



Farzie Shelton
ENVIRONMENTAL COORDINATOR, Ch E.

May 7, 1997

RECEIVED

MAY 09 1997

**BUREAU OF
AIR REGULATION**

Clair H. Fancy, P.E.
Chief, Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32301

RE: Lakeland Electric and Water Utilities
C. D. McIntosh Jr. Power Plant
File No. 1050004-003-AV

Dear Clair:

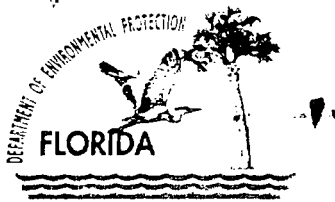
we are enclosing revisions to the Title V permit application for the C.D. McIntosh Jr. Power Plant regarding the Continuous Emission Monitoring System (CEMS) for the Emission Units 005 and 006 (Units No. 2 and No. 3 respectively). Therefore, please find enclosed an original and three copies of new "segment" pages 31 for Continuous Monitor Information for SO₂, CO₂, and Flow. These changes are due to utilizing 40 CFR Part 75 (Acid Rain) CEMS to meet the CEMS requirements of the New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart D. This submittal has been signed and sealed by Mr. Ken Kosky, P.E. of Golder Associates, Inc. and certified by our Responsible Official Mr. Ronald W. Tomlin, Assistant Managing Director.

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

Sincerely

Farzie Shelton
Environmental Division

Enc.



Barbara

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

January 13, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ronald W. Tomlin
Assistant Managing Director
Lakeland Electric & Water Utilities
501 East Lemon Street
Lakeland, Florida 33801-5079

Re: Request for Additional Information Regarding Initial Title V Permit Application
File No. 1050004-003-AV
C. D. McIntosh, Jr. Power Plant, Polk County

Dear Mr. Tomlin:

Your initial Title V permit application for C. D. McIntosh, Jr. Power Plant was "timely and complete" for purposes of the initial Title V application submission (see Rules 62-213.420(1)(a)1. and (b)2., F.A.C.).

However, in order to continue processing your application, the Department will need the below additional information pursuant to Rule 62-213.420(1)(b)3., F.A.C., and Rule 62-4.070(1), F.A.C. The additional information requested is organized by topic.

Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

McIntosh Unit #3

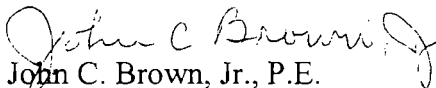
1. McIntosh Unit #3 is permitted to combust coal, refuse derived fuel, petroleum coke, high sulfur fuel oil, low sulfur fuel oil and natural gas. Segment pages (SCC codes) were only submitted for coal, No. 6 fuel oil (0.73 percent sulfur, by weight) and natural gas. Please review the application and submit all of the required segment pages not included in the application. It is not necessary to submit segments for fuel combinations.

Mr. Ronald W. Tomlin
January 13, 1997
Page 2 of 2

The Department must receive a response from you within 90 (ninety) days of receipt of this letter, unless you (the applicant) request additional time under Rule 62-213.420(1)(b)6., F.A.C.

If you should have any questions, please call Edward Svec or me at 904/488-1344.

Sincerely,


John C. Brown, Jr., P.E.
Administrator
Title V Section

JCB/es

copy to:
Bill Thomas, P.E., FDEP, SWD
Kennard Kosky, P.E., KBN Engineering and Applied Sciences, Inc.
Farzie Shelton, Lakeland Electric & Water Utilities

[electronic file name: 10500041.ltr]

Z 392 941 000

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Ronald W. Tomlin & Water Utilities

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City, State and ZIP Code: *Lakeland, FL 33801-5079*

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3. Article Addressed to: Mr. Ronald W. Tomlin Assistant Managing Director Lakeland Electric & Water Utilities 501 East Lemon Street Lakeland, Florida 33801-5079		4a. Article Number <i>Z 392 941 000</i>	
		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
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DIVISION OF ANIMAL INDUSTRY AND INSPECTION
BUREAU OF ANIMAL INDUSTRY
2500 BLAIR STREET
TALLAHASSEE, FLORIDA 32301
MS 5505

