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BUREAU OF AIR REGULATION

APPLICATION FOR TITLE V PERMIT REVISION
INSTALLATION OF DIRECT WATER
SPRAY FOGGING SYSTEMS
JEA KENNEDY PLANT
0310047-011-AV

Prepared For:

JEA
21 West Church Street
Jacksonville, Florida 32202-3139

Prepared By:

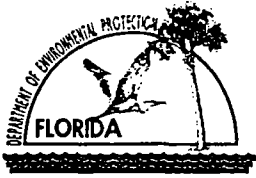
Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653

September 2001
0137620/F2

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PART I
APPLICATION FOR AIR PERMIT
LONG FORM



Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

| | |
|---|--|
| 1. Facility Owner/Company Name: JEA | |
| 2. Site Name: J. Dillon Kennedy Generating Station | |
| 3. Facility Identification Number: 0310047 [] Unknown | |
| 4. Facility Location: Street Address or Other Locator: 4215 Tallyrand Avenue City: Jacksonville County: Duval Zip Code: 32206 | |
| 5. Relocatable Facility? [] Yes [X] No | 6. Existing Permitted Facility? [X] Yes [] No |

Application Contact

| | |
|---|--|
| 1. Name and Title of Application Contact: Mr. N. Bert Gianazza, P.E. | |
| 2. Application Contact Mailing Address: Organization/Firm: JEA Environmental Permitting and Compliance Group Street Address: 21 West Church Street – 8th Floor City: Jacksonville State: FL Zip Code: 32202 | |
| 3. Application Contact Telephone Numbers: Telephone: (904) 665 - 6247 Fax: (904) 665 - 7376 | |

Application Processing Information (DEP Use)

| | |
|------------------------------------|--|
| 1. Date of Receipt of Application: | |
| 2. Permit Number: | |
| 3. PSD Number (if applicable): | |
| 4. Siting Number (if applicable): | |

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

- Initial Title V air operation permit for an existing facility which is classified as a Title V source.
- Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number: _____

- Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: 031-0047-004-AC

Operation permit number to be revised: 031-0047-004-AV

- Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: _____

- Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised: _____

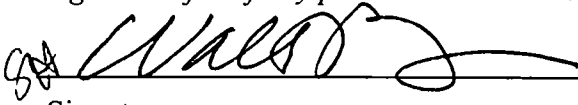
Reason for revision: _____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

| |
|---|
| 1. Name and Title of Owner/Authorized Representative or Responsible Official: Walter P. Bussells, CEO and Managing Director |
| 2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: JEA Street Address: 21 West Church Street City: Jacksonville State: FL Zip Code: 32202 |
| 3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (904) 665 - 7220 Fax: (904) 665 - 7376 |
| 4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative*(check here [], if so) or the responsible official (check here [✓], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i>  Signature 9/13/01 Date |

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

| |
|---|
| 1. Professional Engineer Name: Kennard F. Kosky Registration Number: 14996 |
| 2. Professional Engineer Mailing Address: Organization/Firm: Golder Associates Inc. Street Address: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653-1500 |
| 3. Professional Engineer Telephone Numbers: Telephone: (352) 336 - 5600 Fax: (352) 336 - 6603 |

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Kenneth F. Kelly

Signature

September 17, 2001

Date

(Seal)

*Attach any exception to certification statement.

Scope of Application

| Emissions Unit ID | Description of Emissions Unit | Permit Type | Processing Fee |
|--------------------------|--------------------------------------|--------------------|-----------------------|
| 003 | Combustion Turbine No. 3 | AF2B | |
| 004 | Combustion Turbine No. 4 | AF2B | |
| 005 | Combustion Turbine No. 5 | AF2B | |
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Application Processing Fee

Check one: [] Attached - Amount: \$: _____ [X] Not Applicable

Construction/Modification Information

| |
|---|
| 1. Description of Proposed Project or Alterations: |
| 2. Projected or Actual Date of Commencement of Construction |
| 3. Projected Date of Completion of Construction: |

Application Comment

Existing gas turbines Nos. 3 through 5 were installed with direct water spray fogging systems that will reduce the turbine inlet air temperature. The temperature reduction improved the heat rate and increase power due to the cooler-denser inlet air. As required by air construction permit 031-0047-004-AC, stack testing for NO_x was performed demonstrating that the use of inlet foggers reduced NO_x emissions. The net emissions change for other pollutants did not result in an increase of any regulated pollutant greater than the PSD significant emission rates. Refer to Part II for discussion.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

| | | | |
|---|----------------------------------|--|-----------------------------|
| 1. Facility UTM Coordinates: Zone: 17 East (km): 440.065 North (km): 3359.15 | | | |
| 2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 30 / 21 / 52 Longitude (DD/MM/SS): 81 / 37 / 25 | | | |
| 3. Governmental Facility Code: 0 | 4. Facility Status Code: A | 5. Facility Major Group SIC Code: 49 | 6. Facility SIC(s): 4911 |
| 7. Facility Comment (limit to 500 characters): The existing Northside plant currently consists of 3 Fossil Fuel Fired-Steam Generators and 3 simple cycle gas turbines. The 3 combustion turbines (CT Units 3-5) are fired with No. 2 Distillate Oil. Refer to Part II for discussion. | | | |

Facility Contact

| | | | |
|---|--|--|--|
| 1. Name and Title of Facility Contact: Mr. N. Bert Gianazza, P.E. | | | |
| 2. Facility Contact Mailing Address: Organization/Firm: JEA Environmental Permitting and Compliance Group Street Address: 21 West Church Street – 8th Floor City: Jacksonville State: FL Zip Code: 32202 | | | |
| 3. Facility Contact Telephone Numbers: Telephone: (904) 664 - 6247 Fax: (904) 665 - 7376 | | | |

Facility Regulatory Classifications

Check all that apply:

| | |
|---|-------------|
| 1. [] Small Business Stationary Source? | [] Unknown |
| 2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? | |
| 3. [] Synthetic Minor Source of Pollutants Other than HAPs? | |
| 4. [X] Major Source of Hazardous Air Pollutants (HAPs)? | |
| 5. [] Synthetic Minor Source of HAPs? | |
| 6. [X] One or More Emissions Units Subject to NSPS? | |
| 7. [] One or More Emission Units Subject to NESHAP? | |
| 8. [] Title V Source by EPA Designation? | |
| 9. Facility Regulatory Classifications Comment (limit to 200 characters): | |
| | |

List of Applicable Regulations

| | |
|--|--|
| Facility emissions covered under existing Title V permit, no additional facility applicable requirements as a result of the proposed change. | |
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B. FACILITY POLLUTANTS

List of Pollutants Emitted

| 1. Pollutant Emitted | 2. Pollutant Classif. | 3. <u>Requested Emissions Cap</u> | | 4. Basis for Emissions Cap | 5. Pollutant Comment |
|----------------------|-----------------------|-----------------------------------|-----------|----------------------------|----------------------|
| | | lb/hour | tons/year | | |
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C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

| |
|--|
| <p>1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p> |
| <p>2. Facility Plot Plan: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p> |
| <p>3. Process Flow Diagram(s): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p> |
| <p>4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p> |
| <p>5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p> |
| <p>6. Supplemental Information for Construction Permit Application: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p> |
| <p>7. Supplemental Requirements Comment:</p> |

Additional Supplemental Requirements for Title V Air Operation Permit Applications

| |
|---|
| 8. List of Proposed Insignificant Activities: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 9. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable |
| 10. Alternative Methods of Operation: <input checked="" type="checkbox"/> Attached, Document ID: Part II <input type="checkbox"/> Not Applicable |
| 11. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 12. Identification of Additional Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: Part II <input type="checkbox"/> Not Applicable |
| 13. Risk Management Plan Verification: <input type="checkbox"/> Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID: _____) or previously submitted to DEP (Date and DEP Office: _____) <input type="checkbox"/> Plan to be submitted to CEPPO (Date required: _____) <input checked="" type="checkbox"/> Not Applicable |
| 14. Compliance Report and Plan: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 15. Compliance Certification (Hard-copy Required): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION (All Emissions Units)

Emissions Unit Description and Status

| | | | |
|---|---|---|---------------------------|
| 1. Type of Emissions Unit Addressed in This Section: (Check one) | | | |
| [] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent). | | | |
| [X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions. | | | |
| [] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only. | | | |
| 2. Regulated or Unregulated Emissions Unit? (Check one) | | | |
| [X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit. | | | |
| [] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit. | | | |
| 3. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Combustion Turbines Nos. 3, 4, and 5. | | | |
| 4. Emissions Unit Identification Number: | | [] No ID | |
| ID: 003, 004, and 005 | | [] ID Unknown | |
| 5. Emissions Unit Status Code: A | 6. Initial Startup Date: 1973 | 7. Emissions Unit Major Group SIC Code: 049 | 8. Acid Rain Unit? [] |
| 9. Emissions Unit Comment: (Limit to 500 Characters) These emission units are identical combustion turbines included in Sub-Section C or the existing Title V permit. Only monitoring requirements for the inlet foggers are required to be included in the Title V permit. | | | |

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

2. Control Device or Method Code(s):

Emissions Unit Details

1. Package Unit:

Manufacturer: **Westinghouse**

Model Number: **501**

2. Generator Nameplate Rating:

56.2 MW

3. Incinerator Information:

Dwell Temperature:

°F

Dwell Time:

seconds

Incinerator Afterburner Temperature:

°F

**B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Operating Capacity and Schedule

| | | |
|--|------------|-----------|
| 1. Maximum Heat Input Rate: | 744.0 | mmBtu/hr |
| 2. Maximum Incineration Rate: | lb/hr | tons/day |
| 3. Maximum Process or Throughput Rate: | | |
| 4. Maximum Production Rate: | | |
| 5. Requested Maximum Operating Schedule: | | |
| | hours/day | days/week |
| | weeks/year | 8,760 |
| 6. Operating Capacity/Schedule Comment (limit to 200 characters): | | |
| <p>Heat input based on lower heating value (LHV) at turbine inlet temperature of 70° F. Actual heat input based on load versus turbine inlet temperature curves contained in the Title V permit.</p> | | |

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

| No change in applicable regulations from that identified in the Title V permit. | |
|---|--|
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**D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)**

Emission Point Description and Type

| | | | |
|--|---|---|--|
| 1. Identification of Point on Plot Plan or Flow Diagram? | | 2. Emission Point Type Code: | |
| 3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): | | | |
| 4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: | | | |
| 5. Discharge Type Code: | 6. Stack Height: feet | 7. Exit Diameter: feet | |
| 8. Exit Temperature: °F | 9. Actual Volumetric Flow Rate: acfm | 10. Water Vapor: % | |
| 11. Maximum Dry Standard Flow Rate: dscfm | | 12. Nonstack Emission Point Height: feet | |
| 13. Emission Point UTM Coordinates: Zone: East (km): North (km): | | | |
| 14. Emission Point Comment (limit to 200 characters): There is no change in the stack information resulting from the installation of the inlet foggers. | | | |

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 1

| | | |
|---|---|--|
| 1. Segment Description (Process/Fuel Type) (limit to 500 characters): Gas turbine operating with No. 2 Distillate Oil using inlet foggers. | | |
| 2. Source Classification Code (SCC): 2-01-001-01 | | 3. SCC Units: 1,000 gallons |
| 4. Maximum Hourly Rate: 5.75 | 5. Maximum Annual Rate: 2,295.9 | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: 0.5 | 8. Maximum % Ash: | 9. Million Btu per SCC Unit: 129.3 |
| 10. Segment Comment (limit to 200 characters): Based on 744 mmBtu/hour (LHV) and 399 hours of inlet fogging. All values shown are for a single CT. | | |

Segment Description and Rate: Segment of

| | | |
|--|-------------------------|--------------------------------------|
| 1. Segment Description (Process/Fuel Type) (limit to 500 characters): | | |
| 2. Source Classification Code (SCC): | | 3. SCC Units: |
| 4. Maximum Hourly Rate: | 5. Maximum Annual Rate: | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: | 8. Maximum % Ash: | 9. Million Btu per SCC Unit: |
| 10. Segment Comment (limit to 200 characters): | | |

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

| 1. Pollutant Emitted | 2. Primary Control Device Code | 3. Secondary Control Device Code | 4. Pollutant Regulatory Code |
|--|--------------------------------|----------------------------------|------------------------------|
| No change from current Title V permit. | | | |
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G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions (No change from current Title V permit.)

| | | | |
|---|--|---|--|
| 1. Pollutant Emitted: | | 2. Total Percent Efficiency of Control: | |
| 3. Potential Emissions: lb/hour | | tons/year | 4. Synthetically Limited? <input type="checkbox"/> |
| 5. Range of Estimated Fugitive Emissions: [] 1 [] 2 [] 3 _____ to _____ tons/year | | | |
| 6. Emission Factor: Reference: | | 7. Emissions Method Code: | |
| 8. Calculation of Emissions (limit to 600 characters): | | | |
| 9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): | | | |

Allowable Emissions Allowable Emissions _____ of _____

| | |
|---|--|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Requested Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance (limit to 60 characters): | |
| 6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): | |

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

| | |
|---|---|
| 1. Visible Emissions Subtype: | 2. Basis for Allowable Opacity: [] Rule [] Other |
| 3. Requested Allowable Opacity: Normal Conditions: _____ % Exceptional Conditions: _____ % Maximum Period of Excess Opacity Allowed: _____ min/hour | |
| 4. Method of Compliance: | |
| 5. Visible Emissions Comment (limit to 200 characters): No change from Title V permit. | |

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

| | |
|--|---|
| 1. Parameter Code: | 2. Pollutant(s): |
| 3. CMS Requirement: | [] Rule [] Other |
| 4. Monitor Information: Manufacturer: _____ Model Number: _____ Serial Number: _____ | |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment (limit to 200 characters): | |

**J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)****Supplemental Requirements**

| |
|---|
| 1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested |
| 2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested |
| 3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested |
| 4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested |
| 5. Compliance Test Report <input checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u> <input type="checkbox"/> Previously submitted, Date: _____ <input type="checkbox"/> Not Applicable |
| 6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested |
| 7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested |
| 8. Supplemental Information for Construction Permit Application <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 10. Supplemental Requirements Comment: |

Additional Supplemental Requirements for Title V Air Operation Permit Applications

| |
|--|
| <p>11. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>Part II</u> <input type="checkbox"/> Not Applicable</p> |
| <p>12. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p> |
| <p>13. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p> |
| <p>14. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p> |
| <p>15. Acid Rain Part Application (Hard-copy Required)</p> <p><input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____</p> <p><input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____</p> <p><input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____</p> <p><input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____</p> <p><input type="checkbox"/> Phase II NO_x Compliance Plan (Form No. 62-210.900(1)(a)4.) Attached, Document ID: _____</p> <p><input type="checkbox"/> Phase NO_x Averaging Plan (Form No. 62-210.900(1)(a)5.) Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p> |

PART II
SUPPORTING INFORMATION

**Application for Title V Permit Revision
Installation of Direct Water Spray Fogging Systems
Kennedy Plant**

Introduction

JEA installed direct water spray fogging systems in the inlet ducts of the existing three simple cycle combustion turbines at the Kennedy plant pursuant to FDEP air construction permit 0310047-004-AC. The air construction permit and amendments are contained in Attachment A. The subsection of the Title V permit applicable to these emission units is also contained in Attachment A.

Description

The purpose of the inlet foggers is to provide adiabatic inlet air cooling which increase turbine output and decreases heat rate. The project is part of increasing capacity in a cost effective manner.

The direct inlet fogging systems achieve adiabatic cooling using water to form fine droplets (fog). The fog is produced by injection grids placed in the turbine inlet duct that use nozzles that produce a fine spray. The small fog particles (about 10 to 20 microns) extract the latent heat of vaporization from the gas stream when the water droplet is converted to gas. Heat is removed at a rate of 1,075 Btu/lb of water. The result of the fogging is a cooler more moisture laden air stream. Figure 1 presents a schematic of a typical fogging system.

