TO:

Michael G. Cooke

THRU:

FROM:

Trina Vielhauer Al Linero 6/28
Cindy Mulkey W 4/28

DATE:

June 27, 2005

SUBJECT:

FP&L - Martin Unit 8

Construction Permit Modification - Excess Emissions Requirements

DEP File No. 0850001-015-AC, PSD-FL-327A

Attached is the final permit modification relative to the FP&L Martin PSD permit. The modification allows for changes to amend requirements related to excess emissions. The existing permit allows for one hour of excess emissions during oil-to-gas fuel switching in simple cycle mode. This amendment extends the allowance to also include combined cycle mode.

Since there are no increases to emissions as a result if these changes, neither a Determination of Best Available Control Technology (BACT) nor an air quality analysis was required.

A public notice was made on June 13, 2005 in the Stuart News and no comments were received.

Accordingly, I recommend your approval.

Attachments

/cem



Department of Environmental Protection

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

Colleen M. Castille Secretary

July 5, 2005

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Miguel Arechabala, Plant Manager Florida Power & Light Company Post Office Box 176 Indiantown, Florida 34956

Re: DEP File No. 0850001-015-AC (PSD-FL-327A) Combined Cycle Unit 8 - Martin County, Florida

Dear Mr. Arechabala:

The Florida Department of Environmental Protection ("the Department") reviewed your request received June 6, 2005 for a modification of the original air construction permit. The request is to amend requirements related to excess emissions during oil-to-gas fuel switching of combined cycle Unit 8. The Department approves your request and hereby modifies permit No. PSD-FL-327 as follows:

This unit was originally authorized and constructed pursuant to Permit No. PSD-FL-327 issued on April 16, 2003. This permit action supplements Permit No. PSD-FL-327. Unless otherwise specified, this permit action does not alter any requirements of that permit.

Additions are underlined; deletions are strikethrough.

SECTION III EMISSIONS UNIT SPECIFIC CONDITIONS

EXCESS EMISSIONS

- 16. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases.
 - a. For cold startup of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed six hours in any 24-hour period. Cold startup of the steam turbine system shall be completed within twelve hours. A cold "startup of the steam turbine system" is defined as startup of the 4-on-1 combined cycle system following a shutdown of the steam turbine lasting at least 48 hours. [Permitting Note: During a cold startup of the steam turbine

system, each gas turbine/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue. Note that shutdowns and documented malfunctions are separately regulated in accordance with the requirements of this condition.}

- b. For shutdown of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed three hours in any 24-hour period.
- c. For cold startup of a gas turbine/HRSG system, excess emissions shall not exceed four hours in any 24-hour period. "Cold startup of a gas turbine/HRSG system" is defined as a startup after the pressure in the high-pressure (HP) steam drum falls below 450 psig for at least a one-hour period.
- d. For oil-to-gas fuel switching in simple cycle operation, excess emissions shall not exceed 1 hour in any 24-hour period.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

Michael G. Cooke, Director Division of Air Resource

Muly D. Cooks

Management

Mr. Miguel Arechabala, Plant Manager, FPL DEP File No. 0850001-015-AC (PSD-FL-327A) Page 3 of 3

CERTIFICATE OF SERVICE

Miguel Arechabala, FPL*
Barbara Linkiewicz, FPL*
John Hampp, FPL
Willie Welch, FPL
Darrel Graziani, DEP SED
Jim Little, EPA

Clerk Stamp

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby

acknowledged.

(Date)

FINAL DETERMINATION

Florida Power & Light Company Indiantown, Martin County

Excess Emissions During Oil-to-Gas Fuel Switching DEP File Nos. 0850001-015-AC (PSD-FL-327A)

On June 8, 2005 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit Modification" to amend requirements related to excess emissions during oil-to-gas fuel switching of Unit 8 at the power plant located on State Road 710, in Martin County.

The package included the Department's Draft Air Construction Permit Modification, the "Intent to Issue Air Construction Permit Modification," the "Technical Evaluation and Preliminary Determination," and the "Public Notice of Intent to Issue Air Construction Permit Modification." The Department sent copies of the package to various persons, and agencies including those who had asked that they be informed of any Department permitting activities related to the subject facility. Florida Power & Light Company published the Public Notice in The Stuart News on June 13, 2005 and provided to the Department the required proof of publication.

The Department received no comments or petitions for administrative hearings on the Draft Air Construction Permit. The final action is to issue the Air Construction Permit Modification as drafted.

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SCRIPPS TREASURE COAST NEWSPAPERS

The Stuart News The Port St. Lucie News

1939 S. Federal Highway, Stuart, FL 34994

AFFIDAVIT OF PUBLICATION

STATE OF FLORIDA

COUNTY OF MARTIN; COUNTY OF ST. LUCIE

Before the undersigned authority personally appeared, S. Darlene Mailing, who on oath says that she is Classified Inside Sales Manager of the Stuart News and the Port St. Lucie News, a daily newspaper published at Stuart in Martin County, Florida: that the attached copy of advertisement was published in the Stuart/Port St. Lucie News in the following issues below. Affiant further says that the said Stuart/Port St. Lucie News is a newspaper published in Stuart in said Martin County, Florida, with offices and paid circulation in Martin County and St. Lucie County, Florida, and that said newspapers have heretofore been continuously published in said Martin County, Florida, daily and distributed in Martin and St. Lucie County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid or 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. The Stuart News has been entered as Periodical Matter at the Post Offices in Stuart, Martin County, Florida and Ft. Pierce, St. Lucie County, Florida and has been for a period of one year next preceding the first publication of the attached copy of advertisement.

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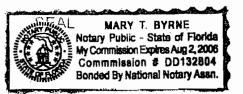
Customer	Number	Date	<u>Copyline</u>	PO#
FPL/JUNO OFFICE	1102450	6/13/2005	NOTICE OF INTENT	DEP AIR

Subscribed and sworn to me before this date:

Ad

June 13, 2005

S. Darber Mailing



PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION Florida Department of **Environmental Protection** Florida Power & Light Company
Martin Plant - Indiantown
DEP File No.: 0850001-015-AC (PSD-FL-327A)

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit Modification to Florida Power & Light (FPL) to amend requirements related to excess emissions during oil-toments related to excess emissions during oil-togas fuel switching of Unit 8 at the power plant located on State Road 710, in Martin County The previously issued Best Available Control Technology (BACT) determination applies to the facility. The permittee's name and address are: Florida Power & Light Company (FPL), Post Office Box 17, Indiantown, Florida 34956.

The Martin Unit 8 combined cycle unit (including the conversion of Units BA and 8B to combined cycle) was permitted for operation on gas and oil

cycle) was permitted for operation on gas and oil in April 2003. The current construction permit details periods of excess emissions allowed which include startup, shutdown, and oil-to-gas fuel switches during simple cycle operation, and mal-

FPL requested combined cycle operation be included in the allowance for excess emissions during the periods of oil-to-gas fuel switching. The company proposes that this change will actually reduce potential overall excess emissions of the unit. Under the current permit, a short period of excess emissions during oil-to-gas fuel switching is allowed during simple cycle mode. However, during combined cycle mode the unit must be completed by the down and contracted before met. completely shut down and re-started before making the switch from oil to gas. Ultimately, this

ould result in longer periods of excess emissions than necessary for this procedure.

Based on the review of the information provided by the facility, and the fact that overall excess emissions will not be adversely affected, the Department concurs. By allowing a short period of excess emissions during oil-to-gas fuel switching, the longer duration of excess emissions during a start-up will be avoided.

start-up will be avoided.

The Department will issue the Final Permit Modification with the attached conditions unless a re-sponse received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments concernpartment will accept written comments concerning the proposed permit action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit Modifications. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the Permit Modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below-Mediation is not available in this proceeding. A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with

for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Stat-utes (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 #35, Tallahas-see, Florida 32399-3000. Petitions must be filed within fourteen days of publication of the public notice or within fourteen (14) days of publication of this Public Notice of Intent to Issue Air Con-struction Permit Modification. Under Section 120 60(3) ES however positions accounts the 120.60(3), F.S however, petitions submitted by person(s) who asked the Department for notice of agency action must be filed within fourteen (14) days of receipt of that notice or the date of publication of the public notice whichever occurs first. A petitioner shall 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 within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 12057, F.S., or to intervene in this proceeding and participate as a party to it. Any such intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F-4.C.

A pantion that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known: (b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal of modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

set form above Mediation is not available for this proceeding. 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:

Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/921-9523 Fax: 850/922-6979
Affected District/Local Program
Department of Environmental Protection

Department of Environmental Protection
Southeast District Office
400 North Congress Avenue
West Palm Beach, Florida 33416-5425

West Palm Beach, Florida 33416-5425
Telephone: 561/681-6774
The complete project file includes the Draft Air
Construction Permit Modification, Technical Evaluation and the information submitted by the responsible official, exclusive of confidential records under Section 493.111. F.S. Interested persons may contact the Program Administrator for the South Permitting Section, Bureau of Air Regulation, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-8968 for additional information.

Publish: June 13, 2005

1102450



Department of Environmental Protection

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

Colleen M. Castille Secretary

June 8, 2005

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Miguel Arechabala, Plant Manager Florida Power & Light – Martin Plant Post Office Box 176 Indiantown, Florida 34956-0176

Re: DEP File No. 0850001-015-AC (PSD-FL-327A)

Florida Power & Light - Martin Plant- Indiantown, Martin County

Enclosed is one copy of the Draft Air Construction Permit Modification for the Florida Power & Light – Martin Plant on State Road 710, Indiantown, Martin County. The Department's Intent to Issue Air Construction Permit Modification, the Technical Evaluation and Preliminary Determination, and the "Public Notice of Intent to Issue Air Construction Permit Modification" are also included.

The "Public Notice" must be published one time only as soon as possible in a newspaper of general circulation in the area affected, pursuant to the requirements of Chapter 50, Florida Statutes. Proof of publication, such as a newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in denial of the permit modification.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A.A. Linero, Program Administrator, at the letterhead address. If you have any questions regarding this matter, please contact Cindy Mulkey at (850)921-8968 or Mr. Linero at (850)921-9523.

Sincerely,

Trina L. Vielhauer, Chief Bureau of Air Regulation

Lia Mulkaun

TLV/cm

Enclosures

In the Matter of:

Florida Power & Light Company P.O. Box 176 Indiantown, FL 34956 Authorized Representative: Mr. Miguel Arechabala, Plant Manager

DEP File No. 0850001-015-AC (PSD-FL-327A)
FPL Martin Power Plant
Combined Cycle Unit 8

INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit Modification attached) for the proposed action, detailed in the Technical Evaluation and Preliminary Determination, for the reasons stated below.

The permittee, Florida Power & Light Company (FPL), requested on June 6, 2005 to modify permit language limiting excess emissions from oil-to-gas fuel switching during simple cycle operation to include limiting excess emissions from fuel switching during combined cycle operation.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed changes are not exempt from permitting procedures. The Department has determined that a modification of the original air construction permit is necessary for the described permit changes requested by FPL.

The Department intends to issue this air construction permit modification based on the belief that the permittee has provided reasonable assurances to indicate that operation of these emission units as indicated herein will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, F.A.C, you (the permittee) are required to publish at your own expense the enclosed <u>Public Notice of Intent to Issue Air Construction Permit Modification</u>. The notice shall be published as soon as possible one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the permittee cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The permittee shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit action for a period of 14 (fourteen) days from the date of publication of <u>Public Notice</u>. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permittee or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the permittee at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate 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 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Mediation is not available in this proceeding. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is

DEP Files 0850001-015-AC (PSD-FL-327A) Page 3 of 3

permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief Bureau of Air Regulation

July J'Vulhaun

CERTIFICATE OF SERVICE

Miguel Arechabala, FPL*
Barbara Linkiewicz, FPL*
John Hampp, FPL
Willie Welch, FPL
Darrel Graziani, DEP SED
Jim Little, EPA

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

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PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

Florida Department of Environmental Protection

Florida Power & Light Company Martin Plant - Indiantown Martin County

DEP File No.: 0850001-015-AC (PSD-FL-327A)

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit Modification to Florida Power & Light (FPL) to amend requirements related to excess emissions during oil-to-gas fuel switching of Unit 8 at the power plant located on State Road 710, in Martin County. The previously issued Best Available Control Technology (BACT) determination applies to the facility. The permittee's name and address are: Florida Power & Light Company (FPL), Post Office Box 176, Indiantown, Florida 34956.

The Martin Unit 8 combined cycle unit (including the conversion of Units 8A and 8B to combined cycle) was permitted for operation on gas and oil in April 2003. The current construction permit details periods of excess emissions allowed which include startup, shutdown, and oil-to-gas fuel switches during simple cycle operation, and malfunctions.

FPL requested combined cycle operation be included in the allowance for excess emissions during the periods of oil-to-gas fuel switching. The company proposes that this change will actually reduce potential overall excess emissions of the unit. Under the current permit, a short period of excess emissions during oil-to-gas fuel switching is allowed during simple cycle mode. However, during combined cycle mode the unit must be completely shut down and re-started before making the switch from oil to gas. Ultimately, this could result in longer periods of excess emissions than necessary for this procedure.

Based on the review of the information provided by the facility, and the fact that overall excess emissions will not be adversely affected, the Department concurs. By allowing a short period of excess emissions during oil-to-gas fuel switching, the longer duration of excess emissions during a start-up will be avoided.

The Department will issue the Final Permit Modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments concerning the proposed permit action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the Permit Modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions must be filed within fourteen (14) days of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Under Section 120.60(3), F.S., however, petitions submitted by person(s) who asked the Department for notice of agency action must be filed within fourteen (14) days

of receipt of that notice or the date of publication of the public notice whichever occurs first. A petitioner shall 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 within the appropriate 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 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

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:

Department of Environmental Protection

Southeast District Office

Department of Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida, 32301 Telephone: (850) 921-9523

400 North Congress Avenue, Suite 200 West Palm Beach, Florida 33401 Telephone: (561) 681-6774 Fax: (850) 922-6979 Fax: (561) 681-6755

The complete project file includes the Draft Air Construction Permit Modification, Technical Evaluation and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator for the South Permitting Section, Bureau of Air Regulation, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-8968 for additional information.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

FLORID POWER & LIGHT COMPANY INDIANTOWN, MARTIN COUNTY

Combined Cycle Unit 8
Permit Modification to Amend Requirements Related to
Excess Emissions During Oil-to-Gas Fuel Switching

DEP File Nos. 0850001-015-AC PSD-FL-327A

Department of Environmental Protection Division of Air Resources Management Bureau of Air Regulation

June 8, 2005

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

I. GENERAL PROJECT INFORMATION

Applicant Name and Address

Florida Power & Light – Martin Plant Post Office Box 176 Indiantown, Florida 34956-0176

Authorized Representative: Mr. Miguel Arechabala, Plant Manager

Processing Schedule

6/6/05 Received request to modify the condition regarding excess emissions

Facility Description and Location

Existing combined cycle unit 8 is installed at the Florida Power & Light - Martin Plant located in the western part of the unincorporated Martin County approximately seven miles north of Indiantown on State Road 710. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS). Combined cycle Unit 8 consists of 4 gas turbines (170 MW each), four heat recovery steam generators, a single steam turbine-electrical generator (470 MW), and a mechanical draft cooling tower, with a generating capacity of approximately 1150 MW.

Standard Industrial Classification Code (SIC)

SIC No. 4911 – Electrical Services

Regulatory Categories

<u>Title III</u>: The existing facility is identified as a potential major source of hazardous air pollutants (HAP).

<u>Title IV</u>: The existing facility operates units subject to the acid rain provisions of the Clean Air Act.

<u>Title V</u>: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

<u>PSD</u>: The existing facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

Project Description

The facility requests revision of Specific Condition No. 16.d.:

From:

EXCESS EMISSIONS

16. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by

Florida Power & Light Martin Plant

File No. 0850001-015-AC, (PSD-FL-327A)

June 8, 2005

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases.

d. For oil-to-gas fuel switching in simple cycle operation, excess emissions shall not exceed 1 hour in any 24-hour period.

To:

EXCESS EMISSIONS

- 16. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases.
 - d. For oil-to-gas fuel switching, excess emissions shall not exceed 1 hour in any 24-hour period.

II. DEPARTMENT'S REVIEW

Combined cycle Unit 8 can be described as a "4 on 1" configuration including the following equipment and specifications: four 170 MW simple cycle gas turbine-electrical generator sets (8A, 8B, 8C, and 8D), four gas-fired heat recovery steam generators (495 MMBtu/hour, LHV), a common steam-electrical generator (470 MW), two new gas-fired fuel heaters (22 MMBtu/hour, each), a cooling tower, and other associated support equipment. Each gas turbine/HRSG component consists of a nominal 170 MW General Electric Model PG7241(FA) gas turbine-electrical generator set, an automated gas turbine control system, an inlet air filtration system, an evaporative inlet air-cooling system, and a gas-fired heat recovery steam generator (HRSG).

The gas turbines fire natural gas as the primary fuel and distillate oil as a restricted alternate fuel. This unit is typically run on natural gas, however oil testing must be done on a regular basis to ensure the unit is capable of this operation if needed. Emissions are increased with the firing of oil.

NOx emissions from the turbines are reduced with dry low-NOx (DLN) combustion technology during gas firing and water injection during oil firing. Combined with these technologies, a selective catalytic reduction (SCR) system further reduces NOx emissions during combined cycle operation.

Each gas turbine may operate in simple cycle mode (without the HRSG) to produce only shaft-driven electrical power with hot exhaust through the bypass stack. This mode is typically reserved for meeting peak energy demand periods because it is much less efficient. Operation in combined cycle mode recovers heat energy from the HRSG in the form of steam, which is delivered to the steam-electrical turbine to produce steam-generated electrical power.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Fuel switching from gas to oil involves a ramp down to begin oil firing, reduce gas firing, and begin water injection. This can be done quickly and without effecting emissions in either simple cycle or combined cycle operation. During an oil-to-gas fuel switch however, the unit must be ramped down to reduce the oil firing and shut off the water injection, and begin the mode sequencing of the DLN combustor. This maneuver cannot be done as quickly as the gas-to-oil fuel switch and a brief period of excess emissions cannot be avoided. When in combined cycle mode, the oil-to-gas switch is complicated even further due to the involvement of the selective catalytic reduction system which may require additional time to return to a temperature at which NOx can be effectively removed.

The current permit allows excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions, provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. However, Specific Condition 16.d. allows one hour of excess emissions in any 24-hour period for oil-to-gas fuel switching during simple cycle operation only. Combined cycle operation is not specified. Because of this, fuel switching from oil to gas during combined cycle operation either, 1) does not take place without cycling the unit completely down and re-starting, or 2) does not take place at all, and the unit continues to run on oil for the remainder of the commissioned period.

Both situations described above, result in higher overall emissions. Cycling the unit completely down only to restart again, ultimately results in longer periods of excess emissions due to the start-up period, than the one-hour (or less) period needed for fuel switching. Overall emissions are greatly reduced while firing natural gas, therefore continuing to burn oil following performance testing is not a satisfactory alternative to the short-lived period of excess emissions that would result from the fuel switch.

Additionally, recently permitted similar units, such as Turkey Point Unit 5, grant an allowance for excess emissions for oil-to-gas fuel switches without specifying operational mode.

II. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed modification will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the modification request, supporting information supplied by the facility, and a records review. No air quality modeling analysis is required because the project does not result in a significant increase in emissions.



Department of Environmental Protection

Jeb Bush Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee. Florida 32399-2400

Colleen M. Castille Secretary

Month day, 2005

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Miguel Arechabala, Plant Manager Florida Power & Light Company Post Office Box 176 Indiantown, Florida 34956

Re: DEP File No. 0850001-015-AC (PSD-FL-327A) Combined Cycle Unit 8 – Martin County, Florida

Dear Mr. Arechabala:

The Florida Department of Environmental Protection ("the Department") reviewed your request received June 6, 2005 for a modification of the original air construction permit. The request is to amend requirements related excess emissions during oil-to-gas fuel switching of combined cycle Unit 8. The Department approves your request and hereby modifies permit No. PSD-FL-327 as follows:

This unit was originally authorized and constructed pursuant to Permit No. PSD-FL-327 issued on April 16, 2003. This permit action supplements Permit No. PSD-FL-327. Unless otherwise specified, this permit action does not alter any requirements of that permit.

Additions are underlined; deletions are strikethrough.