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STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

MS 5505

Mr. Ronald W. Tomlin
Assistant Managing Director
Lakeland Electric & Water Utilities
501 East Lemon Street
Lakeland, Florida 33801-5079

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

MS 5505

Mr. Kennard Kosky, P.E.
KBN Engineering
6241 Northwest 23 Street
Gainesville, Florida 32653-1500

STATE OF FLORIDA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 TWIN TOWERS OFFICE BUILDING
 2600 BLAIR STONE ROAD
 TALLAHASSEE, FLORIDA 32399-2400

BEST AVAILABLE COPY

MS 5505

Mr. Farzie Shelton
 Lakeland Electric & Water Utilities
 501 East Lemon Street
 Lakeland, Florida 33801-5079

DEPARTMENT OF ENVIRONMENTAL PROTECTION

DISTRICT ROUTING SLIP

To: Bill Thomas DATE: 1-13-97

CC To

	PENSACOLA	NORTHWEST DISTRICT	
	Panama City	Northwest District Branch Office	
	Tallahassee	Northwest District Branch Office	
	Sopchoppy	Northwest District Satellite Office	
XX	TAMPA	SOUTHWEST DISTRICT	
	Punta Gorda	Southwest District Branch Office	
	Bartow	Southwest District Satellite Office	
	ORLANDO	CENTRAL DISTRICT	
	Melbourne	Central District Satellite Office	
	JACKSONVILLE	NORTHEAST DISTRICT	
	Gainesville	Northeast District Branch Office	
	FORT MYERS	SOUTH DISTRICT	
	Marathon	South District Branch Office	
	WEST PALM BEACH	SOUTHEAST DISTRICT	
	Port St Lucie	Southeast District Branch Office	

Reply Optional Date Due: _____
 Reply Required Date Due: _____
 Info Only

Comments:

From: John Brown (904) 488-1344

McIntosh

RECEIVED
FEB 10 1997
BUREAU OF
AIR REGULATION

To :

John Brown, Administrator, Title V Section
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32301

From: Farzie Shelton



February 7, 1997

Mr. John C. Brown, Jr., P.E.
Administrator
Title V Section
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32301

RE: Lakeland Electric and Water Utilities
C. D. McIntosh Jr. Power Plant
File No. 1050004-003-AV

Dear John:

We are in receipt of your communication dated January 13, 1997 requesting additional information regarding initial Title V Permit Application for the above referenced facility. Accordingly we have compiled the information you have requested in regards to the Unit No. 3 at this facility. Therefore, enclosed please find four copies of the updated Segment pages (signed and sealed by a P. E. Engineer and Certified by our Responsible Official) covering all different types of fuel burned in this Unit.

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

Sincerely

Farzie Shelton
Environmental Division

Enc.

Edward Svec, DEP
Ronald Tomlin, Lakeland
Angela Morrison, HGSS
Ken Kosky, Golder Associates

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: Ronald W. Tomlin, Assistant Managing Director
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Lakeland Electric & Water Utilities Street Address: 501 East Lemon Street City: Lakeland State: FL Zip Code: 33801-5079
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (941) 499-6300 Fax: (941) 499-6344
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> <u>Ronald W. Tomlin</u> <u>Feb. 07, 1997</u> Signature Date

* Attach letter of authorization if not currently on file.

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.

Richard F. Kelly

Signature

1/17/97

Date

Attach any exception to certification statement.

ATTACHMENT LMC-EU1-L2

FUEL ANALYSIS
PROPANE ANALYSIS

<u>Parameter</u>	<u>Typical Value</u>
heat content	90,500 Btu/gal
% sulfur	negligible
% nitrogen	0.8% by volume
% ash	negligible

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

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Residual (No.6) Oil	
2. Source Classification Code (SCC): 1-01-004-01	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 6.33	5. Maximum Annual Rate: 55,451
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 2.5	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 150	
10. Segment Comment (limit to 200 characters): 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.	