The amount of heat removed is highly dependent upon the ambient air conditions. The two most important parameters are the dry bulb temperature and relative humidity. As moisture is added to the inlet air by the fogging, the vaporization of the fog droplets cools the air toward the wet-bulb temperature.

Fogging Tests

As required by Conditions 3 and 5 of the air construction permit, emission tests using EPA Method 7E were conducted for one representative turbine (CT-5). The tests were conducted during June 4-5, 2001 and are contained in Attachment B. Table 1 summarizes the results of the tests as well as calculations of emissions in lb/hr using EPA Method 19. The test results clearly show a decrease in NO_x emissions for the turbine tested.

Regulatory Applicability

A modification is defined in Rule 62-210.200 Florida Administrative Code (F.A.C.) as any physical change in, or a change in the method of operation of, or addition to a facility which would result in an increase in the actual emissions of any air pollutant subject to regulation under the Clean Air Act. A modification to a major source of air pollution, such as the Kennedy plant, may be subject to review under the Department's Prevention of Significant Deterioration (PSD) rules codified in Rule 62-212.400 F.A.C.

The installation of direct water spray fogging systems was determined to be a modification according to Rule 62-212.200 (188) F.A.C., since annual emissions will potentially increase as a result of the increased power and heat input.

Based on the test data, it is concluded that the NO_x emission rate decreased as a result of inlet fogging. For other pollutants, the increase in annual potential emissions associated with the use of the fogging systems is below the PSD significant emission rates. For the 3 combustion turbines the maximum potential annual increase in emissions is estimated as follows:

Summary of Maximum Annual Emissions - All Units - 3 CTs at 399 hr/yr

| <u>Pollutant</u> | <u>TPY</u> |
|------------------|---------------------|
| PM | 0.028 ^a |
| NO _x | -32.87 ^b |
| SO ₂ | 3.234 ^a |
| CO | 0.021 ^a |
| VOC | 0.003 ^a |

^a AP-42

^b Determined from test data.

These maximum potential emission rates are less than the significant emission rates in Table 62-212.400-2 in Rule 62-212.400 F.A.C. and; therefore, PSD would not apply.

Table 1. Emission Calculations for JEA Kennedy Generating Station CT-5

Foggers On:

| | |
|--|---|
| NOx Concentration | 167.7 ppm corrected to 15% O ₂ |
| NOx Concentration | 117.1 ppm |
| O ₂ Concentration | 16.80% |
| Heat Input | 709.5 MMBtu/hr |
| EPA Method 19; Oxygen Based F Factor: | |
| $E = C_d F_d [20.9/(20.9 - \%O_{2d})]$ | |
| F _d (distillate oil) | 9,190 dscf/MMBtu |
| ppm NOx | 1.19E-07 lb/scf |
| C _d | 117.1 ppm |
| C _d | 1.4E-05 lb/scf |
| E | 0.6550 lb/MMBtu |
| E | 464.7202 lb/hr |

Foggers Off:

| | |
|--|---|
| NOx Concentration | 192.4 ppm corrected to 15% O ₂ |
| NOx Concentration | 129.7 ppm |
| O ₂ Concentration | 16.90% |
| Heat Input | 698.8 MMBtu/hr |
| EPA Method 19; Oxygen Based F Factor: | |
| $E = C_d F_d [20.9/(20.9 - \%O_{2d})]$ | |
| F _d (distillate oil) | 9,190 dscf/MMBtu |
| ppm NOx | 1.19E-07 lb/scf |
| C _d | 129.7 ppm |
| C _d | 1.55E-05 lb/scf |
| E | 0.7436 lb/MMBtu |
| E | 519.6357 lb/hr |
| NOx Emission Decrease | -54.92 lb/hr |
| | -10.96 tons/year/CT |
| | -32.87 tons/year |

Emission Increases Resulting from Increased heat Input

| | |
|--|---------------------|
| Heat Input Increase | 10.7 MMBtu/hr |
| Hours per Year | 399 |
| PM Emission Factor ^a | 0.0043 lb/MMBtu |
| PM Emissions | 0.046 lb/hr/CT |
| PM Emissions | 0.0092 tons/year/CT |
| | 0.028 tons/year |
| SO ₂ Emission Factor ^a | 0.505 lb/MMBtu |
| SO ₂ Emissions | 5.404 lb/hr/CT |
| SO ₂ Emissions | 1.0780 tons/year/CT |
| | 3.234 tons/year |
| CO Emission Factor ^b | 0.0033 lb/MMBtu |
| CO Emissions | 0.035 lb/hr/CT |
| CO Emissions | 0.0070 tons/year/CT |
| | 0.021 tons/year |
| VOC Emission Factor ^a | 0.00041 lb/MMBtu |
| VOC Emissions | 0.004 lb/hr/CT |
| VOC Emissions | 0.0009 tons/year/CT |
| | 0.003 tons/year |

Note:

^a AP-42 Emissions Factors for Stationary Gas Turbines, Table 3.1-2a (April 2000)

^b AP-42 Emissions Factors for Stationary Gas Turbines, Table 3.1-1 (April 2000)

ATTACHMENT A
AIR PERMIT INFORMATION

July 13, 2000

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Walter P. Bussells
Jacksonville Electric Authority
21 West Church Street
Jacksonville, Florida 32202

RE: Kennedy Generating Station Combustion Turbines
Facility No. 0310047-004-AC

Dear Mr. Bussells:

The Department reviewed your request dated July 10, 2000 to modify the above mentioned construction permit. The request is acceptable and the referenced permit is hereby modified as follows:

SPECIFIC CONDITION 5

The test method for visible emissions shall be EPA Method 9 and the test method for nitrogen oxides shall be EPA Method 7 or 7E, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and, Part XI, Rule 2.1101, JEPB]

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

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 of the Florida Statutes. 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 permit applicant 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) of the Florida Statutes 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), 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 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 of the Florida Administrative Code.

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.

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.

Mediation is not available in this proceeding.

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. 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 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.

This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this order will not be effective until further order of the Department.

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.

Howard L. Rhodes, Director
Division of Air Resources
Management

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 _____ to the person(s) listed:

Mr. Walter P. Bussells, JEA*
Mr. Chris Kirts, DEP-NED
Mr. Jim Manning, RESD

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)

March 30, 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Bert Gianazza, P.E.
Jacksonville Electric Authority
21 West Church Street
Jacksonville, Florida 32202

RE: Kennedy Generating Station Combustion Turbines 3,4 and 5
DEP File No.: 0310047-009-AC

Dear Mr. Gianazza:

The Department received your letter on March 1, 2001 to modify the above mentioned construction permit. The letter requested restriction in the hours of operation from 1000 hrs/yr to 399 hrs/yr for each combustion turbine. Additionally, initial testing is requested to show no increase in actual NO_x emissions occur as a result of fogger operation. The request is acceptable and the referenced permit's Specific Condition No. 3 is hereby modified as follows:

From:

Inlet foggers may be installed at the compressor inlet to each of the three Westinghouse Model W 501 combustion turbine-electric generators. The four foggers may operate up to 3,000 hours per year in aggregate (average 1000 hours per unit per year). Maximum heat input shall not exceed 634 mmBtu/hr/unit and NO_x emissions shall not exceed 300 lb/hr /unit at 90° F and 63 percent RH. This maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing after the foggers are installed. Thereafter, compliance shall be demonstrated as required in Rule 62-297.310(7). Nitrogen oxides emissions shall be demonstrated by a stack test on one representative turbine. Testing shall be performed each federal fiscal year, no later than September 30th.

To:

Inlet foggers may be installed at the compressor inlet to each of the three Westinghouse Model W 501 combustion turbine-electric generators. The three foggers may operate up to 399 hours per year each. The maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Initial stack tests for NO_x using EPA Method 7 or 7E shall be performed on one representative turbine with and without the foggers operating to show that no increase in NO_x emissions occur as a result of fogger operation.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

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 of the Florida Statutes. 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 permit applicant 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) of the Florida Statutes 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), 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 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 of the Florida Administrative Code.

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.

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.

Mediation is not available in this proceeding.

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. 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 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.

This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this order will not be effective until further order of the Department.

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.

Howard L. Rhodes, Director
Division of Air Resources
Management

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 _____ to the person(s) listed:

Mr. Bert Gianazza, JEA*
Mr. Chris Kirts, DEP-NED
Mr. Jim Manning, RESD

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)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Mr. Walter P. Bussells
Jacksonville Electric Authority
21 West Church Street
Jacksonville, Florida 32202

DEP File No. 0310047-004-AC

Duval County

Enclosed is Final Permit Number 0310047-004-AC. This permit authorizes the installation of inlet foggers on the three simple cycle combustion turbines located at Kennedy Generating Station and designated as Emissions Units 003-005. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this 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.



C. H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4-20-00 to the person(s) listed:

Walter P. Bussells, JEA*
Bert Gianazza, JEA
Chris Kirts, DEP-NED
Jim Manning, RESD
Ken Kosky, P.E., Golder Associates

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.

Kerni Jones
(Clerk)

4-20-00
(Date)

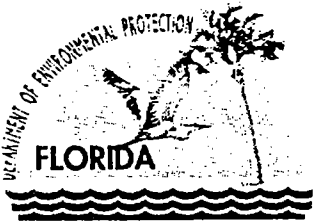
FINAL DETERMINATION

JEA Kennedy Generating Station Units 003-005 Simple Cycle Combustion Turbines Inlet Fogger Permit No. 0310047-004-AC

An Intent to Issue an Air Construction Permit for JEA Kennedy Generating Station, located at 4215 Tallyrand Avenue, Jacksonville, Duval County, Florida, was distributed on March 29, 2000. The Public Notice of Intent to Issue Air Construction Permit was published in the Florida Times-Union on April 1, 2000. Copies of the draft construction permit were available for public inspection at the Department offices in Jacksonville and Tallahassee.

The National Park Service, the U.S. Environmental Protection Agency or the public submitted no comments.

The final action of the Department is to issue the construction permit as proposed.



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE:

Jacksonville Electric Authority
21 West Church Street
Jacksonville, Florida 32202

Authorized Representative:

Mr. Walter P. Bussells

| | |
|--------------|---|
| DEP File No. | 0310047-004-AC |
| Project | Emissions Units 003 -005 Inlet Foggers |
| SIC No. | 4911 |
| Expires: | December 31, 2000 |

PROJECT AND LOCATION:

Permit for the installation of inlet foggers on the three 56 (gross capacity) megawatt simple cycle Westinghouse (Model W501) combustion turbine-electrical generators Emissions Units 003 thru 005.

The units are located at the JEA Kennedy Generating Station, 4215 Tallyrand Avenue, Jacksonville, Duval County. UTM coordinates are: Zone 17; 440.1 km E and 3359.15 km N.

STATEMENT OF BASIS:

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

ATTACHED APPENDIX MADE A PART OF THIS PERMIT:

Appendix GC Construction Permit General Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

FACILITY DESCRIPTION

This facility consists of three boilers, Nos. 8, 9 and 10; three combustion turbines, Nos. 3, 4, and 5; and, an auxiliary boiler, No. 1. The auxiliary boiler is allowed to operate when one of the boilers (No. 8, No. 9, or No. 10) is under standby status. There are no air pollution controls associated with the boilers. Boilers Nos. 8, 9 and 10 fire natural gas and/or No. 6 fuel oil; the combustion turbines fire only virgin No. 2 fuel oil; and, the auxiliary boiler fires No. 2 fuel oil and/or natural gas. There is a fuel oil storage tank farm associated with the boilers and turbines. This permitting action is for the installation of inlet foggers at the three (3) virgin No. 2 fuel oil-fired simple cycle combustion turbines that commenced commercial operation in 1973.

This Project is exempt from the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) as discussed in the Technical Evaluation and Preliminary Determination dated March 29, 2000.

REGULATORY CLASSIFICATION

This facility, JEA Kennedy Generating Station, is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

This facility is a major source of hazardous air pollutants (HAPs) and is also subject to the provisions of Title IV, Acid Rain, Clean Air Act as amended in 1990.

PERMIT SCHEDULE

- 04/01/00 Notice of Intent published in the Florida Times Union
- 03/29/00 Distributed Intent to Issue Permit
- 02/24/00 Application deemed complete
- 01/03/00 Received Application

RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

- Application received on January 3, 2000
- Department's incompleteness letter dated January 31, 2000
- JEA's response to Department's incompleteness letter received on February 24, 2000
- Department's Intent to Issue and Public Notice Package dated March 29, 2000

PERMIT SPECIFIC CONDITIONS

This permit addresses the following emissions units.

| <u>E.U. ID No.</u> | <u>Brief Description</u> |
|--------------------|--------------------------|
| -003 | Combustion Turbine No. 3 |
| -004 | Combustion Turbine No. 4 |
| -005 | Combustion Turbine No. 5 |

1. This permit, 0310047-004-AC, is limited to the installation of three inlet foggers on Emission Units 003-005 as described in Permit 0310047-001-AV.
2. The provisions of Permit 0310047-001-AV remain in effect. However, an application shall be submitted to revise that permit to reflect the installation of three inlet foggers on Emission Units 003-005.
3. Inlet foggers may be installed at the compressor inlet to each of the three Westinghouse Model W 501 combustion turbine-electric generators. The four foggers may operate up to 3,000 hours per year in aggregate (average 1000 hours per unit per year). Maximum heat input shall not exceed 634 mmBtu/hr/unit and NO_x emissions shall not exceed 300 lb/hr/unit at 90° F and 63 percent RH. This maximum heat input rate will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing after the foggers are installed. Thereafter, compliance shall be demonstrated as required in Rule 62-297.310(7). Nitrogen oxides emissions shall be demonstrated by a stack test on one representative turbine. Testing shall be performed each federal fiscal year, no later than September 30th. [Rule 62-296.570(4)(a)3, and (4)(b)5., F.A.C.]
4. The permittee shall record on a monthly basis in a written log the number of hours of operation for each evaporative cooling system and the total combined hours of operation for the previous 12 months for all three evaporative cooling systems. [Rule 62-4.160(15), F.A.C.]
5. The test method for visible emissions shall be EPA Method 9 and the test method for nitrogen oxides shall be EPA Method 7, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and, Part XI, Rule 2.1101, JEPB]

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- a) Have access to and copy and records that must be kept under the conditions of the permit;
 - b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- a) A description of and cause of non-compliance; and
 - b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

~~The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.~~

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 ~~The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.~~
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology ()
 - b) Determination of Prevention of Significant Deterioration (); and
 - c) Compliance with New Source Performance Standards ().
- G.14 The permittee shall comply with the following:
- a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Section III. Emissions Unit(s) and Conditions.

Subsection C. This section addresses the following emissions units.

| <u>E.U. ID No.</u> | <u>Brief Description</u> |
|--------------------|--------------------------|
| -003 | Combustion Turbine No. 3 |
| -004 | Combustion Turbine No. 4 |
| -005 | Combustion Turbine No. 5 |

Emissions units numbers 003, 004 and 005 are combustion turbines manufactured by Westinghouse (Model W501G) and are designated as Combustion Turbine No. 3, No. 4 and No. 5, respectively. Each turbine has a maximum heat input from virgin No. 2 fuel oil of 744.0 MMBtu @ 70° F, LHV (Lower Heating Value). The No. 2 fuel oil has a maximum sulfur content of 0.5%, by weight. These combustion turbines are used as peaking units during peak demand times, during emergencies, and during controls testing, to run a nominal 56.2 MW generator (each). Emissions from the combustion turbines are uncontrolled.

{Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required. These emissions units are not subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. A group of exhaust stacks serve the combustion turbines. Combustion turbines Nos. 3, 4 and 5 began commercial operation in 1973.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum operation heat input rates are as follows:

| <u>Unit No.</u> | <u>MMBtu/hr Heat Input</u> | <u>Fuel Type</u> |
|-----------------|----------------------------|------------------|
| 3 | 744.0 @ 70° F, LHV | No. 2 Fuel Oil |
| 4 | 744.0 @ 70° F, LHV | No. 2 Fuel Oil |
| 5 | 744.0 @ 70° F, LHV | No. 2 Fuel Oil |

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AO16-173880; and, derived from data in tabular format and provided by the permittee on 10/22/97]

C.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition C.13. [Rule 62-297.310(2), F.A.C.]

C.3. Methods of Operation - Fuels. Only virgin distillate No. 2 fuel oil shall be fired in the combustion turbines. [Rule 62-213.410(1), F.A.C.; and, AO16-173880]

C.4. Hours of Operation. These emissions unit(s) may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AO16-173880]

Emission Limitations and Standards

C.5. Visible Emissions. Visible emissions from each turbine shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.; and, AO16-173880]

C.6. Sulfur Dioxide - Sulfur Content. The sulfur content of the No. 2 fuel oil shall not exceed 0.5 percent, by weight.

[Requested in initial Title V permit application dated June 14, 1996; and, AO16-173880]

Excess Emissions

C.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

C.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

C.9. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by means of a fuel analysis provided by the vendor upon each fuel delivery. See specific conditions C.6. and C.12.

[Rule 62-213.440, F.A.C.]

C.10. Determination of Process Variables.

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

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

C.11. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

C.12. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or equivalent.
[Rules 62-213.440 and 62-297.440, F.A.C.]

C.13. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2), F.A.C.]

C.14. Applicable Test Procedures.

(a) Required Sampling Time.

2. Opacity Compliance Tests. When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4)(a)2.c., F.A.C.]

C.15. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; AO16-173880; and, SIP approved.]

C.16. Visible Emissions Testing - Biennial. By this permit, biennial (odd years) emissions compliance testing for visible emissions is required for each emissions unit, but is not required for those emissions units burning No. 2 fuel oil for less than 400 hours during the previous even year or the current odd year in question.

[Rules 62-297.310(7)(a)4. & 8., F.A.C.; and, AO16-173880]

Recordkeeping and Reporting Requirements

C.17. Malfunction Reporting. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the AWQD in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the AWQD.

[Rule 62-210.700(6), F.A.C.]

C.18. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the AWQD on the results of each such test.

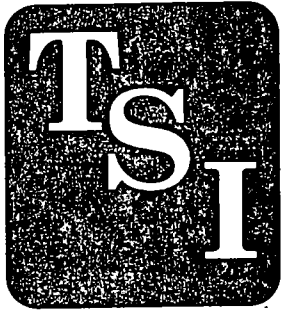
(b) The required test report shall be filed with the AWQD as soon as practical but no later than 45 days after the last sampling run of each test is completed.

[Rule 62-297.310(8), F.A.C.]

C.19. Records of No. 2 fuel oil consumption shall be maintained and made available to AWQD upon request.

[Rule 62-213.440, F.A.C.; and, AO16-173880]

ATTACHMENT B
STACK TEST RESULTS



TECHNICAL SERVICES, INC.

(904) 353-5761

2901 Danese Street

Jacksonville, Florida 32206

Source Test Report

**Jacksonville Electric Authority
Jacksonville, FL.**

Kennedy Generating Station

CT-5

NOx O2

6/4/01

Prepared By:

**Technical Services, Inc.
2901 Danese Street
Post Office Box 52329
Jacksonville, Florida 32201
(904) 353 - 5761**


David Salter

**USE OF THIS REPORT AND
INFORMATION INCLUDED**

This Report and the information contained is the property of the individual or organization named on the face hereof and may be freely distributed in its present form.

REPORT CERTIFICATION

Technical Services, Inc. (TSI) has used its professional experience and best professional efforts in performing this compliance test. I have reviewed the results of these tests and to the best of my knowledge and belief they are true and correct.

REPORT NO.

0105A14

Harvey C. Gray, Jr.
HARVEY C. GRAY, JR.
DATE:

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I. Introduction

Ambient Air Services Inc., was subcontracted to test for NOx and O2 on the CT-5 Turbine at the JEA Kennedy Generating Station, in Jacksonville, FL. The results appear in the following table. Analytical data appears in Appendix A.

JEA - KGS #5 TURBINE WITH FOGGERS ON

| | CORRECTED | | CORRECTED TO 15 % O2 |
|---------------------|--------------|-------------|----------------------|
| | NOX PPM | O2 % | NOX PPM |
| RUN 1 Average | 116.3 | 16.7 | 164.2 |
| RUN 2 Average | 117.5 | 16.8 | 167.8 |
| RUN 3 Average | 113.9 | 16.8 | 163.2 |
| RUN 4 Average | 114.5 | 16.8 | 167.2 |
| RUN 5 Average | 118.4 | 16.8 | 168.4 |
| RUN 6 Average | 115.5 | 16.8 | 165.7 |
| RUN 7 Average | 119.0 | 16.8 | 169.7 |
| RUN 8 Average | 120.3 | 16.8 | 171.9 |
| RUN 9 Average | 118.6 | 16.8 | 171.5 |
| Test Average | 117.1 | 16.8 | 167.7 |

JEA - KGS #5 TURBINE WITH FOGGERS OFF

| | | | |
|---------------------|--------------|-------------|--------------|
| RUN 1 Average | 126.5 | 17.1 | 194.0 |
| RUN 2 Average | 129.3 | 17.1 | 199.2 |
| RUN 3 Average | 131.8 | 17.0 | 199.3 |
| RUN 4 Average | 132.4 | 17.0 | 200.6 |
| RUN 5 Average | 123.4 | 16.9 | 182.7 |
| RUN 6 Average | 126.7 | 16.8 | 184.5 |
| RUN 7 Average | 131.3 | 16.8 | 189.1 |
| RUN 8 Average | 131.3 | 16.8 | 189.8 |
| RUN 9 Average | 134.4 | 16.8 | 192.4 |
| Test Average | 129.7 | 16.9 | 192.4 |

III. Field and Analytical Procedures

METHOD 3A
DETERMINATION OF OXYGEN AND CARBON DIOXIDE CONCENTRATIONS
IN EMISSIONS FROM STATIONARY SOURCES
[INSTRUMENTAL ANALYZER PROCEDURE]

1. Applicability and Principle

1.1 Applicability. This method is applicable to the determination of oxygen (O₂) and carbon dioxide (CO₂) concentrations in emissions from stationary sources only when specified within the regulations.

1.2 Principle. A sample is continuously extracted from the effluent stream: a portion of the sample stream is conveyed to an instrumental analyzer(s) for determination of O₂ and CO₂ concentration(s). Performance specifications and test procedures are provided to ensure reliable data.

2. Range and Sensitivity

Same as in Method 6C, Sections 2.1 and 2.2 except that the span of the monitoring system shall be selected such that the average O₂ or CO₂ concentration is not less than 20 percent of the span.

3. Definitions

3.1 Measurement System. The total equipment required for the determination of the O₂ or CO₂ concentration. The measurement system consists of the same major subsystems as defined in Method 6C, Sections 3.1.1, 3.1.2, and 3.1.3.

3.2 Span, Calibration Gas, Analyzer Calibration error, Sampling System Bias, Zero Drift, Calibration Drift, Response Time, and Calibration Curve. Same as in Method 6C, Sections 3.2 through 3.8, and 3.10.

3.3 Interference Response. The output response of the measurement system to a component in the sample gas, other than the gas component being measured.

4. Measurement System Performance Specifications

Same as in Method 6C, Sections 4.1 through 4.4.

5. Apparatus and Reagents

5.1 Measurement System. Any measurement system for O₂ or CO₂ that meets the specifications of this method. A schematic of an acceptable measurement system is shown in Figure 6C-1 of Method 6C. The essential components of the measurement systems are described below:

5.1.1 Sample Probe. A leak-free probe of sufficient length to traverse the sample points.

5.1.2 Sample Line. Tubing to transport the sample gas from the probe to the moisture removal system. A heated sample line is not required for systems that measure the O₂ or CO₂ concentration on a dry basis, or transport dry gases.

5.1.3 Sample Transport Line, Calibration Valve Assembly, Moisture Removal System, Particulate Filter, Sample Pump, Sample Flow Rate Control, Sample Gas Manifold, and Data Recorder. Same as in Method 6C, Sections 5.1.3 through 5.1.9, and 5.1.11, except that the requirements to use stainless steel, Teflon, and nonreactive glass filter do not apply.

5.1.4 Gas Analyzer. An analyzer to determine continuously the O₂ or CO₂ concentration in the sample gas stream. The analyzer must meet the applicable performance specifications of Section 4. A means of controlling the analyzer flow rate and a device for determining proper sample flow rate (e.g., precision rotameter, pressure gauge downstream of all flow controls, etc.) shall be provided at the analyzer. The requirements for measuring and controlling the analyzer for measuring and controlling the analyzer flow rate are not applicable if data are presented that demonstrate the analyzer is insensitive to flow variations over the range encountered during the test.

5.2 Calibration Gases. The calibration gases for CO₂ analyzers shall be CO₂ in N₂ or CO₂ in air. Alternatively, CO₂/SO₂, O₂/SO₂, or O₂/CO₂/SO₂ gas mixtures in N₂ may be used. Three calibration gases, as specified in Sections 5.3.1 through 5.3.4 of Method 6C, shall be used. For O₂ monitors that cannot analyze zero gas, a calibration gas concentration equivalent to less than 10 percent of the span may be used in place of zero gas.

6. Measurement System Performance Test Procedures

Perform the following procedures before measurement of emissions (Section 7).

6.1 Calibration Concentration Verification. Follow Section 6.1 of Method 6C, except if calibration gas analysis is required, use Method 3 and change the acceptance criteria for agreement among Method 3 results to 5 percent (or 0.2 percent by volume, whichever is greater).

6.2 Interference Response. Conduct an interference response test of the analyzer prior to its initial use in the field. Thereafter, recheck the measurement system if changes are made in the instrumentation that could alter the interference response (e.g., changes in the type of gas detector). Conduct the interference response in accordance with Section 5.4 of Method 20.

6.3 Measurement System Preparation, Analyzer Calibration Error, Response Time, and Sampling System Bias Check. Follow Sections 6.2 through 6.4 of Method 6C.

7. Emission Test Procedure

7.1 Selection of Sampling Site and Sampling Points. Select a measurement site and sampling points using the same criteria that are applicable to tests performed using Method 3.

7.2 Sample Collection. Position the sampling probe at the first measurement point, and begin sampling at the same rate as that used during the response time test. Maintain constant rate sampling (i.e., ± 10 percent) during the entire run. The sampling time per run shall be the same as for tests conducted using Method 3 plus twice the average system response time. For each run, use only those measurements obtained after twice the response time of the measurement system has elapsed to determine the average effluent concentration.

7.3 Zero and Calibration Drift Test. Follow Section 7.4 of Method 6C.

8. Quality Control Procedures

The following quality control procedures are recommended when the results of this method are used for an emission rate correction factor, or excess air determination. The tester should select one of the following options for validating measurement results:

8.1 If both O₂ and CO₂ are measured using Method 3A, the procedures described in Section 4.4 of Method 3 should be followed to validate the O₂ and CO₂ measurement results.

8.2 If only O₂ is measured using Method 3A, measurements of the sample stream CO₂ concentration should be obtained at the sample by-pass vent discharge using an Orsat or Fyrite analyzer, or equivalent. Duplicate samples should be obtained concurrent with at least one run. Average the duplicate Orsat or Fyrite analysis results for each run. Use the average CO₂ values for comparison with the O₂ measurements in accordance with the procedures described in Section 4.4 of Method 3.

8.3 If only CO₂ is measured using Method 3A, concurrent measurements of the sample stream CO₂ concentration should be obtained using an Orsat or Fyrite analyzer as described in section 8.2. For each run, differences greater than 0.5 percent between the Method 3A results and the average of the duplicate Fyrite analysis should be investigated.

9. Emission Calculation

9.1 For all CO₂ analyzers, and for O₂ analyzers that can be calibrated with zero gas, follow Section 8 of Method 6C, except express all concentrations as percent, rather than ppm.

9.2 For O₂ analyzers that use a low-level calibration gas in place of a zero gas, calculate the effluent gas concentration using Equation 3A-1.

$$C_{\text{gas}} = \frac{C_{\text{ma}} - C_{\text{oa}}}{C_{\text{m}} - C_{\text{o}}} (C - C_{\text{m}}) + C_{\text{ma}} \quad (\text{Equation 3A-1})$$

Where:

C_{gas} = Effluent gas concentration, dry basis, percent.

C_{ma} = Actual concentration of the upscale calibration gas, percent.

C_{oa} = Actual concentration of the low-level calibration gas, percent.

C_m = Average of initial and final system calibration bias check responses for the upscale calibration gas, percent.

C_o = Average of initial and final system calibration bias check responses for the low level gas, percent.

\bar{C} = Average gas concentration indicated by the gas analyzer,
dry basis, percent.

10. Bibliography

Same as in Bibliography of Method 6C.

METHOD 7E

DETERMINATION OF NITROGEN OXIDES
EMISSIONS FROM STATIONARY SOURCES

1. Applicability and Principle

1.1 Applicability. This method is applicable to the determination of nitrogen oxides (NO_x) concentrations in emissions from stationary sources only when specified within the regulations.

1.2 Principle. A gas sample is continuously extracted from a stack, and a portion of the sample is conveyed to an instrumental chemiluminescent analyzer for determination of NO_x concentration. Performance specifications and test procedures are provided to ensure reliable data.

2. Range and Sensitivity

Same as Method 6C, Sections 2.1 and 2.2.

3. Definitions

3.1 Measurement System. The total equipment required for the determination of NO_x concentration. The measurement system consists of the following major subsystems:

3.1.1 Sample Interface, Gas Analyzer, and Data Recorder.

Same as Method 6C, Sections 3.1.1, 3.1.2, and 3.1.3.

3.1.2 NO_2 To NO Converter. A device that converts the nitrogen dioxide (NO_2) in the sample gas to nitrogen oxide (NO).

3.2 Span, Calibration Gas, Analyzer Calibration Error, Sampling System Bias, Zero Drift, Calibration Drift, and Response Time. Same as Method 6C, Sections 3.2 through 3.8.

3.3 Interference Response. The output response of the measurement system to a component in the sample gas, other than the gas component being measured.

4. Measurement System Performance Specifications.

Same as Method 6C, Sections 4.1 through 4.4.

5. Apparatus and Reagents.

5.1 Measurement System. Any measurement system for NO_x that meets the specifications of this method. A schematic of an acceptable measurement system is shown in Figure 6C-1 of Method 6C. The essential components of the measurement system are described below:

5.1.1 Sample Probe, Sample Line, Calibration Valve Assembly, Moisture Removal System, Particulate Filter, Sample Pump, Sample Flow Rate Control, Sample Gas Manifold, and Data Recorder. Same as Method 6C, Sections 5.1.1 through 5.1.9, and 5.1.11.

5.1.2 NO_2 to NO Converter. That portion of the system that converts the nitrogen dioxide (NO_2) in the sample gas to nitrogen oxide (NO). An NO_2 to NO converter is not necessary if data are presented to demonstrate that the NO_2 portion of the exhaust gas is less than 5 percent of the total NO_x concentration.

5.1.3 NO_x Analyzer. An analyzer based on the principles of chemiluminescence, to determine continuously the NO_x concentration in the same gas stream. The analyzer shall meet the applicable performance specifications of Section 4. A means of controlling the analyzer flow rate and device for determining proper sample flow rate (e.g., precision rotameter, pressure gauge down-stream of all flow controls, etc.) shall be provided at the analyzer.

5.2 NO_x Calibration Gases. The calibration gases for the NO_x analyzer shall be NO in N_2 . Three calibration gases, as specified in Section 5.3.1 through 5.3.3 of Method 6C, shall be used. Ambient air may be used for the zero gas.

