunction)
- 40 CFR 60.11(d) - Compliance (maintain air pollution control equipment)
- 40 CFR 60.12 - Circumvention

**ATTACHMENT LMC-EU6-L1**

**PROCESS FLOW DIAGRAM**



0	MG	11-2-94		ISSUED FOR TITLE V PERMIT APPLICATION
1	MG	5-15-96	HP	CHANGE TITLE
2	MG	5-29-96	HP	ISSUED FOR TITLE V
REV. NO.	BY	DATE	APPR.	REVISION

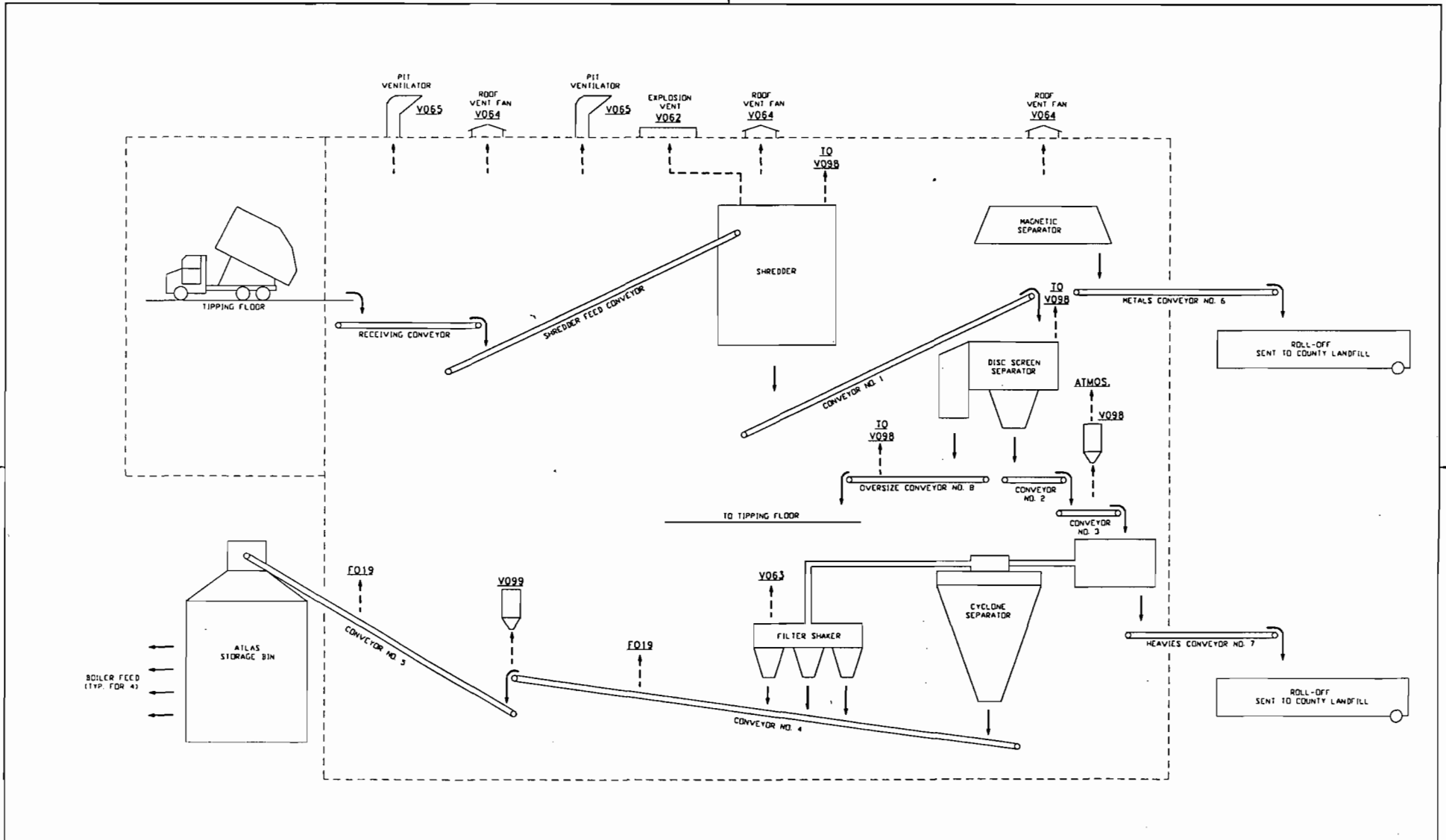



DESCRIPTION  