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas	
2. Source Classification Code (SCC): 1-01-006-01	
3. SCC Units: Million Cubic Feet	
4. Maximum Hourly Rate: 0.97	5. Maximum Annual Rate: 8,497
6. Estimated Annual Activity Factor: 0	
7. Maximum Percent Sulfur: 0	8. Maximum Percent Ash: 0
9. Million Btu per SCC Unit: 1,024	
10. Segment Comment (limit to 200 characters): Maximum hourly rate based on maximum heat input. Propane is used for ignition only (SCC 1-01-010-02).	

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Propane	
2. Source Classification Code (SCC): 1-01-010-02	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 10.88	5. Maximum Annual Rate: 95,344
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 91	
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit = 90.5 (rounded to 91). Maximum hourly rate based on maximum heat input of 985 MMBtu/hr. Use as ingitor fuel. Fuel does not increase emissions of any pollutant.	

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

Segment Description and Rate: Segment 3 of 4

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

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

A.

1. Basis for Allowable Emissions Code: RULE		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 2.75 lb/MMBtu /2.5%S		
4. Equivalent Allowable Emissions:	2,613 lb/hour	11,443 tons/year
5. Method of Compliance (limit to 60 characters): Fuel Analysis; ASTM Methods D-4294-83 and D-240		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Liquid fuel only based on FDEP Rule 62-296.405(1)(c)1. Compliance based on fuel sampling analysis for each shipment to ensure oil sulfur content 2.5% or less (vendor or on-site data).		

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):		

Attachment LMC-EU2-L2

Fuel Analysis

Propane Analysis

<u>Parameter</u>	<u>Typical Value</u>
heat content	90,500 Btu/gal
% sulfur	negligible
% nitrogen	0.8% by volume
% ash	negligible

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

Segment Description and Rate: Segment 1 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Residual (No.6) Oil	
2. Source Classification Code (SCC): 1-01-004-01	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 7.43	5. Maximum Annual Rate: 65,087
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.7	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 150	
10. Segment Comment (limit to 200 characters): 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.	

Segment Description and Rate: Segment 2 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas	
2. Source Classification Code (SCC): 1-01-006-01	
3. SCC Units: Million Cubic Feet	
4. Maximum Hourly Rate: 1.16	5. Maximum Annual Rate: 10,133
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1,024	
10. Segment Comment (limit to 200 characters): Maximum hourly rate based on maximum heat input. Propane is used for ignition/start-up only (SCC 1-01-010-02)	

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

Segment Description and Rate: Segment 3 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Distillate (No.2) Oil	
2. Source Classification Code (SCC): 1-01-005-01	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 8.26	5. Maximum Annual Rate: 72,351
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.5	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 135	
10. Segment Comment (limit to 200 characters): Maximum hourly rate based on maximum heat input for oil firing. Unit can be co-fired with natural gas. Fuel does not increase emissions of any pollutant.	

Segment Description and Rate: Segment 4 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Propane	
2. Source Classification Code (SCC): 1-01-010-02	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 13.09	5. Maximum Annual Rate: 114,703
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 91	
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit = 90.5 (rounded to 91). Maximum hourly rate based on maximum heat input. Propane is used for ignition/start-up. Fuel does not increase emissions of any pollutant.	

Attachment LMC-EU3-L2

Fuel Analysis

Coal

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

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 ¹	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.

¹ 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 ¹	-
Relative density	8.2 lb/gal ²	
Heat content	18,300 Btu / lb (HHV)	
% sulfur	0.7 ²	0.725 ³
% nitrogen	0.25 - 0.50	
% ash	negligible	0.01 ¹

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.

¹ Data taken from the fuel procurement specification

² Data from laboratory analysis

³ 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 ¹	-
Relative density	6.92 lb/gal ²	
Heat content	18,400 Btu / lb (LHV)	
% sulfur	<0.5 ²	0.5
% nitrogen	0.025 - 0.030	
% ash	negligible	0.01 ¹

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.