6. Measurement System Performance Test Procedures.

Perform the following procedures before measurement of emissions (Section 7).

6.1 Calibration Gas Concentration Verification. Follow Section 6.1 of Method 6C, except if calibration gas analysis is required, use Method 7, and change all 5 percent performance values to 10 percent (or 10 ppm, whichever is greater).

6.2 Interference Response. Conduct an interference response test of the analyzer prior to its initial use in the field. Thereafter, recheck the measurement system if changes are made in the instrumentation that could alter the interference response (e.g., changes in the gas detector). Conduct the interference response in accordance with Section 5.4 of Method 20.

6.3 Measurement System Preparation, Analyzer Calibration Error, and sample System Bias Check. Follow Sections 6.2 through 6.4 of Method 6C.

6.4 NO₂ to NO Conversion Efficiency. Unless data are presented to demonstrate that the NO₂ concentration within the sample stream is not greater than 5 percent of the NO_x concentration, conduct an NO₂ to NO conversion efficiency test in accordance with Section 5.6 of Method 20.

7. Emission Test Procedure.

7.1 Selection of Sampling Site and Sampling Points. Select a measurement site and sampling points using the same criteria that are applicable to tests performed using Method 7.

7.2 Sample Collection. Position the sampling probe at the first measurement point, and begin sampling at the same rate as used during the system calibration drift test. Maintain constant rate sampling (i.e., ± 10 percent) during the entire run. The sampling time per run shall be the same as the total time required to perform a run using Method 7, plus twice the system response time. For each run, use only those measurements obtained after twice the response time of the measurement system has elapsed, to determine the average effluent concentration.

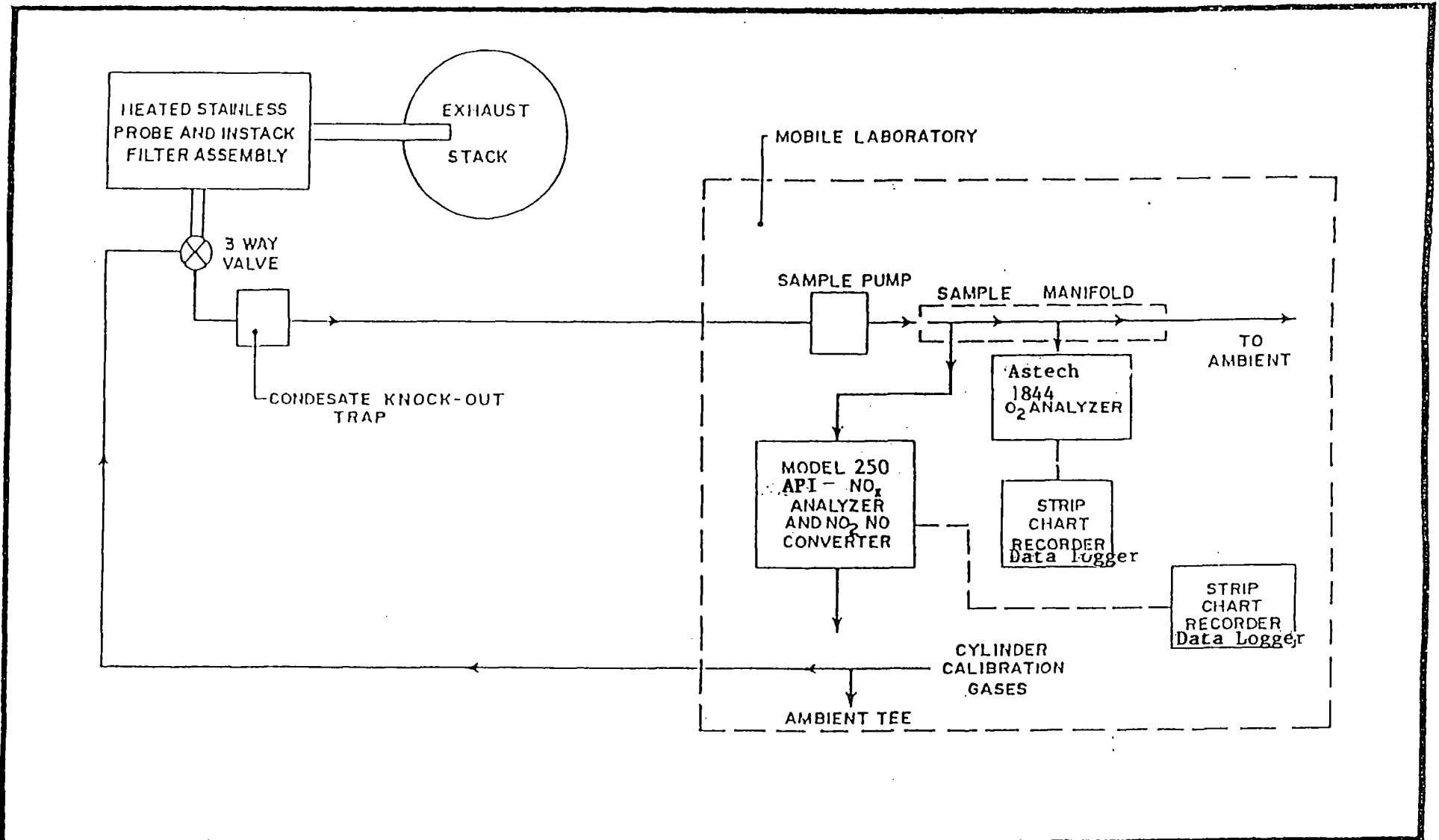
7.3 Zero and Calibration Drift Test. Follow Section 7.4 of Method 6C.

8. Emission Calculation

Follow Section 8 of Method 6C.

9. Bibliography

Same as bibliography of Method 6C.



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FIGURE 3
EPA METHOD 7E SAMPLING SCHEMATIC

TECHNICAL
SERVICES, INC.