 LAKELAND ELECTRIC & WATER UTILITIES  
 C.D. MCINTOSH POWER PLANT  
 COAL AND PETROCKE STORAGE  
 AND HANDLING SYSTEM  
 PROCESS FLOW DIAGRAM

DIVISION PRODUCTION ENGINEERING  
 ENGINEER PATTERSON  
 DRN. BY: MIEGER  
 APPR. BY:

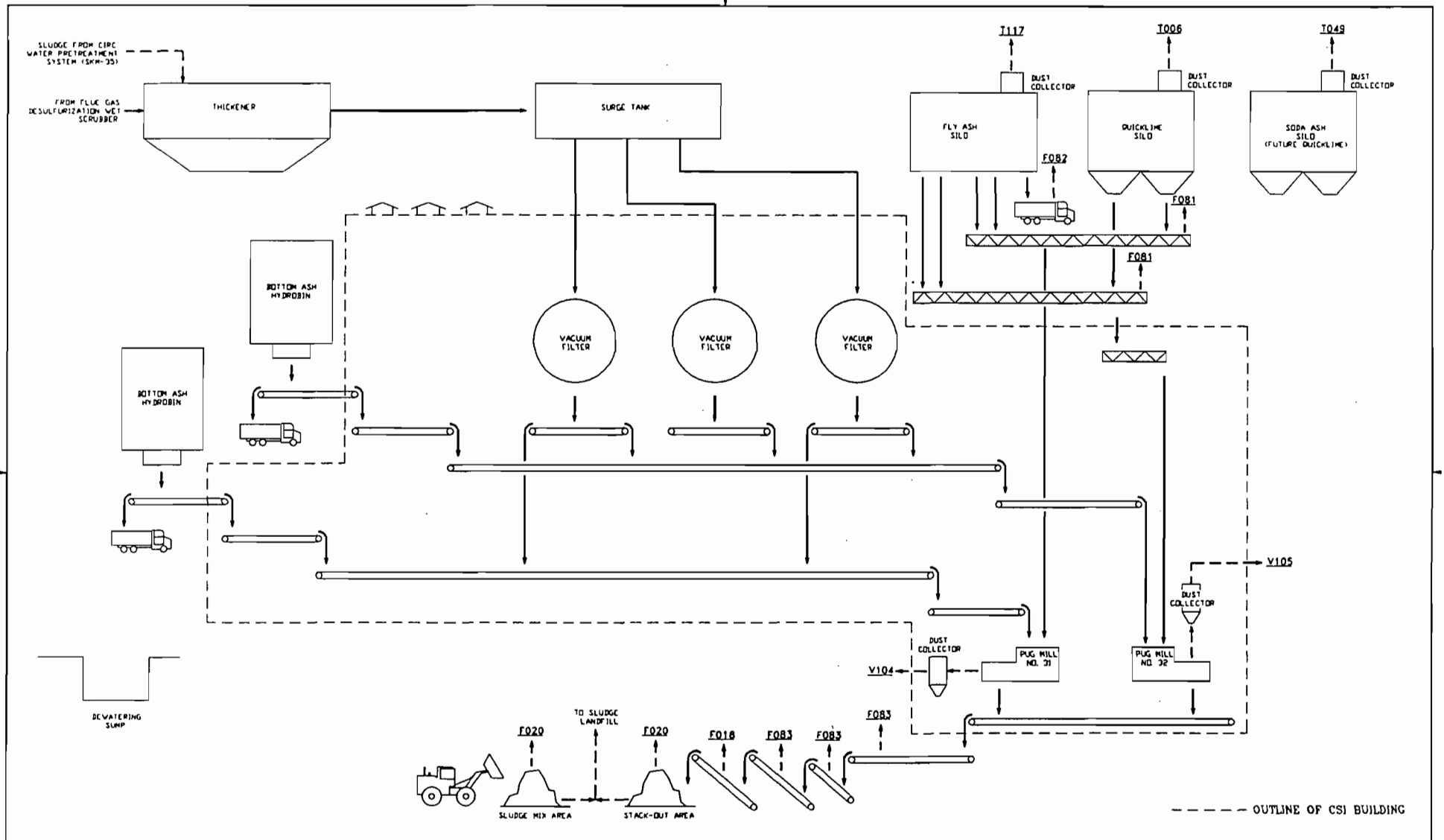
CAD SCALE NONE  
 PROJ. NO. AIR PERMIT  
 DWG. NO. LMC-EU6-L1/SKM-31  
 DATE 9-14-94  
 REV. 2