¹ Data taken from fuel procurement specification

² Data from laboratory analysis

Attachment LMC-EU3-L2

Fuel Analysis

Propane Analysis

<u>Parameter</u>	<u>Typical Value</u>
heat content	90,500 Btu/gal
% sulfur	negligible
% nitrogen	0.8% by volume
% ash	negligible

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): Coal	
2. Source Classification Code (SCC): 1-01-001-01	
3. SCC Units: Tons	
4. Maximum Hourly Rate: 159.6	5. Maximum Annual Rate: 1,398,096
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 3.3	8. Maximum Percent Ash: 16
9. Million Btu per SCC Unit: 23	
10. Segment Comment (limit to 200 characters):	

Segment Description and Rate: Segment 2 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Refuse Derived Fuel	
2. Source Classification Code (SCC): 1-01-012-02	
3. SCC Units: Tons	
4. Maximum Hourly Rate: 40.4	5. Maximum Annual Rate: 75,000
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.1	8. Maximum Percent Ash: 35
9. Million Btu per SCC Unit: 9	
10. Segment Comment (limit to 200 characters): See Attachment LMC-EU3-F10; co-fired with other fuels upto 10 percent of heat input.	

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): Oil	
2. Source Classification Code (SCC): 1-01-004-01	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 24.268	5. Maximum Annual Rate: 212,584
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.73	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 150	
10. Segment Comment (limit to 200 characters):	

Segment Description and Rate: Segment 4 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Distillate (No.2) Oil	
2. Source Classification Code (SCC): 1-01-005-01	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 26.96	5. Maximum Annual Rate: 236,196
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.5	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 135	
10. Segment Comment (limit to 200 characters): Used primarily as a start-up fuel.	

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): Petroleum coke	
2. Source Classification Code (SCC): 1-01-008-01	
3. SCC Units: Tons	
4. Maximum Hourly Rate: 31.9	5. Maximum Annual Rate: 279,619
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 6	8. Maximum Percent Ash: 15
9. Million Btu per SCC Unit: 28	
10. Segment Comment (limit to 200 characters): Co-fired with other primary fuels up to 20 percent by weight.	

Segment Description and Rate: Segment 6 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas	
2. Source Classification Code (SCC): 1-01-006-01	
3. SCC Units: Million Cubic Feet	
4. Maximum Hourly Rate: 3.555	5. Maximum Annual Rate: 31,139
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1,024	
10. Segment Comment (limit to 200 characters): 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.	

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): Propane	
2. Source Classification Code (SCC): 1-01-010-02	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 40.22	5. Maximum Annual Rate: 352,336
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 91	
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit = 90.5 (rounded to 91). Used as a start-up fuel. Fuel does not increase emissions of any pollutant.	

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

Emissions Unit Details

1. Initial Startup Date: 1 Jan 1973		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	20 MW	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:	330	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): See Attachment LMC-EU5-C5.		