APPENDIX A
DATA LOGGER DATA

DATA RECORDER PRINTOUTS WITH FOGGERS ON

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | NOx O Response | NOx 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|--------------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 13:50 | -0.69 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 13:50 | -0.69 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 13:50 | 2.97 | 20.80 | STANDBY | | | | | | | |
| 6/4/2001 13:50 | 48.03 | 19.39 | STANDBY | | | | | | | |
| 6/4/2001 13:51 | 104.53 | 17.54 | STANDBY | | | | | | | |
| 6/4/2001 13:51 | 120.77 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 13:51 | 121.69 | 16.63 | STANDBY | | | | | | | |
| 6/4/2001 13:51 | 121.92 | 16.60 | STANDBY | | | | | | | |
| 6/4/2001 13:52 | 121.92 | 16.56 | STANDBY | | | | | | | |
| 6/4/2001 13:52 | 121.69 | 16.56 | STANDBY | | | | | | | |
| 6/4/2001 13:52 | 122.37 | 16.56 | STANDBY | | | | | | | |
| 6/4/2001 13:52 | 122.83 | 16.56 | STANDBY | | | | | | | |
| 6/4/2001 13:53 | 123.29 | 16.53 | STANDBY | | | | | | | |
| 6/4/2001 13:53 | 123.75 | 16.53 | STANDBY | | | | | | | |
| 6/4/2001 13:53 | 123.75 | 16.53 | STANDBY | | | | | | | |
| 6/4/2001 13:53 | 123.98 | 16.53 | STANDBY | | | | | | | |
| 6/4/2001 13:54 | 124.20 | 16.53 | STANDBY | | | | | | | |
| 6/4/2001 13:54 | 123.98 | 16.50 | STANDBY | | | | | | | |
| 6/4/2001 13:54 | 123.52 | 16.47 | STANDBY | | | | | | | |
| 6/4/2001 13:54 | 94.92 | 15.88 | STANDBY | | | | | | | |
| 6/4/2001 13:55 | 29.50 | 9.70 | STANDBY | | | | | | | |
| 6/4/2001 13:55 | 6.17 | 6.00 | STANDBY | | | | | | | |
| 6/4/2001 13:55 | 1.14 | 5.16 | STANDBY | | | | | | | |
| 6/4/2001 13:55 | -0.01 | 4.97 | STANDBY | | | | | | | |
| 6/4/2001 13:56 | -0.46 | 4.91 | STANDBY | | | | | | | |
| 6/4/2001 13:56 | -0.46 | 4.88 | STANDBY | | | | | | | |
| 6/4/2001 13:56 | -0.46 | 4.85 | STANDBY | | | | | | | |
| 6/4/2001 13:56 | -0.46 | 4.81 | STANDBY Average ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 13:57 | -0.46 | 4.81 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 13:57 | -0.46 | 4.81 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 13:57 | -0.46 | 4.81 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 13:57 | -0.46 | 4.81 | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 13:57 | -0.46 | 5.72 | STANDBY | | | | | | | |
| 6/4/2001 13:58 | -0.46 | 9.61 | STANDBY | | | | | | | |
| 6/4/2001 13:58 | -0.46 | 11.33 | STANDBY | | | | | | | |
| 6/4/2001 13:58 | -0.46 | 11.68 | STANDBY | | | | | | | |
| 6/4/2001 13:58 | -0.46 | 11.77 | STANDBY | | | | | | | |
| 6/4/2001 13:59 | -0.46 | 11.80 | STANDBY | | | | | | | |
| 6/4/2001 13:59 | -0.69 | 11.83 | STANDBY Average 11.9 O2, ZERO NOX | | | | | | | |
| 6/4/2001 13:59 | -0.46 | 11.83 | 11.9 O2, ZERO NOX | | | | | | | |
| 6/4/2001 13:59 | -0.69 | 11.83 | 11.9 O2, ZERO NOX | | | | | | | |
| 6/4/2001 14:00 | -0.69 | 11.83 | 11.9 O2, ZERO NOX | | | | | | | |
| 6/4/2001 14:00 | -0.92 | 11.83 | 11.9 O2, ZERO NOX | | | | | | | |
| 6/4/2001 14:00 | -0.92 | 11.83 | 11.9 O2, ZERO NOX | | | | | | | |
| 6/4/2001 14:00 | 5.94 | 14.65 | 11.9 O2, ZERO NOX Average | | | | | | | |
| 6/4/2001 14:01 | 111.62 | 19.54 | STANDBY | | | | | | | |
| 6/4/2001 14:01 | 180.93 | 20.36 | STANDBY | | | | | | | |
| 6/4/2001 14:01 | 195.34 | 20.51 | STANDBY | | | | | | | |
| 6/4/2001 14:01 | 197.86 | 20.54 | STANDBY | | | | | | | |
| 6/4/2001 14:02 | 198.78 | 20.58 | STANDBY | | | | | | | |
| 6/4/2001 14:02 | 199.00 | 20.58 | STANDBY | | | | | | | |
| 6/4/2001 14:02 | 199.23 | 20.70 | STANDBY | | | | | | | |
| 6/4/2001 14:02 | 199.46 | 20.92 | STANDBY Average | | | | | | | |
| 6/4/2001 14:03 | 199.46 | 20.92 | 200.4 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:03 | 199.46 | 20.92 | 200.4 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:03 | 199.46 | 20.92 | 200.4 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:03 | 199.69 | 20.92 | 200.4 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:03 | 199.92 | 20.92 | 200.4 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:04 | 200.15 | 20.92 | 200.4 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:04 | 199.26 | 20.92 | 200.4 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 14:04 | 199.26 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 14:04 | 199.26 | 20.92 | STANDBY | | | | | | | |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 14:04 | 118.71 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 14:05 | 105.45 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 14:05 | 102.93 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 14:05 | 102.47 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 14:05 | 102.47 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 14:06 | 102.47 | 20.92 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 14:06 | 102.70 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:06 | 102.70 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:06 | 102.93 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:07 | 102.93 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 14:07 | 102.93 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 14:07 | 104.07 | 20.95 | STANDBY | | | | | | | |
| 6/4/2001 14:07 | 116.20 | 20.95 | STANDBY | | | | | | | |
| 6/4/2001 14:08 | 118.94 | 20.82 | STANDBY | | | | | | | |
| 6/4/2001 14:08 | 119.63 | 20.82 | STANDBY | | | | | | | |
| 6/4/2001 14:08 | 127.18 | 20.89 | STANDBY | | | | | | | |
| 6/4/2001 14:08 | 120.09 | 18.44 | STANDBY | | | | | | | |
| 6/4/2001 14:09 | 119.86 | 17.16 | STANDBY | | | | | | | |
| 6/4/2001 14:09 | 120.54 | 16.94 | STANDBY | | | | | | | |
| 6/4/2001 14:09 | 120.32 | 16.91 | STANDBY | | | | | | | |
| 6/4/2001 14:09 | 120.77 | 16.85 | STANDBY | | | | | | | |
| 6/4/2001 14:10 | 119.63 | 16.88 | STANDBY | | | | | | | |
| 6/4/2001 14:10 | 119.40 | 16.88 | STANDBY | | | | | | | |
| 6/4/2001 14:10 | 118.71 | 16.91 | STANDBY | | | | | | | |
| 6/4/2001 14:10 | 118.03 | 16.91 | STANDBY | | | | | | | |
| 6/4/2001 14:11 | 118.26 | 16.91 | STANDBY | | | | | | | |
| 6/4/2001 14:11 | 119.17 | 16.88 | STANDBY | | | | | | | |
| 6/4/2001 14:11 | 121.92 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:11 | 123.44 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:12 | 123.09 | 16.74 | STANDBY | | | | | | | |
| 6/4/2001 14:12 | 121.92 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:12 | 122.15 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:12 | 123.29 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:13 | 122.60 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:13 | 121.00 | 16.82 | STANDBY | | | | | | | |
| 6/4/2001 14:13 | 120.32 | 16.85 | STANDBY | | | | | | | |
| 6/4/2001 14:13 | 119.63 | 16.85 | STANDBY | | | | | | | |
| 6/4/2001 14:14 | 121.00 | 16.82 | STANDBY | | | | | | | |
| 6/4/2001 14:14 | 120.09 | 16.82 | STANDBY | | | | | | | |
| 6/4/2001 14:14 | 120.77 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:14 | 120.77 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:15 | 121.69 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:15 | 122.37 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:15 | 121.46 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:15 | 121.46 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:16 | 121.23 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:16 | 121.46 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:16 | 120.77 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:16 | 121.23 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:17 | 121.00 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:17 | 120.09 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:17 | 119.86 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:17 | 119.70 | 16.79 | STANDBY | | | | | | | |
| 6/4/2001 14:18 | 119.17 | 16.85 | STANDBY | | | | | | | |
| 6/4/2001 14:18 | 120.32 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:18 | 120.09 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:18 | 119.17 | 16.82 | STANDBY | | | | | | | |
| 6/4/2001 14:19 | 118.94 | 16.82 | STANDBY | | | | | | | |
| 6/4/2001 14:19 | 119.63 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:19 | 121.00 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:19 | 122.37 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:20 | 121.69 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:20 | 121.23 | 16.72 | STANDBY | | | | | | | |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 14:20 | 121.00 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:20 | 121.69 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:21 | 122.15 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:21 | 121.23 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:21 | 120.54 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:21 | 120.77 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:22 | 120.54 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:22 | 120.09 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:22 | 119.86 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:22 | 118.26 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:23 | 118.71 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:23 | 118.49 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:23 | 118.49 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:23 | 120.54 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:24 | 119.40 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:24 | 121.23 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:24 | 119.63 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:24 | 118.49 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:25 | 120.09 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:25 | 121.23 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:25 | 120.32 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:25 | 119.40 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:26 | 119.40 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:26 | 118.49 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:26 | 119.63 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:26 | 120.09 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:27 | 120.54 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:27 | 123.29 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:27 | 124.20 | 16.66 | STANDBY | | | | | | | |
| 6/4/2001 14:27 | 123.52 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:28 | 123.06 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:28 | 122.37 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:28 | 119.63 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:28 | 115.97 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:29 | 115.28 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:29 | 113.68 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:29 | 114.14 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:29 | 114.83 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:30 | 113.68 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:30 | 113.00 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:30 | 114.37 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:30 | 115.05 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:31 | 114.14 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:31 | 114.37 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:31 | 115.05 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:31 | 114.37 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:32 | 114.60 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:32 | 114.83 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:32 | 114.14 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:32 | 114.37 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:33 | 114.60 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:33 | 113.22 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:33 | 113.22 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 14:33 | 113.91 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:34 | 115.05 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:34 | 117.11 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 14:34 | 120.09 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:34 | 118.94 | 16.72 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 14:35 | 117.34 | 16.75 | RUN 1 | 0.94 | 102.32 | 4.87 | 20.91 | 116.0 | 16.8 | 165.8 |
| 6/4/2001 14:35 | 117.80 | 16.75 | RUN 1 | 0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.8 | 166.4 |
| 6/4/2001 14:35 | 118.26 | 16.75 | RUN 1 | 0.94 | 102.32 | 4.87 | 20.91 | 116.9 | 16.8 | 167.1 |
| 6/4/2001 14:35 | 118.03 | 16.75 | RUN 1 | 0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.8 | 166.7 |
| 6/4/2001 14:36 | 119.63 | 16.72 | RUN 1 | 0.94 | 102.32 | 4.87 | 20.91 | 118.3 | 16.7 | 167.7 |
| 6/4/2001 14:36 | 119.63 | 16.72 | RUN 1 | 0.94 | 102.32 | 4.87 | 20.91 | 118.3 | 16.7 | 167.7 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | NOx O Response | NOx 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|----------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 14:36 | 120.32 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 119.0 | 16.7 | 167.5 |
| 6/4/2001 14:36 | 119.86 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 118.5 | 16.7 | 166.8 |
| 6/4/2001 14:37 | 120.77 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 119.4 | 16.7 | 166.8 |
| 6/4/2001 14:37 | 119.86 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 118.5 | 16.7 | 166.8 |
| 6/4/2001 14:37 | 121.00 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 119.6 | 16.7 | 168.4 |
| 6/4/2001 14:37 | 119.40 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 118.1 | 16.7 | 164.9 |
| 6/4/2001 14:38 | 117.11 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.8 | 16.7 | 164.2 |
| 6/4/2001 14:38 | 117.57 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.3 | 16.7 | 164.9 |
| 6/4/2001 14:38 | 117.11 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.8 | 16.7 | 164.2 |
| 6/4/2001 14:38 | 117.11 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.8 | 16.7 | 164.2 |
| 6/4/2001 14:39 | 118.71 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.4 | 16.7 | 165.2 |
| 6/4/2001 14:39 | 118.49 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.2 | 16.7 | 164.9 |
| 6/4/2001 14:39 | 118.03 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 163.1 |
| 6/4/2001 14:39 | 117.80 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 162.7 |
| 6/4/2001 14:40 | 118.03 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 163.1 |
| 6/4/2001 14:40 | 118.71 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.4 | 16.7 | 164.0 |
| 6/4/2001 14:40 | 118.71 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.4 | 16.7 | 164.0 |
| 6/4/2001 14:40 | 117.57 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.3 | 16.7 | 163.7 |
| 6/4/2001 14:41 | 118.88 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.6 | 16.7 | 163.9 |
| 6/4/2001 14:41 | 118.03 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 164.3 |
| 6/4/2001 14:41 | 117.34 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.0 | 16.7 | 163.4 |
| 6/4/2001 14:41 | 118.03 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 163.1 |
| 6/4/2001 14:42 | 117.58 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.3 | 16.7 | 162.5 |
| 6/4/2001 14:42 | 117.53 | 16.68 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.2 | 16.7 | 163.4 |
| 6/4/2001 14:42 | 115.97 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.7 | 16.7 | 161.3 |
| 6/4/2001 14:42 | 116.88 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.6 | 16.7 | 162.7 |
| 6/4/2001 14:43 | 117.80 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 162.7 |
| 6/4/2001 14:43 | 117.80 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 162.7 |
| 6/4/2001 14:43 | 118.03 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 163.1 |
| 6/4/2001 14:43 | 117.80 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 162.7 |
| 6/4/2001 14:43 | 117.80 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 162.7 |
| 6/4/2001 14:43 | 118.03 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 163.1 |
| 6/4/2001 14:43 | 117.80 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 162.7 |
| 6/4/2001 14:44 | 117.80 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 162.7 |
| 6/4/2001 14:44 | 116.43 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.1 | 16.7 | 162.1 |
| 6/4/2001 14:44 | 115.97 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.7 | 16.7 | 162.6 |
| 6/4/2001 14:44 | 116.66 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.4 | 16.7 | 163.6 |
| 6/4/2001 14:45 | 117.11 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.8 | 16.7 | 163.0 |
| 6/4/2001 14:45 | 116.20 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.9 | 16.7 | 161.8 |
| 6/4/2001 14:45 | 115.28 | 16.75 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.0 | 16.8 | 162.9 |
| 6/4/2001 14:45 | 115.97 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.7 | 16.7 | 162.6 |
| 6/4/2001 14:46 | 117.57 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.3 | 16.7 | 164.9 |
| 6/4/2001 14:46 | 118.03 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 164.3 |
| 6/4/2001 14:46 | 117.25 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.9 | 16.7 | 164.2 |
| 6/4/2001 14:47 | 118.94 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.6 | 16.7 | 164.3 |
| 6/4/2001 14:47 | 118.94 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.6 | 16.7 | 164.3 |
| 6/4/2001 14:47 | 118.71 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.4 | 16.7 | 164.0 |
| 6/4/2001 14:47 | 117.80 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 164.0 |
| 6/4/2001 14:48 | 117.11 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.8 | 16.7 | 164.2 |
| 6/4/2001 14:48 | 115.43 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.1 | 16.7 | 163.3 |
| 6/4/2001 14:48 | 118.03 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 164.3 |
| 6/4/2001 14:48 | 118.03 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 163.1 |
| 6/4/2001 14:49 | 117.80 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 164.0 |
| 6/4/2001 14:49 | 118.71 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.4 | 16.7 | 164.0 |
| 6/4/2001 14:49 | 118.51 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.2 | 16.7 | 165.1 |
| 6/4/2001 14:49 | 117.57 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.3 | 16.7 | 164.9 |
| 6/4/2001 14:50 | 117.34 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.0 | 16.7 | 164.5 |
| 6/4/2001 14:50 | 118.03 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.7 | 16.7 | 165.5 |
| 6/4/2001 14:50 | 118.71 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.4 | 16.7 | 165.2 |
| 6/4/2001 14:50 | 118.94 | 16.66 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 117.6 | 16.7 | 164.3 |
| 6/4/2001 14:51 | 117.80 | 16.69 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 164.0 |
| 6/4/2001 14:51 | 115.66 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.4 | 16.7 | 163.6 |
| 6/4/2001 14:51 | 115.43 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.1 | 16.7 | 163.3 |
| 6/4/2001 14:51 | 116.20 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.9 | 16.7 | 163.0 |
| 6/4/2001 14:52 | 115.05 | 16.78 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 113.8 | 16.8 | 163.8 |
| 6/4/2001 14:52 | 116.20 | 16.75 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.9 | 16.8 | 164.2 |
| 6/4/2001 14:52 | 116.88 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.6 | 16.7 | 163.9 |
| 6/4/2001 14:52 | 116.88 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.6 | 16.7 | 163.9 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | NOx O Response | NOx 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOX, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 14:53 | 117.57 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.3 | 16.7 | 164.9 |
| 6/4/2001 14:53 | 117.80 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.5 | 16.7 | 165.2 |
| 6/4/2001 14:53 | 117.11 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.8 | 16.7 | 164.2 |
| 6/4/2001 14:53 | 117.34 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 116.0 | 16.7 | 164.6 |
| 6/4/2001 14:54 | 116.43 | 16.72 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.1 | 16.7 | 163.3 |
| 6/4/2001 14:54 | 115.74 | 16.75 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.5 | 16.8 | 163.5 |
| 6/4/2001 14:54 | 115.51 | 16.75 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.2 | 16.8 | 163.2 |
| 6/4/2001 14:54 | 115.74 | 16.78 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.5 | 16.8 | 164.8 |
| 6/4/2001 14:55 | 115.97 | 16.75 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.7 | 16.8 | 163.9 |
| 6/4/2001 14:55 | 116.20 | 16.75 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.9 | 16.8 | 164.2 |
| 6/4/2001 14:55 | 115.97 | 16.75 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 114.7 | 16.8 | 163.9 |
| 6/4/2001 14:55 | 116.66 | 16.75 | RUN 1 | -0.94 | 102.32 | 4.87 | 20.91 | 115.4 | 16.8 | 164.8 |
| | | | RUN 1 Average | | | | | 116.3 | 16.7 | 164.2 |
| 6/4/2001 14:56 | 116.88 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:56 | 117.11 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:56 | 117.57 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:56 | 118.71 | 16.66 | STANDBY | | | | | | | |
