

August 6, 1997

Scott Sheplak, P.E.  
Administrator, Title V Permit Program  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Magnolia Park Courtyard  
Tallahassee, FL 32301

RE: C.D. McIntosh, Jr. Power Plant  
Draft Title V Permit No. 1050004-003-AV  
Polk County, Florida

**RECEIVED**

AUG 07 1997

BUREAU OF  
AIR REGULATION

Dear Scott:

Lakeland Electric and Water Utilities (Lakeland) would like to thank you and your staff for meeting with our representatives on July 21 to discuss the draft Title V permit for the C.D. McIntosh, Jr. Power Plant. We feel that significant progress toward resolution of our concerns was made at that meeting. As a follow-up to the meeting, we received the Department's draft response to Lakeland's comments, and while many of the agreements reached at the meeting were reflected in that document, we remain concerned about a few issues identified below. These issues are important to Lakeland. Therefore, we feel that they should be addressed prior to the proposed permit being issued. Lakeland would like to continue to work with the Department toward a final resolution of this matter within the next several days.

A. *Use of Propane (Item 1 on page 2)*--The new Condition D.3. should allow propane to be cofired with the other fuels, consistent with new Condition A.3. and the explanation on page 1. This appears to be an inadvertent error. The language should read: "The only fuels allowed to be burned are natural gas, propane, No. 6 Fuel Oil, No. 2 Fuel Oil and combinations of propane, natural gas, No. 6 Fuel Oil and/or No. 2 Fuel Oil."

B. *Use of No. 2 Fuel Oil in Unit 001 (Item 4, page 5)*--As discussed at our meeting, we believed that we had included a segment page for the use of No. 2 fuel oil in the supplemental submittal made in February. We had inadvertently confused the unit numbers for Units 001 and 005, and we will make a new submittal with a segment page for Unit 001 within the next few days. Hopefully this information will be sufficient to allow the use of No. 2 fuel oil as a permitted fuel for Unit 001. We apologize for any inconvenience, but would very much appreciate the authority to use No. 2 fuel oil in this unit.

C. *Used Oil Sampling and Analysis (Item 8, page 8)*--Lakeland again requests that Condition A.30 be revised to clarify that generator knowledge, in lieu of actual fuel sampling and analysis, can be used to determine compliance with the "on-specification" requirements, consistent with the federal rules. Specifically, 40 CFR § 279.72(a) provides that a determination as to compliance with the specifications may be based on analyses "or other information

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documenting that the used oil meets the specifications." Since federal law allows "other information" to be used, Lakeland's air permit should as well. This change would be consistent with the provisions in the current air operation permit for Unit 001. This was discussed at the meeting, and we were under the impression that as long as the current permit language allowed the use of generator knowledge and it was not inconsistent with federal law, that it would be allowed. Lakeland therefore again requests that Condition A.30 be revised as follows:

A30. Compliance with the "on-specification" used oil requirements will be determined as follows: . . . or  
(c) based on generator knowledge as appropriate.

D. *Testing Requirements for Diesel Engines* (Item 9, page 8)--The Department's rules require annual testing of visible emissions if a visible emissions limit applies. Because the "less than 20 percent opacity" standard applies to the diesel engines, Lakeland requested that the permit alter the standard requirement and not require annual compliance testing during years when a unit operates for less than 400 hours on fuel oil. Lakeland believed that it had reached an agreement with the Department on this point during our meeting. Certainly the Department has the authority to allow this, and it is consistent with the testing requirements for the gas turbine. Without a permit condition stating that annual testing is not required, however, we believe that Lakeland could be required under Condition B.15, referenced in the Department's draft response, to conduct annual testing. While this condition provides that units on cold or long-term standby under the specific provisions of Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., and that do not operate for more than 400 hours, are not required to conduct annual or renewal compliance testing, this exemption does not apply. The diesel units at the McIntosh Plant are not on cold or long-term standby during years when they operate for less than 400 hours and would not be eligible for the exemption. Lakeland therefore again requests the following additional condition be added to the permit under Section B, as agreed to at our meeting:

B. Visible Emissions Testing--Annual. By this permit, annual emissions compliance testing for visible emissions is not required unless a unit operates more than 400 hours during the prior year, excluding periods of startup.

E. *Heat Input Rates for Diesel Engines and Gas Turbine* (Item 11, page 8)--At our meeting, we discussed Lakeland's request to *change* the restrictions on fuel consumption rates to heat input limits, which more accurately reflect the capacity of the units. It was our understanding from the meeting that as long as no "modifications" had been made to alter the heat input rates or capacity of the units, the "change" would be made. Lakeland submitted the certification statement that no modifications had been made to the gas turbine and will, within the next few days, submit a similar statement for the diesel engines. Unfortunately, the draft response document from the Department attempts to include *both* the heat input limits as requested by Lakeland as well as the previous fuel usage documents. The only reasoning provided was that the fuel usage limits had been included in the prior operation permits. As you

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are aware, the Title V permits are to be used as a vehicle to "clean up" obsolete provisions and to ensure consistent permit conditions. Because heat input limits are typically used by the Department to limit a unit's capacity, and Lakeland has demonstrated that the heat input limits are equivalent to the fuel usage limits, Lakeland respectfully requests that the fuel usage limits be *deleted* and *replaced* with the heat input limits, consistent with the agreement reached at our meeting. This would be consistent with other permits and permit conditions, and would eliminate the duplicative and unnecessary dual restrictions on the unit's capacity.

F. *Sulfur Dioxide CEM for Unit 005* (Item 14, page 18)--In the explanation for the revisions to Condition D.11, the Department states that a continuous emissions monitor for Unit 005 is not required. There were no changes made to Condition D.11 regarding sulfur dioxide emissions, however. It appears that paragraph (2) under D.11 was inadvertently left in the condition when it should have been deleted. Lakeland requests that this change be made before the proposed permit is issued.

G. *Compliance with SO2 Limit on Unit 005* (Item 14, page 21)--Lakeland appreciates the Department's recognition that a fuel sulfur content analysis can be used in lieu of an annual stack test to determine compliance with the sulfur dioxide limit of 0.8 lb/mmBtu for Unit 005. Lakeland had requested that the permit clarify that vendor or permittee data could be used, and we do not recall that the Department took issue with this. The draft response from the Department, however, requires daily as-fired fuel sampling and analysis, for not only fuel oil but for natural gas as well. This is not acceptable to Lakeland, and we again request that the permit provide that vendor or permittee data may be used to demonstrate compliance. This unit is similar to the fossil-fuel-fired boilers at the Charles Larsen Memorial Power Plant, as well McIntosh Unit 1, which are allowed to use vendor or permittee data. Lakeland therefore requests that the draft Title V permit be revised to clearly authorize the use of vendor or permittee data to demonstrate compliance with the sulfur dioxide limit.

D17. The owner or operator shall determine compliance with the particulate matter, SO<sub>2</sub>, and NO<sub>x</sub> standards in 40 CFR 60.42, 60.43, and 60.44 as follows: . . .

(4) Sulfur Dioxide. The permittee may demonstrate compliance with the sulfur dioxide emissions limit based on a fuel analysis provided by the vendor or the permittee.