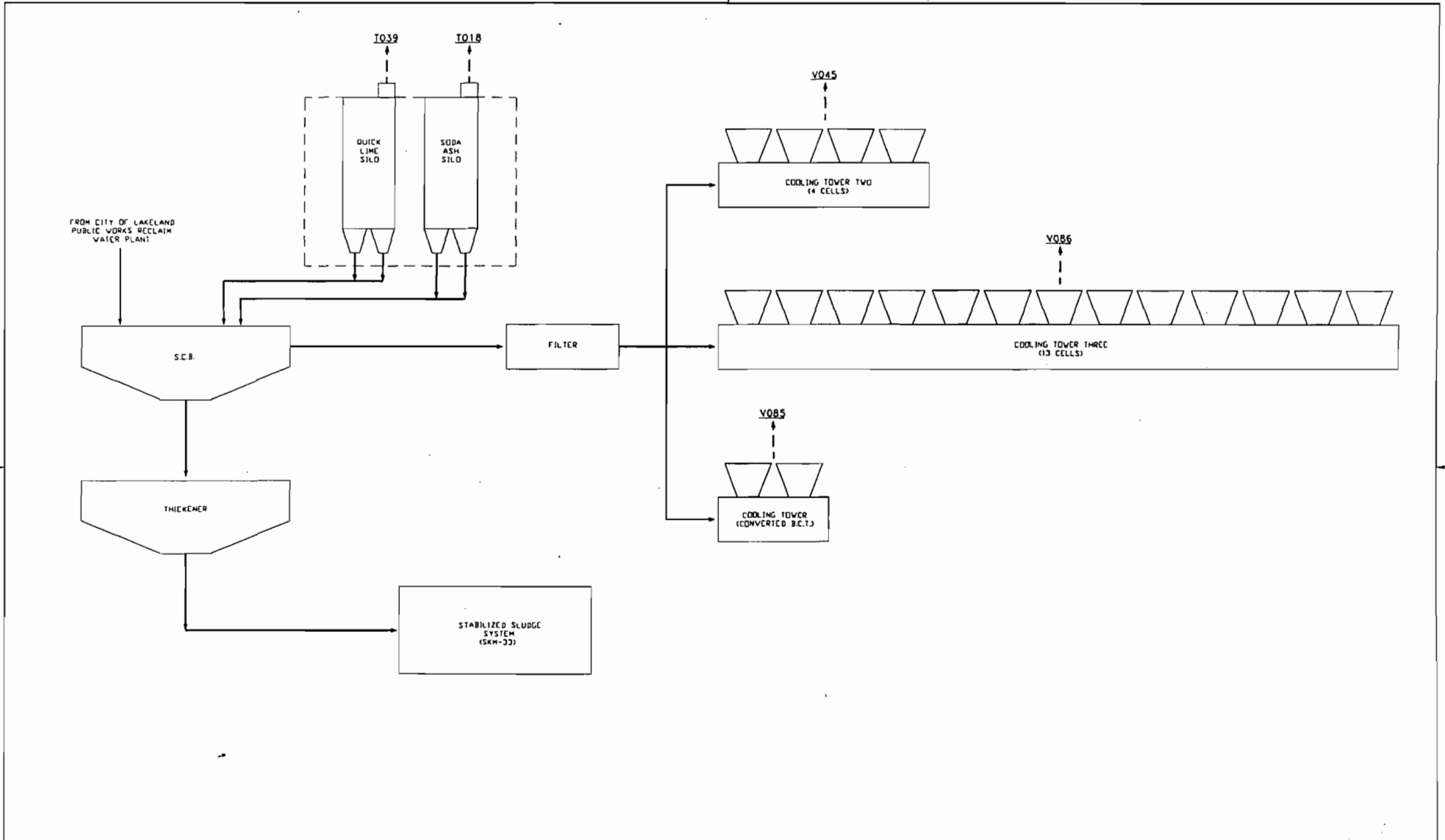
0	MG	11-2-94		ISSUED FOR TITLE V PERMIT APPLICATION	 <b>LAKELAND ELECTRIC &amp; WATER</b>	DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE	
1	MG	5-15-96		CHANGE TITLE & V09B		<b>LAKELAND ELECTRIC &amp; WATER UTILITIES</b> <b>C.D. MCINTOSH POWER PLANT</b> <b>REFUSE SYSTEM</b> <b>PROCESS FLOW DIAGRAM</b>	ENGINEER	PATTERSON	PRJ. NO.	AIR PERMIT		
A	MG	X		FOR APPROVAL			DRN. BY:	MGIEGER	DATE	9-14-94	DWG. NO.	REV.
REV NO	BY	DATE	APPR.	REVISION			APPR. BY:				LMC-EU6-L1/SKM-32	1