| 6/4/2001 14:57 | 118.71 | 16.66 | STANDBY | | | | | | | |
| 6/4/2001 14:57 | 118.71 | 16.66 | STANDBY | | | | | | | |
| 6/4/2001 14:57 | 119.40 | 16.66 | STANDBY | | | | | | | |
| 6/4/2001 14:57 | 118.94 | 16.66 | STANDBY | | | | | | | |
| 6/4/2001 14:58 | 118.94 | 16.66 | STANDBY | | | | | | | |
| 6/4/2001 14:58 | 119.40 | 16.66 | STANDBY | | | | | | | |
| 6/4/2001 14:58 | 118.03 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:58 | 117.57 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:59 | 118.94 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:59 | 118.94 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 14:59 | 118.49 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 14:59 | 118.94 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 15:00 | 117.80 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 15:00 | 117.80 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 15:00 | 116.66 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 15:00 | 113.91 | 16.82 | STANDBY | | | | | | | |
| 6/4/2001 15:01 | 66.33 | 18.76 | STANDBY | | | | | | | |
| 6/4/2001 15:01 | 80.28 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 15:01 | 39.34 | 19.01 | STANDBY | | | | | | | |
| 6/4/2001 15:01 | 21.95 | 17.72 | STANDBY | | | | | | | |
| 6/4/2001 15:02 | 72.28 | 7.45 | STANDBY | | | | | | | |
| 6/4/2001 15:02 | 95.84 | 16.85 | STANDBY | | | | | | | |
| 6/4/2001 15:02 | 99.96 | 20.11 | STANDBY | | | | | | | |
| 6/4/2001 15:02 | 100.87 | 20.67 | STANDBY | | | | | | | |
| 6/4/2001 15:03 | 101.10 | 20.80 | STANDBY | | | | | | | |
| 6/4/2001 15:03 | 101.33 | 20.86 | STANDBY | | | | | | | |
| 6/4/2001 15:03 | 101.56 | 20.86 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 15 03 | 101.79 | 20.89 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15 04 | 101.79 | 20.89 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15 04 | 101.79 | 20.89 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 15 04 | 97.67 | 20.89 | STANDBY | | | | | | | |
| 6/4/2001 15 04 | 31.79 | 19.98 | STANDBY | | | | | | | |
| 6/4/2001 15 05 | 5.25 | 9.80 | STANDBY | | | | | | | |
| 6/4/2001 15 05 | 0.22 | 5.94 | STANDBY | | | | | | | |
| 6/4/2001 15 05 | -0.69 | 5.22 | STANDBY | | | | | | | |
| 6/4/2001 15 05 | -0.92 | 5.03 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 15 06 | -1.15 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 15 06 | -1.15 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 15 06 | 1.15 | 4.91 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 15 06 | -1.15 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| | | | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 15 07 | 8.46 | 8.51 | STANDBY | | | | | | | |
| 6/4/2001 15 07 | 71.13 | 14.78 | STANDBY | | | | | | | |
| 6/4/2001 15 07 | 112.64 | 16.35 | STANDBY | | | | | | | |
| 6/4/2001 15 07 | 116.88 | 16.43 | STANDBY | | | | | | | |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 15:08 | 117.11 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.2 | 16.8 | 167.9 |
| 6/4/2001 15:08 | 118.94 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 119.0 | 16.8 | 169.2 |
| 6/4/2001 15:08 | 119.63 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 119.6 | 16.7 | 168.9 |
| 6/4/2001 15:08 | 118.49 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.5 | 16.8 | 168.6 |
| 6/4/2001 15:09 | 116.66 | 16.78 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.7 | 16.8 | 169.9 |
| 6/4/2001 15:09 | 117.34 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.8 | 168.2 |
| 6/4/2001 15:09 | 117.11 | 16.75 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.2 | 16.8 | 169.2 |
| 6/4/2001 15:09 | 117.34 | 16.75 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.8 | 169.5 |
| 6/4/2001 15:10 | 117.80 | 16.75 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.8 | 16.8 | 170.2 |
| 6/4/2001 15:10 | 118.03 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.1 | 16.8 | 169.2 |
| 6/4/2001 15:10 | 117.57 | 16.75 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.6 | 16.8 | 169.8 |
| 6/4/2001 15:10 | 117.80 | 16.75 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.8 | 16.8 | 170.2 |
| 6/4/2001 15:11 | 118.71 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.7 | 16.8 | 170.2 |
| 6/4/2001 15:11 | 118.03 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.1 | 16.8 | 169.2 |
| 6/4/2001 15:11 | 118.49 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.5 | 16.8 | 169.9 |
| 6/4/2001 15:11 | 118.49 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.5 | 16.8 | 168.6 |
| 6/4/2001 15:12 | 117.34 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.8 | 168.2 |
| 6/4/2001 15:12 | 116.88 | 16.75 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 168.9 |
| 6/4/2001 15:12 | 116.88 | 16.75 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 168.9 |
| 6/4/2001 15:12 | 115.97 | 16.78 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.0 | 16.8 | 168.9 |
| 6/4/2001 15:13 | 116.20 | 16.78 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.2 | 16.8 | 169.2 |
| 6/4/2001 15:13 | 116.88 | 16.75 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 168.9 |
| 6/4/2001 15:13 | 118.03 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.1 | 16.8 | 169.2 |
| 6/4/2001 15:13 | 118.71 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.7 | 16.8 | 168.9 |
| 6/4/2001 15:14 | 118.94 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 119.0 | 16.7 | 167.9 |
| 6/4/2001 15:14 | 117.34 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.8 | 168.2 |
| 6/4/2001 15:14 | 117.80 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.8 | 16.8 | 167.6 |
| 6/4/2001 15:14 | 117.11 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.2 | 16.8 | 167.9 |
| 6/4/2001 15:15 | 118.49 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.5 | 16.8 | 168.6 |
| 6/4/2001 15:15 | 119.63 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 119.6 | 16.7 | 168.9 |
| 6/4/2001 15:15 | 119.17 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 119.2 | 16.8 | 169.6 |
| 6/4/2001 15:15 | 118.94 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 119.0 | 16.8 | 169.2 |
| 6/4/2001 15:16 | 119.40 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 119.4 | 16.7 | 168.6 |
| 6/4/2001 15:16 | 117.57 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.6 | 16.8 | 168.6 |
| 6/4/2001 15:16 | 117.57 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.6 | 16.8 | 168.6 |
| 6/4/2001 15:16 | 118.26 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.3 | 16.8 | 168.3 |
| 6/4/2001 15:17 | 118.26 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.3 | 16.8 | 168.3 |
| 6/4/2001 15:17 | 118.49 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.5 | 16.8 | 168.6 |
| 6/4/2001 15:17 | 118.49 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.5 | 16.8 | 168.6 |
| 6/4/2001 15:17 | 118.26 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.3 | 16.8 | 168.3 |
| 6/4/2001 15:18 | 117.34 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.8 | 168.2 |
| 6/4/2001 15:18 | 117.11 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.2 | 16.8 | 167.9 |
| 6/4/2001 15:18 | 118.03 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.1 | 16.8 | 167.9 |
| 6/4/2001 15:18 | 119.40 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 119.4 | 16.7 | 168.6 |
| 6/4/2001 15:19 | 118.26 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.3 | 16.8 | 168.3 |
| 6/4/2001 15:19 | 117.34 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.8 | 167.0 |
| 6/4/2001 15:19 | 117.11 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.2 | 16.8 | 167.9 |
| 6/4/2001 15:19 | 116.20 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.2 | 16.8 | 166.6 |
| 6/4/2001 15:20 | 116.88 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 167.6 |
| 6/4/2001 15:20 | 117.34 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.8 | 167.0 |
| 6/4/2001 15:20 | 116.88 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 166.3 |
| 6/4/2001 15:20 | 116.88 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 166.3 |
| 6/4/2001 15:21 | 116.20 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.2 | 16.8 | 166.6 |
| 6/4/2001 15:21 | 115.51 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 115.6 | 16.8 | 165.6 |
| 6/4/2001 15:21 | 116.20 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.2 | 16.8 | 166.6 |
| 6/4/2001 15:21 | 116.66 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.7 | 16.8 | 166.0 |
| 6/4/2001 15:22 | 116.20 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.2 | 16.8 | 166.0 |
| 6/4/2001 15:22 | 116.66 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.7 | 16.8 | 166.6 |
| 6/4/2001 15:22 | 117.11 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.2 | 16.8 | 166.7 |
| 6/4/2001 15:22 | 117.57 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.6 | 16.7 | 166.0 |
| 6/4/2001 15:23 | 115.97 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.0 | 16.8 | 166.3 |
| 6/4/2001 15:23 | 115.97 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.0 | 16.8 | 166.3 |
| 6/4/2001 15:23 | 116.43 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.5 | 16.8 | 166.9 |
| 6/4/2001 15:24 | 116.88 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 167.6 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOX, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 15:24 | 117.80 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.8 | 16.8 | 167.6 |
| 6/4/2001 15:24 | 116.66 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.7 | 16.8 | 167.3 |
| 6/4/2001 15:24 | 116.88 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 166.3 |
| 6/4/2001 15:24 | 117.34 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.8 | 167.0 |
| 6/4/2001 15:25 | 115.74 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 115.8 | 16.8 | 166.0 |
| 6/4/2001 15:25 | 116.20 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.2 | 16.8 | 166.6 |
| 6/4/2001 15:25 | 117.11 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.2 | 16.8 | 166.7 |
| 6/4/2001 15:25 | 117.57 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.6 | 16.8 | 167.3 |
| 6/4/2001 15:26 | 116.43 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.5 | 16.8 | 166.9 |
| 6/4/2001 15:26 | 117.11 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.2 | 16.8 | 166.7 |
| 6/4/2001 15:26 | 116.88 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 166.3 |
| 6/4/2001 15:26 | 116.43 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.5 | 16.8 | 165.7 |
| 6/4/2001 15:27 | 116.66 | 16.69 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.7 | 16.8 | 166.0 |
| 6/4/2001 15:27 | 116.66 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.7 | 16.8 | 167.3 |
| 6/4/2001 15:27 | 116.88 | 16.72 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 116.9 | 16.8 | 167.6 |
| 6/4/2001 15:27 | 118.03 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.1 | 16.7 | 166.7 |
| 6/4/2001 15:28 | 117.57 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.6 | 16.7 | 166.0 |
| 6/4/2001 15:28 | 117.80 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.8 | 16.7 | 166.3 |
| 6/4/2001 15:28 | 118.49 | 16.63 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 118.5 | 16.7 | 166.1 |
| 6/4/2001 15:28 | 117.34 | 16.66 | RUN 2 | -1.01 | 101.13 | 4.90 | 20.84 | 117.4 | 16.7 | 165.7 |
| | | | RUN 2 Average | | | | | 117.5 | 16.8 | 167.8 |
| 6/4/2001 15:29 | 118.94 | 16.63 | STANDBY | | | | | | | |
| 6/4/2001 15:29 | 119.17 | 16.60 | STANDBY | | | | | | | |
| 6/4/2001 15:29 | 118.03 | 16.63 | STANDBY | | | | | | | |
| 6/4/2001 15:29 | 118.26 | 16.63 | STANDBY | | | | | | | |
| 6/4/2001 15:30 | 118.26 | 16.63 | STANDBY | | | | | | | |
| 6/4/2001 15:30 | 118.03 | 16.63 | STANDBY | | | | | | | |
| 6/4/2001 15:30 | 117.34 | 16.56 | STANDBY | | | | | | | |
| 6/4/2001 15:30 | 113.91 | 15.31 | STANDBY | | | | | | | |
| 6/4/2001 15:31 | 101.79 | 6.07 | STANDBY | | | | | | | |
| 6/4/2001 15:31 | 99.50 | 1.24 | STANDBY | | | | | | | |
| 6/4/2001 15:31 | 99.96 | 1.68 | STANDBY | | | | | | | |
| 6/4/2001 15:31 | 100.41 | 15.15 | STANDBY | | | | | | | |
| 6/4/2001 15:32 | 100.19 | 19.70 | STANDBY | | | | | | | |
| 6/4/2001 15:32 | 100.19 | 20.45 | STANDBY | | | | | | | |
| 6/4/2001 15:32 | 100.19 | 20.67 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 15:32 | 100.41 | 20.73 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15:33 | 100.41 | 20.76 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15:33 | 100.41 | 20.80 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15:33 | 100.41 | 20.80 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15:33 | 100.41 | 20.80 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15:34 | 100.64 | 20.80 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15:34 | 100.41 | 20.80 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15:34 | 100.64 | 20.80 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 15:34 | 100.41 | 20.86 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 15:35 | 68.62 | 20.39 | STANDBY | | | | | | | |
| 6/4/2001 15:35 | 15.55 | 10.33 | STANDBY | | | | | | | |
| 6/4/2001 15:35 | 2.51 | 6.04 | STANDBY | | | | | | | |
| 6/4/2001 15:35 | -0.01 | 5.22 | STANDBY | | | | | | | |
| 6/4/2001 15:36 | -0.46 | 5.03 | STANDBY | | | | | | | |
| 6/4/2001 15:36 | -0.92 | 4.94 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 15:36 | -0.92 | 4.91 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 15:36 | -0.92 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 15:37 | -0.92 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 15:37 | -0.69 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| | | | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 15:37 | 10.74 | 6.22 | STANDBY | | | | | | | |
| 6/4/2001 15:37 | 92.64 | 13.87 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 15:38 | 111.02 | 16.13 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.9 | 16.6 | 147.2 |
| 6/4/2001 15:38 | 111.85 | 16.56 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.2 | 16.6 | 155.9 |
| 6/4/2001 15:38 | 112.11 | 16.56 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.5 | 16.6 | 162.7 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | NOx O Response | NOx 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|----------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 15:38 | 113.68 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 115.0 | 16.8 | 164.4 |
| 6/4/2001 15:39 | 113.91 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 115.2 | 16.8 | 164.8 |
| 6/4/2001 15:39 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:39 | 113.00 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 164.7 |
| 6/4/2001 15:39 | 112.54 | 16.78 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.9 | 16.8 | 165.3 |
| 6/4/2001 15:40 | 112.54 | 16.78 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.9 | 16.8 | 165.3 |
| 6/4/2001 15:40 | 113.22 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 165.0 |
| 6/4/2001 15:40 | 113.91 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 115.2 | 16.8 | 164.8 |
| 6/4/2001 15:40 | 113.22 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 165.0 |
| 6/4/2001 15:41 | 113.68 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 115.0 | 16.8 | 165.7 |
| 6/4/2001 15:41 | 113.91 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 115.2 | 16.8 | 164.8 |
| 6/4/2001 15:41 | 113.00 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 164.7 |
| 6/4/2001 15:41 | 113.00 | 16.78 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 166.0 |
| 6/4/2001 15:42 | 112.77 | 16.78 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 165.7 |
| 6/4/2001 15:42 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:42 | 112.77 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 164.4 |
| 6/4/2001 15:42 | 111.62 | 16.78 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.9 | 16.8 | 164.0 |
| 6/4/2001 15:43 | 110.48 | 16.82 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 111.8 | 16.9 | 163.6 |
| 6/4/2001 15:43 | 110.71 | 16.82 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.0 | 16.9 | 163.9 |
| 6/4/2001 15:43 | 111.17 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.5 | 16.8 | 162.0 |
| 6/4/2001 15:43 | 110.02 | 16.78 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 111.3 | 16.8 | 161.7 |
| 6/4/2001 15:44 | 111.17 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.5 | 16.8 | 162.0 |
| 6/4/2001 15:44 | 110.02 | 16.82 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 111.3 | 16.9 | 162.9 |
| 6/4/2001 15:44 | 110.02 | 16.82 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 111.3 | 16.9 | 162.9 |
| 6/4/2001 15:44 | 112.31 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.6 | 16.8 | 162.5 |
| 6/4/2001 15:45 | 112.08 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.4 | 16.8 | 162.1 |
| 6/4/2001 15:45 | 112.08 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.4 | 16.8 | 162.1 |
| 6/4/2001 15:45 | 112.08 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.4 | 16.8 | 162.1 |
| 6/4/2001 15:45 | 112.31 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.6 | 16.8 | 162.5 |
| 6/4/2001 15:46 | 111.17 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.5 | 16.8 | 162.0 |
| 6/4/2001 15:46 | 110.71 | 16.78 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.0 | 16.8 | 162.7 |
| 6/4/2001 15:46 | 110.94 | 16.78 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.2 | 16.8 | 163.0 |
| 6/4/2001 15:46 | 112.54 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.9 | 16.8 | 162.8 |
| 6/4/2001 15:47 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:47 | 112.77 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 163.1 |
| 6/4/2001 15:47 | 111.39 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 112.7 | 16.8 | 161.2 |
| 6/4/2001 15:47 | 112.77 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 163.1 |
| 6/4/2001 15:48 | 113.00 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 163.5 |
| 6/4/2001 15:48 | 112.77 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 163.1 |
| 6/4/2001 15:48 | 111.85 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.2 | 16.8 | 161.8 |
| 6/4/2001 15:48 | 112.77 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 163.1 |
| 6/4/2001 15:49 | 112.54 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.9 | 16.8 | 162.8 |
| 6/4/2001 15:49 | 112.31 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.6 | 16.8 | 162.5 |
| 6/4/2001 15:49 | 112.08 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.4 | 16.8 | 162.1 |
| 6/4/2001 15:49 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:50 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:50 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:50 | 113.00 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 163.5 |
| 6/4/2001 15:50 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:51 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:51 | 112.77 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 163.1 |
| 6/4/2001 15:51 | 112.77 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 163.1 |
| 6/4/2001 15:51 | 113.22 | 16.69 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.7 | 162.6 |
| 6/4/2001 15:52 | 113.45 | 16.69 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.7 | 162.9 |
| 6/4/2001 15:52 | 112.31 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.6 | 16.8 | 163.7 |
| 6/4/2001 15:52 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:52 | 112.77 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 163.1 |
| 6/4/2001 15:53 | 112.31 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.6 | 16.8 | 162.5 |
| 6/4/2001 15:53 | 113.00 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 163.5 |
| 6/4/2001 15:53 | 112.31 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.6 | 16.8 | 163.7 |
| 6/4/2001 15:53 | 112.08 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.4 | 16.8 | 163.4 |
| 6/4/2001 15:54 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:54 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:54 | 113.00 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 163.5 |
| 6/4/2001 15:54 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:54 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 15:55 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:55 | 113.00 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 163.5 |
| 6/4/2001 15:55 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:55 | 113.91 | 16.69 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 115.2 | 16.7 | 163.6 |
| 6/4/2001 15:56 | 113.91 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 115.2 | 16.8 | 164.8 |
| 6/4/2001 15:56 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:56 | 113.00 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 164.7 |
| 6/4/2001 15:56 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:57 | 113.00 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 163.5 |
| 6/4/2001 15:57 | 112.31 | 16.75 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 113.6 | 16.8 | 163.7 |
| 6/4/2001 15:57 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:57 | 113.00 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 163.5 |