H. *Annual NOx Testing* (Item 15, page 22)--As explained at the meeting, the only exemption for annual testing when fuel oil is fired for less than 400 hours is for particulate matter emissions. This exemption does not apply to nitrogen oxides. Further, the exemption for units on cold or long-term standby under Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., does not apply when a unit primarily uses natural gas, or is simply not operated for more than 400 hours during the prior year on fuel oil. The primary purpose of this request was to clarify that only a single annual compliance test on nitrogen oxides is required--firing the worst-case fuel

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Florida Department of Environmental Protection  
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used during the prior year. Lakeland again requests that the permit be clarified to prevent the need to conduct duplicative testing on oil and gas, and ensure that the annual testing is conducted using the worst-case fuel.

D\_. By this permit, annual compliance testing for nitrogen oxides shall be conducted while firing fuel oil if it has been used for more than 400 hours during the prior year (other than during startup); otherwise, it shall be conducted while firing natural gas.

I. *NSPS Subpart A Incorporation by Reference* (Item 16, page 22)--While it was discussed at the meeting that the applicable provisions of Subpart A of the New Source Performance Standards would be incorporated into the permit, there was no mention by the Department that the entire Subpart would be incorporated. Because much of this subpart does not apply to Units 005 and 006 and because portions of the subpart apply to the U.S. Environmental Protection Agency or the Department, Lakeland requests that the term "applicable" be added to the condition, so that it reads "The permittee shall comply with the applicable requirements contained in Appendix 40 CFR 60, Subpart, attached to this permit." In the alternative, the Department could specifically list the provisions under Subpart A that apply to these units, as enumerated in the list of applicable requirements provided in the Title V application for this facility. In addition, it appears that Specific Condition D.36 should be deleted rather than D.38 (since it does not exist).

J. *Applicability of Rule 62-296.405* (Item 17, page 22)--The Department's draft response states that Rule 62-296.405 does not apply to Units 005 and 006. However, because these units are fossil-fuel-fired steam generating units with a heat input greater than 250 mmBtu/hour and these units are not "existing units," it appears that paragraph (2) of this rule would apply. Lakeland agrees that paragraph (1) of the rule is inapplicable. It is important that the Department recognize the applicability of paragraph (2) of this rule for permit shield purposes.

K. *Excess Emissions for New Units* (Item 18, page 22)--While the Department is correct in deleting the conditions related to excess emissions provisions for existing emission units, the Department should also revise the remaining conditions for "new" emissions units to address not only malfunctions but startup and shutdown as well. The Department's excess emissions rule for new units, Rule 62-210.700(1), F.A.C., should be quoted in its entirety in Conditions D.12 and E.13 (for Units 005 and 006). It appears that these conditions were inadvertently left as originally drafted, addressing only malfunctions.

L. *General Standard for VOCs* (Item 21, page 24)--Lakeland has submitted a revised application page regarding facility-wide condition 7 that addresses procedures to minimize volatile organic compound (VOC) emissions. Specifically, Lakeland has revised the application

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Florida Department of Environmental Protection  
August 6, 1997  
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to clarify that containers "containing VOC materials" will be kept closed "when not in use" and has deleted a statement that such containers will always be stored in "weather-tight buildings." This revision was submitted on July 31. Lakeland therefore requests that the draft Title V permit be revised accordingly.

M. *Summary Tables* (Items 27 and 28, page 25)--Lakeland requests an opportunity to review the summary tables prior to the proposed permit being issued. While we understand that the tables are not enforceable provisions of the permit, they do reflect the Department's interpretation of various permit conditions; thus we believe that it would be very beneficial if we had an opportunity to review them.

N. *Insignificant Activities*--Based on our understanding of the recent meeting between the Department and the Florida Electric Power Coordinating Group (FCG) on August 5, we understand that the Department will include additional language from Rule 62-213.430(6)(a), F.A.C., in Appendix E-1 clarifying that insignificant emission units or activities that are added to a Title V source after issuance of the Title V permit shall be incorporated into the permit renewal, provided that such units are eligible for exemption (or insignificant status). If our understanding is correct, please make this change to our Appendix E-1.

O. *Unconfined Particulate Matter*--It is also our understanding from the recent meeting between the Department and the FCG that the Department is agreeable to adding a permitting note to the specific condition identifying precautions for minimizing unconfined particulate matter emissions (Facility-wide Condition 8) clarifying that it would control over the general condition in Appendix TV-1 (Condition 58) and would implement the Department's Rule 62-296.320(c), F.A.C. If our understanding is correct, Lakeland requests this permitting note be added to Facility-wide Condition 8.

P. *Averaging Periods for Sulfur Dioxide and Nitrogen Oxides for Units 005 and 006*--While Lakeland has not previously requested this clarification, it would be very helpful if a simple permitting note could be added for Unit 005 under Conditions D.7 and D.9, and for Unit 006 under Conditions E.7 and E.10, stating that compliance with these limits is based on a three-hour average (arithmetic average of three one-hour periods) consistent with the provisions of 40 CFR 60.45(g). This will help clarify the averaging period of the emission limits, consistent with the New Source Performance Standards.

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Thank you again for your continued cooperation. We look forward to hearing from you soon regarding the issues we have raised in this letter. If we do not hear from you within a week, we will contact you to arrange a telephone conference call to further discuss these issues. If you or your staff have any questions, please contact me at 941-499-6603.

Sincerely,



Farzie Shelton  
Environmental Coordinator

cc: Howard L. Rhodes, DEP  
Clair Fancy, DEP  
Pat Comer, DEP OGC  
Edward Svec, DEP  
Ronald Tomlin, Lakeland  
Ken Kosky, Golder  
Angela Morrison, HGSS



July 31, 1997

**RECEIVED**

**AUG 04 1997**

**BUREAU OF  
AIR REGULATION**

Clair H. Fancy, Chief  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS 5505  
Tallahassee, Fl 32399-2400

RE: C.D. McIntosh, Jr. Power Plant  
Title V Permit Application No. 1050004-003-AV  
Polk County, Florida

Dear Clair:

Pursuant to Rule 62-4.050 and 62-213 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 revision to the Title V permit application, in quadruplicate, for the C.D. McIntosh Jr. Power Plant. This submittal include addition of segment information pages for units ID 005 (unit 2), ID 006 (unit 3) ID 004 (gas turbine peaking unit 1), and the two diesel peaking units 2 and 3, attachments LMC-EU5-C6, LMC-EU2-H, and LMC-EU3-H. Additionally this submittal revises the Attachment LMC-FE-5 "Fugitive Emissions Identification". We would like to bring to your attention that segment page 3 of 4 for ID 005 (unit 2) in respect of the distillate oil dated January 29, 1997 was submitted to you with a letter dated February 7, 1997. However, since your staff were unable to locate this segment, we are resubmitting the same dated July 25, 1997 for your files. The enclosed document has been signed and sealed by Mr. Ken Kosky, P.E. of Golder Associates, Inc. and certified by Lakeland's Responsible Official Mr. Ronald W. Tomlin, Assistant Managing Director.

Sincerely

Farzie Shelton  
Environmental Division

Enc.

**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>  <u>Ronald W. Tomlin</u> <u>7-31-97</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.*

*24 July 1997*

Signature

(seal)

*1/89*

*24 July 1997*

Date

\* Attach any exception to certification statement.