SIZE B



1	MG	8-9-95		ADDED SLUDGE MIX AREA AND FOIB	 <b>LAKELAND ELECTRIC &amp; WATER</b>	DESCRIPTION	DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE	
2	MG	5-14-96	HP	CHANGE TITLE		LAKELAND ELECTRIC & WATER UTILITIES	ENGINEER	PATTERSON	PROJ. NO.	AIR PERMIT		
3	MG	5-29-96	HP	ISSUED FOR TITLE V		C.D. McINTOSH POWER PLANT	DRN. BY:	MGIEGER	DATE	9-14-94	DWG. NO.	REV.
REV. NO.	BY	DATE	APPR.	REVISION		STABILIZED SLUDGE SYSTEM	APPR. BY:				LMC-EU6-L1/SKM-33	3

SIZE B



0	MG	11-2-94		ISSUED FOR TITLE V PERMIT APPLICATION	 <b>LAKELAND ELECTRIC &amp; WATER</b>	DESCRIPTION		DIVISION	PRODUCTION ENGINEERING	CAD	SCALE	NONE	
1	MG	5-14-96	HP	CHANGE TITLE		LAKELAND ELECTRIC & WATER UTILITIES C.D. McINTOSH POWER PLANT CIRCULATING WATER PRETREATMENT SYSTEM PROCESS FLOW DIAGRAM		ENGINEER	PATERSON	PROJ. NO.	AIR PERMIT		
A	MC	X		FOR APPROVAL		DRN. BY:	MCIEGER	DATE	9-23-94	DWG. NO.	REV.		
REV NO	BY	DATE	APPR.	REVISION		APPR. BY:				LMC-EU6-L1/SKM-35	1		

SIZE B

**ATTACHMENT LMC-EU6-L3**  
**DESCRIPTION OF CONTROL EQUIPMENT**

**ATTACHMENT LMC-EU6-L3**

**DETAILED DESCRIPTION OF CONTROL EQUIPMENT**

The fugitive particulate matter emission sources associated with the material handling operations and their control is presented below (see also Attachment LMC-EU6-L1):