Emissions Unit Operating Schedule

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

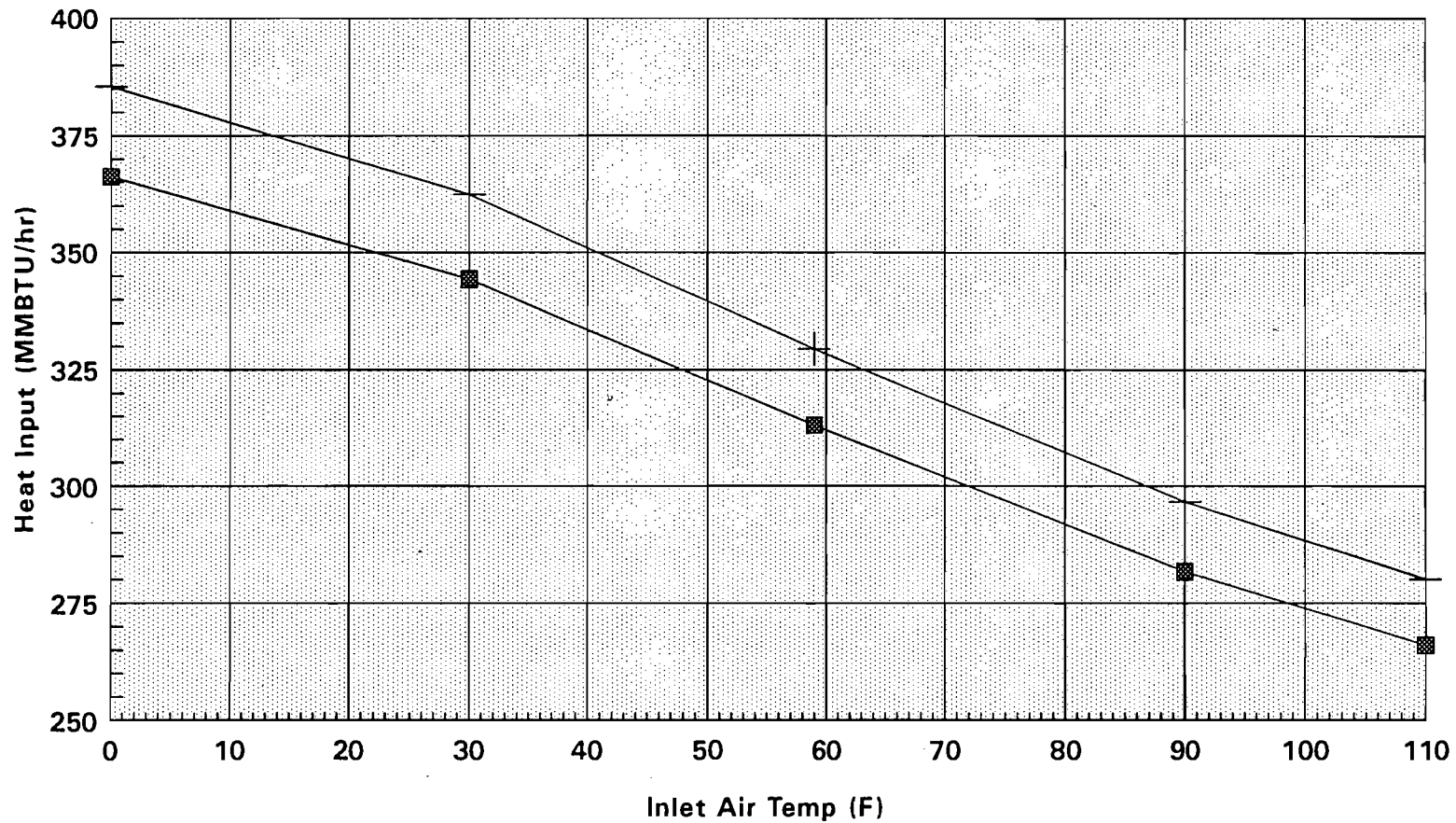
ATTACHMENT LMC-EU5-C5
OPERATING CAPACITY COMMENT

**ATTACHMENT LMC-EU5-C5
OPERATING CAPACITY COMMENT**

Maximum heat input shown for natural gas [low heating value (LHV)] for a compressor inlet temperature of 30°F. Maximum heat input for oil is 320 MMBtu/hr (LHV) at 30°F inlet temperature. Heat input as a function of compressor inlet temperature is attached as part of LMC-EU5-C5.