**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.	

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 Methods 7,7A,7C,7D,7E; see LMC-EU2-H</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 Methods 7,7A,7C,7D,7E; see LMC-EU2-H</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):		

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; see LMC-EU3-H</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; see LMC-EU3-H</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; see LMC-EU3-H</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>		

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

**Emissions Unit Details**

1. Initial Startup Date:	1 Jan 1970	
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer:	Model Number:	
4. Generator Nameplate Rating:	5 MW	
5. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

**Emissions Unit Operating Capacity**

1. Maximum Heat Input Rate:	28	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):	Maximum heat input per diesel peaking unit; represents previously permitted maximum fuel input.	

**Emissions Unit Operating Schedule**

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

**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):		
See Attachment LMC-EU5-C5, and LMC-EU5-C6.		

**Emissions Unit Operating Schedule**

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



**ATTACHMENT LMC-EU5-C6  
OPERATING CAPACITY COMMENT**

Maximum heat input shown for natural gas. Maximum heat input for oil is 330 MMBtu/hr.  
Represents previously permitted fuel input. This source has not been modified as defined in 40  
CFR 60.14 or reconstructed as defined in 40 CFR 60.15.

**ATTACHMENT LMC-EU2-H**

**McIntosh Unit 2**

The initial performance tests conducted under 40 Code of Federal Regulations (CFR) Section 60.8 have demonstrated that the emissions of nitrogen oxides were less than 70 percent of the applicable standards in 40 CFR Section 60.44. Pursuant to Section 60.45(b)(3), a continuous monitoring system for nitrogen oxides is not required. The initial performance test conducted in February 1977 demonstrated that the emissions of nitrogen oxides were 43 percent of the NSPS emission limit.

**ATTACHMENT LMC-EU3-H**

**McIntosh Unit 3**

The initial performance tests conducted under 40 Code of Federal Regulations (CFR) Section 60.8 have demonstrated that the emissions of nitrogen oxides were less than 70 percent of the applicable standards in 40 CFR Section 60.44. Pursuant to Section 60.45(b)(3), a continuous monitoring system for nitrogen oxides is not required. The initial performance test conducted in February 1983 demonstrated that the emissions of nitrogen oxides were 60 percent of the NSPS emission limit.

**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.

#### **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.



**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

June 23, 1997

Mr. C.H. Fancy, P.E.  
Chief Bureau of Air Regulation  
Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

**RECEIVED**  
JUN 25 1997  
BUREAU OF  
AIR REGULATION

Dear Mr. Fancy:

**Re: City of Lakeland C.D. McIntosh, Jr. Power Plant - Public Notice of Intent to Issue Title V Air Operation Permit - Permit No: 1050003-003-AV**

We are in receipt of your letter dated June 3, 1997 and attached Proposed Title V Draft Permit, Intent to Issue, Public Notice of Intent to Issue Permit for the above referenced facility.

Pursuant to Section 403.815 and 403.0872, Florida Statutes and Rules 62-103.150 and 62-210.350(3), F.A.C., on June 18, 1997 we published the Public Notice of Intent to Issue Title V Air Operation Permit - Permit No: 1050003-003-AV. Therefore, enclosed please find Affidavit of Publication confirming publication of this notice.

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

Sincerely

Farzie Shelton  
Environmental Division

Enclosure

6/26/97 cc: Ed Svec

# AFFIDAVIT OF PUBLICATION

## THE LEDGER

### Lakeland, Polk County, Florida

Case No .....

STATE OF FLORIDA)  
COUNTY OF POLK )

Before the undersigned authority personally appeared Nelson Kirkland, who on oath says that he is Classified Advertising Manager of The Ledger, a daily newspaper published at Lakeland in Polk County, Florida; that the attached copy of advertisement, being a

**Public Notice**

in the matter of .....  
Title V Draft Permit No. 1060004-003-AV

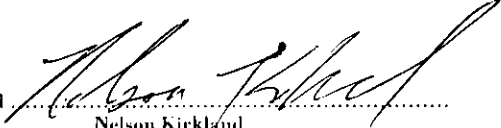
in the .....

Court, was published in said newspaper in the issues of .....

June 18;

1997

Affiant further says that said The Ledger is a newspaper published at Lakeland, in said Polk County, Florida, and that the said newspaper has heretofore been continuously published in said Polk County, Florida, daily, and has been entered as second class matter at the post office in Lakeland, in said Polk County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

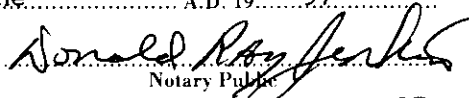
Signed   
Nelson Kirkland  
Classified Advertising Manager  
By Nelson Kirkland who is  
personally known to me

18th

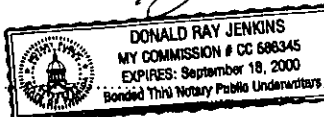
Sworn to and subscribed before me this .....

day of June A.D. 19 97

(Seal)

  
Notary Public

My Commission Expires .....



Order#632190  
S Jones

A379

**PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Title V DRAFT Permit No. 1060004-003-AV  
C. D. McIntosh, Jr. Power Plant  
Polk County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to Lakeland Electric & Water Utilities for the C. D. McIntosh, Jr. Power Plant located at 3030 East Lake Parker Drive, Lakeland, Polk County. A case-by-case Maximum Achievable Control Technology (MACT) determination was not required in this permitting action. The applicant's name and address are: Lakeland Electric & Water Utilities, 501 East Lemon Street, Lakeland, Florida 33801-5079.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2000 Bok Stone Road, Mail Station 45505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority will issue the permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, Florida Statutes (F.S.), or a party requests mediation as an alternative remedy under Section 120.573, F.S., before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 435, Tallahassee, Florida 32399-3000. (Telephone: 904/488-9730; Fax: 904/487-4938). Petitions must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-6.207 of the Florida Administrative Code.

A petition must contain the following information:

- The name, address, and telephone number of each petitioner; the applicant's name and address; the permit file number; and the county in which the project is proposed;
- A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;
- A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;
- A statement of the material facts disputed by the petitioner, if any;
- A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;
- A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and
- A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the action taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the permitting authority's proposed permitting decision may elect to pursue mediation by calling all parties to the proceeding to agree to such mediation and by filing with the Department of Environmental Protection a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 435, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information:

- The name, address, and telephone number of the person requesting mediation and that person's representative, if any;
- A statement of the preliminary agency action of the permitting authority;
- A statement of the relief sought; and
- Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement of the parties on the following information is required:

- The names, addresses, and telephone numbers of any persons who may attend the mediation;
- The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;
- The agreement of the parties on the costs and fees associated with the mediation;
- The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;
- The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;
- The name of each party's representative who shall have authority to settle or recommend settlement; and
- The signatures of all parties or their authorized representatives.