| 6/4/2001 15:58 | 113.45 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.8 | 16.8 | 164.1 |
| 6/4/2001 15:58 | 113.00 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.3 | 16.8 | 163.5 |
| 6/4/2001 15:58 | 113.22 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.5 | 16.8 | 163.8 |
| 6/4/2001 15:58 | 112.77 | 16.72 | RUN 3 | -0.89 | 100.03 | 4.88 | 20.86 | 114.1 | 16.8 | 163.1 |
| | | | RUN 3 Average | | | | | 113.9 | 16.8 | 163.2 |
| 6/4/2001 15:59 | 110.94 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 15:59 | 111.62 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 15:59 | 112.08 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 15:59 | 112.31 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 16:00 | 113.00 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 16:00 | 113.00 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 16:00 | 113.45 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 16:00 | 112.77 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 16:01 | 113.45 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 16:01 | 113.68 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 16:01 | 113.45 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 16:01 | 113.68 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 16:02 | 113.45 | 16.97 | STANDBY | | | | | | | |
| 6/4/2001 16:02 | 98.58 | 19.76 | STANDBY | | | | | | | |
| 6/4/2001 16:02 | 93.78 | 20.70 | STANDBY | | | | | | | |
| 6/4/2001 16:02 | 97.67 | 20.89 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 16:03 | 99.04 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:03 | 99.27 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:03 | 99.50 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:03 | 99.50 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:04 | 99.50 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:04 | 99.73 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:04 | 99.73 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:04 | 99.73 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:05 | 99.73 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:05 | 99.73 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:05 | 99.73 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:05 | 99.96 | 20.92 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 16:06 | 76.62 | 19.42 | STANDBY | | | | | | | |
| 6/4/2001 16:06 | 18.52 | 8.95 | STANDBY | | | | | | | |
| 6/4/2001 16:06 | 2.97 | 5.79 | STANDBY | | | | | | | |
| 6/4/2001 16:06 | -0.01 | 5.16 | STANDBY | | | | | | | |
| 6/4/2001 16:07 | -0.69 | 5.00 | STANDBY | | | | | | | |
| 6/4/2001 16:07 | -0.92 | 4.94 | STANDBY | | | | | | | |
| 6/4/2001 16:07 | 0.92 | 4.91 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 16:07 | -0.92 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 16:08 | -0.92 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 16:08 | -0.92 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 16:08 | -0.92 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| | | | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 16:08 | -1.15 | 10.39 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:09 | -1.15 | 18.54 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:09 | -1.15 | 20.33 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:09 | -1.15 | 20.70 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:09 | -1.15 | 20.80 | OFFLINE - VALVE FAIL | | | | | | | |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOX, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|----------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 16:10 | -1.15 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:10 | -1.15 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:10 | -1.15 | 20.89 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:10 | -1.15 | 20.89 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:11 | -1.15 | 20.89 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:11 | -1.38 | 20.89 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:11 | -1.38 | 20.89 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:11 | -1.38 | 20.89 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:12 | -1.38 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:12 | -1.38 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:12 | -1.38 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:12 | -1.38 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:13 | -1.38 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:13 | -1.38 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:13 | -1.38 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:13 | -0.92 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:13 | -1.15 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:14 | -1.38 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:14 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:14 | -0.46 | 19.54 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:14 | 0.68 | 16.19 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:15 | -0.24 | 19.48 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:15 | -0.92 | 20.61 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:15 | -1.15 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:15 | -1.15 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:16 | -1.15 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:16 | -1.15 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:16 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:16 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:17 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:17 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:17 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:17 | -1.15 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:18 | -1.15 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:18 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:18 | -1.15 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:18 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:19 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:19 | -0.92 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:19 | 25.38 | 18.85 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:19 | 98.36 | 17.00 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:20 | 113.91 | 16.75 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:20 | 102.70 | 17.32 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:20 | 23.10 | 20.07 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:20 | 2.05 | 20.89 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:21 | -0.46 | 21.05 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:21 | -0.92 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:21 | -0.92 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:21 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:22 | -0.92 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:22 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:22 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:22 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:23 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:23 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:23 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:23 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:24 | -1.15 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:24 | -1.15 | 21.14 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:24 | -1.15 | 21.17 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:24 | -1.38 | 21.11 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:25 | -0.69 | 21.01 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:25 | -0.01 | 20.95 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:25 | -0.01 | 20.92 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:25 | -0.01 | 20.89 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:25 | -0.01 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 16:26 | -0.01 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:26 | 0.45 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:26 | 0.45 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:27 | 0.45 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:27 | 0.45 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:27 | -0.01 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:27 | 0.22 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:28 | -0.01 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:28 | -0.01 | 20.86 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:28 | -0.01 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:28 | 0.22 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:29 | -0.01 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:29 | -0.01 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:29 | -0.01 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:29 | -0.01 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:30 | -0.01 | 20.83 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:30 | 0.22 | 20.73 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:30 | 61.53 | 18.51 | OFFLINE - VALVE FAIL | | | | | | | |
| 6/4/2001 16:30 | 113.45 | 17.16 | OFFLINE - VALVE FAIL | | | | | | | |
| | | | OFFLINE - VALVE FAIL Average | | | | | | | |
| 6/4/2001 16:31 | 116.20 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 118.1 | 16.9 | 175.4 |
| 6/4/2001 16:31 | 115.97 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.9 | 16.9 | 173.7 |
| 6/4/2001 16:31 | 115.28 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.2 | 16.9 | 172.7 |
| 6/4/2001 16:31 | 115.51 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.5 | 16.9 | 173.0 |
| 6/4/2001 16:32 | 114.83 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.8 | 16.9 | 172.0 |
| 6/4/2001 16:32 | 116.20 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 118.1 | 16.8 | 171.3 |
| 6/4/2001 16:32 | 114.37 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.3 | 16.9 | 171.3 |
| 6/4/2001 16:32 | 115.97 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.9 | 16.8 | 171.0 |
| 6/4/2001 16:33 | 115.97 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.9 | 16.8 | 171.0 |
| 6/4/2001 16:33 | 118.03 | 16.78 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 120.0 | 16.8 | 171.4 |
| 6/4/2001 16:33 | 116.20 | 16.82 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 118.1 | 16.8 | 170.0 |
| 6/4/2001 16:33 | 115.97 | 16.82 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.9 | 16.8 | 169.7 |
| 6/4/2001 16:34 | 114.83 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.8 | 16.8 | 169.3 |
| 6/4/2001 16:34 | 115.74 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.7 | 16.8 | 170.7 |
| 6/4/2001 16:34 | 114.83 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.8 | 16.8 | 169.3 |
| 6/4/2001 16:34 | 113.22 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.1 | 16.9 | 169.6 |
| 6/4/2001 16:35 | 113.00 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.9 | 16.9 | 169.3 |
| 6/4/2001 16:35 | 112.31 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 169.5 |
| 6/4/2001 16:35 | 112.31 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 169.5 |
| 6/4/2001 16:35 | 113.22 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.1 | 16.9 | 169.6 |
| 6/4/2001 16:36 | 115.05 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.0 | 16.8 | 169.7 |
| 6/4/2001 16:36 | 115.05 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.0 | 16.8 | 169.7 |
| 6/4/2001 16:36 | 114.83 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.8 | 16.8 | 169.3 |
| 6/4/2001 16:36 | 1.14 | -5.00 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 2.1 | -4.9 | 0.5 |
| 6/4/2001 16:37 | 115.74 | 16.82 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.7 | 16.8 | 169.4 |
| 6/4/2001 16:37 | 114.83 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.8 | 16.9 | 170.7 |
| 6/4/2001 16:37 | 113.45 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.4 | 16.9 | 169.9 |
| 6/4/2001 16:37 | 113.22 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.1 | 16.9 | 170.9 |
| 6/4/2001 16:38 | 114.14 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.1 | 16.9 | 169.7 |
| 6/4/2001 16:38 | 114.14 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.1 | 16.9 | 169.7 |
| 6/4/2001 16:38 | 114.37 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.3 | 16.9 | 170.0 |
| 6/4/2001 16:38 | 114.14 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.1 | 16.9 | 169.7 |
| 6/4/2001 16:39 | 113.91 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.8 | 16.9 | 169.3 |
| 6/4/2001 16:39 | 113.68 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.6 | 16.9 | 170.3 |
| 6/4/2001 16:39 | 112.77 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.7 | 16.9 | 170.2 |
| 6/4/2001 16:40 | 113.22 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.1 | 16.9 | 170.2 |
| 6/4/2001 16:40 | 113.91 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.8 | 16.9 | 169.3 |
| 6/4/2001 16:40 | 113.22 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.1 | 16.9 | 169.6 |
| 6/4/2001 16:40 | 115.51 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.5 | 16.8 | 170.3 |
| 6/4/2001 16:41 | 114.60 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.5 | 16.8 | 169.0 |
| 6/4/2001 16:41 | 116.88 | 16.78 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 118.8 | 16.8 | 169.8 |
| 6/4/2001 16:41 | 114.60 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.5 | 16.8 | 169.0 |
| 6/4/2001 16:41 | 114.14 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.1 | 16.9 | 169.7 |
| 6/4/2001 16:41 | 114.14 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.1 | 16.9 | 169.7 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOX, ppm | CORRECTED O2, % | NOX CORRECTED TO 15% O2 |
|----------------|---------|----------|----------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 16:42 | 112.54 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.5 | 16.9 | 168.6 |
| 6/4/2001 16:42 | 112.77 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.7 | 16.9 | 168.9 |
| 6/4/2001 16:42 | 113.00 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.9 | 16.9 | 169.3 |
| 6/4/2001 16:43 | 112.31 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 169.5 |
| 6/4/2001 16:43 | 112.31 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 168.2 |
| 6/4/2001 16:43 | 112.08 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.0 | 16.9 | 169.2 |
| 6/4/2001 16:43 | 113.00 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.9 | 16.9 | 169.3 |
| 6/4/2001 16:44 | 113.22 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.1 | 16.9 | 169.6 |
| 6/4/2001 16:44 | 113.22 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.1 | 16.9 | 168.3 |
| 6/4/2001 16:44 | 115.05 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.0 | 16.8 | 169.7 |
| 6/4/2001 16:44 | 114.37 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.3 | 16.8 | 168.7 |
| 6/4/2001 16:45 | 112.77 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.7 | 16.9 | 168.9 |
| 6/4/2001 16:45 | 112.54 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.5 | 16.9 | 168.6 |
| 6/4/2001 16:45 | 113.45 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.4 | 16.9 | 168.6 |
| 6/4/2001 16:45 | 114.14 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.1 | 16.8 | 168.3 |
| 6/4/2001 16:46 | 115.97 | 16.82 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.9 | 16.8 | 169.7 |
| 6/4/2001 16:46 | 116.20 | 16.78 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 118.1 | 16.8 | 168.8 |
| 6/4/2001 16:46 | 115.05 | 16.82 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.0 | 16.8 | 168.4 |
| 6/4/2001 16:46 | 115.97 | 16.78 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 117.9 | 16.8 | 168.5 |
| 6/4/2001 16:47 | 114.60 | 16.82 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.5 | 16.8 | 167.7 |
| 6/4/2001 16:47 | 114.83 | 16.82 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 116.8 | 16.8 | 168.1 |
| 6/4/2001 16:47 | 113.45 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.4 | 16.8 | 167.3 |
| 6/4/2001 16:47 | 112.08 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.0 | 16.9 | 166.6 |
| 6/4/2001 16:48 | 112.54 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.5 | 16.9 | 168.6 |
| 6/4/2001 16:48 | 112.31 | 16.91 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 168.2 |
| 6/4/2001 16:48 | 113.22 | 16.85 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 115.1 | 16.8 | 167.0 |
| 6/4/2001 16:48 | 112.54 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.5 | 16.9 | 167.3 |
| 6/4/2001 16:49 | 110.71 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 112.6 | 16.9 | 167.1 |
| 6/4/2001 16:49 | 111.17 | 16.94 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 113.1 | 16.9 | 167.8 |
| 6/4/2001 16:49 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:49 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:50 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:50 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:50 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:50 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:51 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:51 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:51 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:51 | 112.31 | 16.88 | RUN 4 | -0.96 | 99.49 | 4.91 | 20.94 | 114.2 | 16.9 | 167.0 |
| 6/4/2001 16:52 | 94.47 | 20.70 | RUN 4 Average | | | | | 114.5 | 16.6 | 167.2 |
| 6/4/2001 16:52 | 97.90 | 20.89 | STANDBY | | | | | | | |
| 6/4/2001 16:52 | 98.81 | 20.95 | STANDBY | | | | | | | |
| 6/4/2001 16:52 | 99.27 | 20.95 | STANDBY | | | | | | | |
| 6/4/2001 16:53 | 99.27 | 20.98 | STANDBY Average | | | | | | | |
| 6/4/2001 16:53 | 99.27 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:53 | 99.50 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:53 | 99.50 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 16:54 | 97.90 | 20.95 | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 16:54 | 48.49 | 14.90 | STANDBY | | | | | | | |
| 6/4/2001 16:54 | 8.46 | 6.85 | STANDBY | | | | | | | |
| 6/4/2001 16:54 | 0.68 | 5.41 | STANDBY | | | | | | | |
| 6/4/2001 16:55 | -0.46 | 5.10 | STANDBY | | | | | | | |
| 6/4/2001 16:55 | -0.69 | 4.97 | STANDBY Average | | | | | | | |
| 6/4/2001 16:55 | -1.15 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 16:55 | -1.15 | 4.91 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 16:56 | 71.50 | 7.48 | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 16:56 | 100.87 | 14.84 | STANDBY | | | | | | | |
| 6/4/2001 16:56 | 111.39 | 16.53 | STANDBY | | | | | | | |
| 6/4/2001 16:56 | 115.97 | 15.72 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox O Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|----------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 16:57 | 116.66 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.7 | 16.8 | 167.9 |
| 6/4/2001 16:57 | 116.88 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.9 | 16.8 | 169.5 |
| 6/4/2001 16:57 | 116.88 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.9 | 16.8 | 169.5 |
| 6/4/2001 16:57 | 117.34 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.4 | 16.8 | 170.1 |
| 6/4/2001 16:58 | 117.80 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.9 | 16.8 | 170.8 |
| 6/4/2001 16:58 | 116.88 | 16.88 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.9 | 16.8 | 170.8 |
| 6/4/2001 16:58 | 117.57 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.6 | 16.8 | 170.5 |
| 6/4/2001 16:58 | 117.80 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.9 | 16.8 | 170.8 |
| 6/4/2001 16:59 | 117.57 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.6 | 16.8 | 170.5 |
| 6/4/2001 16:59 | 118.49 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.5 | 16.8 | 170.5 |
| 6/4/2001 16:59 | 118.71 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.8 | 16.8 | 170.8 |
| 6/4/2001 16:59 | 117.57 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.6 | 16.8 | 170.5 |
| 6/4/2001 17:00 | 118.26 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.3 | 16.8 | 171.5 |
| 6/4/2001 17:00 | 118.26 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.3 | 16.8 | 171.5 |
| 6/4/2001 17:00 | 118.71 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.8 | 16.8 | 170.8 |
| 6/4/2001 17:00 | 118.49 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.5 | 16.8 | 171.8 |
| 6/4/2001 17:01 | 119.17 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 120.2 | 16.8 | 171.5 |
| 6/4/2001 17:01 | 119.86 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 120.9 | 16.7 | 171.2 |
| 6/4/2001 17:01 | 119.17 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 120.2 | 16.7 | 170.2 |
| 6/4/2001 17:01 | 120.09 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 121.1 | 16.7 | 170.2 |
| 6/4/2001 17:02 | 120.09 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 121.1 | 16.7 | 170.2 |
| 6/4/2001 17:02 | 118.49 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.5 | 16.8 | 171.8 |
| 6/4/2001 17:02 | 118.94 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 120.0 | 16.8 | 171.2 |
| 6/4/2001 17:02 | 118.71 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.8 | 16.8 | 170.8 |