Source Name	Location ID	Material	Control	Estimated Efficiency (%)
Trestle Dump	F090A	Coal	Dust Suppression	50+
Active Storage	F090B	Coal	Enclosure	50
Conveyor C1	V075	Coal	Bag Filter	98
Conveyor C2	F015	Coal	Enclosure	90
Crusher to C3	V016	Coal	Bag Filter	98
Conveyor C3 to Flop Gate	F016	Coal	Enclosure	90
Flop Gate to Silo Conveyors	V070-73	Coal	Bag Filter	98
Active Storage	F017a	Pet Coke	Watering	50+
Pet Coke to Hopper	F017b	Pet Coke	Watering	50+
Truck Dump	F094	Limestone	Enclosure	50
Vertical Conveyor to Silo	T001	Limestone	Bag Filter	98
Silo to Conveyor	F022a	Limestone	Enclosure	90
Conveyor to Ball Mill	F022b	Limestone	Enclosure	90

Ball Mill to FGD Slurry Tank	F080	Limestone	Enclosure	90
Crusher	V074	Coal	Bag Filter	98
Truck Dump	V065	MSW	Partial Enclosure	50
Source Name	Location ID	Material	Control	Estimated Efficiency (%)
Conveying	V064	MSW	Enclosure	90
Conveyor No. 3 Vent	V098	RDF	Bag Filter	98
Shredder Cyclone	V061	MSW/RDF	Cyclone	90+
Explosive Vent	V062	MSW/RDF	Enclosure	90
Filter Shaker Vent	V063	RDF	Bag Filter	98
Conveyor No. 4	F019A	RDF	Enclosure	90
Conveyor No. 4 Vent	V099	RDF	Bag Filter	98
Conveyor No. 5 & Atlas Bin	F019B	RDF	Enclosure	90
Fly Ash to Silo	T117	Fly Ash	Bag Filter	98
Fly Ash Silo to Tanker Truck	F082	Fly Ash	Bag Filter	98
Fly Ash/Quick Lime Conveying	F081	Fly Ash and Quick Lime	Enclosure	90
Pug Mill No. 31	V104	Fly Ash/Quick Lime/FGD Sludge	Moisture and Enclosure	98

Pug Mill No. 32	V105	Fly Ash/Quick Lime/FGD Sludge	Moisture and Enclosure	98
Stabilized FGD Conveying	F083	FGD By-product	None Required	NA
Quick Lime Silo	T006	Lime	Bag Filter	98
Truck Dump at Landfill	F091	FGD By-product	Watering	50+

MSW = municipal solid waste; RDF = refuse derived fuel; FGD = flue gas desulfurization

**ATTACHMENT LMC-EU6-L10**  
**ALTERNATIVE METHODS OF OPERATION**



**ATTACHMENT LMC-EU6-L10**  
**ALTERNATIVE METHODS OF OPERATION**

The coal handling facilities can operate on any type of coal and petroleum coke. Capacities included in the application are based on the maximum production rates for Unit 3. Material handling facilities have greater capacities and can be operated in various ways as presented in the process flow diagrams. All materials are processed at different hourly and annual rates.

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through L as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT  
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

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

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

2. Single Process, Group of Processes, or Fugitive Only? Check one:

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

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

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

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

**Emissions Unit Description and Status**

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): <b>Unregulated Emission Activities</b>		
2. Emissions Unit Identification Number:    [   ] No Corresponding ID    [ <b>x</b> ] Unknown		
3. Emissions Unit Status Code: <b>A</b>	4. Acid Rain Unit? [   ] Yes    [ <b>x</b> ] No	5. Emissions Unit Major Group SIC Code: <b>49</b>
6. Emissions Unit Comment (limit to 500 characters):  <b>This emission unit information section addresses unregulated emission activities at the facility. Tanks with greater than 10,000 gallon capacity were installed prior to July 23, 1984. See LMC-EU7-B6.</b>		