As provided in Section 120.573, F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57, F.S., for requesting and holding an administrative hearing, unless otherwise agreed by the parties. The mediation must be concluded within 60 (sixty) days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department of Environmental Protection must enter an order incorporating the agreement of the parties in accordance with the provisions of Section 403.08(2)(7), F.S. If mediation terminates without settlement of the dispute, the permitting authority shall notify all parties in writing that the administrative hearing process under Sections 120.569 and 120.57, F.S., remain available for disposition of the dispute, and the notice will specify the deadlines that they will apply for challenging the agency action and electing remedies under those two statutes.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impossible or unreasonable to object within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661(b)(2) and must be filed with the Administrator of the EPA at 410 M Street, SW, Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:  
Department of Environmental Protection  
Bureau of Air Regulation  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301  
Telephone: 904/488-1344  
Fax: 904/922-9779

Affected District/Local Program:  
Florida Department of Environmental Protection  
Southwest District Office  
8407 Laurel Park Circle  
Tampa, Florida 33634  
Telephone: 813/744-6100  
Fax: 813/744-6084

The complete project file includes the Draft Permit, the application, and the information submitted by the applicant for consideration under section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 904/488-1344 for additional information.

A379 - 6-18-1997





June 30, 1997

**Farzie Shelton**  
ENVIRONMENTAL COORDINATOR, Ch E.

**RECEIVED**

JUL 02 1997

BUREAU OF  
AIR REGULATION

Clair H. Fancy, Chief  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Magnolia Park Courtyard  
Tallahassee, FL 32301

RE: C.D. McIntosh, Jr. Power Plant  
Draft Title V Permit No. 1050004-003-AV  
Polk County, Florida

Dear Clair:

Lakeland Electric and Water Utilities (Lakeland) would like to again thank you and your staff for the cooperation we received in reaching an amicable resolution on the draft Title V permit for the Charles Larsen Memorial Power Plant. As you know, we recently received the draft Title V permit for our other facility, the C.D. McIntosh, Jr. Power Plant, and we have identified a few issues and concerns, as outlined below, that need to be resolved prior to issuance of a proposed permit. We feel that, while these issues are important to Lakeland, they should be easily resolvable without the need for a hearing. Several of these issues are identical ones we recently resolved for the Larsen Plant, and therefore Lakeland does not anticipate that the process of developing agreeable conditions for the McIntosh Plant should extend beyond the 30-day extension of time with which you previously agreed. To meet this deadline, however, we would like to work as expeditiously as possible with you and your staff to resolve the issues that we have identified, which are as follows:

*Startup Fuels*--The draft permit lists "propane" as the exclusive "startup fuel" for Units 001, 005, and 006. Startup fuels also include fuel oil and natural gas, and Lakeland therefore requests that Conditions A3, D3, and E3 be revised as follows:

A3/D3. Startup: The only fuels allowed to be burned are propane, No. 2 fuel oil, natural gas, No. 6 fuel oil, or any combination of these fuels.

E3. Startup: The only fuels allowed to be burned are propane, No. 2 fuel oil, natural gas, No. 6 fuel oil, coal, petroleum coke, refuse derived fuel, or any combination of these fuels.

*Heat Input*--Because the most accurate method of measuring the actual heat input is based on the heating value of the fuel used and fuel flow meter data, Lakeland requests that this be identified in the permit Conditions A1, D1, and E1 as the compliance method.

A1/D1/E1. Permitted Capacity. The maximum operation heat input rate is as follows: . . .  
Compliance with the heat input limits shall be determined based on the heating value of the fuels used and fuel flow meter data.

Clair H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
June 30, 1997  
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*Fuel Use for Unit 001*--Lakeland requests that the description for Unit 001 be revised to reflect a fuel use rate while firing No. 6 fuel oil as "(approximately 6,300 to 6,330 gallons per hour)."

*Use of No. 2 Fuel Oil in Unit 001*--Consistent with the Title V permit application, Lakeland requests that the description for Unit 001 as well as Conditions A1 and A3 be revised to clearly authorize the use of No. 2 fuel oil, for both startup and normal operations.

*Federal Enforceability of Fuel Analysis Requirements*--Because the sulfur content limits for the diesel engine peaking units and the gas turbine peaking unit were voluntarily requested by Lakeland and are therefore not federally enforceable, the requirement to demonstrate compliance based on a fuel analysis should also be considered "not federally enforceable." Lakeland requests that this clarification be added to Conditions B9, B12, C9, and C12.

*Vendor Data*--To clarify that not only may "vendor data" be used to determine compliance with the sulfur content limits but that Lakeland's own as-received data can be used for compliance purposes, Lakeland requests that language to this effect be added to Conditions A15, A20, B9, and C9.

A15. Sulfur Dioxide. The permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery. . . .

A20. Sulfur Dioxide. . . . the permittee elected to demonstrate compliance by accepting a liquid fuel sulfur limit that will be verified with a fuel analysis provided by the vendor or the permittee upon each fuel delivery.

B9/C9. Not federally enforceable. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor or the permittee upon each fuel delivery.

*ASTM Methods*--The latest ASTM methods for determining sulfur content of fuel for Emission Unit 001 (Condition A.21), Emissions Units 002 and 003 (Condition B.12.) and Emission Unit 004 (Condition C.12.) were not cited. As of June 1997, the latest ASTM methods are: D2622-94 (instead of D2622-92) and D129-95 (instead of D129-91).

*Used Oil Sampling and Analysis*--Lakeland requests that Condition A30 be revised to clarify that it is unnecessary to sample and analyze each batch of used oil delivered. The federal rules do not require a sampling of each batch to determine compliance with the "on-specification" requirements. Rather, the federal rules authorize the use of "generator knowledge" to determine compliance, as indicated in the current air operation permit for Unit 001. The requirement to burn only "on-specification" used oil should be sufficient for enforceability.

A30. Compliance with the "on-specification" used oil requirements will be determined from a sample collected from each batch (1,000 gallons minimum) delivered for firing or based on generator knowledge as appropriate. Evidence of compliance shall be maintained, and provided upon request. See specific condition A.11.

Clair H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
June 30, 1997  
Page 3

*Testing Requirements for Diesel Engines*--Lakeland requests that the permit require annual visible emissions testing only if a diesel engine unit operates for more than 400 hours per year, and once prior to renewal. The Department has the authority to allow this, and it is consistent with the testing requirements for the gas turbine. Lakeland therefore suggests the following additional condition be added to the permit under Section B:

B. Visible Emissions Testing--Annual. By this permit, annual emissions compliance testing for visible emissions is not required unless a unit operates more than 400 hours during the prior year, excluding periods of startup.

*Gas Turbine Description*--The gas turbine has a "nominal nameplate rating" of 20 megawatts. Lakeland requests that the description be revised to delete any reference to a "maximum rated output" of 20 megawatts.

Gas Turbine Peaking Unit 1 consists of a gas turbine which drives a generator producing electrical power at a nominal nameplate rating ~~maximum rated output~~ of 20 megawatts.

*Heat Input Rates for Diesel Engines and Gas Turbine*--The appropriate capacity limitation on the gas turbine peaking unit and the diesel engine peaking units should be in terms of "heat input rate" rather than a "fuel consumption rate," Lakeland requests that Conditions B1 and C1 be changed accordingly. In addition, because the heat input rate correction curves for the gas turbine peaking units (EU ID No. 004) have previously been provided to the Department, Condition C1 should be revised to reflect the appropriate temperature and the "lower heating value" basis.

B1. Permitted Capacity. The maximum heat input firing rate of each diesel engine peaking unit is 28 mmBtu/hour ~~201.6 gallons per hour~~ while firing No. 2 fuel oil.