SECTION III EMISSIONS UNIT SPECIFIC CONDITIONS

EXCESS EMISSIONS

- 16. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases.
 - a. For cold startup of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed six hours in any 24-hour period. Cold startup of the steam turbine system shall be completed within twelve hours. A cold "startup of the steam turbine system" is defined as startup of the 4-on-1 combined cycle system following a shutdown of the steam turbine lasting at least 48 hours. [Permitting Note: During a cold startup of the steam turbine

Mr. Miguel Arechabala, Plant Manager, FPL DEP File No. 0850001-015-AC (PSD-FL-327A) Page 2 of 3

system, each gas turbine/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue. Note that shutdowns and documented malfunctions are separately regulated in accordance with the requirements of this condition.}

- b. For shutdown of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed three hours in any 24-hour period.
- c. For cold startup of a gas turbine/HRSG system, excess emissions shall not exceed four hours in any 24-hour period. "Cold startup of a gas turbine/HRSG system" is defined as a startup after the pressure in the high-pressure (HP) steam drum falls below 450 psig for at least a one-hour period.
- d. For oil-to-gas fuel switching in simple cycle operation, excess emissions shall not exceed 1 hour in any 24-hour period.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

Michael G. Cooke, Director Division of Air Resource Management Mr. Miguel Arechabala, Plant Manager, FPL DEP File No. 0850001-015-AC (PSD-FL-327A) Page 3 of 3

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency cl MODIFICATION was sent by certified mail (*) and co business on to the person(s) listed:		
Miguel Arechabala, FPL* Barbara Linkiewicz, FPL* John Hampp, FPL Willie Welch, FPL		
Darrel Graziani, DEP SED Jim Little, EPA	Clerk Stamp	
	FILING AND ACKNOWLI FILED, on this date, pursuan Florida Statutes, with the desi Department Clerk, receipt of acknowledged.	t to §120.52, gnated
	(Clerk)	(Date)

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SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse	A. Signature X
so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits.	B. Received by (Printed Name) C. Date of Delivery
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Indiantown, Florida 34956-0176	3. Service Type Certified Mail Express Mail Registered Receipt for Merchandise
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	PS Form 3800, January 2	001	See Reverse for Instructions

SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Mr. Miguel Arechabala, Plant Manager Flower Power & Light – Martin Plant	A. Signature X. W. L. A. Grant Agent Addressee B. Received by (Printed Name) C. Date of Delivery L. L. A. E. C. M. C. L. C. L
Post Office Box 176 Indiantown, Florida 34956-0176	3. Service Type Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D. Restricted Delivery? (Extra Fee) Yes
PS Form 3811, August 2001 Domestic Ret	D001 369a 3005 turn Receipt 102595-02-M-1540
■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.	A. Signature A. Signature Addressee B. Redeived by (Printed Name) D. Is delivery address difference in item 1?
1. Article Addressed to: Ms. Barbara Linkiewicz Environmental Licensing Manager New Generation Projects Florida Power & Light 700 Universe Blvd. Juno Beach, Florida 33408	3. Service Type Certified Mail
2. Article Number (Transfer from service label) 700/ 036 PS Form 3811, August 2001 Domestic Ret	RO 000/ 3692 2992- rurn Receipt 102595-02-M-1540
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Mr. Miguel Arechabala, Plant Manager Flower Power & Light – Martin Plant Post Office Box 176 Indiantown, Florida 34956-0176	Total Ms. Barbara Linkiewicz Environmental Licensing Manager New Generation Projects Street or PO 700 Universe Blvd. City. 5 Juno Beach, Florida 33408



June 15, 2005

Ms. Cindy Mulkey
Division of Air Resources Regulation
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee, FL 32399-2400

RECEIVED

JUN 17 2005

BUREAU OF AIR REGULATION

Subject:

Martin Power Plant – Unit 8 Air Construction Permit

Request for Minor Permit Modification

DEP File No. 0850001-015-AC (PSD-FL-327A)

Dear Ms. Mulkey,

On June 3, 2005, Florida Power & Light Company (FPL) submitted a request for minor permit modification to PSD permit PSD-FL-327A. On June 9, FPL received the Intent to Issue Air Construction Permit Modification including requirements for public notice, from the Department via email.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, Florida Power & Light Company (FPL) published, at our own expense, the <u>Public Notice of Intent to Issue Air Construction Permit Modification</u>, provided by the Department to FPL via email on June 9, 2005.

On Monday, June 13, 2005, the Public Notice was published in the Stuart News (a paper which serves the area affected and which meets the requirements of Section 50.011 and 50.031, F.S.).

In accordance with Rule 62.110.106(5), F.A.C, enclosed is proof of publication.

Should you have any questions, or need any additional information, please contact me at (561) 691-7518 or Rachel Godino at (561) 691-7067.

Sincerely.

Barbara Linkiewicz

Environmental Licensing Manager

cc: Mr. Jeff Koerner, FDEP



June 3, 2005

Ms. Trina Vielhauer Chief, Bureau of Air Regulation Division of Air Resources Regulation Department of Environmental Protection 111 S. Magnolia Drive, Suite 4 Tallahassee, FL 32399-2400



BUREAU OF AIR REGULATION

543.0 mil. 11.

Subject:

Martin Plant - Unit 8 Air Construction Permit - Request for Minor Permit

Modification

0450011-015-AC

Dear Ms. Vielhauer.

Florida Power & Light Company (FPL) is requesting a minor permit modification to the Martin Unit 8 Combined Cycle Construction Air Permit (0850001-010-AC). Upon review of the conditions for excess emissions allowed for oil to gas fuel switch (Condition 16 d.) it was noted that the words "in simple cycle operation" were included. The Martin Unit 8 Combined Cycle Unit (including the conversion of Units 8A and 8B to combined cycle) was permitted for operation on oil and natural gas. FPL fully anticipates the need for allowance of excess emissions for oil to gas fuel switching regardless of the operating mode of the affected gas turbines.

FPL request for modification of the language is appropriate and will actually reduce the potential overall excess emissions of the Unit. Under the current language each combustion turbine would require a complete shut-down in order to switch from oil to natural gas which would result in a longer period of excess emissions. Additionally, the narrative provided by the Department in the April 16, 2003 final determination for the Construction Permit (page 6 of 8) correctly discusses the need for allowable excess emissions during oil to gas fuel switches without regard to the mode of operation and rather focuses on the nature of the the change during operation of these GE 7FA combustion turbines (see attachment 1). Furthermore, construction permits for similar FPL Combined Cycle Units, such as Turkey Point Unit 5, grant the allowance of excess emissions for oil to gas fuel changes without conditions on the operating mode of the combustion turbine (see attachment 2).

The details of the existing permit language and the specific minor change requested are provided below. We seek to remove the reference to "in simple cycle operation" from Condition 16d. The requested change for allowable excess emissions for oil to gas fuel switches during operation of the Unit 8 Gas Turbines will provide consistency with FPL's subsequent combined cycle construction permits and allow FPL to retain the flexibility of operation of this unit on natural gas and oil.

From existing language on Page 11 of 19:

- 16. Excess Emissions Allowed (cont'd)
 - **d.** For oil-to-gas fuel switching **in simple cycle operation**, excess emissions shall not exceed 1 hour in any 24-hour period

To revised language as:

- 16. Excess Emissions Allowed (cont'd)
 - d. For oil-to-gas fuel switching, excess emissions shall not exceed 1 hour in any 24-hour period

We respectfully request the department process this minor change as soon as possible. Should you have any questions, or need any additional information, please contact John Hampp at (561) 691 - 2894.

Sincerely,

Miguel Arechabala

Plant Manager

Responsible Official

Florida Power & Light Company

cc: Mr. Jeff Koerner, FD

FLORIDA POWER & LIGHT COMPANY 700 UNIVERSE BLVD JUNO BEACH, FL 33408

FINAL DETERMINATION

Ammonia injection shall begin as soon as operation of the gas turbine/HRSG system achieves the operating parameters specified by the manufacturer. As authorized by Rule 62-210.700(5), F.A.C., the above conditions allow excess emissions only for specifically defined periods of startup, shutdown, and documented malfunction of the gas turbines. [Design; Rules 62-212.400(BACT) and 62-210.700, F.A.C.]"

The above revised condition adds a definition for "documented malfunction", which was inadvertently omitted from the original condition. Also, the original condition limiting "warm startups" is replaced with one limiting "cold gas turbine/HRSG startups", which is more appropriate. Finally, there is a new allowance for excess emissions due to an oil-to-gas fuel switch. This type of switch requires the unit to be brought down to low loads and cycled back through the lean premix combustion stages, which can lead to a brief period of excess emissions. Conversely, a gas-to-oil fuel switch can occur readily as oil is added and the water injection system is initiated. Therefore, one hour of excess emissions in any 24-hour period is allowed due to an oil-to-gas fuel switch. The revisions are based on the unique equipment design for this project and are not expected to result in any increased incidents of excess emissions due to startup, shutdown, malfunction, or fuel switches.

Page 10, Condition 17: The following text is added to the first paragraph, "For good cause, the permittee may request that the Compliance Authority extend the steam blow period." The notification period is changed from "24-hours" to "one working day". Also, the following sentence is added to the permitting note, "This condition only applies if simple cycle operation begins prior to combined cycle operation and NSPS compliance tests for simple cycle operation have been performed."

Page 11, Condition 19: EPA Method 5 is removed, as this test is not required by permit.

Page 12, Condition 20: To reflect the NSPS requirements for conducting initial tests, the second sentence is revised to, "The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated for each unit configuration (i.e., simple cycle and combined cycle operation), but not later than 180 days after the initial startup of each unit configuration." In the third sentence, the phrase "(or fuel measurements and approved F-factors)" is substituted for the words "and calculations" to clarify the meaning. The last sentence is revised to, "The Department may require the permittee to conduct additional tests after major replacement or major repair of any air pollution control equipment, such as the SCR catalyst, DLN combustors, etc."

Page 12, New Condition 23: The following new condition is inserted as Condition No. 23.

- "23. Additional Ammonia Slip Testing: If the tested ammonia slip rate for a gas turbine exceeds 5 ppmvd corrected to 15% oxygen when firing natural gas during the annual test, the permittee shall:
 - a. Begin testing and reporting the ammonia slip for each subsequent calendar quarter;
 - b. Before the ammonia slip exceeds 7 ppmvd corrected to 15% oxygen, take corrective actions that result in lowering the ammonia slip to less than 5 ppmvd corrected to 15% oxygen; and
 - c. Test and demonstrate that the ammonia slip is no more than 5 ppmvd corrected to 15% oxygen within 15 days after completing the corrective actions.

Corrective actions may include, but are not limited to, adding catalyst, replacing catalyst, or other SCR system maintenance or repair. After demonstrating that the ammonia slip level is no more than 5 ppmvd corrected to 15% oxygen, testing and reporting shall resume on an annual basis. [Rules 62-4.070(3) and 62-297.310(7)(b), F.A.C.]"

The new condition requires the permittee to take corrective action should the ammonia slip exceed 5 ppmvd @ 15% O2 and begin more frequent monitoring. Note that all of the subsequent conditions are renumbered accordingly.

Page 12, Condition 23(24): Original condition 23 is renumbered to "24". Minor rewording to, "Each

FPL Martin Power Plant New Combined Cycle Gas Turbine Unit 8 Project No. 0850001-010-AC Air Permit No. PSD-FL-327

Page 6 of 8

SECTION III. EMISSIONS UNIT SPECIFIC CONDITIONS

A. UNIT 5 COMBINED CYCLE GAS TURBINE (EUs 005, 006, 007, AND 008)

- 13. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.]
- 14. <u>Alternate Visible Emissions Standard:</u> Visible emissions due to startups, shutdowns, and malfunctions shall not exceed 10% opacity except for up to ten, 6-minute averaging periods during a calendar day, which shall not exceed 20% opacity. [Rule 62-212.400(BACT), F.A.C.]
- 15. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases.
 - a. For cold startup of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed six hours in any 24-hour period. Cold startup of the steam turbine system shall be completed within twelve hours. A cold "startup of the steam turbine system" is defined as startup of the 4-on-1 combined cycle system following a shutdown of the steam turbine lasting at least 48 hours. {Permitting Note: During a cold startup of the steam turbine system, each gas turbine/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue. Note that shutdowns and documented malfunctions are separately regulated in accordance with the requirements of this condition.}
 - b. For shutdown of the combined cycle operation, excess emissions from any gas turbine/HRSG system shall not exceed three hours in any 24-hour period.
 - c. For cold startup of a gas turbine/HRSG system, excess emissions shall not exceed four hours in any 24-hour period. "Cold startup of a gas turbine/HRSG system" is defined as a startup after the pressure in the high-pressure (HP) steam drum falls below 450 psig for at least a one-hour period.
 - d. For oil-to-gas fuel switching excess emissions shall not exceed 1 hour in any 24-hour period.
 - Ammonia injection shall begin as soon as operation of the gas turbine/HRSG system achieves the operating parameters specified by the manufacturer. As authorized by Rule 62-210.700(5), F.A.C., the above conditions allow excess emissions only for specifically defined periods of startup, shutdown, fuel switching, and documented malfunction of the gas turbines. [Design; Rules 62-212.400(BACT) and 62-210.700, F.A.C.]
- 16. <u>DLN Tuning</u>: CEMS data collected during initial or other major DLN tuning sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail. [Design; Rule 62-4.070(3), F.A.C.]

FP&L Turkey Point Fossil Plant New Combined Cycle Gas Turbine Unit 5 Project No. 0250003-006-AC Air Permit No. PSD-FL-338

COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Also complete ☐ Agent item 4 if Restricted Delivery is desired. ☐ Addressee Print your name and address on the reverse so that we can return the card to you. C. Date of Delivery Attach this card to the back of the mailpiece, or on the front if space permits. ☐ Yes 1. Article Addressed to: □ No Mr. Miguel Arechabala, Plant Manager Flower Power & Light - Martin Plant Post Office Box 176 Indiantown, Florida 34956-0176 3. Service Type? Certified Mail-Express Mail ☐ Return Receipt for Merchandise Insured Mail ☐ C.O.D. 4. Restricted Delivery? (Extra Fee) Yes 2. Article Number (Transfer from service label) PS Form 3811, August 2001 Domestic Return Receipt

U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided) 307 ū Postage E F Certified Fee Postmark 007 Return Receipt Fee (Endorsement Required) Here Restricted Delivery Fee (Endorsement Required) 320 Mr. Miguel Arechabala, Plant Manager Flower Power & Light - Martin Plant Se Post Office Box 176 7007 Str Indiantown, Florida 34956-0176 Cit PS Form 3800, January 2001

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_	U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)					
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•	Juno Beach, Florida 33408					
	PS Form 3800, January 2001 See Reverse for Instructions					

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, 	A. Signature X. Wichael Suli Agent Addressee B. Received by (Printed Name) C. Date of Delivery
or on the front if space permits. 1. Article Addressed to:	D. Is delivery address wife event from item 1? Yes
Mr. Miguel Arechabala, Plant Manager Flower Power & Light – Martin Plant Post Office Box 176 Indiantown, Florida 34956-0176	3. Selvide JAbe
	Certified Mail
2. Article Number (Typesfor form condex label) 7/) 0/ 0/32/	4. Restricted Delivery? (Extra Fee)
(Transfer from service label) / 00 00 00 00 00 00 00 00 00 00 00 00 0	eturn Receipt 102595-02-M-1540
SENDER: COMPLETE THIS SECTION	COMPLETE THE SECTION OF THE WAR
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, 	A. Signature A. Signature Addressee B. Received by (Printed Name) B. Received by (Printed Name)
or on the front if space permits. 1. Article Addressed to:	D. Is delivery address different from item 1?
Ms. Barbara Linkiewicz Environmental Licensing Manager New Generation Projects Florida Power & Light 700 Universe Blvd.	If YES, enter delivery address below: JUN 1 3 2005
Juno Beach, Florida 33408	Certified Mail
2. Article Number	14. Hestricted Delivery? (Extra Fee) Yes
PS Form 3811, August 2001 Domestic Re	turn Receipt 102595-02-M-1540
U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provi	U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)
<u> </u>	E OFFICIAL USE
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Mr. Miguel Arechabala, Plant Manager Flower Power & Light – Martin Plant Post Office Box 176 Indiantown, Florida 34956-0176	Total Ms. Barbara Linkiewicz Environmental Licensing Manager New Generation Projects Street, Florida Power & Light or PO 700 Universe Blvd. City, S Juno Beach, Florida 33408



SCRIPPS TREASURE COAST NEWSPAPERS

The Stuart News The Port St. Lucie News

1939 S. Federal Highway, Stuart, FL 34994

AFFIDAVIT OF PUBLICATION

STATE OF FLORIDA

COUNTY OF MARTIN; COUNTY OF ST. LUCIE

Before the undersigned authority personally appeared, S. Darlene Mailing, who on oath says that she is Classified Inside Sales Manager of the Stuart News and the Port St. Lucie News, a daily newspaper published at Stuart in Martin County, Florida: that the attached copy of advertisement was published in the Stuart/Port St. Lucie News in the following issues below. Affiant further says that the said Stuart/Port St. Lucie News is a newspaper published in Stuart in said Martin County, Florida, with offices and paid circulation in Martin County and St. Lucie County, Florida, and that said newspapers have heretofore been continuously published in said Martin County, Florida, daily and distributed in Martin and St. Lucie County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid or 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. The Stuart News has been entered as Periodical Matter at the Post Offices in Stuart, Martin County, Florida and Ft. Pierce, St. Lucie County, Florida and has been for a period of one year next preceding the first publication of the attached copy of advertisement.

Customer	<u>Ad</u> Numbe <u>r</u>	<u>Pub</u> Date	Copyline	<u>PO #</u>
FPL/JUNO OFFICE	1102450	6/13/2005	NOTICE OF INTENT	DEP AIR

Subscribed and sworn to me before this date:

June 13, 2005

S. Darlin Mailing



PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION Florida Department of

Florida Department of Environmental Protection Florida Power & Light Company Martin Plant - Indiantown DEP File No.: 0850001-015-AC (PSD-FL-327A)

DEP File No.: 0850001-015-AC (PSD-FL-327A)
The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit Modification to Florida Power & Light (FPL) to amend requirements related to excess emissions during oil-togas fuel switching of Unit 8 at the power plant located on State Road 710, in Martin County The previously issued Best Available Control Technology (BACT) determination applies to the facility. The permittee's name and address are: Florida Power & Light Company (FPL), Post Office Box 17, Indiantown, Florida 34956.
The Martin Unit 8 combined cycle unit (including the conversion of Units BA and 8B to combined cycle) was permitted for operation on gas and oil in April 2003. The current construction permit details periods of excess emissions allowed which

tails periods of excess emissions allowed which include startup, shutdown, and oil-to-gas fuel switches during simple cycle operation, and mal-

functions.

FPL requested combined cycle operation be included in the allowance for excess emissions during the periods of oil-to-gas fuel switching. The company proposes that this change will actually reduce potential overall excess emissions of the unit. Under the current permit, a short period of excess emissions during oil-to-gas fuel switching is allowed during simple cycle mode. However, during combined cycle mode the unit must be completely shut down and re-started before maken the complete of the complete of the cycle maken the complete of the cycle maken the cycle of the cycle ing the switch from oil to gas. Ultimately, this could result in longer periods of excess emissions than necessary for this procedure.

Based on the review of the information provided by the facility, and the fact that overall excess emissions will not be adversely affected, the Department concurs. By allowing a short period-of excess emissions during oil-to-gas fuel switching, the longer duration of excess emissions during a start-up will be avoided.

start-up will be avoided.

The Department will issue the Final Permit, Modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or sig nificant change of terms or conditions. The De-partment will accept written comments concerning the proposed permit action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construc-tion Permit Modifications. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the Permit Modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below-Mediation is not available in this proceeding. A person whose substantial interests are affected

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 of the Florida Stat-utes (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 Comment of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions must be filed within fourteen days of publication of the public notice or within fourteen (14) days of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Under Section 120.60(3), F.S however, petitions submitted by person(s) who asked the Department for notice of agency action must be filed within fourteen (14) days of receipt of that notice or the date of publication. days of receipt of that notice or the date of publication of the public notice whichever occurs first. A petitioner shall 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 within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 12057, F.S., or to intervene in this proceeding and participate as a party to it. Any such intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, 5.4.C.

A partition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known: (b) The name, address and telephone number of the petitioner; name address and telephone number of the petitioner; name address and telephone number. petitioner; name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how petitioner's substantial rights will be affected by the agency determination; (c) A statement of how and when the petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal of modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and, (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301,

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

set forth above
Mediation is not available for this proceeding.
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:
Department of Environmental Protection Department of Environmental Protection,
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/921-9523
Affected District/Local Program.
Department of Environmental Protection

Fax: 850/922-6979

Department of Environmental Protection
Southeast District Office
400 North Congress Avenue
West Palm Beach, Florida 33416-5425
Telephone: 561/681-6774 Fax: 561/681-6755
The complete project file includes the Draft Air
Construction Permit Modification, Technical Evaluation and the information submitted by the uation and the information submitted by the responsible official, exclusive of confidential records under Section 493.111: F.S. Interested pertorids under Section 493.111: P.S. interested persons may contact the Program Administrator for the South Permitting Section, Bureau of Air Regulation, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-8968 for additional information. Publish: June 13, 2005

In the Matter of:

Florida Power & Light Company P.O. Box 176 Indiantown, FL 34956 Authorized Representative: Mr. Miguel Arechabala, Plant Manager DEP File No. 0850001-015-AC (PSD-FL-327A) FPL Martin Power Plant Combined Cycle Unit 8

INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit Modification attached) for the proposed action, detailed in the Technical Evaluation and Preliminary Determination, for the reasons stated below.

The permittee, Florida Power & Light Company (FPL), requested on June 6, 2005 to modify permit language limiting excess emissions from oil-to-gas fuel switching during simple cycle operation to include limiting excess emissions from fuel switching during combined cycle operation.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The proposed changes are not exempt from permitting procedures. The Department has determined that a modification of the original air construction permit is necessary for the described permit changes requested by FPL.

The Department intends to issue this air construction permit modification based on the belief that the permittee has provided reasonable assurances to indicate that operation of these emission units as indicated herein will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, F.A.C, you (the permittee) are required to publish at your own expense the enclosed <u>Public Notice of Intent to Issue Air Construction Permit Modification</u>. The notice shall be published as soon as possible one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the permittee cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The permittee shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit action for a period of 14 (fourteen) days from the date of publication of <u>Public Notice</u>. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permittee or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3), F.S., must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the permittee at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate 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 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Mediation is not available in this proceeding. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is

DEP Files 0850001-015-AC (PSD-FL-327A) Page 3 of 3

permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief Bureau of Air Regulation

Zuin J Vulhaun

CERTIFICATE OF SERVICE

Miguel Arechabala, FPL*
Barbara Linkiewicz, FPL*
John Hampp, FPL
Willie Welch, FPL
Darrel Graziani, DEP SED
Jim Little, EPA

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

Florida Department of Environmental Protection

Florida Power & Light Company Martin Plant - Indiantown Martin County

DEP File No.: 0850001-015-AC (PSD-FL-327A)

The Florida Department of Environmental Protection (Department) gives notice of its intent to issue an Air Construction Permit Modification to Florida Power & Light (FPL) to amend requirements related to excess emissions during oil-to-gas fuel switching of Unit 8 at the power plant located on State Road 710, in Martin County. The previously issued Best Available Control Technology (BACT) determination applies to the facility. The permittee's name and address are: Florida Power & Light Company (FPL), Post Office Box 176, Indiantown, Florida 34956.

The Martin Unit 8 combined cycle unit (including the conversion of Units 8A and 8B to combined cycle) was permitted for operation on gas and oil in April 2003. The current construction permit details periods of excess emissions allowed which include startup, shutdown, and oil-to-gas fuel switches during simple cycle operation, and malfunctions.

