PERMITTEE

Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601-0111

Permit No.	1050233-017-AC
Project	MDEA Chiller
SIC No.	49, 4911
Expires:	December 31, 2005

Authorized Representative:

Mark J. Hornick, General Manager – Polk Power Station

PROJECT AND LOCATION

This permit authorizes Tampa Electric Company to construct a chiller for the MDEA absorbent to allow better absorption of hydrogen sulfide to ultimately lower emissions of sulfur dioxide (SO2) at the existing Polk Power Station.

This facility is located at 9995 State Route 37 South, Mulberry, Polk County; UTM Coordinates: Zone 17, 402.45 km East and 3067.35 km North; Latitude: 27° 43' 43" North and Longitude: 81° 59' 23" West.

STATEMENT OF BASIS

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct the emissions units in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendix is a part of this permit:

Appendix GC General Permit Conditions

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Michael G. Cooke, Director
Division of Air Resource Management

SECTION I. FACILITY INFORMATION

FACILITY AND PROJECT DESCRIPTION

The existing facility consists of a 260 megawatt (electric) combined cycle combustion turbine which fires syngas or No. 2 fuel oil; an auxiliary boiler which fires No. 2 fuel oil; a sulfuric acid plant; a solid fuel handling system; a solid fuel gasification system; and, two nominal 165 megawatt simple cycle gas turbines firing either natural gas or No. 2 fuel oil.

The applicant requested a revision to their Title V permit, on August 24, 2004, to construct a chiller for the MDEA absorbent stream.

There are no emissions increases associated with this project.

The facility information, project scope, emissions and rule applicability are described in detail in the Department's Technical Evaluation and Determination.

REVIEWING AND PROCESS SCHEDULE

August 23, 2004	Received permit application (no application fee required)
September13, 2004	Application complete
September 24, 2004	Distributed Notice of Intent to Issue and supporting documents
October 14, 2004	Notice of Intent published in the Lakeland Ledger

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Permit application
- Department's Technical Evaluation and Determination
- Department's Intent to Issue

The following Specific Conditions apply to all emissions units at this facility addressed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's Southwest District office at 3804 Coconut Palm Drive, Tampa, Florida 33619-8218, and phone number 813/744-6100.

2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403, F.S. [Rule 62-4.160, F.A.C.]

3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S.; Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297, F.A.C.; and, the Code of Federal Regulations Title 40, Part 60, adopted by reference in the F.A.C. regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]

5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

6. Expiration: This air construction permit shall expire on ^DRAFT. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department’s Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C]

7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

8. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A revision to the Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test

results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Southwest District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

OPERATIONAL REQUIREMENTS

9. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's Southwest District office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]

10. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

11. Excess Emissions: This permit does not change any authorization for excess emissions provided by other Department permits for other emissions units. The following excess emissions provisions of state rule apply to this emissions unit (emissions unit 006) as specified below.

    (a) Excess emissions resulting from start-up and shutdown are permitted for emissions unit 006 providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period.

    (b) Excess emissions resulting from malfunction of this emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

    (c) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited.

    [Rules 62-210.700(1), (4) and (5), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

12. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]

    (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

    (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured

with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

REPORTING AND RECORD KEEPING REQUIREMENTS

13. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]

14. Excess Emissions Report: In case of excess emissions resulting from malfunction, the owner or operator shall notify the Department's Southwest District office within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rules 62-4.130 and 62-210.700(6), F.A.C.]

15. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Southwest District office and, if applicable, the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

The following Specific Conditions apply to the following emissions units after construction.

Subsection C. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-004	Sulfuric Acid Plant

The sulfuric acid plant takes a sulfur gas stream from the solid fuel gasification plant's hot gas cleanup or cold gas cleanup systems and converts it to sulfuric acid using the double contact process. The sulfuric acid plant has a 15 million Btu per hour, propane fired, H_2S to SO_2 conversion furnace which vents to the atmosphere only during warm-up; and a 9 million Btu per hour, propane fired, non-contact SO_2 to SO_3 converter preheater which is vented to the atmosphere. The sulfuric acid plant has a maximum production rate of 77,640 tons per year of 100 percent sulfuric acid. The MDEA chiller will be a component of the cold gas cleanup system.

{Permitting note(s): The emissions unit is regulated under Rule 62-296.402, F.A.C., Sulfuric Acid Plants. The MDEA chiller is incorporated into the facility's permit at the request of the permittee. No increase of emissions will result from the construction of the MDEA chiller.}

The following Specific Conditions apply to the emissions unit(s) listed above:

1. The MDEA chiller equipment will be installed pursuant to the OGC Consent Order 01-0122 as a supplemental environmental project that will reduce SO_2 emissions.

   {The applicable SO_2 emission limits applicable to these units are already given in the mentioned Title V Operation Permit}