C1 Permitted Capacity. The maximum heat input firing rate of the turbine is 330 mmBtu/hour while firing natural gas (lower heating value) and 320 mmBtu/hour while firing fuel oil (lower heating value) at 30 degrees F. ~~320 million cubic feet per hour when firing natural gas or 2,310 gallons per hour when firing No. 2 fuel oil.~~

C13/D35. Operating Rate during Testing.

...  
b. . . . Data, ~~curves~~, and calculations necessary to demonstrate the heat input rate correction at ~~both design and test~~ conditions shall be submitted to the Department with the compliance test report, consistent with the heat input curves previously submitted to the Department based on design conditions.

The phrase "unless otherwise specified in the applicable standard" is not applicable to any of the emission limits under 40 CFR Part 60 Subpart D.

*NOx CEMS for Units 005 and 006*--Because Units 005 and 006 (McIntosh Units 2 and 3) are not required to install and operate continuous emissions monitoring systems (CEMS) for nitrogen oxides (NOx) under the applicable New Source Performance Standard, Subpart D, Paragraph (3) of Condition D11 and E12 should be deleted. The initial compliance tests for these units indicated that

Clair H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
June 30, 1997  
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the NOx levels were less than seventy percent of the standard, and under 40 CFR 60.45(b)(3) NOx CEMS are therefore not required. Lakeland therefore requests that the NOx CEMS requirements in Conditions D11 and D12 be deleted, including the corresponding references to NOx under Condition D29, E29, and E31.

*Compliance with SO2 Limit on Unit 005*--In lieu of an annual stack test to determine compliance with the sulfur dioxide limit of 0.8 lb/mmBtu for Unit 005, the permittee is authorized by its construction permit to use fuel sampling and analysis. Lakeland requests that the draft Title V permit be revised to clearly authorize the use of fuel sampling and analysis to demonstrate compliance with the sulfur dioxide limit. In addition, because 40 CFR 60.45(b)(2) provides that units without a flue gas desulfurization system, such as Unit 005, are not required to install a CEM for sulfur dioxide and may instead use fuel sampling and analysis to determine compliance. Because a sulfur dioxide CEM is not required under Subpart D, Lakeland requests that Conditions D29, D30, and D31 be deleted and that D28 be revised to include only opacity.

D17. The owner or operator shall determine compliance with the particulate matter, SO2, and NOx standards in 40 CFR 60.42, 60.43, and 60.44 as follows: . . .

(4) Sulfur Dioxide. The permittee may demonstrate compliance with the sulfur dioxide emissions limit based on a fuel analysis provided by the vendor or the permittee upon each fuel delivery. Method 6 shall be used to determine the SO2 concentration. . . .

D28. The owner or operator shall install, calibrate, maintain, and operate continuous monitoring systems for measuring the opacity of emissions, ~~sulfur dioxide emissions, and oxygen.~~

*Annual NOx Testing*--Similar to the annual testing requirements for particulate matter, Lakeland requests that a new condition be added for Unit 005 to specify that annual NOx testing should be conducted on fuel oil if it has been used for more than 400 hours during the year, and otherwise it is to be conducted on natural gas. This will prevent the need to conduct duplicative testing on oil and gas, and clarify that the annual testing should be conducted using the worst-case fuel.

D\_\_\_. By this permit, annual compliance testing for nitrogen oxides shall be conducted while firing fuel oil if it has been used for more than 400 hours during the prior year (other than during startup); otherwise, it shall be conducted while firing natural gas.

*Performance/Compliance Testing*--A portion of 40 CFR 60.8(c) should be included as part of Conditions D.16. and E.17. to indicate that periods of startup, shutdown and malfunction are not representative conditions for performance/compliance tests under 40 CFR 60.8. The Condition should state:

Operations during periods of startup, shutdown and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emissions limit during periods of startup, shutdown and malfunction be considered a violation of the applicable emission limit.

Clair H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
June 30, 1997  
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*Excess Emissions Reports*--Because Units 005 and 006 are "new" rather than "existing" emission units under Rule 62-296.405, Florida Administrative Code, the reporting requirements under paragraph (1) of that rule do not apply and Conditions D34 and E36 should be deleted. In addition, the excess emission reporting requirements under Conditions D32 and E34 should include a reference to 40 CFR 60.7(e), which allows less frequent reporting under certain circumstances.

D32/E34. . . . Each excess emission and MSP report shall include the information required in 40 CFR 60.7(c).  
Less frequent reporting may be allowed under the provisions of 40 CFR 60.7(e).

*Excess Emissions for New Units*--Because Units 005 and 006 are "new" rather than "existing" emission units under Rule 62-210.700, paragraph (1) rather than paragraphs (2) and (3) of that rule apply. Conditions D6, D12, D13, E6, E13, and E14 should be revised accordingly.

*PSD Permit Conditions*--It appears that several of the applicable provisions from the recent revision to the Prevention of Significant Deterioration (PSD) permit for Unit 006 (McIntosh Unit 3) have not been included in the draft Title V permit. Lakeland suggests that the Department consider the December 11, 1995, revision to the PSD permit, a copy of which was included as part of the Title V application.

*Objectionable Odor*--Lakeland requests that the facility-wide Condition 2 regarding objectionable odor be identified as being "not federally enforceable."

*General Standard for VOCs*--Lakeland requests that facility-wide condition 7 regarding procedures to minimize volatile organic compound (VOC) emissions be revised to clarify that containers "containing VOC materials" will be kept closed "when not in use" and delete the requirement to store such containers in "weather-tight buildings." A revision to the Title V application addressing this issue is attached as Attachment A.

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. . . . Containers containing VOC materials shall be kept closed when not in use and stored in weather-tight buildings.

*General Particulate Matter Standards (Unconfined Emissions)*--Lakeland will be forwarding to you in a separate submittal revising its list of reasonable precautions taken to minimize unconfined particulate matter emissions, and requests that the Department make corresponding changes to facility-wide Condition 8 upon receipt of this application modification.

*Relevant Documents on File With the Department*--Lakeland requests that on page three of the permit, the Department include a reference to the supplemental information filed with the Department on May 7, 1997.

Clair H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
June 30, 1997  
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*Unregulated Emissions Units and/or Activities*--Because the general purpose diesel engines, emergency generators, and general purpose painting have been categorized as "unregulated" rather than "exempt," Lakeland requests that the usage limitations be deleted. This change should be made on page three of the permit, as well as in the Appendix U-1. Further, the word "engine" should be added to the description of the "CT startup diesel."

-xxx	CT startup diesel <u>engine</u>
-xxx	General purpose diesel engines (<32,000 gal/yr)
-xxx	Emergency generators (<32,000 gal/yr)
-xxx	General purpose painting (<6 gal/month average)

In addition to the above, the following unregulated emission units should be included in Appendix U-1. These emission units have no "emissions-limiting pollutant" and no work practice standard but do have a general visible emission limitation of 20 percent.

-xxx	Coal Processing and Conveying System, Coal Storage System, Coal Transfer and Loading System, Limestone Handling and Storage System , and Flyash Handling and Storage System
------	---

*Exempt Units*--"Mobile sources" were included in the exempt list. Lakeland requests that mobile sources be omitted from the Title V permit altogether since mobile sources are not regulated under the Title V permit program.