FPL requested combined cycle operation be included in the allowance for excess emissions during the periods of oil-to-gas fuel switching. The company proposes that this change will actually reduce potential overall excess emissions of the unit. Under the current permit, a short period of excess emissions during oil-to-gas fuel switching is allowed during simple cycle mode. However, during combined cycle mode the unit must be completely shut down and re-started before making the switch from oil to gas. Ultimately, this could result in longer periods of excess emissions than necessary for this procedure.

Based on the review of the information provided by the facility, and the fact that overall excess emissions will not be adversely affected, the Department concurs. By allowing a short period of excess emissions during oil-to-gas fuel switching, the longer duration of excess emissions during a start-up will be avoided.

The Department will issue the Final Permit Modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments concerning the proposed permit action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the Permit Modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under 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 at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions must be filed within fourteen (14) days of publication of this Public Notice of Intent to Issue Air Construction Permit Modification. Under Section 120.60(3), F.S., however, petitions submitted by person(s) who asked the Department for notice of agency action must be filed within fourteen (14) days

of receipt of that notice or the date of publication of the public notice whichever occurs first. A petitioner shall 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 within the appropriate 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 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

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

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:

Department of Environmental Protection Bureau of Air Regulation 111 S. Magnolia Drive, Suite 4 Tallahassee, Florida, 32301 Telephone: (850) 921-9523

Fax: (850) 922-6979

Department of Environmental Protection Southeast District Office 400 North Congress Avenue, Suite 200 West Palm Beach, Florida 33401 Telephone: (561) 681-6774

Fax: (561) 681-6755

The complete project file includes the Draft Air Construction Permit Modification, Technical Evaluation and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Program Administrator for the South Permitting Section, Bureau of Air Regulation, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-8968 for additional information.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

FLORID POWER & LIGHT COMPANY INDIANTOWN, MARTIN COUNTY

Combined Cycle Unit 8
Permit Modification to Amend Requirements Related to
Excess Emissions During Oil-to-Gas Fuel Switching

DEP File Nos. 0850001-015-AC PSD-FL-327A

Department of Environmental Protection Division of Air Resources Management Bureau of Air Regulation

June 8, 2005

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

I. GENERAL PROJECT INFORMATION

Applicant Name and Address

Florida Power & Light – Martin Plant Post Office Box 176 Indiantown, Florida 34956-0176

Authorized Representative: Mr. Miguel Arechabala, Plant Manager

Processing Schedule

6/6/05 Received request to modify the condition regarding excess emissions

Facility Description and Location

Existing combined cycle unit 8 is installed at the Florida Power & Light - Martin Plant located in the western part of the unincorporated Martin County approximately seven miles north of Indiantown on State Road 710. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS). Combined cycle Unit 8 consists of 4 gas turbines (170 MW each), four heat recovery steam generators, a single steam turbine-electrical generator (470 MW), and a mechanical draft cooling tower, with a generating capacity of approximately 1150 MW.

Standard Industrial Classification Code (SIC)

SIC No. 4911 – Electrical Services

Regulatory Categories

<u>Title III</u>: The existing facility is identified as a potential major source of hazardous air pollutants (HAP).

<u>Title IV</u>: The existing facility operates units subject to the acid rain provisions of the Clean Air Act.

<u>Title V</u>: The existing facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

<u>PSD</u>: The existing facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The existing facility operates units subject to the New Source Performance Standards of 40 CFR 60.

Project Description

The facility requests revision of Specific Condition No. 16.d.:

From:

EXCESS EMISSIONS

16. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases.

d. For oil-to-gas fuel switching in simple cycle operation, excess emissions shall not exceed 1 hour in any 24-hour period.

To:

EXCESS EMISSIONS

- 16. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases.
 - d. For oil-to-gas fuel switching, excess emissions shall not exceed 1 hour in any 24-hour period.

II. DEPARTMENT'S REVIEW

Combined cycle Unit 8 can be described as a "4 on 1" configuration including the following equipment and specifications: four 170 MW simple cycle gas turbine-electrical generator sets (8A, 8B, 8C, and 8D), four gas-fired heat recovery steam generators (495 MMBtu/hour, LHV), a common steam-electrical generator (470 MW), two new gas-fired fuel heaters (22 MMBtu/hour, each), a cooling tower, and other associated support equipment. Each gas turbine/HRSG component consists of a nominal 170 MW General Electric Model PG7241(FA) gas turbine-electrical generator set, an automated gas turbine control system, an inlet air filtration system, an evaporative inlet air-cooling system, and a gas-fired heat recovery steam generator (HRSG).

The gas turbines fire natural gas as the primary fuel and distillate oil as a restricted alternate fuel. This unit is typically run on natural gas, however oil testing must be done on a regular basis to ensure the unit is capable of this operation if needed. Emissions are increased with the firing of oil.

NOx emissions from the turbines are reduced with dry low-NOx (DLN) combustion technology during gas firing and water injection during oil firing. Combined with these technologies, a selective catalytic reduction (SCR) system further reduces NOx emissions during combined cycle operation.

Each gas turbine may operate in simple cycle mode (without the HRSG) to produce only shaft-driven electrical power with hot exhaust through the bypass stack. This mode is typically reserved for meeting peak energy demand periods because it is much less efficient. Operation in combined cycle mode recovers heat energy from the HRSG in the form of steam, which is delivered to the steam-electrical turbine to produce steam-generated electrical power.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Fuel switching from gas to oil involves a ramp down to begin oil firing, reduce gas firing, and begin water injection. This can be done quickly and without effecting emissions in either simple cycle or combined cycle operation. During an oil-to-gas fuel switch however, the unit must be ramped down to reduce the oil firing and shut off the water injection, and begin the mode sequencing of the DLN combustor. This maneuver cannot be done as quickly as the gas-to-oil fuel switch and a brief period of excess emissions cannot be avoided. When in combined cycle mode, the oil-to-gas switch is complicated even further due to the involvement of the selective catalytic reduction system which may require additional time to return to a temperature at which NOx can be effectively removed.

The current permit allows excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions, provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. However, Specific Condition 16.d. allows one hour of excess emissions in any 24-hour period for oil-to-gas fuel switching during simple cycle operation only. Combined cycle operation is not specified. Because of this, fuel switching from oil to gas during combined cycle operation either, 1) does not take place without cycling the unit completely down and re-starting, or 2) does not take place at all, and the unit continues to run on oil for the remainder of the commissioned period.

Both situations described above, result in higher overall emissions. Cycling the unit completely down only to restart again, ultimately results in longer periods of excess emissions due to the start-up period, than the one-hour (or less) period needed for fuel switching. Overall emissions are greatly reduced while firing natural gas, therefore continuing to burn oil following performance testing is not a satisfactory alternative to the short-lived period of excess emissions that would result from the fuel switch.

Additionally, recently permitted similar units, such as Turkey Point Unit 5, grant an allowance for excess emissions for oil-to-gas fuel switches without specifying operational mode.

II. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed modification will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the modification request, supporting information supplied by the facility, and a records review. No air quality modeling analysis is required because the project does not result in a significant increase in emissions.



Department of Environmental Protection

Jeb Bush Governor

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

Colleen M. Castille Secretary

Month day, 2005

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Miguel Arechabala, Plant Manager Florida Power & Light Company Post Office Box 176 Indiantown, Florida 34956

Re: DEP File No. 0850001-015-AC (PSD-FL-327A) Combined Cycle Unit 8 – Martin County, Florida

Dear Mr. Arechabala:

The Florida Department of Environmental Protection ("the Department") reviewed your request received June 6, 2005 for a modification of the original air construction permit. The request is to amend requirements related excess emissions during oil-to-gas fuel switching of combined cycle Unit 8. The Department approves your request and hereby modifies permit No. PSD-FL-327 as follows:

This unit was originally authorized and constructed pursuant to Permit No. PSD-FL-327 issued on April 16, 2003. This permit action supplements Permit No. PSD-FL-327. Unless otherwise specified, this permit action does not alter any requirements of that permit.

Additions are underlined; deletions are strikethrough.

SECTION III EMISSIONS UNIT SPECIFIC CONDITIONS

EXCESS EMISSIONS

- 16. Excess Emissions Allowed: As specified in this condition, excess emissions resulting from startup, shutdown, oil-to-gas fuel switches and documented malfunctions are allowed provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. For each gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases.
 - a. For cold startup of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed six hours in any 24-hour period. Cold startup of the steam turbine system shall be completed within twelve hours. A cold "startup of the steam turbine system" is defined as startup of the 4-on-1 combined cycle system following a shutdown of the steam turbine lasting at least 48 hours. [Permitting Note: During a cold startup of the steam turbine

"More Protection, Less Process"

Mr. Miguel Arechabala, Plant Manager, FPL DEP File No. 0850001-015-AC (PSD-FL-327A) Page 2 of 3

system, each gas turbine/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue. Note that shutdowns and documented malfunctions are separately regulated in accordance with the requirements of this condition.}

- b. For shutdown of the steam turbine system, excess emissions from any gas turbine/HRSG system shall not exceed three hours in any 24-hour period.
- c. For cold startup of a gas turbine/HRSG system, excess emissions shall not exceed four hours in any 24-hour period. "Cold startup of a gas turbine/HRSG system" is defined as a startup after the pressure in the high-pressure (HP) steam drum falls below 450 psig for at least a one-hour period.
- d. For oil-to-gas fuel switching in simple cycle operation, excess emissions shall not exceed 1 hour in any 24-hour period.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

Michael G. Cooke, Director Division of Air Resource Management

<u>CERTIFICATE OF SERVICE</u>		
The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on to the person(s) listed:		
Miguel Arechabala, FPL* Barbara Linkiewicz, FPL* John Hampp, FPL Willie Welch, FPL Darrel Graziani, DEP SED Jim Little, EPA	Clerk Stamp	
	FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.	
	(Clerk)	(Date)



Department of Environmental Protection

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

Colleen M. Castille Secretary

July 5, 2005

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Miguel Arechabala, Plant Manager Florida Power & Light Company Post Office Box 176 Indiantown, Florida 34956

Re: DEP File No. 0850001-015-AC (PSD-FL-327A) Combined Cycle Unit 8 – Martin County, Florida

Dear Mr. Arechabala:

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- d. For oil-to-gas fuel switching in simple cycle operation, excess emissions shall not exceed 1 hour in any 24-hour period.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

Michael G. Cooke, Director Division of Air Resource

Mula D. Coole

Management

Mr. Miguel Arechabala, Plant Manager, FPL DEP File No. 0850001-015-AC (PSD-FL-327A) Page 3 of 3

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this PERMIT MODIFICATION was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 1/5/05 to the person(s) listed:

Miguel Arechabala, FPL* Barbara Linkiewicz, FPL* John Hampp, FPL Willie Welch, FPL Darrel Graziani, DEP SED Jim Little, EPA

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52,

Florida Statutes, with the designated Department Clerk, receipt of which is hereby

acknowledged.

FINAL DETERMINATION

Florida Power & Light Company Indiantown, Martin County

Excess Emissions During Oil-to-Gas Fuel Switching DEP File Nos. 0850001-015-AC (PSD-FL-327A)

On June 8, 2005 the Florida Department of Environmental Protection (Department) distributed an "Intent to Issue Air Construction Permit Modification" to amend requirements related to excess emissions during oil-to-gas fuel switching of Unit 8 at the power plant located on State Road 710, in Martin County .

The package included the Department's Draft Air Construction Permit Modification, the "Intent to Issue Air Construction Permit Modification," the "Technical Evaluation and Preliminary Determination," and the "Public Notice of Intent to Issue Air Construction Permit Modification." The Department sent copies of the package to various persons, and agencies including those who had asked that they be informed of any Department permitting activities related to the subject facility. Florida Power & Light Company published the Public Notice in The Stuart News on June 13, 2005 and provided to the Department the required proof of publication.

The Department received no comments or petitions for administrative hearings on the Draft Air Construction Permit. The final action is to issue the Air Construction Permit Modification as drafted.



Department of Environmental Protection

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

Colleen M. Castille Secretary

July 5, 2005

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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Dear Mr. Arechabala:

The Florida Department of Environmental Protection ("the Department") reviewed your request received June 6, 2005 for a modification of the original air construction permit. The request is to amend requirements related to excess emissions during oil-to-gas fuel switching of combined cycle Unit 8. The Department approves your request and hereby modifies permit No. PSD-FL-327 as follows:

This unit was originally authorized and constructed pursuant to Permit No. PSD-FL-327 issued on April 16, 2003. This permit action supplements Permit No. PSD-FL-327. Unless otherwise specified, this permit action does not alter any requirements of that permit.

Additions are underlined; deletions are strikethrough.

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Executed in Tallahassee, Florida

Michael G. Cooke, Director Division of Air Resource

Mule D. Goole

Management

Mr. Miguel Arechabala, Plant Manager, FPL DEP File No. 0850001-015-AC (PSD-FL-327A) Page 3 of 3

CERTIFICATE OF SERVICE

Miguel Arechabala, FPL*
Barbara Linkiewicz, FPL*
John Hampp, FPL
Willie Welch, FPL
Darrel Graziani, DEP SED
Jim Little, EPA

Clerk Stamp

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby

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(Date)

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Florida Power & Light Company Indiantown, Martin County

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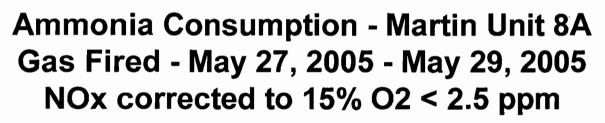
Ammonia Consumption and NOx Injection Water Curves

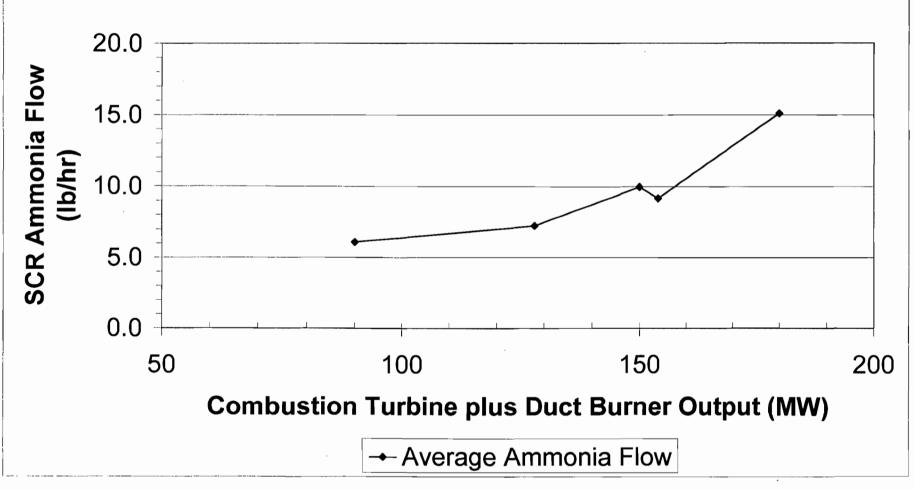
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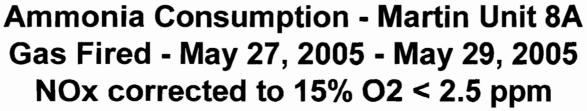
Provided by Martin-Manatee Power Partners
July 2005

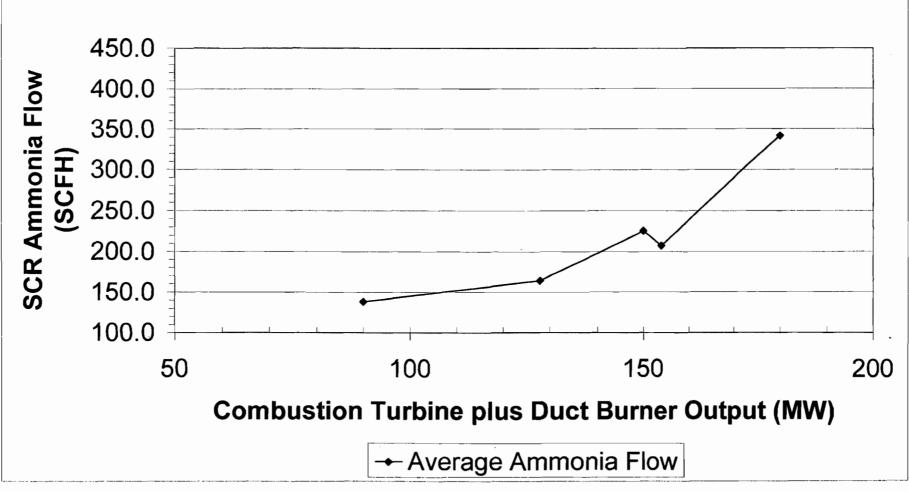
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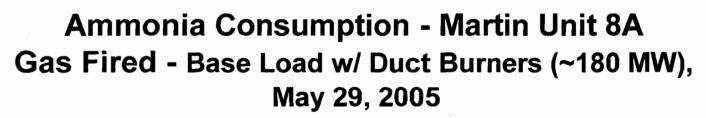
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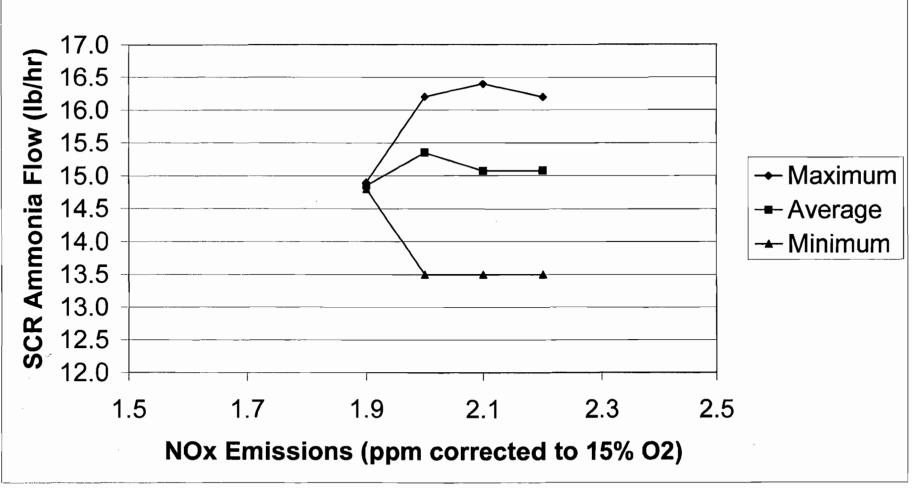




