



September 3, 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 include replacement of segment information pages for units ID 001 (unit 1), 005 (unit 2), ID 006 (unit 3), and the two diesel peaking units 2 and 3. Additionally, you will find enclosed two diskettes (electronic data submittal) containing all requested modification to this application. 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
Manager of Environmental Permitting & Compliance
Production Division

Enc.

RECEIVED

SEP 04 1997

BUREAU OF
AIR REGULATION

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: Ronald W. Tomlin, Assistant Managing Director
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Lakeland Electric & Water Utilities Street Address: 501 East Lemon Street City: Lakeland State: FL Zip Code: 33801-5079
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (941) 499-6300 Fax: (941) 499-6344
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i> _____ <i>Ronald W. Tomlin</i> Signature _____ 8-14-97 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.

Hermod F. Guly

Signature
(seal) *HS*

12 August 1997

Date

*-Attach any exception to certification statement.

Segment Description and Rate: Segment 2 of 5

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

Segment Description and Rate: Segment 4 of 5

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

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

Segment Description and Rate: Segment 5 of 5

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: 7.3	5. Maximum Annual Rate: 63,912
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 other fuels. Fuel does not increase emissions of any pollutant.	

Segment Description and Rate: Segment 2 of 4

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

Segment Description and Rate: Segment 4 of 4

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

Segment Description and Rate: Segment 4 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Distillate (No.2) Oil	
2. Source Classification Code (SCC): 1-01-005-01	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 26.96	5. Maximum Annual Rate: 236,196
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.5	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 135	
10. Segment Comment (limit to 200 characters): Maximum Hourly Rate based on maximum input of unit. Fuel does not increase emissions of any pollutant.	

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

Segment Description and Rate: Segment 7 of 7

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Propane	
2. Source Classification Code (SCC): 1-01-010-02	
3. SCC Units: 1,000 gallons	
4. Maximum Hourly Rate: 40.22	5. Maximum Annual Rate: 352,336
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 91	
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit = 90.5 (rounded to 91). Fuel does not increase emissions of any pollutant.	

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

Emissions Unit Details

1. Initial Startup Date: 1 Jan 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):		
<p>Maximum heat input is for each diesel peaking unit. Represents previously permitted fuel input. These units have not been modified as defined in Rule 62-210.200 F.A.C.</p>		

Emissions Unit Operating Schedule

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

August 6, 1997

Farzie Shelton
ENVIRONMENTAL COORDINATOR, Ch E.

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

RECEIVED

AUG 07 1997

BUREAU OF
AIR REGULATION

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

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

Scott Sheplak, P.E.
Administrator, Title V Permit Program
Florida Department of Environmental Protection
August 6, 1997
Page 2

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

Scott Sheplak, P.E.
Administrator, Title V Permit Program
Florida Department of Environmental Protection
August 6, 1997
Page 3

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, SO₂, and NO_x 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 NO_x 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

Scott Sheplak, P.E.
Administrator, Title V Permit Program
Florida Department of Environmental Protection
August 6, 1997
Page 4

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

Scott Sheplak, P.E.
Administrator, Title V Permit Program
Florida Department of Environmental Protection
August 6, 1997
Page 5

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.

Scott Sheplak, P.E.
Administrator, Title V Permit Program
Florida Department of Environmental Protection
August 6, 1997
Page 6

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