*NSPS Emission Limit Terminology*-- for Emission Unit 005--In several areas of the Conditions for this emissions unit, fuels are mentioned that do not apply. In some cases the wording of the NSPS was modified to exclude these fuels. In Condition D.5. (1) the "or fossil fuel and wood residue" should be deleted. The equation in and legend in Condition D.10. should be modified to exclude lignite (w) and solid fossil fuel (z). The reference to solid fuel and combinations in the table and legend in Condition D.29. should be deleted.

*Summary Table 2-1*--Summary table 2-1 should be corrected to be consistent with the permit conditions; specifically:

- Clarify that each delivery of used oil is not required to be sampled and analyzed;
- Add a footnote explaining the purpose of the "frequency base dates" is a suggestion to conduct the annual testing within 90 days of the date listed;
- Clarify that compliance with the sulfur dioxide limit for Unit 005 (McIntosh Unit 2) can be accomplished using fuel sampling and analysis in lieu of a stack test, as authorized by the construction permit; and
- Clarify that NOx CEMs are not required for Unit 005 or 006 and that an SO2 CEM is not required for Unit 005.

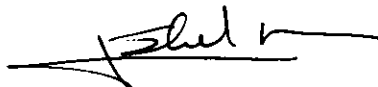
Clair H. Fancy, P.E.  
Chief, Bureau of Air Regulation  
Florida Department of Environmental Protection  
June 30, 1997  
Page 7

*Table 1-1--* for Emission Units 002 and 003--A footnote for this table should note that the Equivalent Emissions are for each unit. Additionally this table needs revision for the PSD Permit Conditions for emission unit 006.

*General Conditions--*Several conditions in TV-1 (the general conditions) should be identified as being "not federally enforceable." Further, Condition 58 regarding unconfined particulate matter emissions should be deleted since the facility-specific requirements were included in the facility section of the permit. Lakeland understands that the Department has to date been unwilling to make these changes. If the changes are made in the future, Lakeland requests that TV-1 be replaced with the more current version. Lakeland does not, by accepting a final permit with the current version of TV-1, acquiesce that any of the conditions are federally enforceable.

After you and your staff have reviewed and considered our comments, we would appreciate receiving a written response from you or your staff, such as draft "replacement" pages for the permit or a letter explaining the Department's position regarding these issues as soon as possible. We would also like to meet with you and your staff regarding these issues within the next two weeks or so. Thank you again for your continued cooperation. We look forward to hearing from you soon and continue to feel optimistic that all of these issues can be resolved without the need for a formal hearing. If you or your staff have any questions, please contact me at 941-499-6603.

Sincerely,



Farzie Shelton  
Environmental Coordinator

cc: Howard L. Rhodes, DEP  
Pat Comer, DEP OGC  
Scott M. Sheplak, DEP  
Edward Svec, DEP  
Ronald Tomlin, Lakeland  
Angela Morrison, HGSS







July 7, 1997

Clair H. Fancy, Chief  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
2600 Blair Stone Road, MS 5505  
Tallahassee, Fl 32399-2400

RE: C.D. McIntosh, Jr. Power Plant  
Title V Permit Application No. 1050004-003-AV  
Polk County, Florida

Dear Clair:

Pursuant to Rule 62-4.050 and 62-213 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 revision to the Title V permit application, in quadruplicate, for the C.D. McIntosh Jr. Power Plant. This submittal revises the Attachment LMC-FE-4 "Precautions To Prevent Emissions Of Unconfined Particulate Matter". The enclosed document has been signed and sealed by Mr. Ken Kosky, P.E. of Golder Associates, Inc. and certified by Lakeland's Responsible Official Mr. Ronald W. Tomlin, Assistant Managing Director.

Sincerely

Farzie Shelton  
Environmental Division

Enc.

**RECEIVED**

JUL 08 1997

BUREAU OF  
AIR REGULATION



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.*

*[Handwritten Signature]*

Signature

(seal)

*1 July 1997*

Date

\*Attach any exception to certification statement.

**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. Sources of particulate matter include:

- 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, and
- 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, and
- Limiting access to plant property by unnecessary vehicles.

THE STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

50H  
**RECEIVED**

JUN 23 1997

BUREAU OF  
AIR REGULATION

In the Matter of an  
Application for Permit by:

OGC No. \_\_\_\_\_

Lakeland Electric & Water Utilities  
501 East Lemon Street  
Lakeland, Florida 33801-5079

DRAFT Permit No.: 1050004-003-AV  
C.D. McIntosh, Jr. Power Plant  
Polk County

REQUEST FOR EXTENSION OF TIME

By and through undersigned counsel, Lakeland Electric & Water Utilities (Lakeland) hereby requests, pursuant to Florida Administrative Code Rules 28-106.111(3) and 62-103.050(1), an extension of time, to and including July 21, 1997, in which to file a Petition for Administrative Proceedings or a Request for Mediation in the above-styled matter. As good cause for granting this request, Lakeland states the following:

1. On or about June 6, 1996, Lakeland received from the Department of Environmental Protection (Department) an "Intent to Issue Title V Air Operation Permit" (Permit No. 1050004-003-AV) for the C.D. McIntosh, Jr. Power Plant located in Polk County, Florida. Along with the Intent to Issue, Lakeland received a draft Title V permit and "Public Notice of Intent to Issue Title V Air Operation Permit."
2. Based on Lakeland's preliminary review, the draft permit and associated documents contain several provisions that warrant clarification or correction.
3. Lakeland is in the process of developing a letter to the Department describing the issues identified and changes suggested.

4. Representatives of Lakeland intend to discuss this matter with staff of the Department's Bureau of Air Regulation in the near future in an effort to resolve all issues.

5. This request is filed simply as a protective measure to avoid waiver of Lakeland's right to challenge certain conditions contained in the draft Title V permit. Grant of this request will not prejudice either party, but will further their mutual interest and likely avoid the need to file a petition and proceed to a formal administrative hearing or formal mediation.


6. Clair Fancy, Chief of the Bureau of Air Regulation, agreed to a 30-day extension on behalf of the Department. Counsel for Lakeland has attempted without success to contact W. Douglas Beason with the Office of General Counsel regarding this request.

7. Lakeland will publish the notice of intent to issue within 30 days.

WHEREFORE, Lakeland respectfully requests that the time for filing of a Petition for Administrative Proceedings or a Request for Mediation in regard to the Department's Intent to Issue Title V Air Operation Permit for Permit No. 1050004-003-AV be formally extended to and including July 21, 1997.

Respectfully submitted this 20th day of June, 1997.

HOPPING GREEN SAMS & SMITH, P.A.