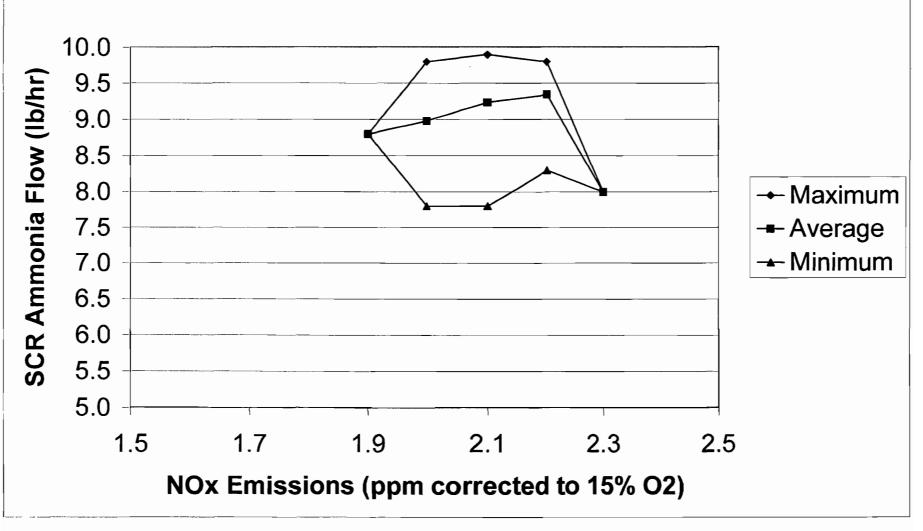




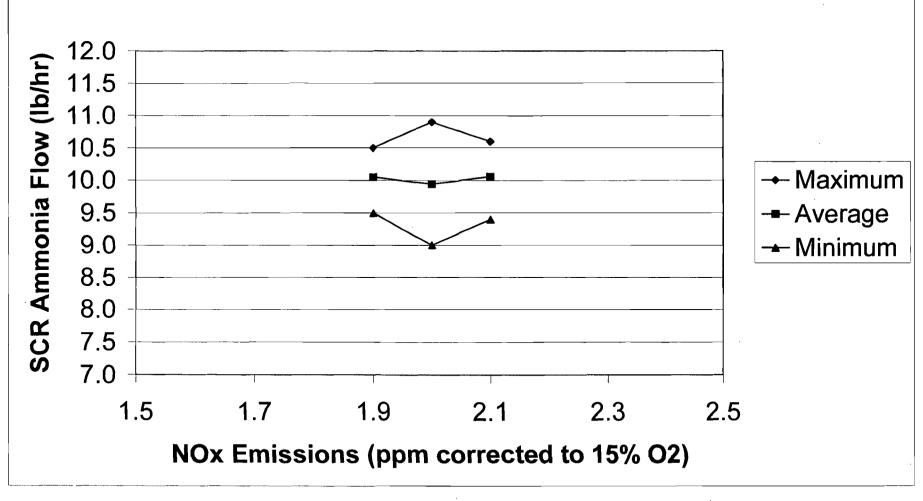




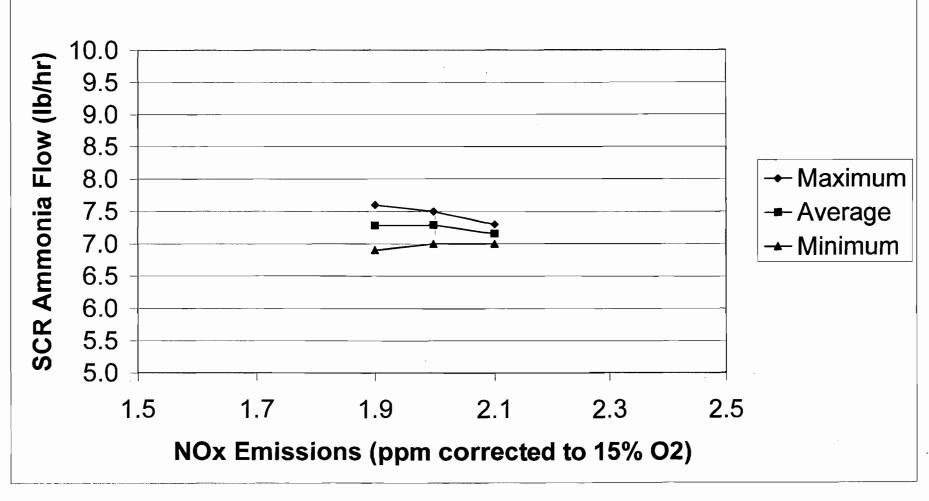


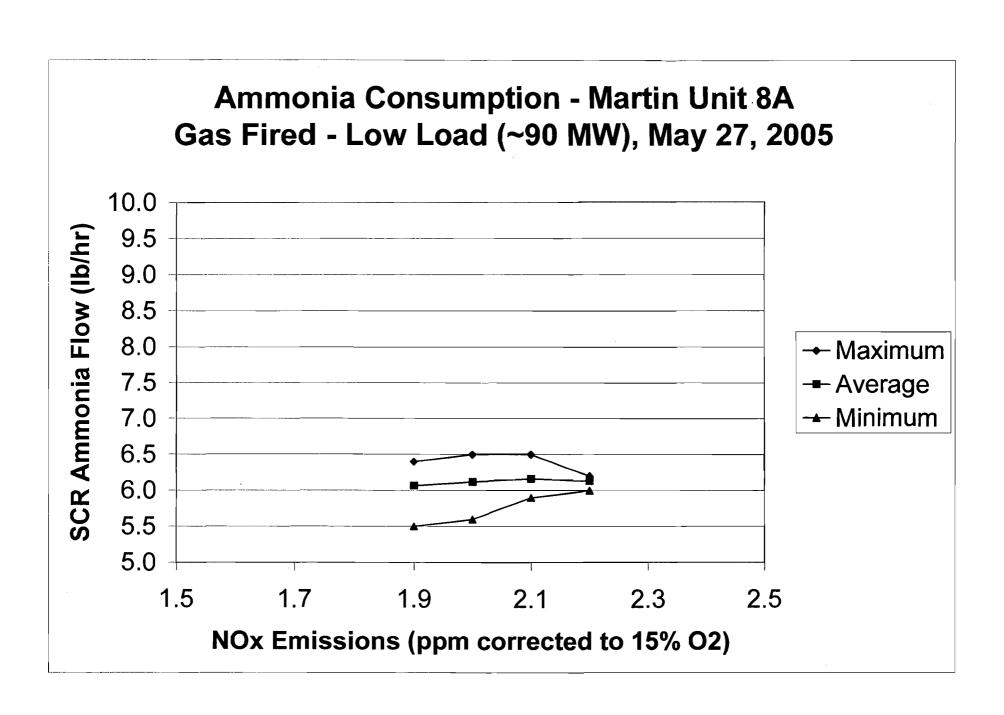








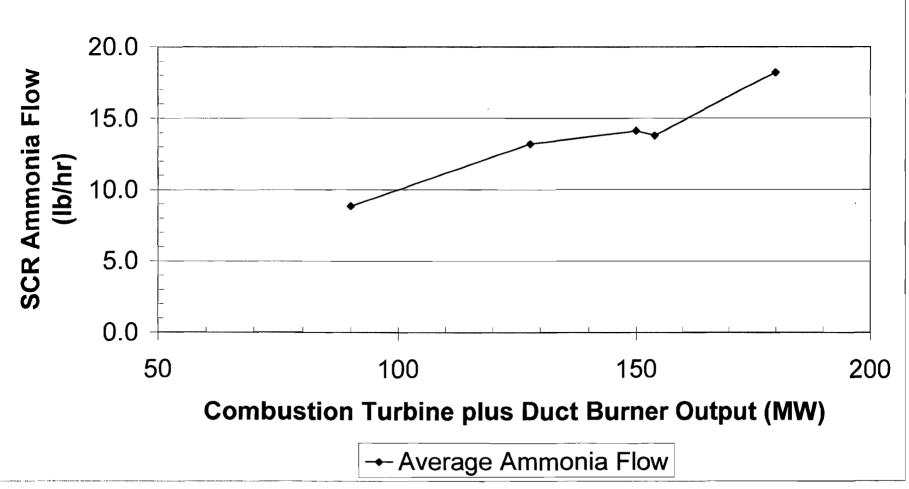




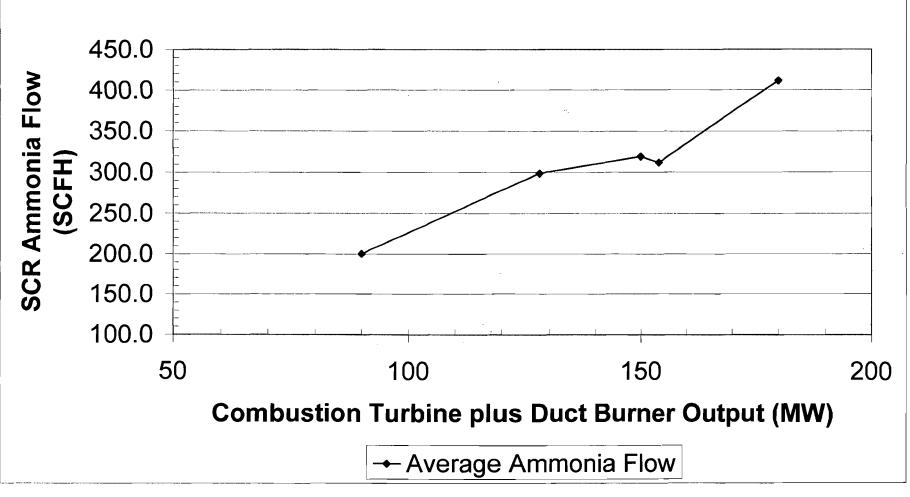
Gas Fired Ammonia Consumption

Florida Power and Light Company Martin Power Plant Unit 8B

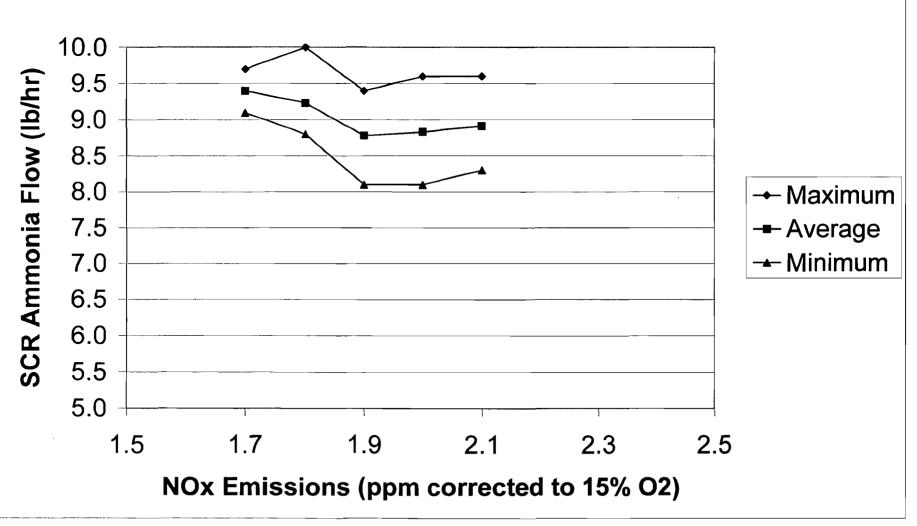




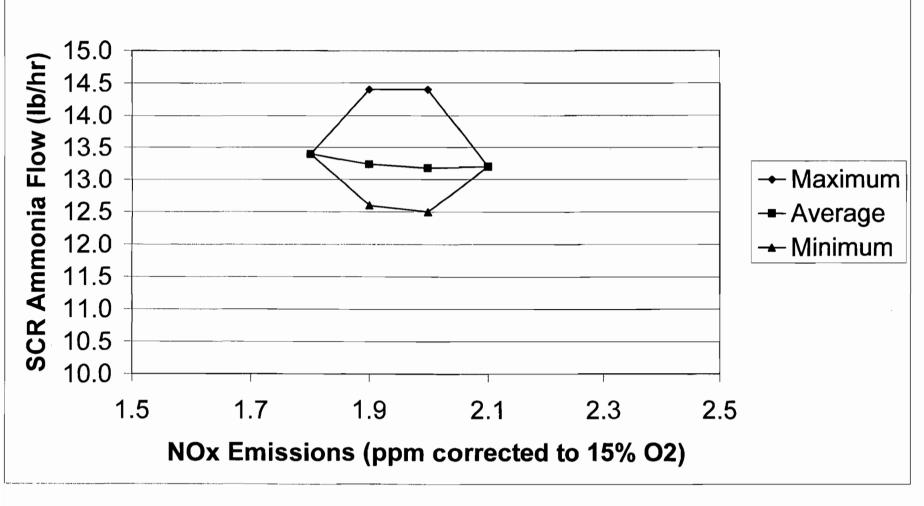




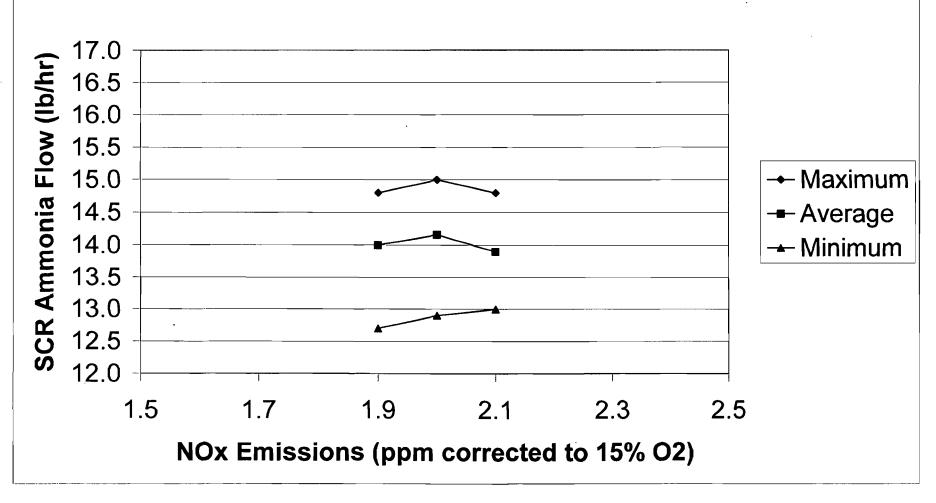




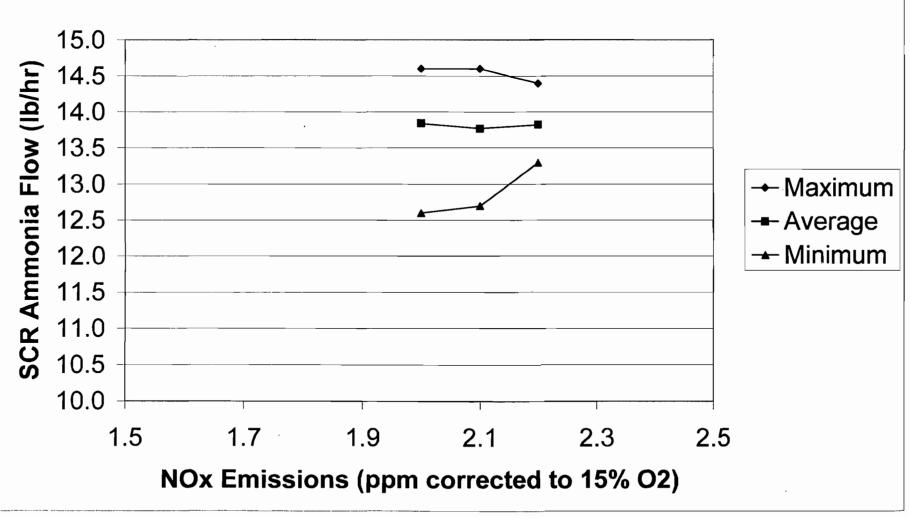




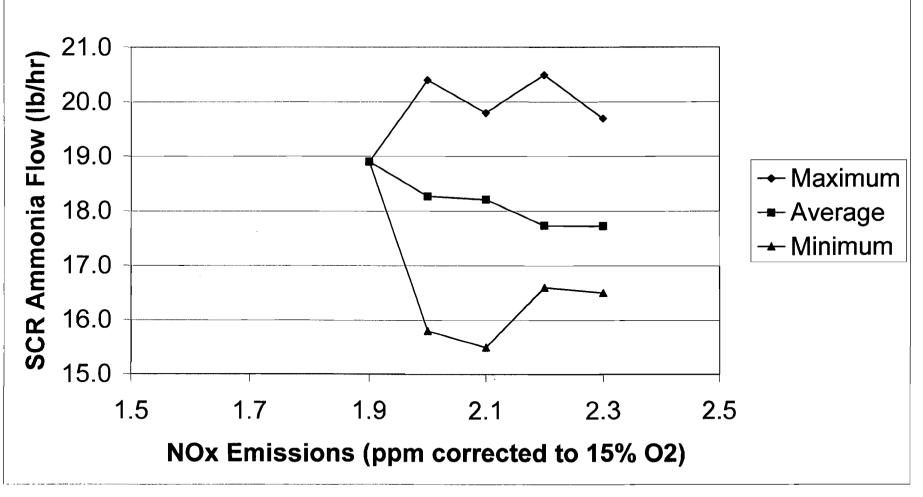






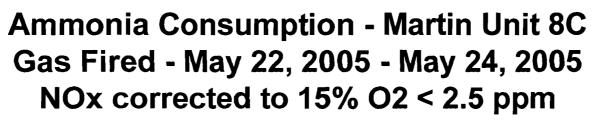


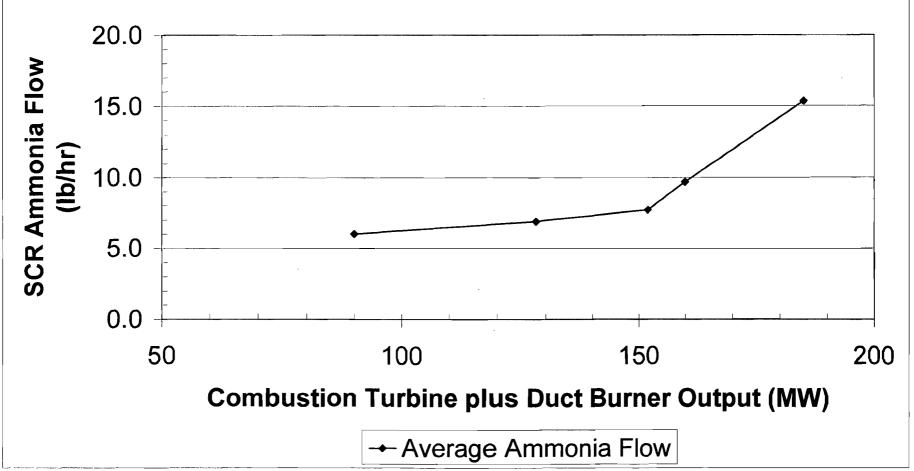


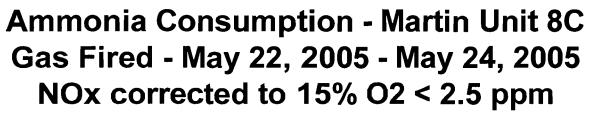


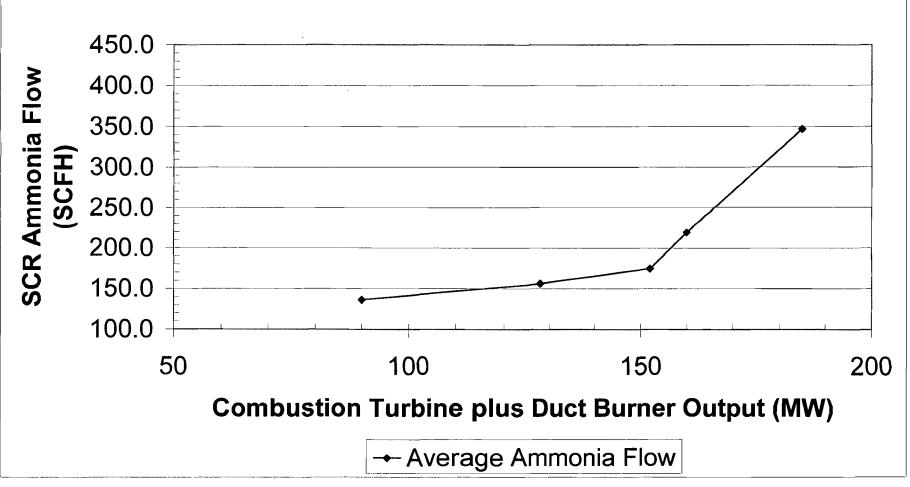
Gas Fired Ammonia Consumption

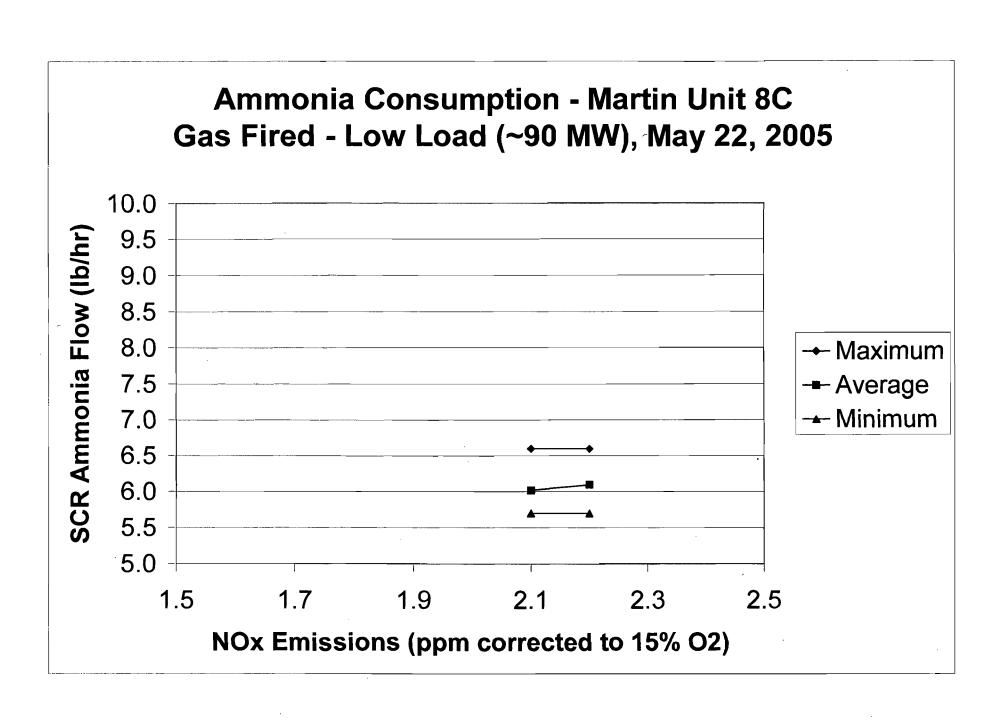
Florida Power and Light Company Martin Power Plant Unit 8C