**Emissions Unit Control Equipment Information**

**A.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**B.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C.**

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**F. SEGMENT (PROCESS/FUEL) INFORMATION**  
**(Regulated and Unregulated Emissions Units)**

**Segment Description and Rate:** Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters):  <b>Residual (No.6) Oil</b>	
2. Source Classification Code (SCC):  <b>A2505030060</b>	
3. SCC Units:  <b>1,000 gallons</b>	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:  <b>160,000</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters):  <b>Annual rate based on inputs to Emission Units 1, 2 and 3 (FFSG Units 1-3).</b>	

**Segment Description and Rate:** Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>No.2 Distillate Oil/Diesel</b>	
2. Source Classification Code (SCC): <b>A2505030090</b>	
3. SCC Units: <b>1,000 gallons</b>	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: <b>176,000</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit:	
10. Segment Comment (limit to 200 characters): <b>Annual rate based on inputs to Emission Units 1-5. FFFSG Units 1-3; Diesel Units 2 and 3 and Gas Turbine Peaking Unit.</b>	

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

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

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT  
TRACKING INFORMATION  
(Regulated and Unregulated Emissions Units)**

**PSD Increment Consumption Determination**

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

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



2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

- ] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
- ] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
- ] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
- ] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:			
	PM	<input type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input type="checkbox"/> ] Unknown
	SO <sub>2</sub>	<input type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input type="checkbox"/> ] Unknown
	NO <sub>2</sub>	<input type="checkbox"/> ] C	<input type="checkbox"/> ] E	<input type="checkbox"/> ] Unknown
4.	Baseline Emissions:			
	PM	lb/hour		tons/year
	SO <sub>2</sub>	lb/hour		tons/year
	NO <sub>2</sub>			tons/year
5.	PSD Comment (limit to 200 characters):			

**ATTACHMENT LMC-EU7-B6**  
**EMISSIONS UNIT COMMENT**

**ATTACHMENT LMC-EU7-B6**  
**EMISSION UNIT COMMENT**

The emission unit contains identification of unregulated activities. Since some of the activities may have been or may be subject to permitting requirements, a notification of temporary exemption is provided.

**NOTIFICATION OF TEMPORARY EXEMPTIONS**

Pursuant to Rule 62-210.300(3)(b)1., notice is herein provide that the emissions units listed below are not subject to a permit issued by the Department of Environmental Protection and are exempt from permitting until a final determination is made under the Title V permitting requirements (Rule 62-213 F.A.C.). These units would not have triggered review under Rules 62-212.400 or 62-212.500 or any new source performance standard listed in Rule 62-204.800 F.A.C. The type of emission units for which this notification is made includes the following:

1. Diesel drive coal tunnel sump engine,
2. Fire water UPS diesel No. 31,
3. Fire water UPS diesel No. 32,
4. CT startup diesel,
5. General Purpose diesel engines (<32,000 gal/yr),
6. Emergency generators (<32,000 gal/yr),
7. General purpose painting (< 6 gal/month average)
8. Parts cleaning,
9. Sand Blasting (Maintenance only)
10. Wastewater Treatment Caustic Tank
11. Three Cooling Towers (Unit 2 and Unit 3), and
12. Northside Waste Water Treatment Facility

The Northside Waste Water Treatment Facility is included as a contiguous facility owned by the City of Lakeland, although it has a different 2-digit Major Group SIC code, that has the potential to emit HAPs. The McIntosh Plant is a major source of HAPs based on its potential to emit [Rule 62-210.200(173)(a)] and therefore the contiguous waste water treatment plant is include in this section of the application as an unregulated activity even though different 2-digit SIC Major Groups. This facility, by itself, is not a major source as defined in Rule 62-210.200(173). In addition, the facility

would not affect the classification of the McIntosh Plant. The NWWTF includes, but not limited to, the following unregulated activities:

1. Wastewater treatment processes and tanks,
2. Emergency diesel generators (2),
3. Chemical and petroleum storage, and
4. Miscellaneous activities (laboratory, vehicles, painting, etc.).