  
Angela R. Morrison, Fla. Bar No. 0855766  
123 South Calhoun Street  
Post Office Box 6526  
Tallahassee, FL 32314  
(904) 222-7500

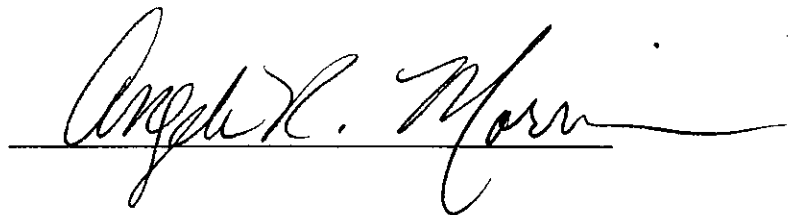
Attorney for LAKELAND ELECTRIC & WATER  
UTILITIES

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a copy of the foregoing has been furnished to the following  
by U.S. Mail on this 20th day of June, 1997:

Clair H. Fancy, P.E.  
Chief  
Bureau of Air Regulation  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2600

W. Douglas Beason  
Office of General Counsel  
Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2600



A handwritten signature in cursive script, reading "Joseph H. Moran", is written over a horizontal line.

95485



**Farzie Shelton**  
ENVIRONMENTAL COORDINATOR, Ch E.

May 7, 1997

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

**RECEIVED**

**MAY 09 1997**

**BUREAU OF  
AIR REGULATION**

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 SO<sub>2</sub>, CO<sub>2</sub>, 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.

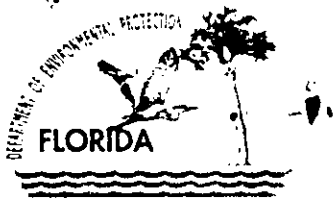
If you should have any questions, please do not hesitate to contact me at (941) 499-6603.

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

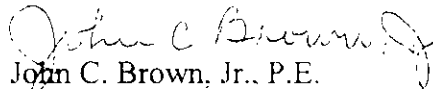
1. McIntosh Unit #3 is permitted to combust coal, refuse derived fuel, petroleum coke, high sulfur fuel oil, low sulfur fuel oil and natural gas. Segment pages (SCC codes) were only submitted for coal, No. 6 fuel oil (0.73 percent sulfur, by weight) and natural gas. Please review the application and 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]

2 392 941 000



**Certified Mail**

With Insurance Coverage Provided  
Do not use for International Mail.  
(See Reverse)

*Lakeland Electric & Water Utilities*  
 Ronald W. Tomlin  
 501 E. Lemon St.  
 Lakeland, FL 33801-5079

01-13-97

fold at line over flap of envelope to the right of the return address

**CERTIFIED**

2 392 941 000  
**MAIL**

Is your RETURN ADDRESS completed on the reverse side?

<b>SENDER:</b> • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
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 <b>Z 392 941 000</b>	
		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	
5. Signature (Addressee)		7. Date of Delivery	
6. Signature (Agent)		8. Addressee's Address (Only if requested and fee is paid)	

Thank you for using Return Receipt Service.



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

DEPARTMENT OF ENVIRONMENTAL PROTECTION

TWIN TOWERS OFFICE BUILDING

2600 BLAIR STONE ROAD

TALLAHASSEE, FLORIDA 32399-2400

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

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

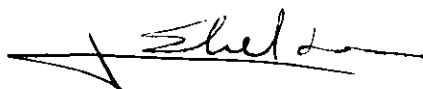
RE: Lakeland Electric and Water Utilities  
C. D. McIntosh Jr. Power Plant  
File No. 1050004-003-AV

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: <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>  <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.*

*Heidi F. Kelly*

Signature

(seal)

Date

*1/17/97*

\* 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):  <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 4

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: <b>0</b>	
7. Maximum Percent Sulfur: <b>0</b>	8. Maximum Percent Ash: <b>0</b>
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 only (SCC 1-01-010-02).</b>	

**Segment Description and Rate:** Segment 4 of 4

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Propane</b>	
2. Source Classification Code (SCC): <b>1-01-010-02</b>	
3. SCC Units: <b>1,000 gallons</b>	
4. Maximum Hourly Rate: <b>10.88</b>	5. Maximum Annual Rate: <b>95,344</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0</b>	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: <b>91</b>	
10. Segment Comment (limit to 200 characters): <b>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.</b>	

**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):  <b>On-Specification used oil as defined in 40 CFR 279.11 and generated by City of Lakeland</b>	
2. Source Classification Code (SCC):  <b>1-01-013-02</b>	
3. SCC Units:  <b>1,000 gallons</b>	
4. Maximum Hourly Rate:  <b>6.33</b>	5. Maximum Annual Rate:  <b>42</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>Sampling of each 1,000 gallons burned is required by operation permit. Maximum hourly rate same as residual oil.</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 /2.5%S</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; ASTM Methods D-4294-83 and D-240</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. Compliance based on fuel sampling analysis for each shipment to ensure oil sulfur content 2.5% or less (vendor or on-site data).</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):		



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): <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>1.16</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>	

**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): <b>Propane</b>	
2. Source Classification Code (SCC): <b>1-01-010-02</b>	
3. SCC Units: <b>1,000 gallons</b>	
4. Maximum Hourly Rate: <b>13.09</b>	5. Maximum Annual Rate: <b>114,703</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: <b>91</b>	
10. Segment Comment (limit to 200 characters): <b>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.</b>	

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-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):  <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):	

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

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): <b>Refuse Derived Fuel</b>	
2. Source Classification Code (SCC): <b>1-01-012-02</b>	
3. SCC Units: <b>Tons</b>	
4. Maximum Hourly Rate: <b>40.4</b>	5. Maximum Annual Rate: <b>75,000</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: <b>0.1</b>	8. Maximum Percent Ash: <b>35</b>
9. Million Btu per SCC Unit: <b>9</b>	
10. Segment Comment (limit to 200 characters): <b>See Attachment LMC-EU3-F10; co-fired with other fuels upto 10 percent of heat input.</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):  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): <b>Distillate (No.2) Oil</b>	
2. Source Classification Code (SCC): <b>1-01-005-01</b>	
3. SCC Units: <b>1,000 gallons</b>	
4. Maximum Hourly Rate: <b>26.96</b>	5. Maximum Annual Rate: <b>236,196</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>135</b>	
10. Segment Comment (limit to 200 characters): <b>Used primarily as a start-up fuel.</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>Petroleum coke</b>	
2. Source Classification Code (SCC):  <b>1-01-008-01</b>	
3. SCC Units:  <b>Tons</b>	
4. Maximum Hourly Rate:  <b>31.9</b>	5. Maximum Annual Rate:  <b>279,619</b>
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:  <b>6</b>	8. Maximum Percent Ash:  <b>15</b>
9. Million Btu per SCC Unit:  <b>28</b>	
10. Segment Comment (limit to 200 characters):  <b>Co-fired with other primary fuels up to 20 percent by weight.</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>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>	