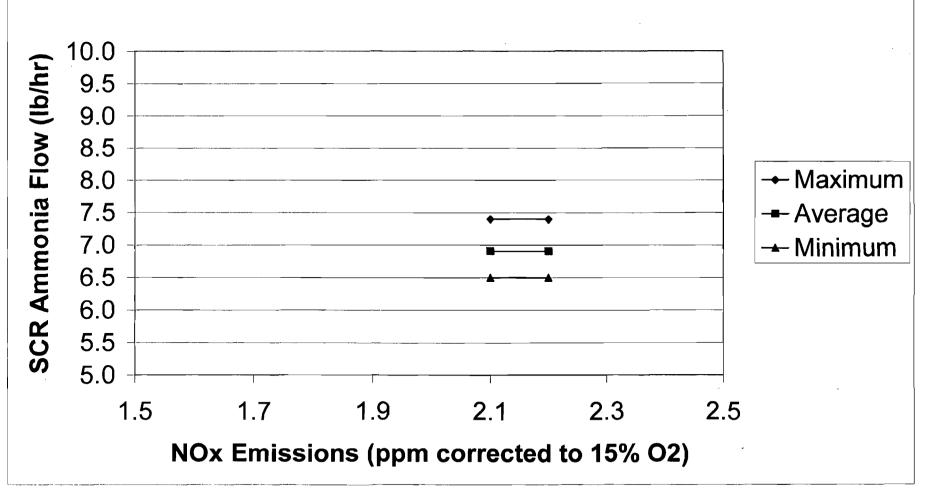




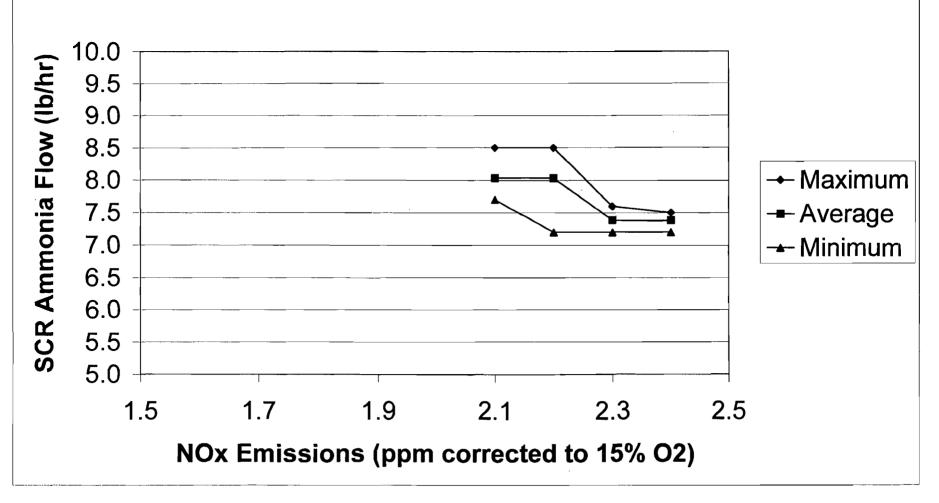




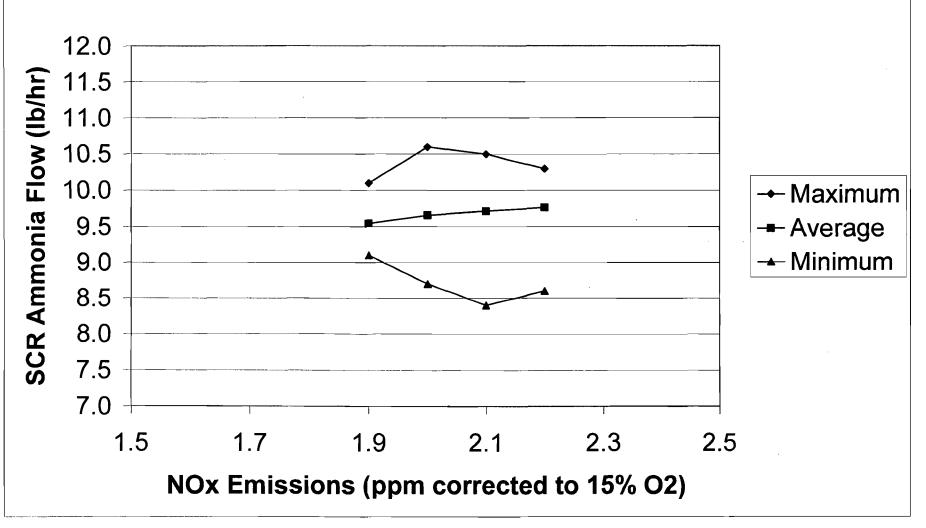


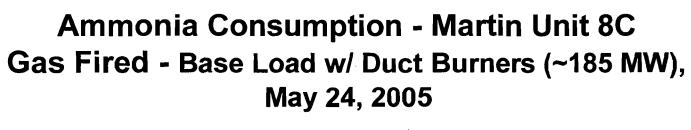


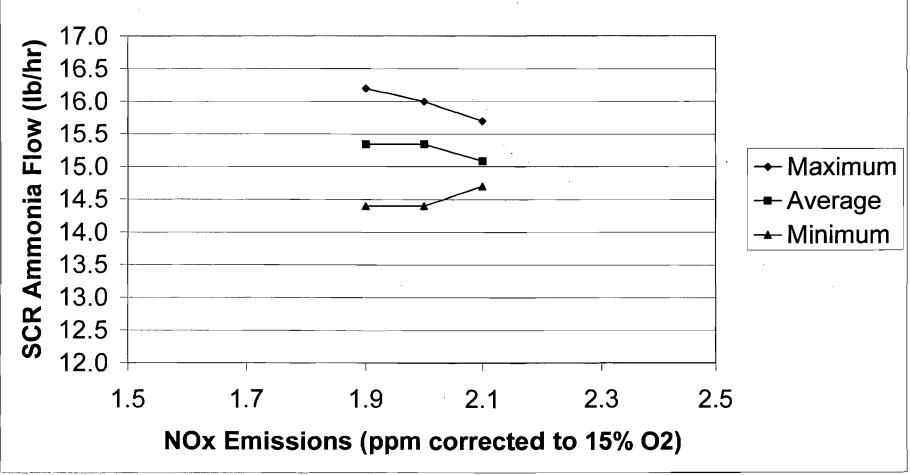






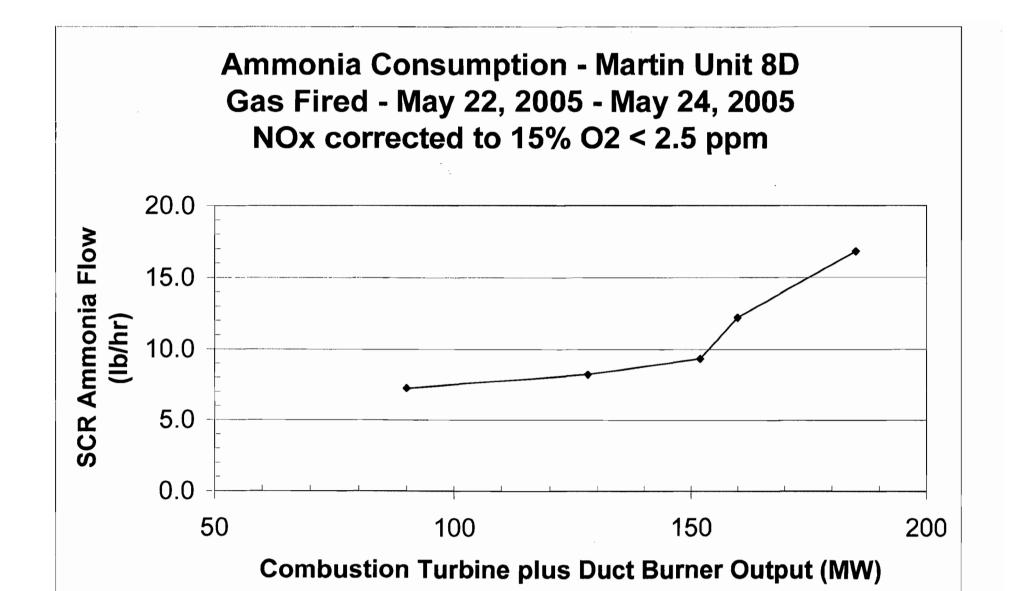




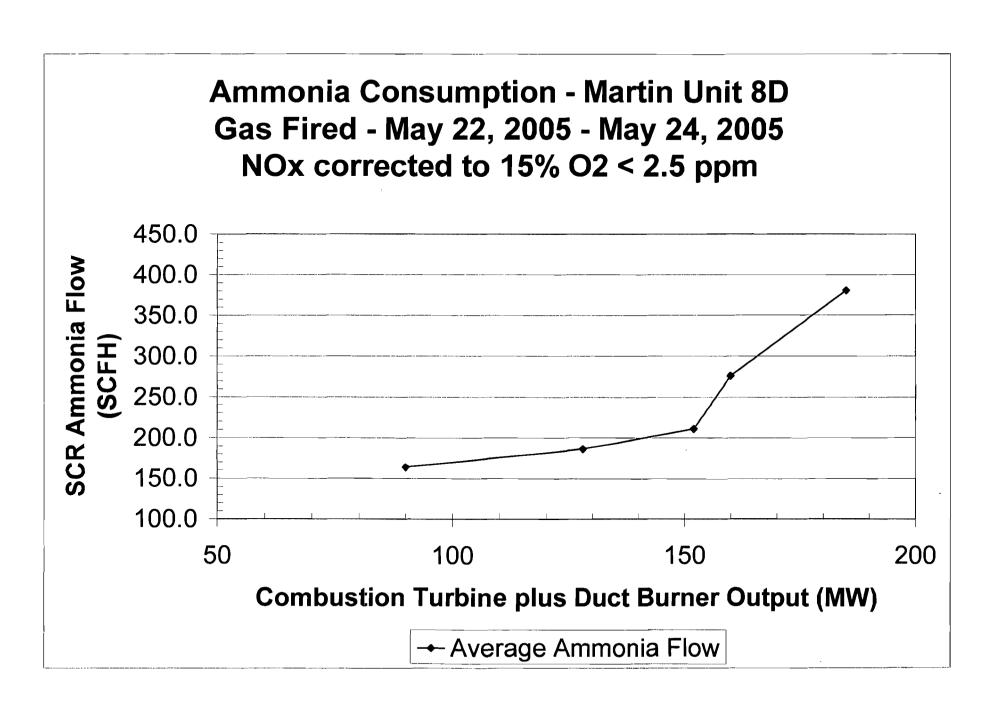


Gas Fired Ammonia Consumption

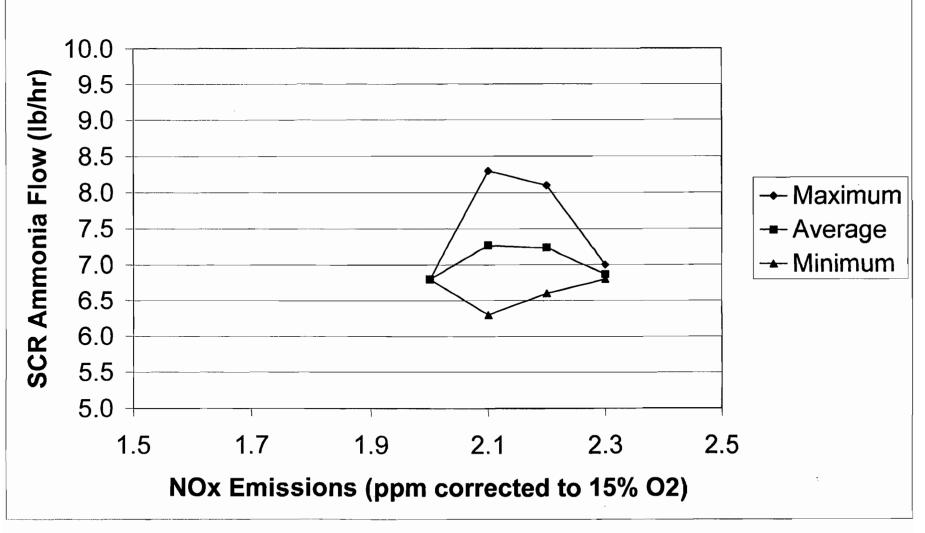
Florida Power and Light Company Martin Power Plant Unit 8D



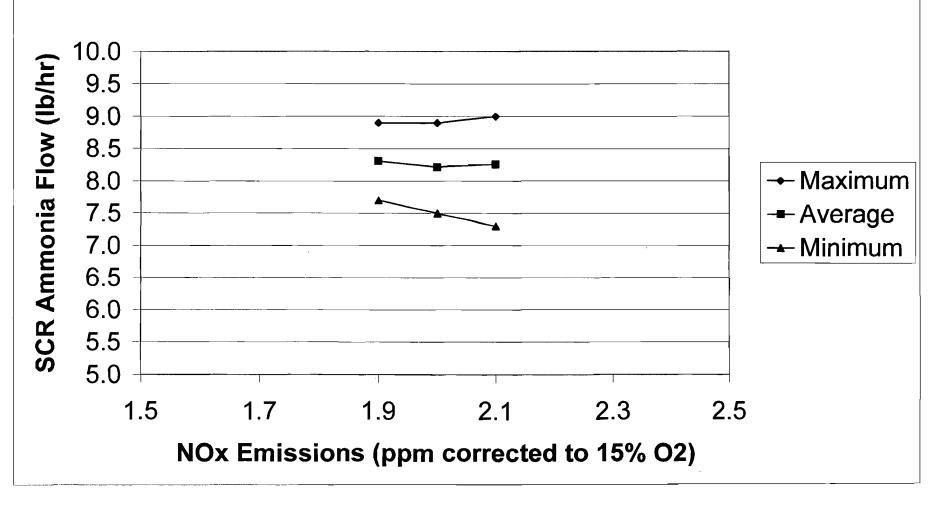
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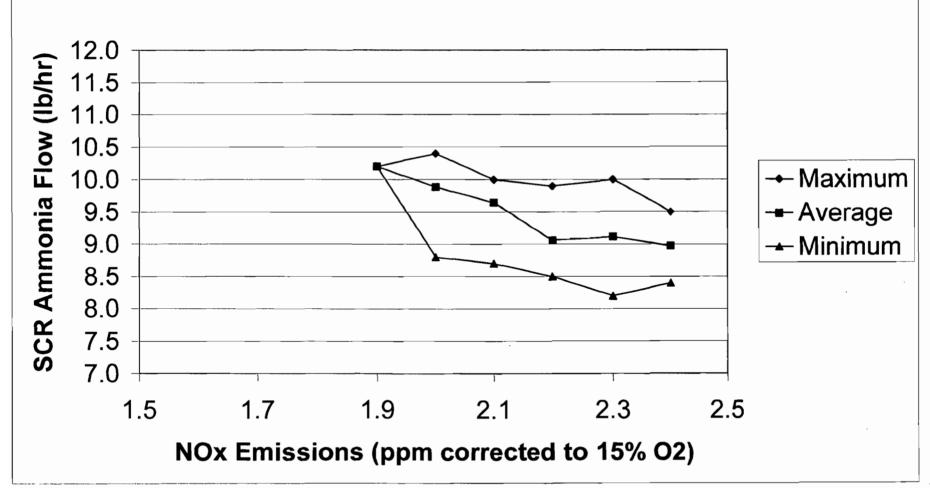




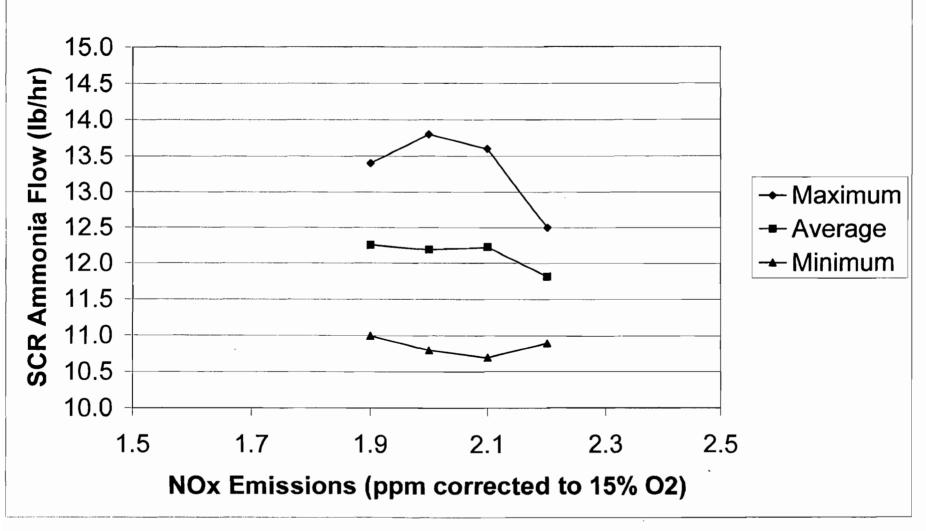


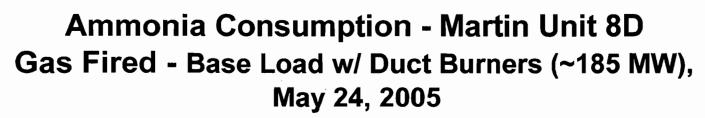


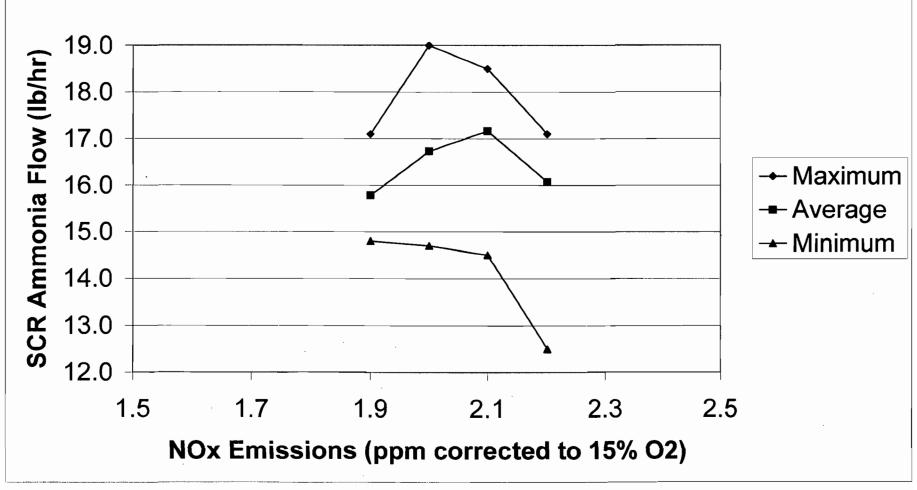






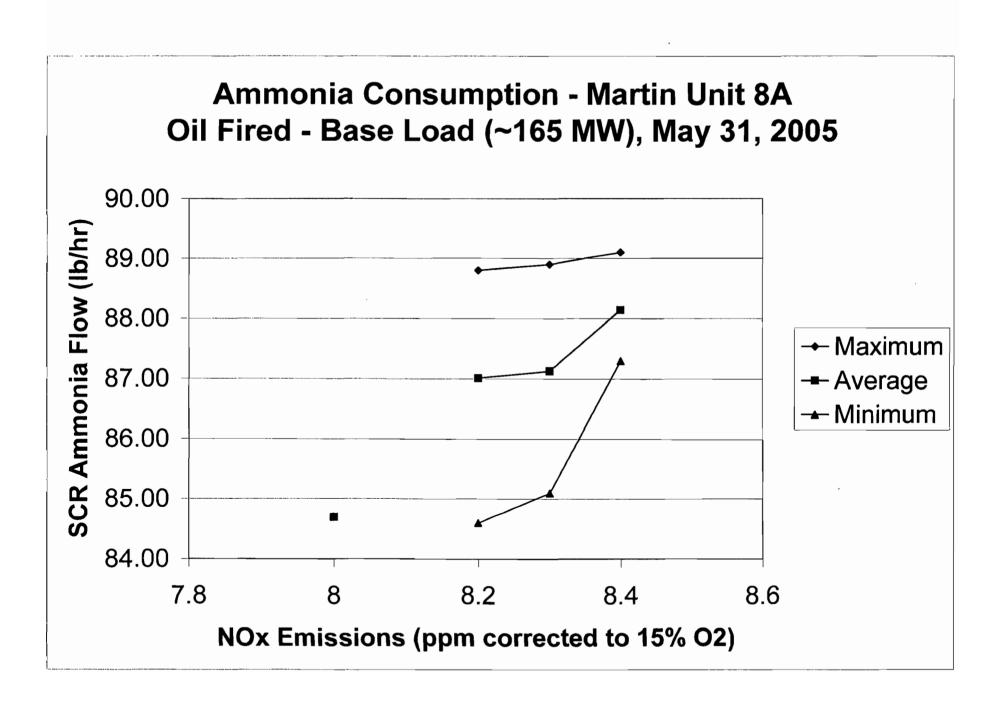


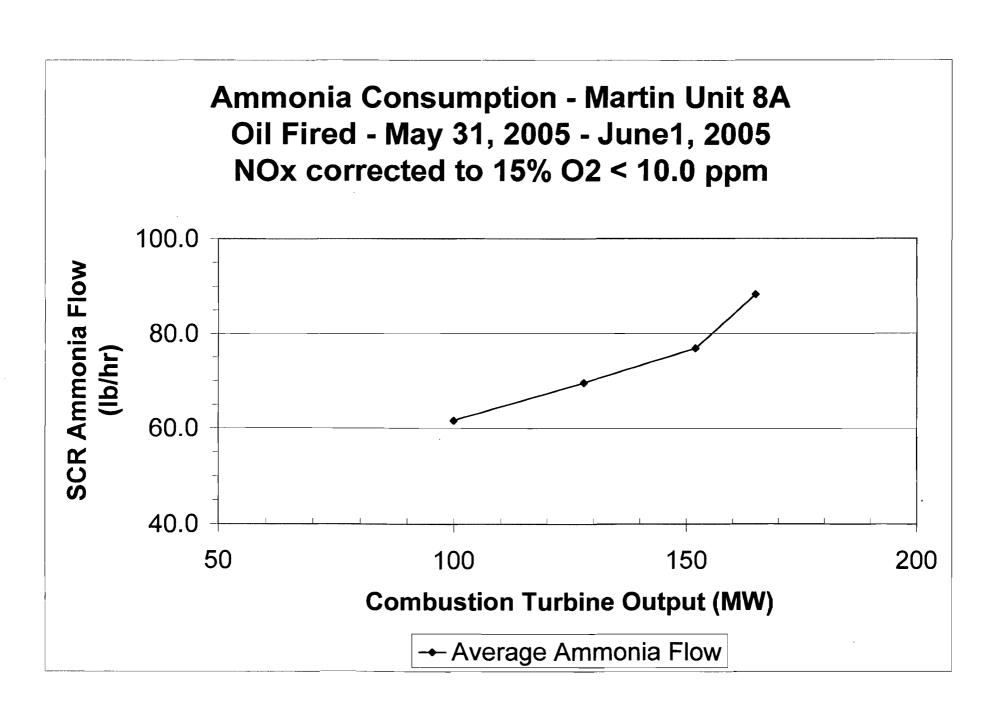


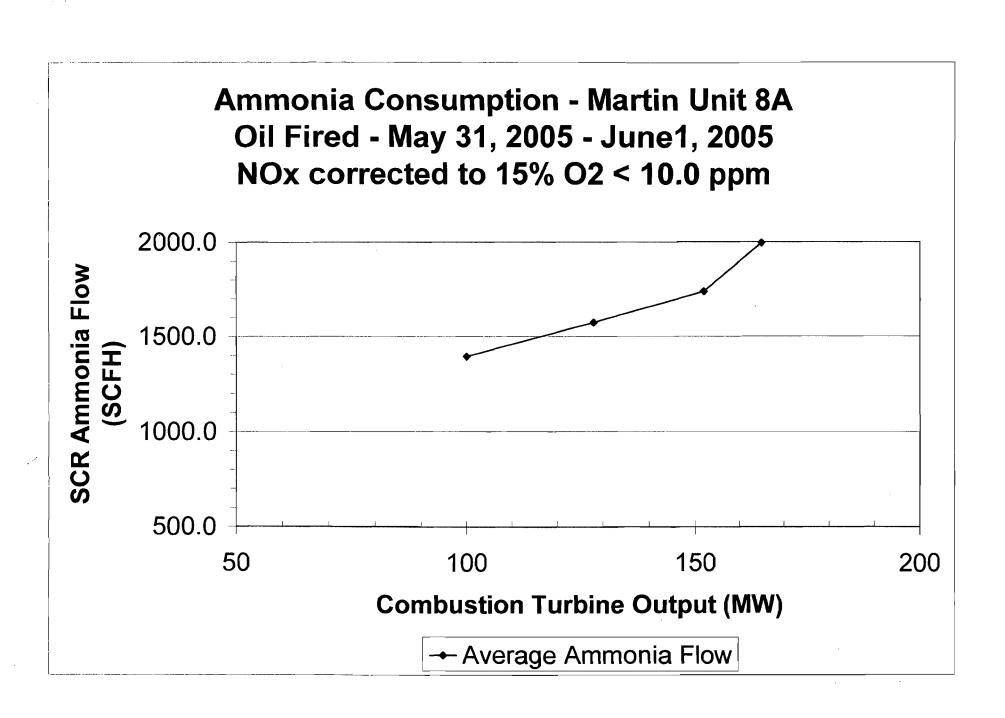


Oil Fired Ammonia Consumption and NOx Injection Water Curves

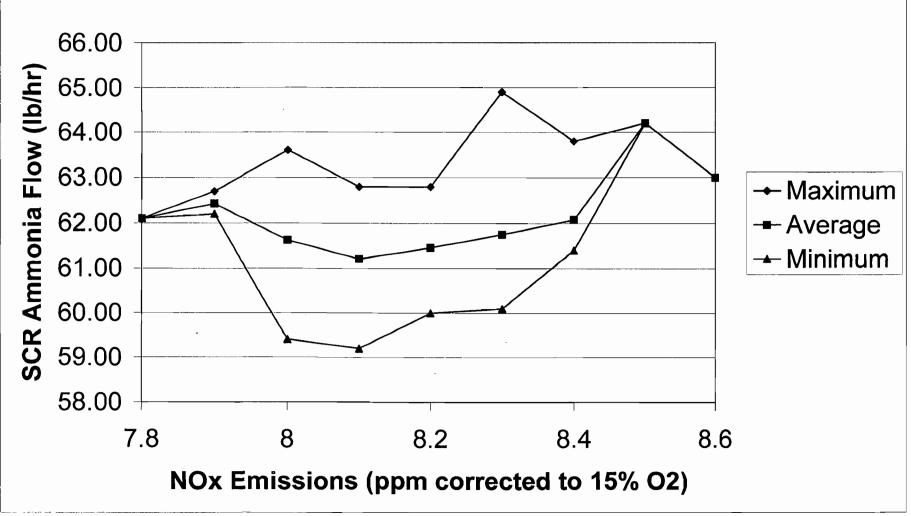
Florida Power and Light Company Martin Power Plant Unit 8A