McIntosh Gas Turbine

Heat Input vs Compressor Inlet Temperature



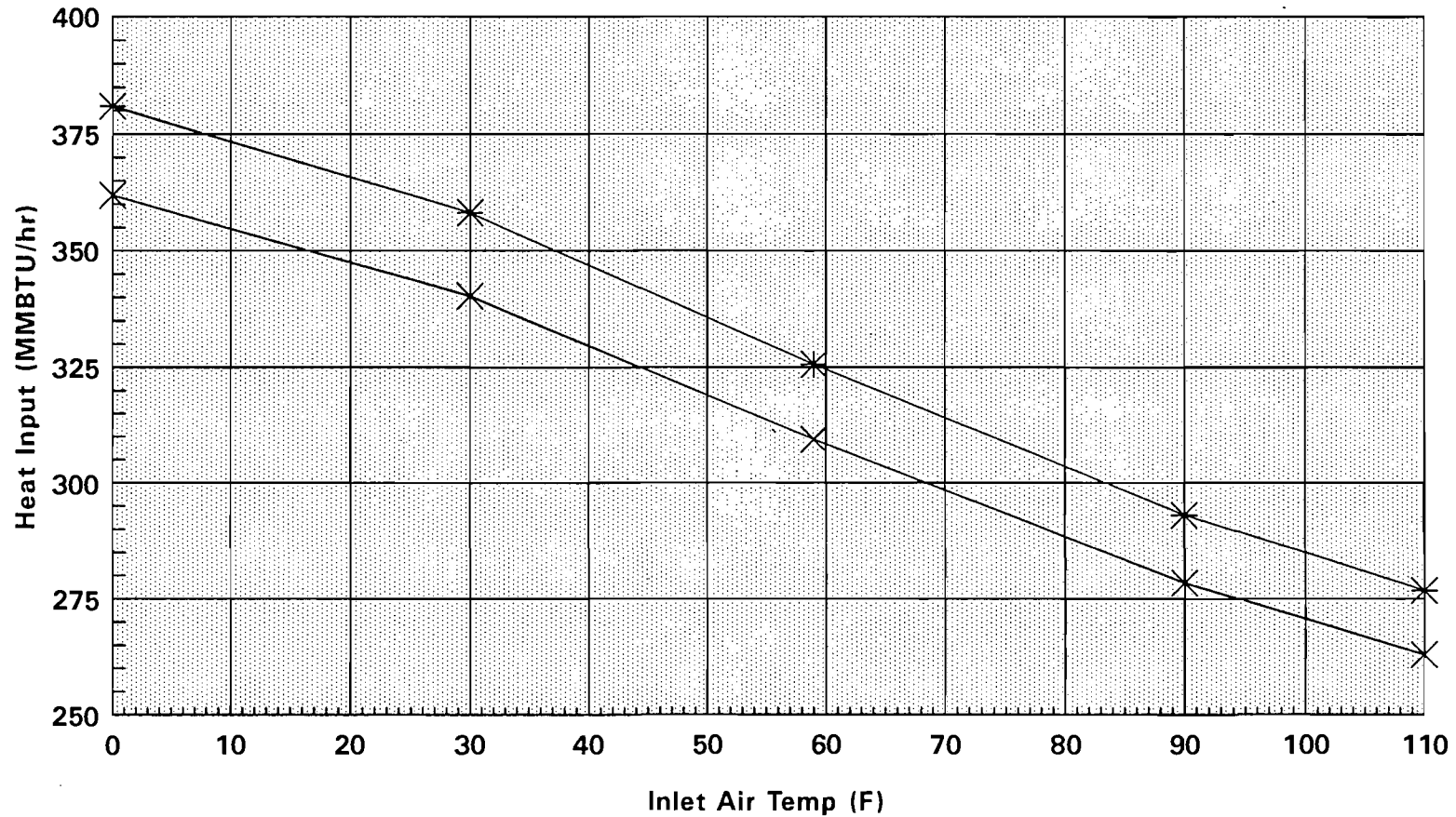
+ Design Input Nat Gas ■ 95% of Design Nat Gas

Peak Reserve Mode

Using LHV of Nat Gas

McIntosh Gas Turbine

Heat Input vs Compressor Inlet Temperature



* Design Input #2 Oil x 95% of Design #2 Oil

Peak Reserve Mode

Using LHV of #2 Oil