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

**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.		

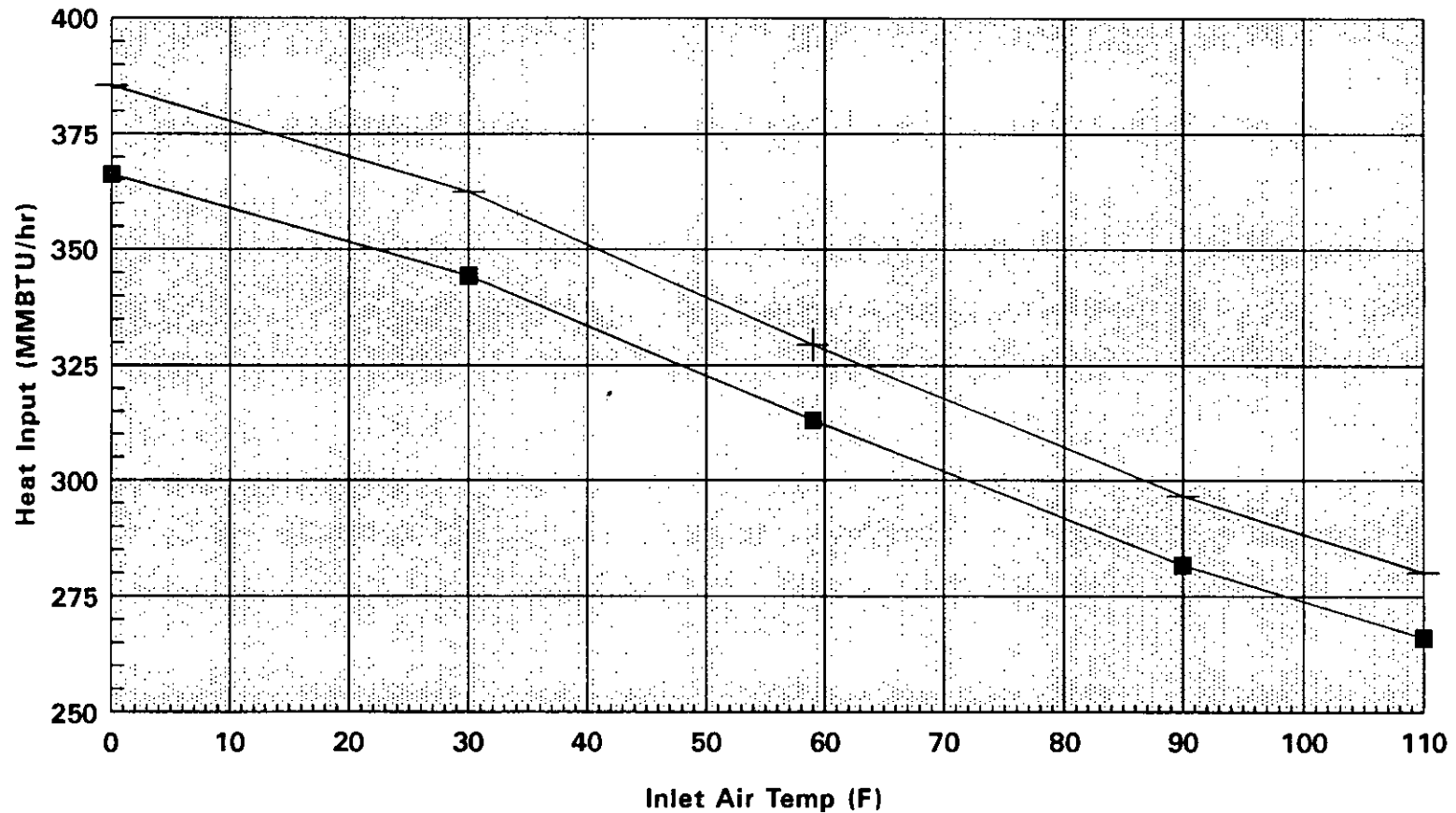
Emissions Unit Operating Schedule

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

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

# McIntosh Gas Turbine

## Heat Input vs Compressor Inlet Temperature



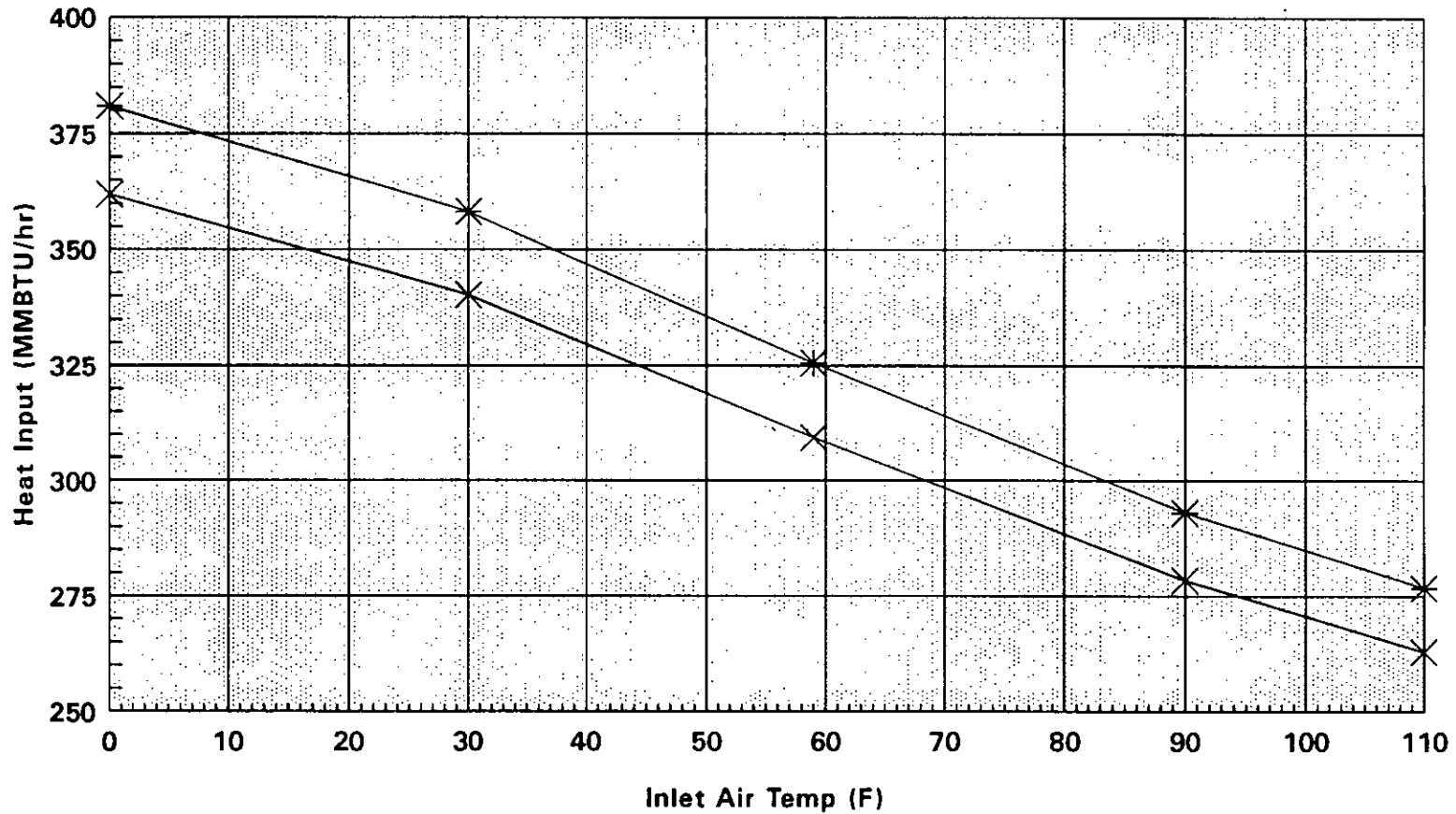
+ Design Input Nat Gas ■ 95% of Design Nat Gas

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