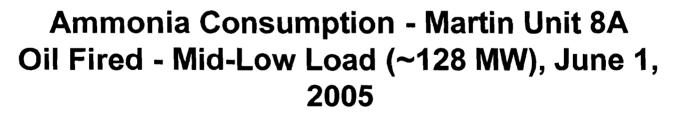


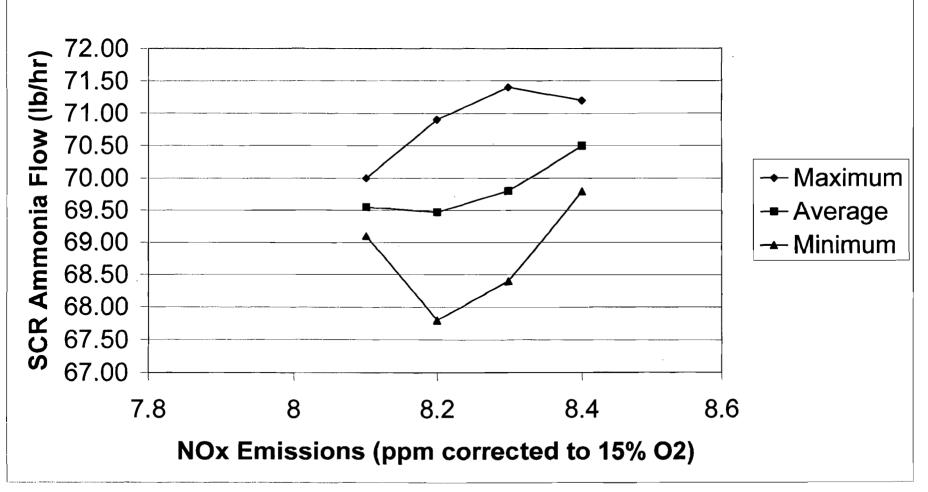




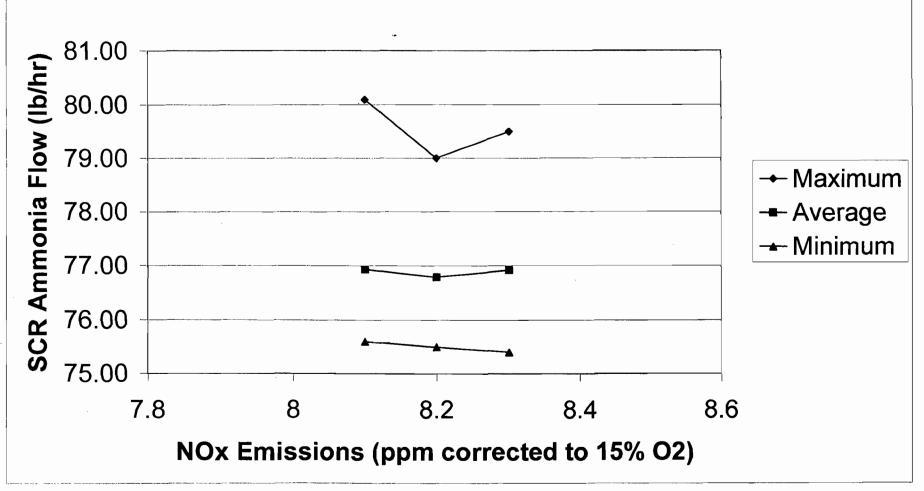


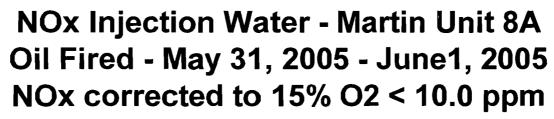


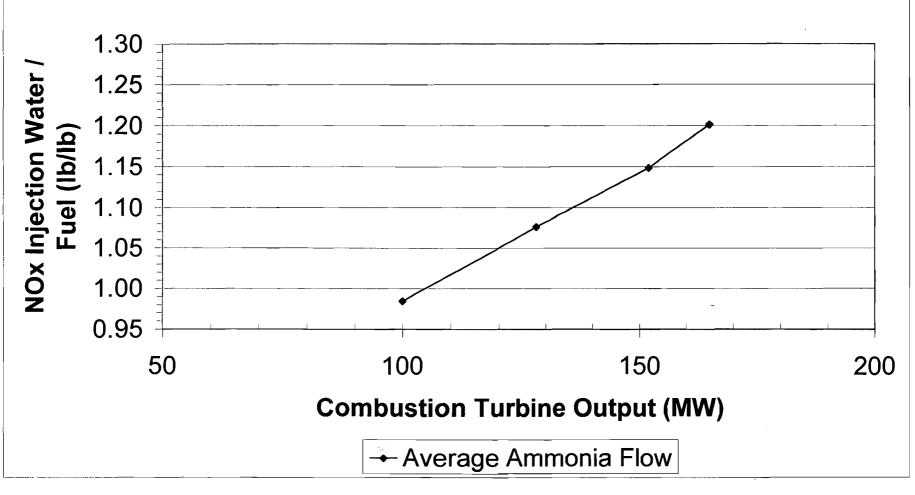


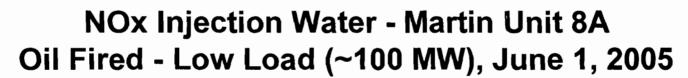


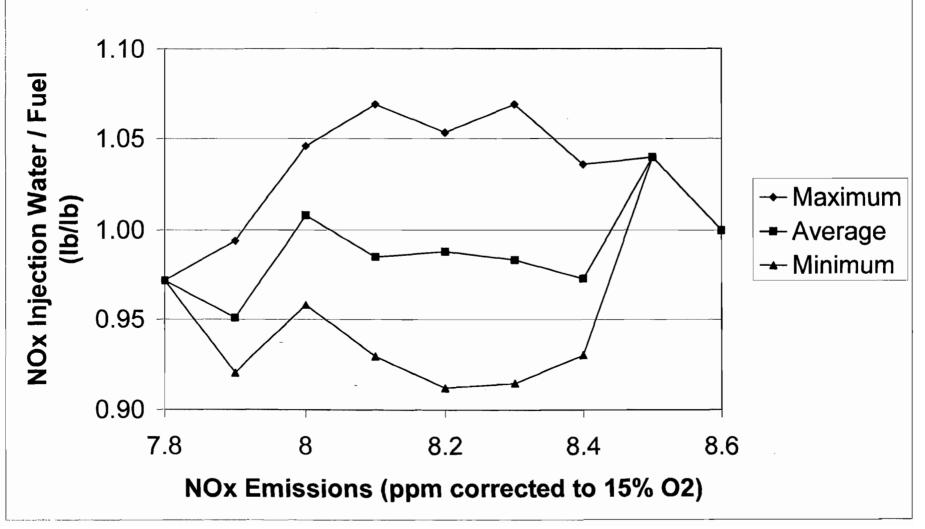


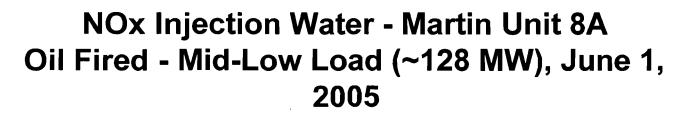


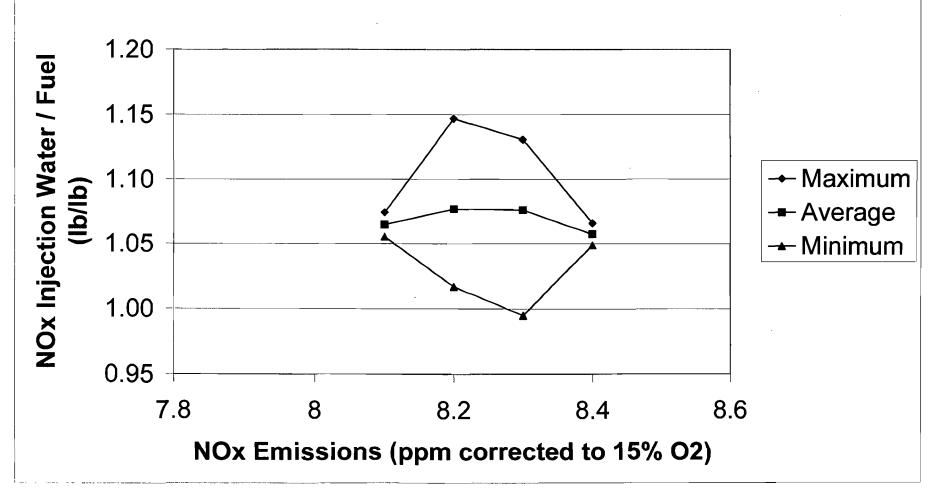




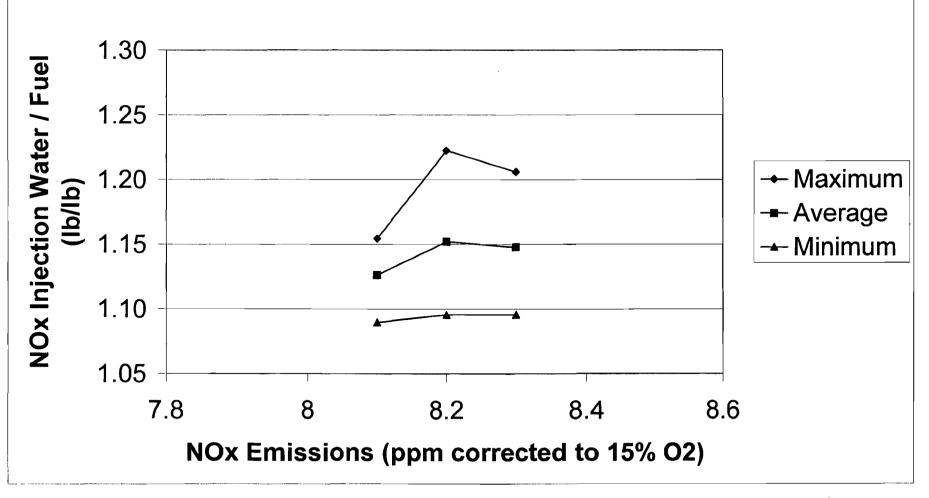


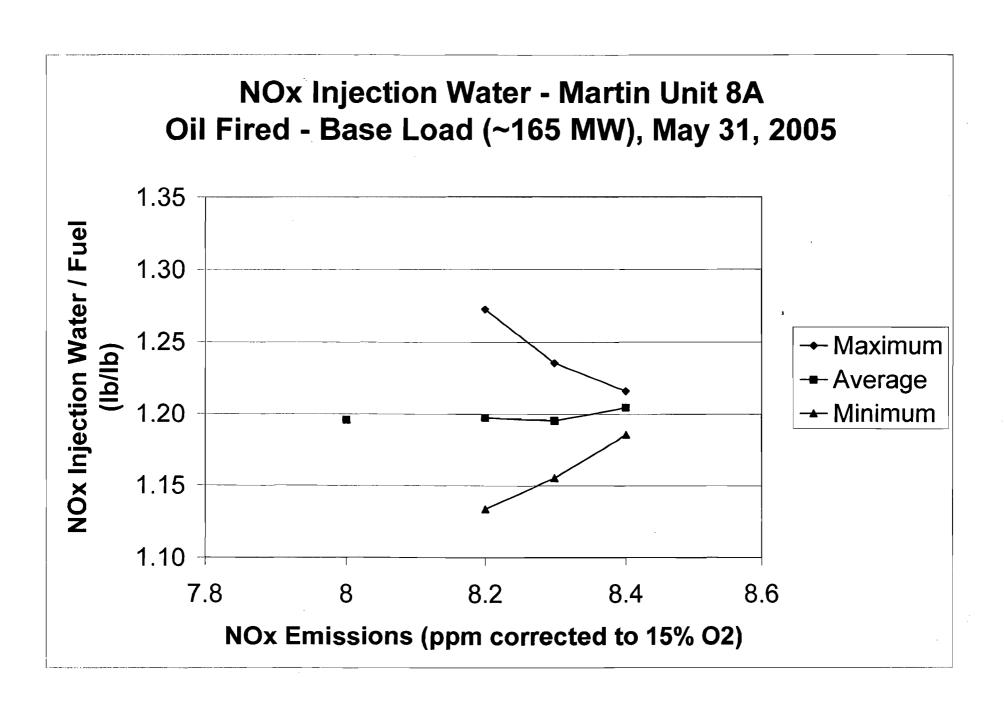






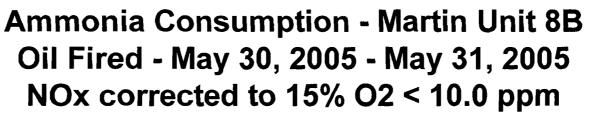


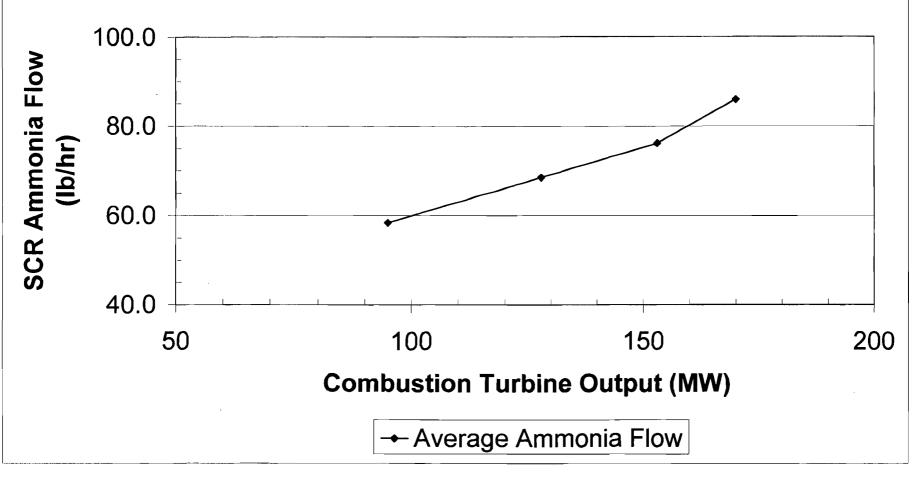




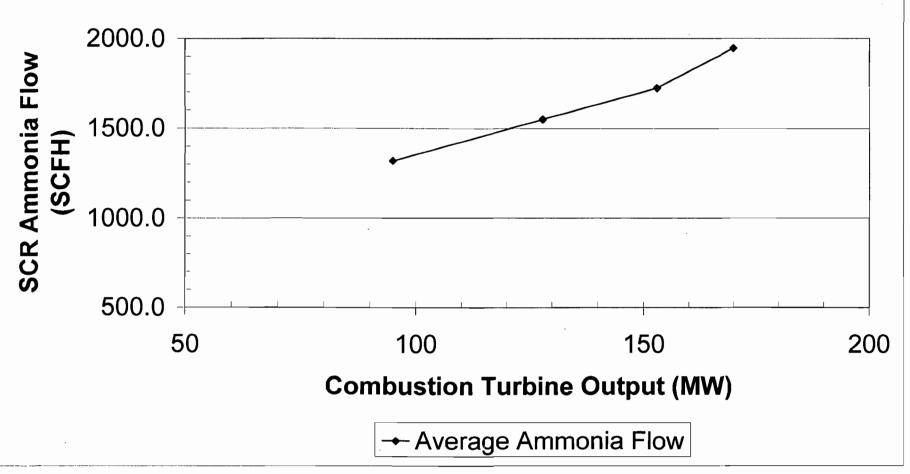
Oil Fired Ammonia Consumption and NOx Injection Water Curves

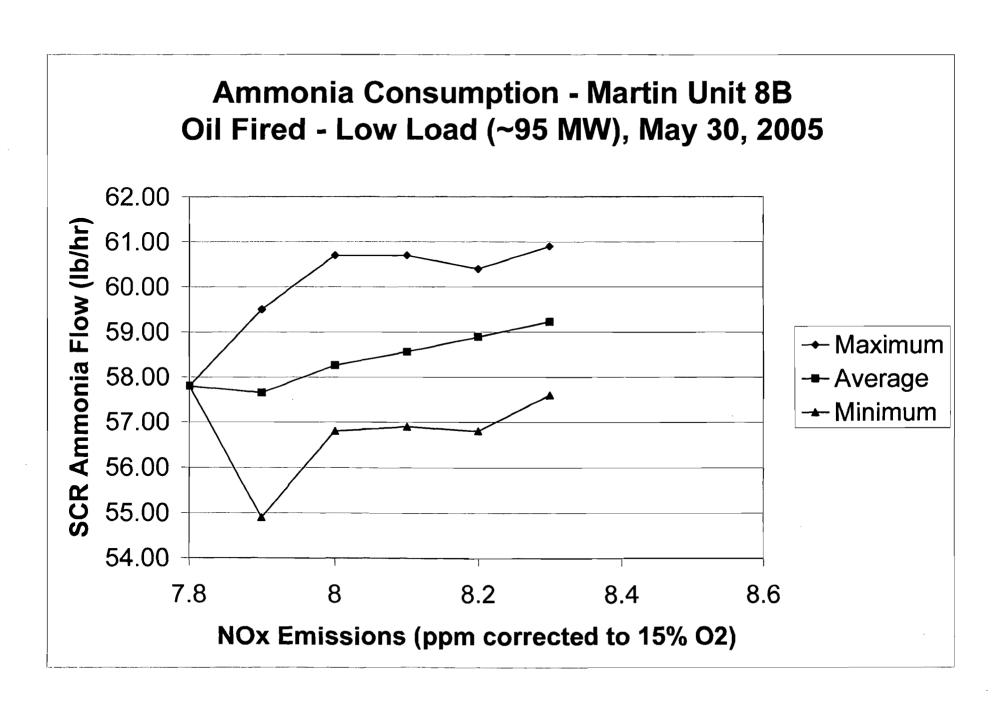
Florida Power and Light Company Martin Power Plant Unit 8B

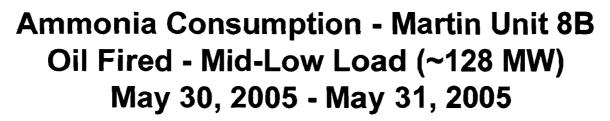


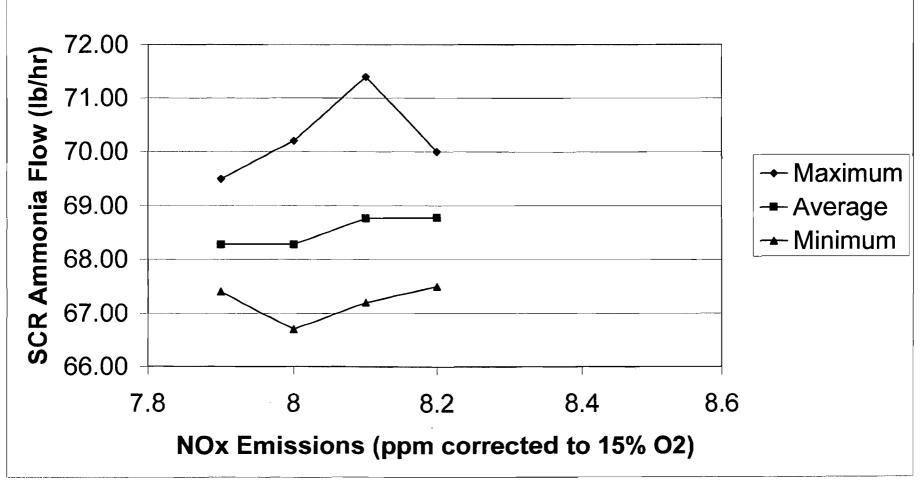




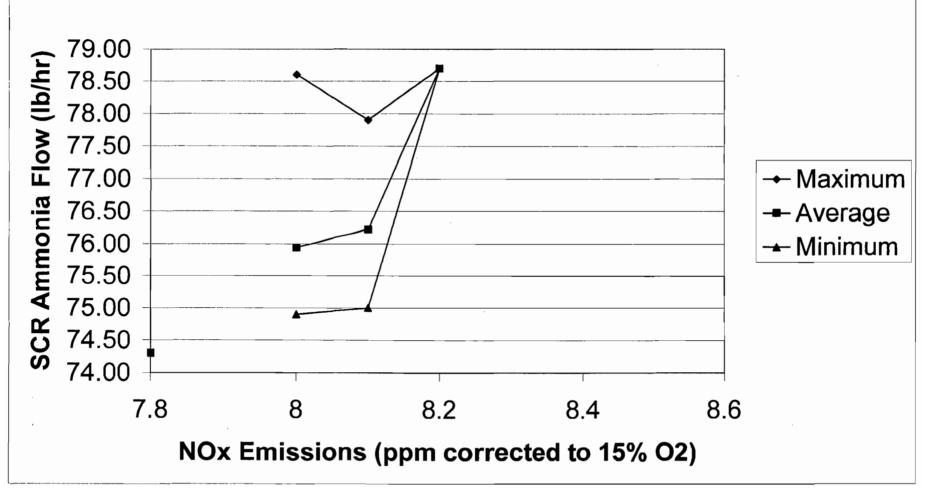




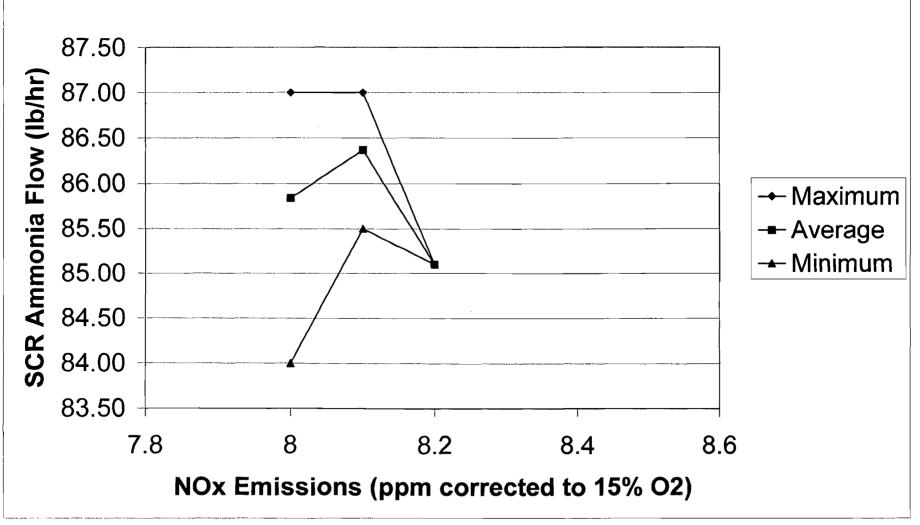


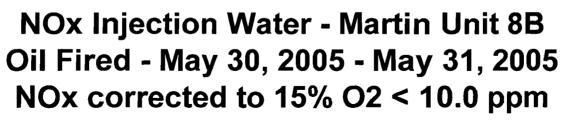


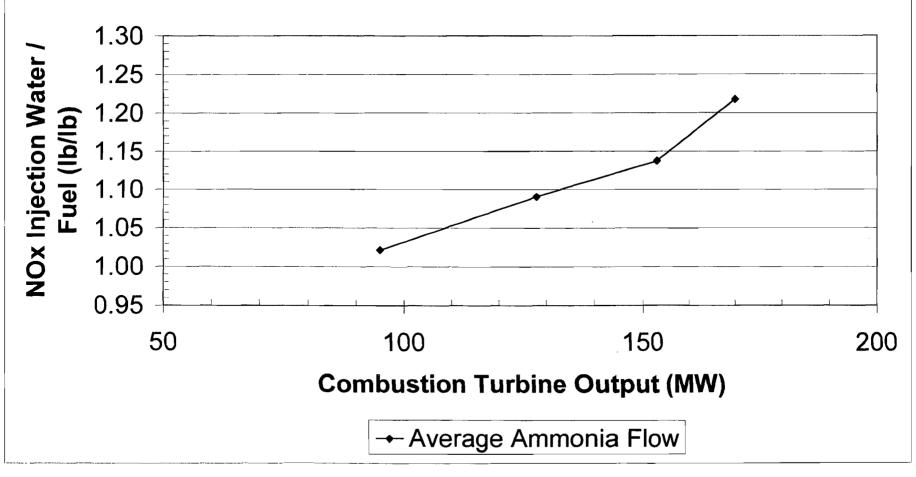


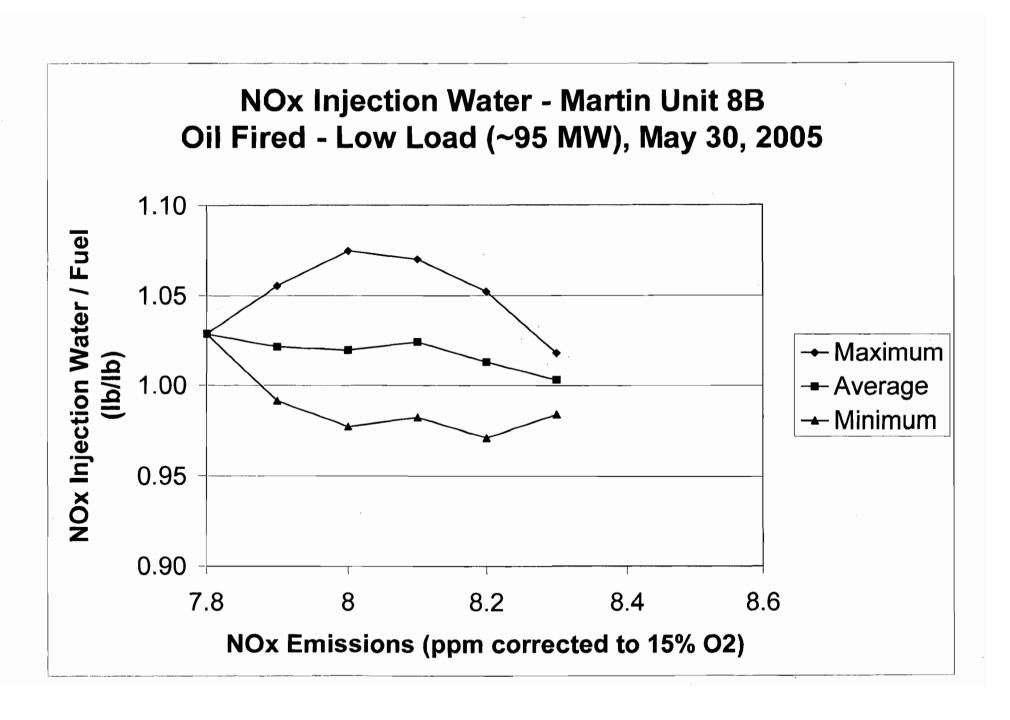


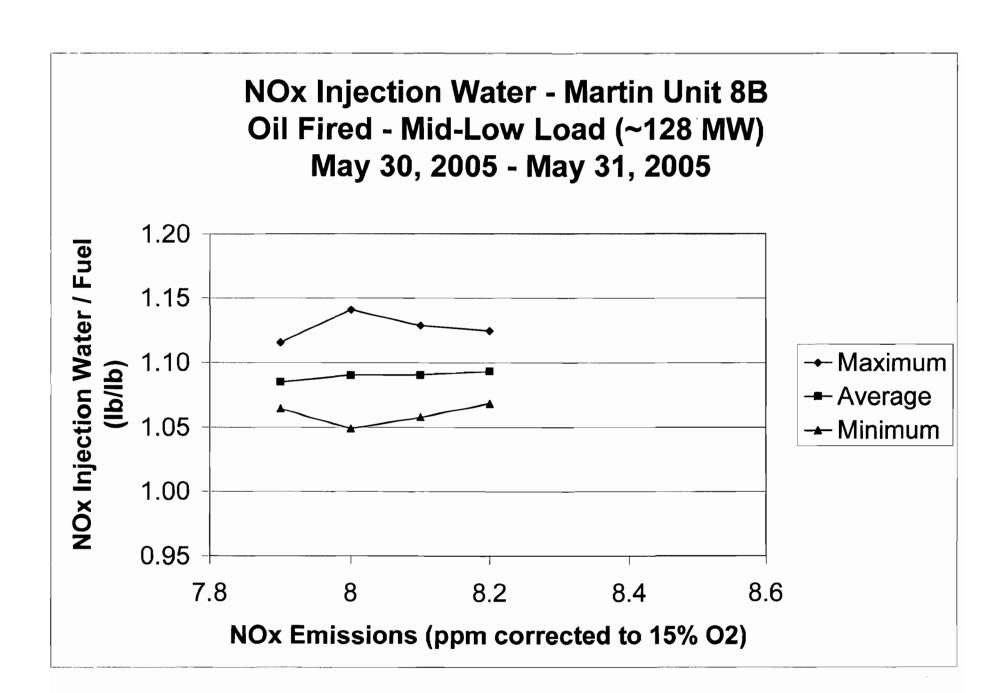


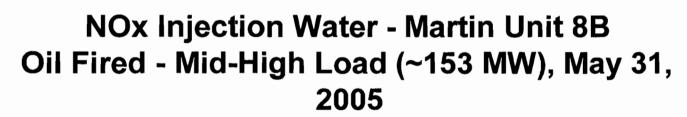


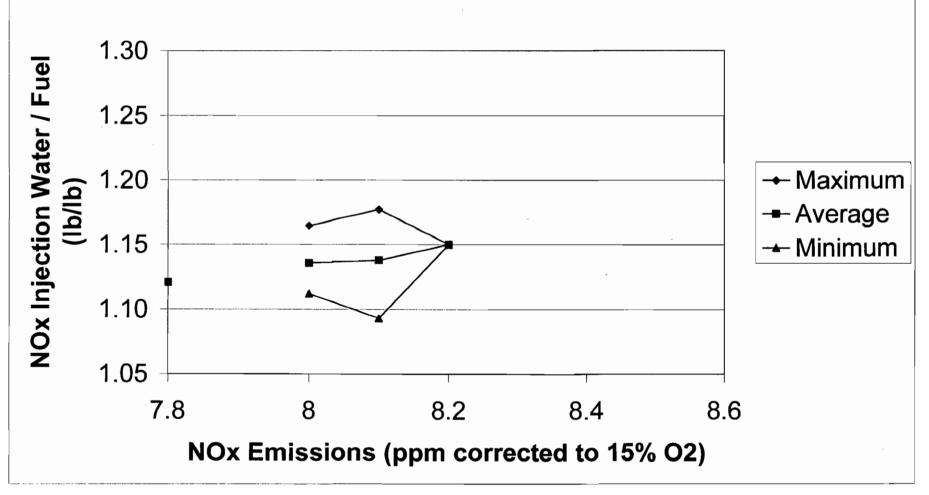


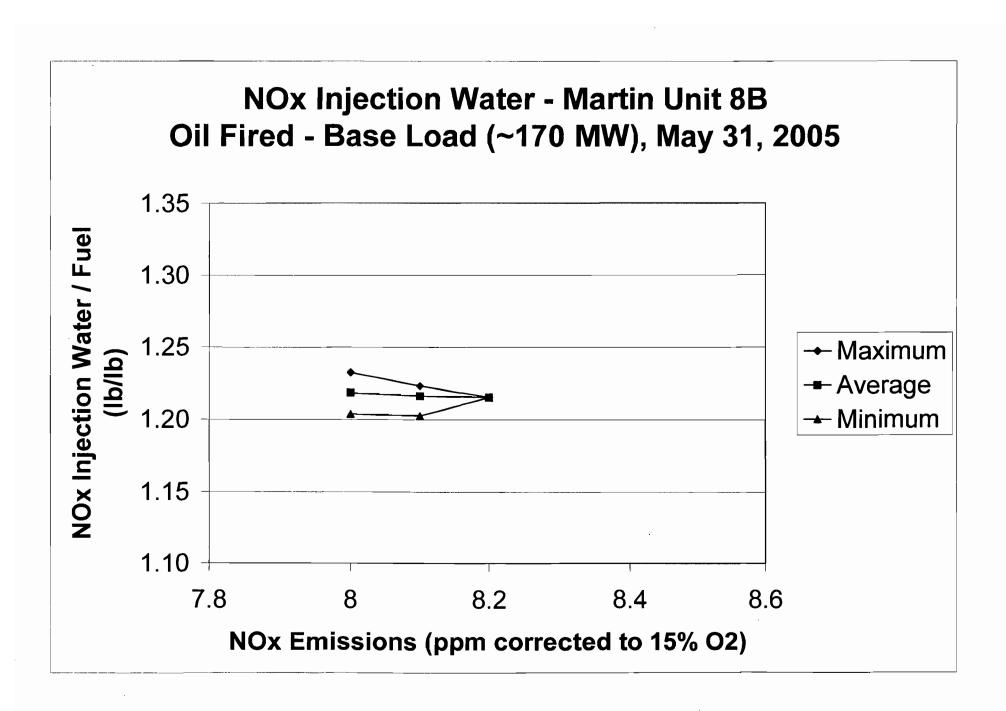








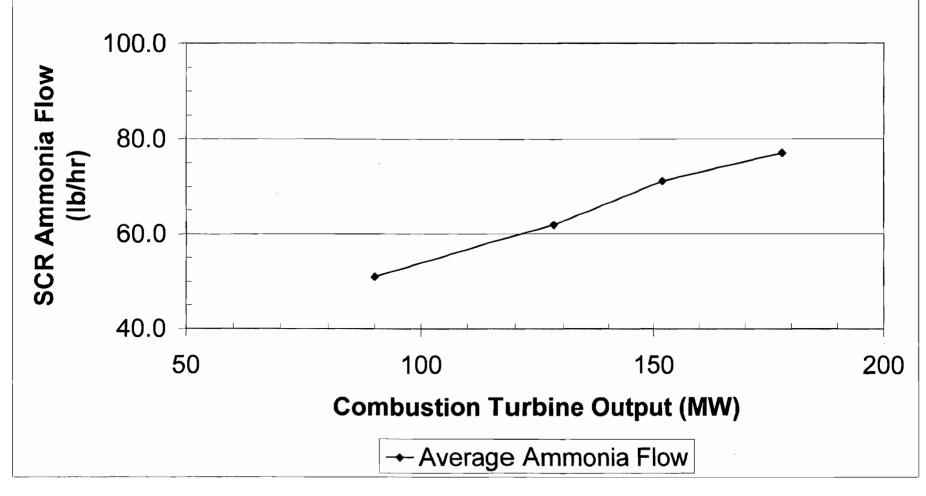


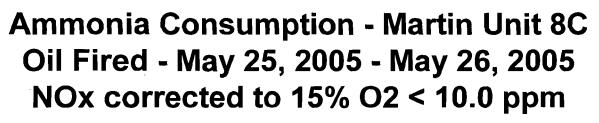


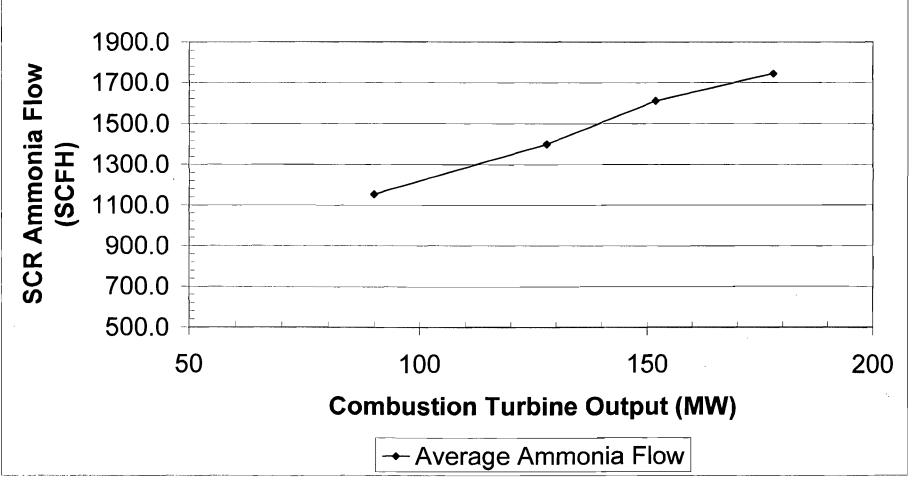
Oil Fired Ammonia Consumption and NOx Injection Water Curves

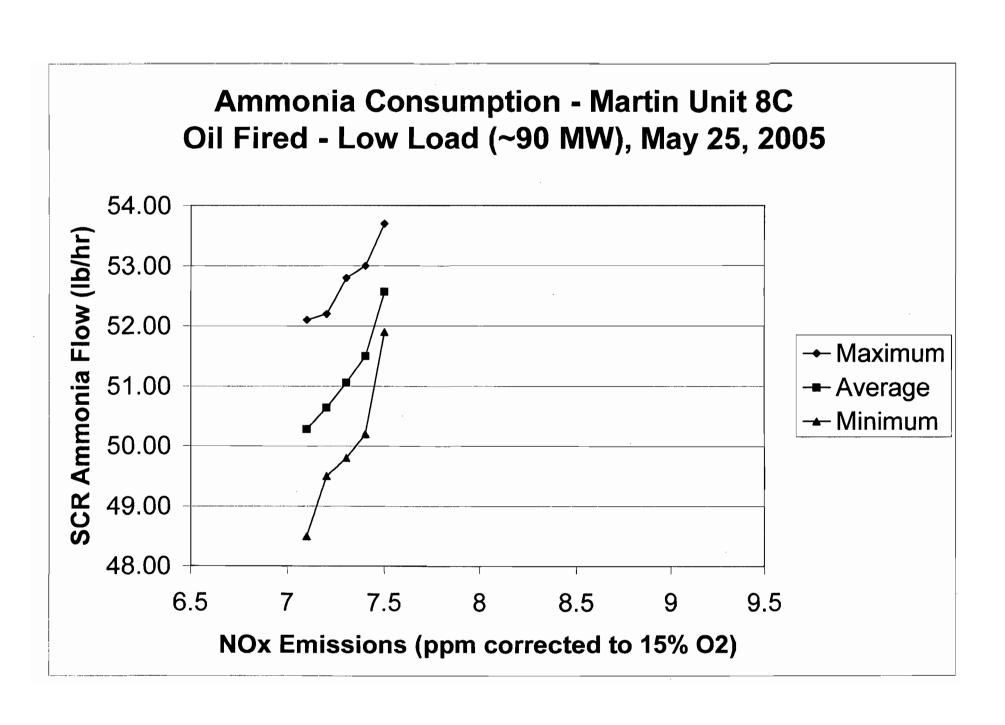
Florida Power and Light Company Martin Power Plant Unit 8C

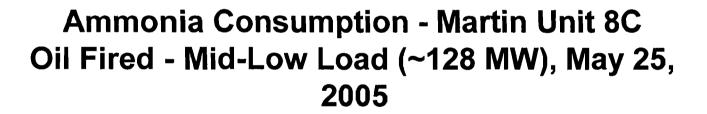


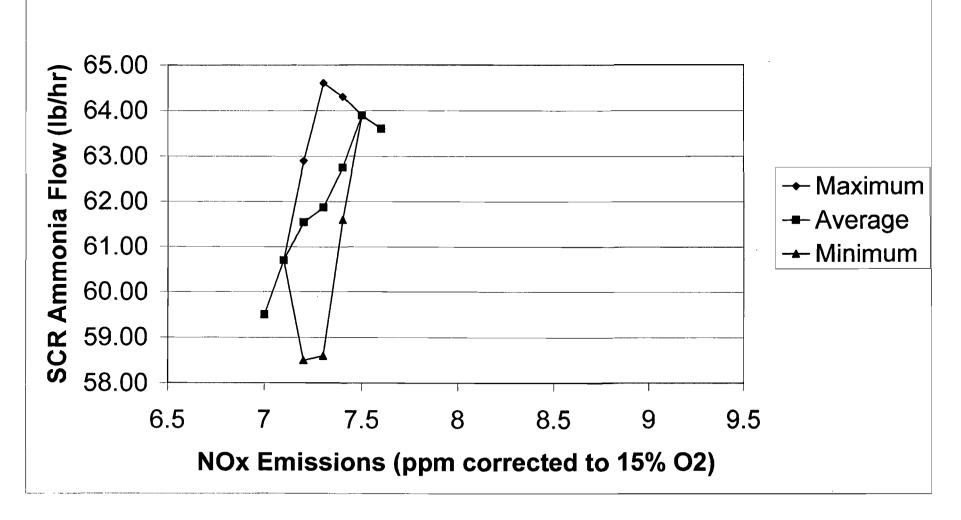




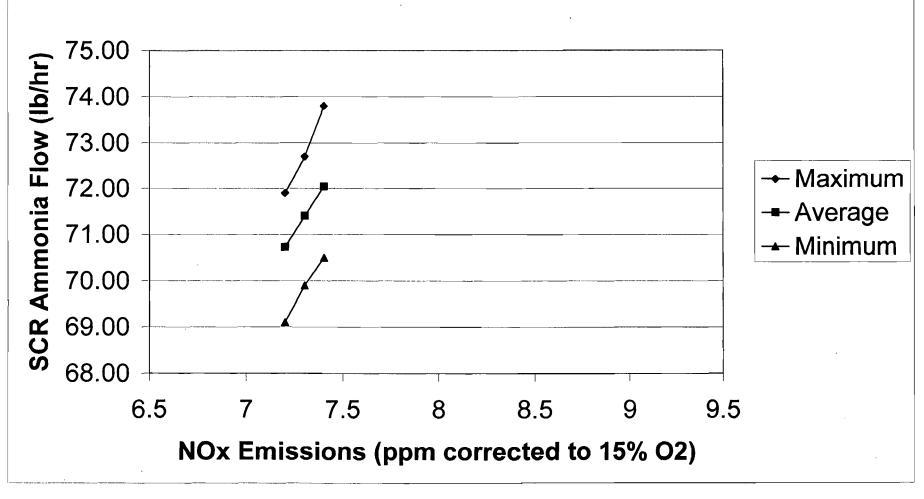




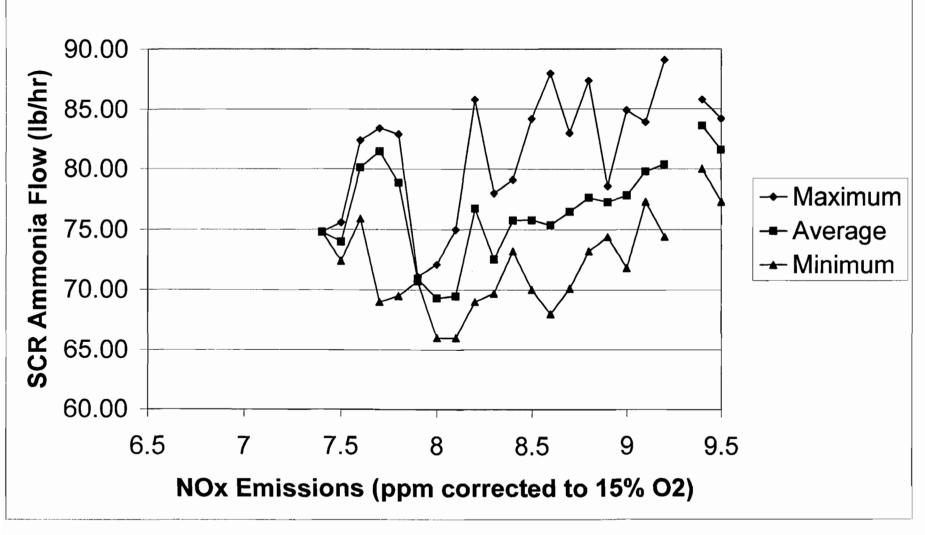


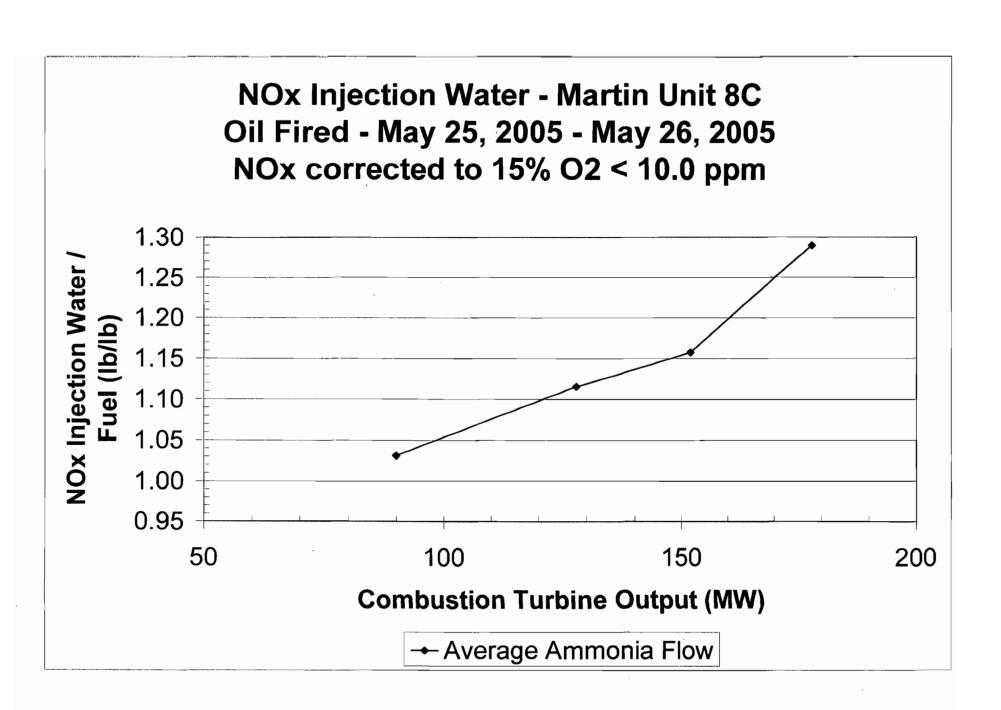


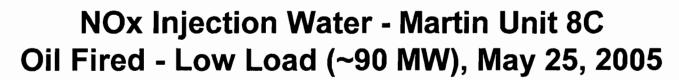


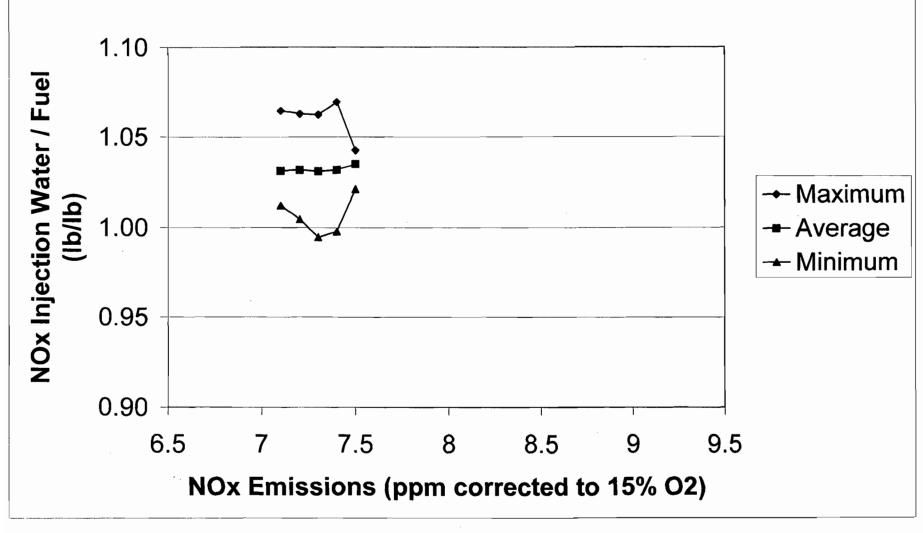


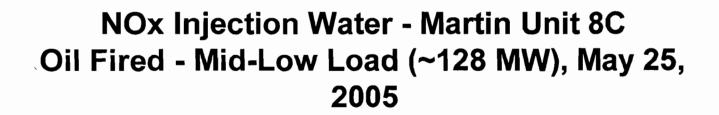


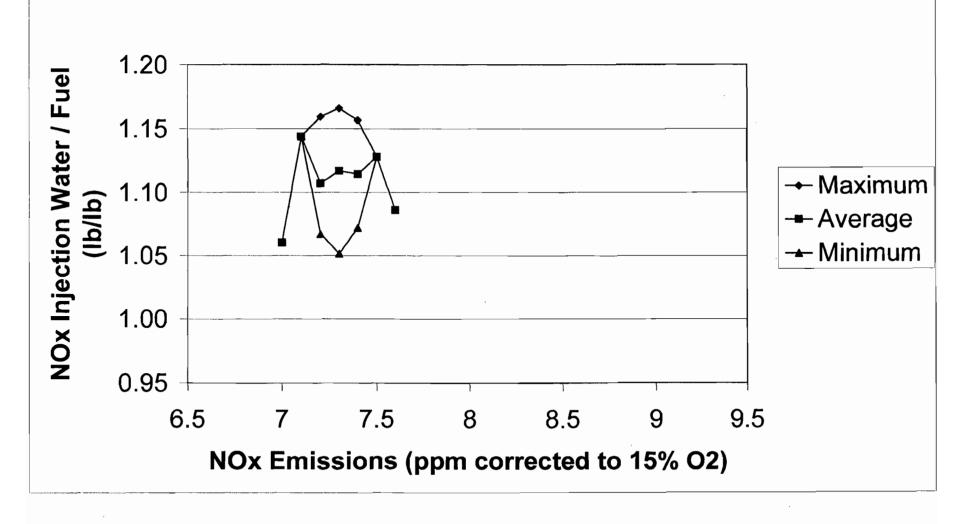


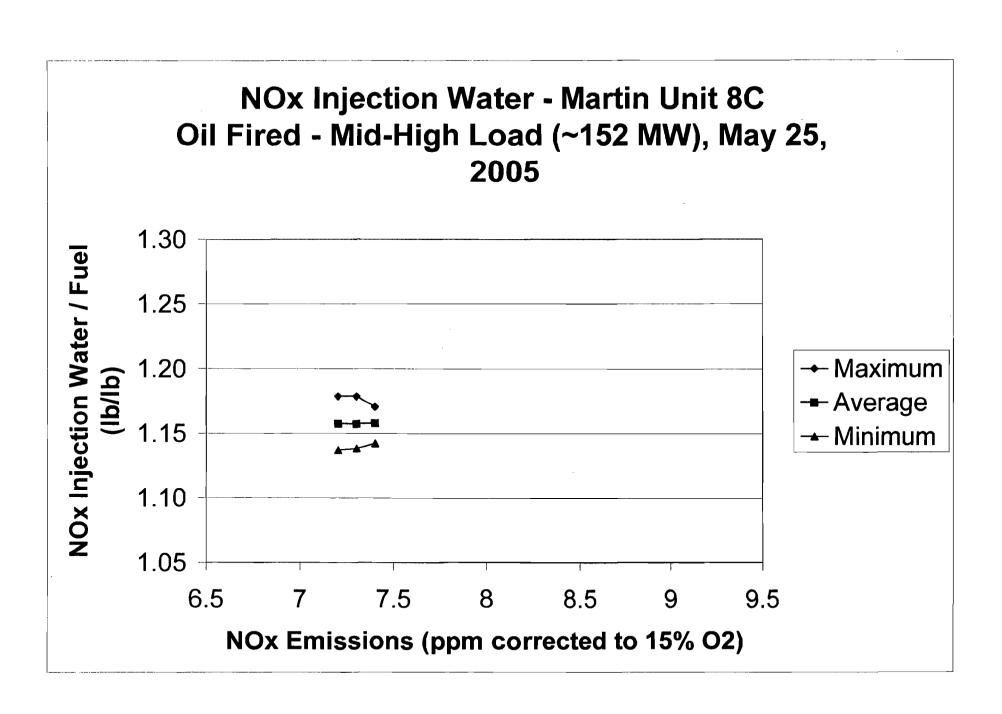


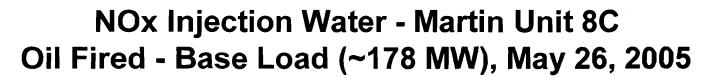


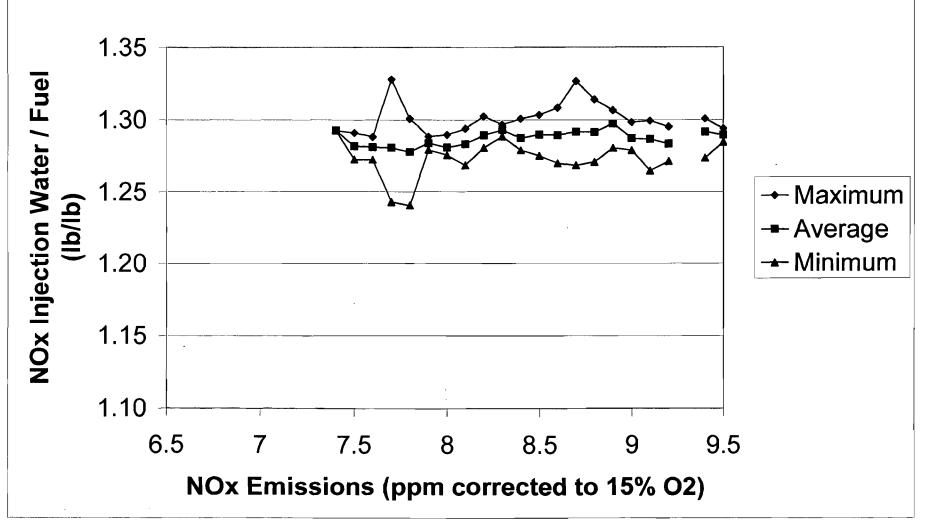








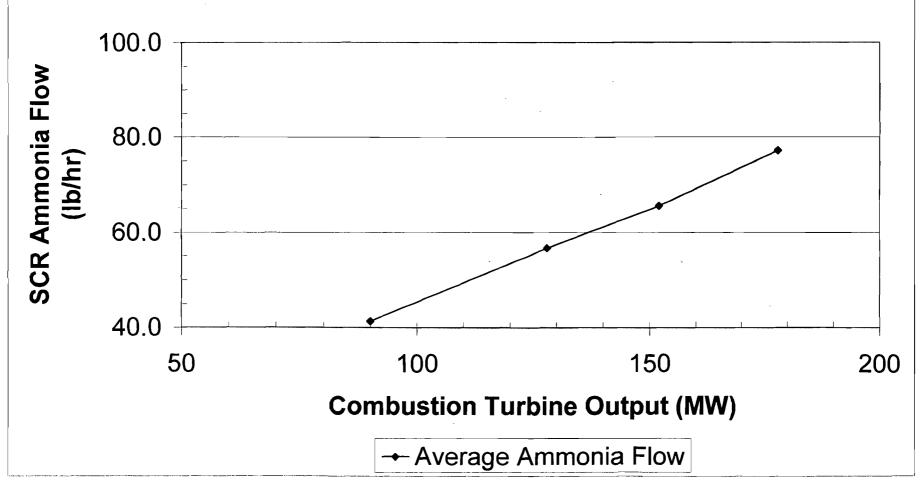


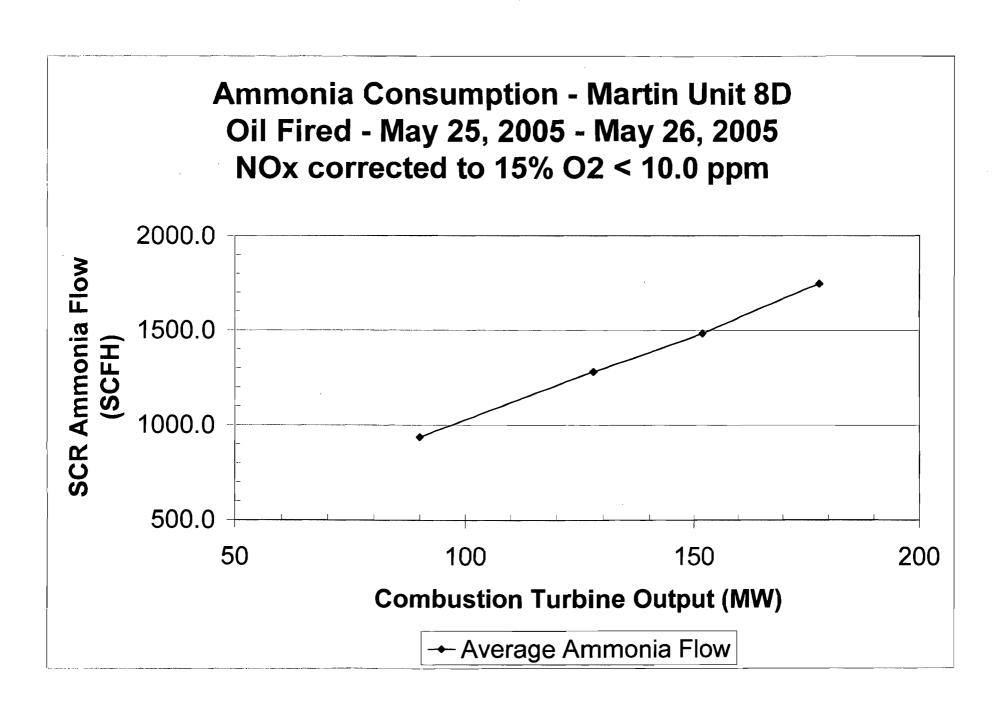


Oil Fired Ammonia Consumption and NOx Injection Water Curves

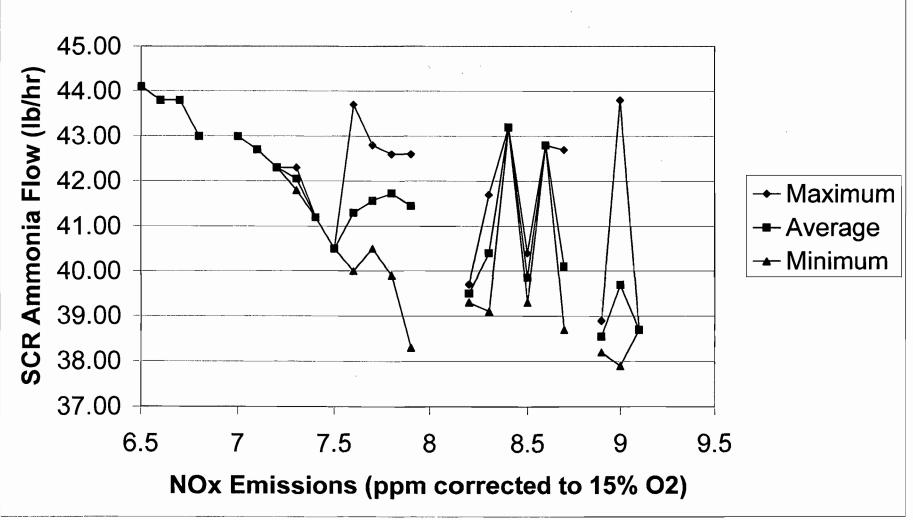
Florida Power and Light Company Martin Power Plant Unit 8D



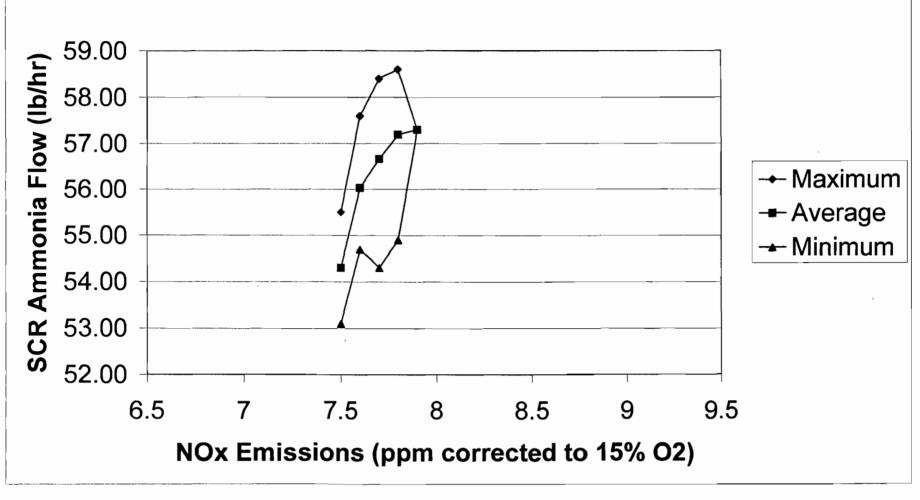


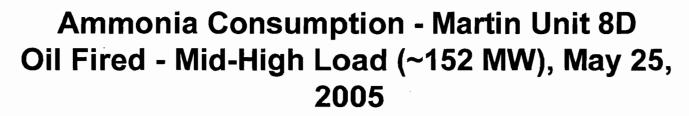


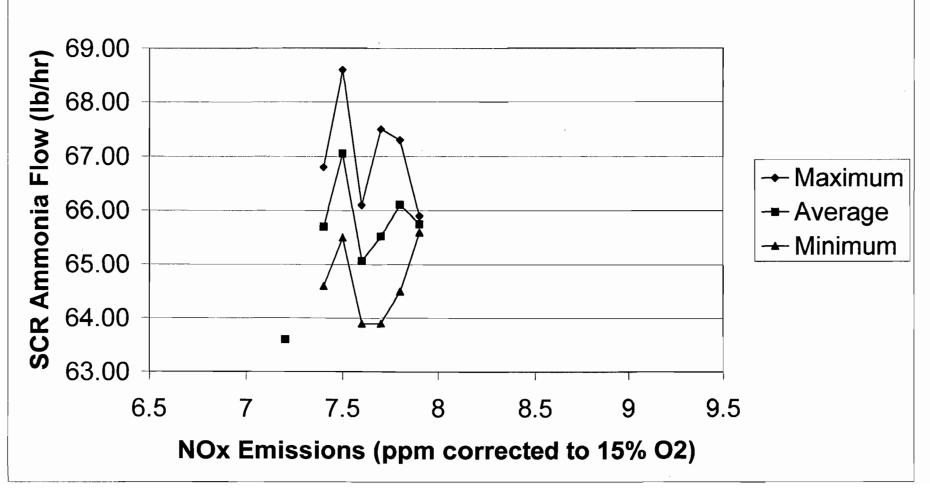


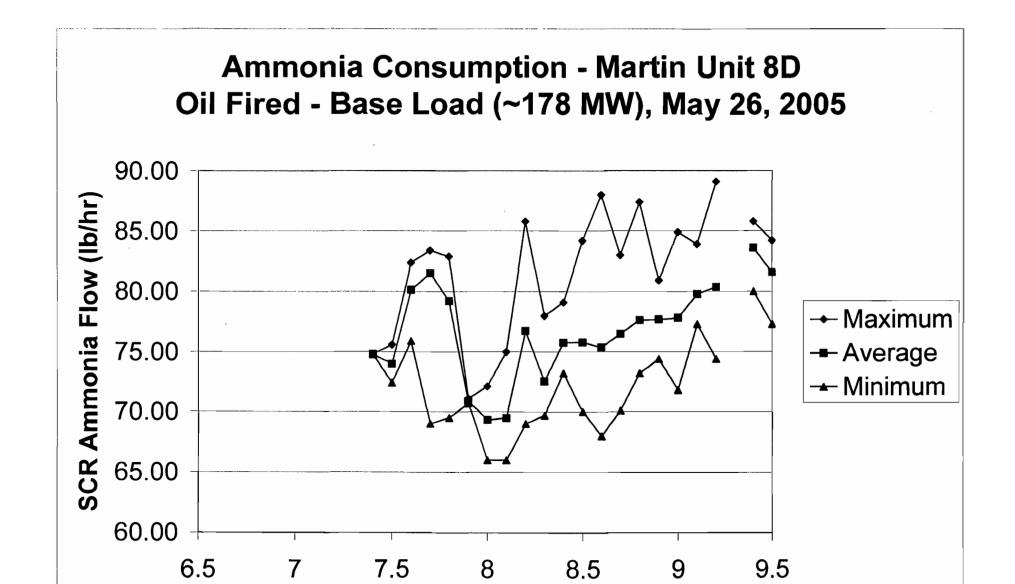












NOx Emissions (ppm corrected to 15% O2)