| 6/4/2001 17:03 | 117.57 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.6 | 16.8 | 170.5 |
| 6/4/2001 17:03 | 117.11 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.2 | 16.8 | 169.8 |
| 6/4/2001 17:03 | 117.34 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.4 | 16.8 | 170.1 |
| 6/4/2001 17:03 | 117.57 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.6 | 16.8 | 170.5 |
| 6/4/2001 17:04 | 116.66 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.7 | 16.8 | 169.2 |
| 6/4/2001 17:04 | 118.49 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.5 | 16.7 | 169.2 |
| 6/4/2001 17:04 | 117.80 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.9 | 16.7 | 168.3 |
| 6/4/2001 17:04 | 117.34 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.4 | 16.8 | 168.9 |
| 6/4/2001 17:05 | 117.34 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.4 | 16.8 | 168.9 |
| 6/4/2001 17:05 | 116.88 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.9 | 16.8 | 168.2 |
| 6/4/2001 17:05 | 116.66 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.7 | 16.8 | 169.2 |
| 6/4/2001 17:05 | 118.03 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.1 | 16.7 | 168.6 |
| 6/4/2001 17:06 | 117.57 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.6 | 16.8 | 169.2 |
| 6/4/2001 17:06 | 116.88 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.9 | 16.8 | 168.2 |
| 6/4/2001 17:06 | 116.20 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.3 | 16.7 | 166.0 |
| 6/4/2001 17:06 | 115.74 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.8 | 16.8 | 166.6 |
| 6/4/2001 17:07 | 116.66 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.7 | 16.7 | 166.7 |
| 6/4/2001 17:07 | 116.43 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.5 | 16.8 | 167.6 |
| 6/4/2001 17:07 | 115.74 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.8 | 16.8 | 166.6 |
| 6/4/2001 17:07 | 115.97 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.0 | 16.8 | 166.9 |
| 6/4/2001 17:08 | 115.28 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.3 | 16.8 | 165.9 |
| 6/4/2001 17:08 | 116.20 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.3 | 16.8 | 167.3 |
| 6/4/2001 17:08 | 116.66 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.7 | 16.8 | 167.9 |
| 6/4/2001 17:08 | 115.28 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.3 | 16.8 | 167.2 |
| 6/4/2001 17:09 | 116.20 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.3 | 16.8 | 167.3 |
| 6/4/2001 17:09 | 118.03 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.1 | 16.7 | 167.3 |
| 6/4/2001 17:09 | 117.80 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.9 | 16.7 | 167.0 |
| 6/4/2001 17:09 | 117.80 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.9 | 16.7 | 167.0 |
| 6/4/2001 17:10 | 116.66 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.7 | 16.7 | 166.7 |
| 6/4/2001 17:10 | 117.80 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.9 | 16.7 | 168.3 |
| 6/4/2001 17:10 | 118.26 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.3 | 16.7 | 167.6 |
| 6/4/2001 17:10 | 118.71 | 16.72 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.8 | 16.7 | 167.1 |
| 6/4/2001 17:11 | 118.26 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.3 | 16.7 | 167.6 |
| 6/4/2001 17:11 | 118.94 | 16.72 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 120.0 | 16.7 | 167.4 |
| 6/4/2001 17:11 | 118.03 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.1 | 16.7 | 167.3 |
| 6/4/2001 17:11 | 118.26 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.3 | 16.7 | 167.6 |
| 6/4/2001 17:12 | 118.26 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.3 | 16.7 | 167.6 |
| 6/4/2001 17:12 | 118.49 | 16.72 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.5 | 16.7 | 166.7 |
| 6/4/2001 17:12 | 118.03 | 16.72 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.1 | 16.7 | 166.1 |
| 6/4/2001 17:12 | 118.49 | 16.72 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 119.5 | 16.7 | 166.7 |
| 6/4/2001 17:13 | 117.57 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.6 | 16.7 | 166.7 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 17:13 | 116.66 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.7 | 16.7 | 166.7 |
| 6/4/2001 17:13 | 117.11 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.2 | 16.7 | 167.3 |
| 6/4/2001 17:13 | 117.34 | 16.75 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.4 | 16.7 | 166.4 |
| 6/4/2001 17:14 | 116.88 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.9 | 16.7 | 167.0 |
| 6/4/2001 17:14 | 115.74 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.8 | 16.8 | 166.6 |
| 6/4/2001 17:14 | 115.74 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.8 | 16.8 | 166.6 |
| 6/4/2001 17:14 | 115.74 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.8 | 16.8 | 166.6 |
| 6/4/2001 17:15 | 115.97 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.0 | 16.8 | 166.9 |
| 6/4/2001 17:15 | 116.43 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.5 | 16.8 | 167.6 |
| 6/4/2001 17:15 | 117.11 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 118.2 | 16.7 | 167.3 |
| 6/4/2001 17:15 | 116.66 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.7 | 16.7 | 166.7 |
| 6/4/2001 17:16 | 115.51 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.6 | 16.8 | 166.3 |
| 6/4/2001 17:16 | 115.51 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.6 | 16.8 | 167.5 |
| 6/4/2001 17:16 | 115.74 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.8 | 16.8 | 167.9 |
| 6/4/2001 17:16 | 115.05 | 16.85 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 116.1 | 16.8 | 166.9 |
| 6/4/2001 17:17 | 116.43 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.5 | 16.8 | 167.6 |
| 6/4/2001 17:17 | 115.97 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.0 | 16.8 | 166.9 |
| 6/4/2001 17:17 | 116.43 | 16.82 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.5 | 16.8 | 167.6 |
| 6/4/2001 17:17 | 116.43 | 16.78 | RUN 5 | -1.42 | 100.19 | 4.94 | 20.98 | 117.5 | 16.7 | 166.3 |
| | | | RUN 5 Average | | | | | 118.4 | 16.8 | 168.4 |
| 6/4/2001 17:18 | 117.34 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 17:18 | 117.34 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 17:18 | 115.97 | 16.82 | STANDBY | | | | | | | |
| 6/4/2001 17:18 | 117.34 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 17:19 | 116.88 | 16.75 | STANDBY | | | | | | | |
| 6/4/2001 17:19 | 116.43 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 17:19 | 106.13 | 12.15 | STANDBY | | | | | | | |
| 6/4/2001 17:19 | 99.96 | 12.99 | STANDBY | | | | | | | |
| 6/4/2001 17:20 | 100.41 | 19.70 | STANDBY | | | | | | | |
| 6/4/2001 17:20 | 100.64 | 20.73 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 17:20 | 101.10 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:20 | 101.10 | 20.98 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:21 | 101.10 | 21.01 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:21 | 101.33 | 21.05 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:21 | 100.87 | 21.01 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:21 | 100.64 | 20.98 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:22 | 100.87 | 20.98 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 17:22 | 89.21 | 20.98 | STANDBY | | | | | | | |
| 6/4/2001 17:22 | 20.81 | 19.13 | STANDBY | | | | | | | |
| 6/4/2001 17:22 | 2.28 | 8.82 | STANDBY | | | | | | | |
| 6/4/2001 17:23 | -0.92 | 5.82 | STANDBY | | | | | | | |
| 6/4/2001 17:23 | -1.61 | 5.22 | STANDBY | | | | | | | |
| 6/4/2001 17:23 | -1.61 | 5.06 | STANDBY | | | | | | | |
| 6/4/2001 17:23 | -1.84 | 5.00 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 17:24 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 17:24 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 17:24 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 17:24 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| | | | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 17:25 | 2.97 | 5.16 | STANDBY | | | | | | | |
| 6/4/2001 17:25 | 67.93 | 11.30 | STANDBY | | | | | | | |
| 6/4/2001 17:25 | 110.71 | 15.81 | STANDBY | | | | | | | |
| 6/4/2001 17:25 | 116.88 | 16.53 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 17:26 | 116.43 | 16.72 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.7 | 16.7 | 161.8 |
| 6/4/2001 17:26 | 115.97 | 16.82 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 115.8 | 16.8 | 164.8 |
| 6/4/2001 17:26 | 116.66 | 16.82 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.5 | 16.8 | 165.7 |
| 6/4/2001 17:26 | 115.51 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 115.3 | 16.8 | 165.3 |
| 6/4/2001 17:27 | 115.74 | 16.88 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 115.6 | 16.8 | 167.0 |
| 6/4/2001 17:27 | 116.66 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.5 | 16.8 | 167.0 |
| 6/4/2001 17:27 | 116.20 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.0 | 16.8 | 166.3 |
| 6/4/2001 17:27 | 116.20 | 16.88 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.0 | 16.8 | 166.3 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | NOx 0 Response | NOx 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOX, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 17:44 | 121.69 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 121.4 | 16.8 | 174.0 |
| 6/4/2001 17:44 | 123.75 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 123.4 | 16.8 | 176.9 |
| 6/4/2001 17:44 | 123.52 | 16.82 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 123.2 | 16.8 | 175.3 |
| 6/4/2001 17:45 | 117.11 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.9 | 16.8 | 167.6 |
| 6/4/2001 17:45 | 115.97 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 115.8 | 16.8 | 166.0 |
| 6/4/2001 17:45 | 115.51 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 115.3 | 16.8 | 165.3 |
| 6/4/2001 17:45 | 115.97 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 115.8 | 16.8 | 166.0 |
| 6/4/2001 17:46 | 116.66 | 16.82 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.5 | 16.8 | 165.7 |
| 6/4/2001 17:46 | 116.20 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.0 | 16.8 | 166.3 |
| 6/4/2001 17:46 | 116.43 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.2 | 16.8 | 166.6 |
| 6/4/2001 17:46 | 116.20 | 16.85 | RUN 6 | -1.89 | 101.22 | 4.95 | 20.99 | 116.0 | 16.8 | 166.3 |
| | | | RUN 6 Average | | | | | 115.5 | 16.8 | 165.7 |
| 6/4/2001 17:47 | 113.91 | 16.60 | STANDBY | | | | | | | |
| 6/4/2001 17:47 | 99.50 | 8.26 | STANDBY | | | | | | | |
| 6/4/2001 17:47 | 100.64 | 16.41 | STANDBY | | | | | | | |
| 6/4/2001 17:47 | 101.10 | 20.20 | STANDBY | | | | | | | |
| 6/4/2001 17:48 | 101.56 | 20.83 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 17:48 | 101.56 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:48 | 101.56 | 20.98 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:48 | 101.79 | 20.98 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 17:49 | 100.87 | 21.01 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 17:49 | 43.91 | 18.88 | STANDBY | | | | | | | |
| 6/4/2001 17:49 | 0.22 | 8.67 | STANDBY | | | | | | | |
| 6/4/2001 17:49 | -1.38 | 5.85 | STANDBY | | | | | | | |
| 6/4/2001 17:50 | -1.61 | 5.25 | STANDBY | | | | | | | |
| 6/4/2001 17:50 | -1.84 | 5.06 | STANDBY | | | | | | | |
| 6/4/2001 17:50 | -1.84 | 5.00 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 17:50 | -1.84 | 4.97 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 17:51 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 17:51 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 17:51 | -2.07 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 17:51 | -2.07 | 4.97 | ZERO NOX, 4.97 O2 | | | | | | | |
| | | | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 17:52 | -1.38 | 12.90 | STANDBY | | | | | | | |
| 6/4/2001 17:52 | 61.07 | 18.01 | STANDBY | | | | | | | |
| 6/4/2001 17:52 | 116.66 | 16.97 | STANDBY | | | | | | | |
| 6/4/2001 17:52 | 118.94 | 16.82 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 17:53 | 118.94 | 16.75 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.0 | 16.7 | 167.4 |
| 6/4/2001 17:53 | 112.08 | 16.94 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 112.2 | 16.9 | 165.3 |
| 6/4/2001 17:53 | 115.51 | 17.00 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 115.6 | 17.0 | 172.9 |
| 6/4/2001 17:53 | 119.17 | 16.85 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.2 | 16.8 | 171.6 |
| 6/4/2001 17:54 | 119.40 | 16.85 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.5 | 16.8 | 171.9 |
| 6/4/2001 17:54 | 119.40 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.5 | 16.8 | 171.9 |
| 6/4/2001 17:54 | 119.40 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.5 | 16.8 | 171.9 |
| 6/4/2001 17:54 | 119.63 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.7 | 16.8 | 170.5 |
| 6/4/2001 17:55 | 118.94 | 16.85 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.0 | 16.8 | 171.2 |
| 6/4/2001 17:55 | 119.17 | 16.85 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.2 | 16.8 | 171.6 |
| 6/4/2001 17:55 | 119.17 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.2 | 16.8 | 170.3 |
| 6/4/2001 17:55 | 119.17 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.2 | 16.8 | 170.3 |
| 6/4/2001 17:56 | 119.17 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.2 | 16.8 | 170.3 |
| 6/4/2001 17:56 | 119.40 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.5 | 16.8 | 170.6 |
| 6/4/2001 17:56 | 119.63 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.7 | 16.8 | 170.9 |
| 6/4/2001 17:56 | 119.17 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.2 | 16.8 | 170.3 |
| 6/4/2001 17:57 | 117.57 | 16.85 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 117.7 | 16.8 | 169.3 |
| 6/4/2001 17:57 | 118.03 | 16.85 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 118.1 | 16.8 | 169.9 |
| 6/4/2001 17:57 | 118.26 | 16.85 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 118.3 | 16.8 | 170.3 |
| 6/4/2001 17:57 | 118.49 | 16.85 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 118.6 | 16.8 | 170.6 |
| 6/4/2001 17:58 | 118.16 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 118.2 | 16.8 | 170.5 |
| 6/4/2001 17:58 | 118.71 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 118.8 | 16.8 | 169.6 |
| 6/4/2001 17:58 | 118.94 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.0 | 16.8 | 170.0 |
| 6/4/2001 17:58 | 118.94 | 16.82 | RUN 7 | -1.74 | 100.98 | 4.95 | 20.97 | 119.0 | 16.8 | 170.0 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOX, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|----------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 18:15 | 59.93 | 20.45 | STANDBY | | | | | | | |
| 6/4/2001 18:15 | 38.65 | 20.83 | STANDBY | | | | | | | |
| 6/4/2001 18:15 | 86.23 | 20.92 | STANDBY | | | | | | | |
| 6/4/2001 18:15 | 97.67 | 20.95 | STANDBY | | | | | | | |
| 6/4/2001 18:16 | 99.73 | 20.95 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 18:16 | 100.19 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 18:16 | 100.41 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 18:16 | 100.41 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 18:17 | 100.64 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 18:17 | 100.87 | 20.95 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 18:17 | 50.32 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 18:17 | 6.63 | 7.67 | STANDBY | | | | | | | |
| 6/4/2001 18:18 | -0.24 | 5.66 | STANDBY | | | | | | | |
| 6/4/2001 18:18 | -1.38 | 5.19 | STANDBY | | | | | | | |
| 6/4/2001 18:18 | -1.84 | 5.03 | STANDBY | | | | | | | |
| 6/4/2001 18:18 | -1.84 | 5.00 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 18:19 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 18:19 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 18:19 | -1.84 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 18:19 | -0.69 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| | | | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 18:20 | 76.40 | 9.58 | STANDBY | | | | | | | |
| 6/4/2001 18:20 | 118.26 | 15.09 | STANDBY | | | | | | | |
| 6/4/2001 18:20 | 120.54 | 16.35 | STANDBY | | | | | | | |
| 6/4/2001 18:20 | 119.63 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 18:21 | 120.09 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 18:21 | 120.77 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 18:21 | 121.00 | 16.78 | STANDBY | | | | | | | |
| 6/4/2001 18:21 | 121.23 | 16.78 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 18:22 | 122.15 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 122.7 | 16.7 | 173.2 |
| 6/4/2001 18:22 | 122.37 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 122.9 | 16.7 | 173.5 |
| 6/4/2001 18:22 | 122.37 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 122.9 | 16.7 | 173.5 |
| 6/4/2001 18:22 | 122.15 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 122.7 | 16.7 | 173.2 |
| 6/4/2001 18:23 | 121.00 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.6 | 16.8 | 172.9 |
| 6/4/2001 18:23 | 121.46 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 122.0 | 16.8 | 173.6 |
| 6/4/2001 18:23 | 121.69 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 122.2 | 16.8 | 173.9 |
| 6/4/2001 18:23 | 120.77 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.3 | 16.8 | 172.6 |
| 6/4/2001 18:24 | 120.54 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.1 | 16.8 | 173.6 |
| 6/4/2001 18:24 | 119.86 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.4 | 16.8 | 172.6 |
| 6/4/2001 18:24 | 119.86 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.4 | 16.8 | 172.6 |
| 6/4/2001 18:24 | 119.40 | 16.82 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 173.3 |
| 6/4/2001 18:25 | 119.86 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.4 | 16.8 | 172.6 |
| 6/4/2001 18:25 | 120.54 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.1 | 16.8 | 173.6 |
| 6/4/2001 18:25 | 121.46 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 122.0 | 16.8 | 173.6 |
| 6/4/2001 18:25 | 121.00 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.6 | 16.8 | 173.3 |
| 6/4/2001 18:26 | 120.32 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.5 | 16.8 | 172.9 |
| 6/4/2001 18:26 | 120.54 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.9 | 16.8 | 171.9 |
| 6/4/2001 18:26 | 120.09 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.1 | 16.8 | 172.3 |
| 6/4/2001 18:26 | 120.09 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.6 | 16.8 | 171.6 |
| 6/4/2001 18:26 | 120.09 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.6 | 16.8 | 173.0 |
| 6/4/2001 18:27 | 120.09 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.6 | 16.8 | 171.6 |
| 6/4/2001 18:27 | 119.17 | 16.82 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 173.0 |
| 6/4/2001 18:27 | 119.17 | 16.82 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 173.0 |
| 6/4/2001 18:27 | 119.40 | 16.82 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 173.0 |
| 6/4/2001 18:28 | 120.09 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 173.3 |
| 6/4/2001 18:28 | 120.09 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.6 | 16.8 | 173.0 |
| 6/4/2001 18:28 | 118.94 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.5 | 16.8 | 171.3 |
| 6/4/2001 18:28 | 118.71 | 16.82 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.1 | 16.8 | 172.3 |
| 6/4/2001 18:28 | 118.71 | 16.82 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.1 | 16.8 | 172.3 |
| 6/4/2001 18:29 | 119.17 | 16.82 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 173.0 |
| 6/4/2001 18:29 | 119.86 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 173.0 |
| 6/4/2001 18:29 | 119.63 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.4 | 16.8 | 172.6 |
| 6/4/2001 18:29 | 119.63 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.2 | 16.8 | 172.3 |
| 6/4/2001 18:29 | 119.63 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.4 | 16.8 | 172.6 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | NOx O Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------------------|---------|----------|--------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 18:30 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:30 | 119.40 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 172.0 |
| 6/4/2001 18:30 | 118.94 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.5 | 16.8 | 171.3 |
| 6/4/2001 18:30 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:31 | 118.94 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.5 | 16.8 | 171.3 |
| 6/4/2001 18:31 | 118.71 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.3 | 16.8 | 171.0 |
| 6/4/2001 18:31 | 118.94 | 16.82 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.5 | 16.8 | 172.6 |
| 6/4/2001 18:31 | 119.40 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 172.0 |
| 6/4/2001 18:32 | 119.40 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 172.0 |
| 6/4/2001 18:32 | 120.09 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.6 | 16.8 | 171.6 |
| 6/4/2001 18:32 | 120.77 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.3 | 16.7 | 171.3 |
| 6/4/2001 18:32 | 119.40 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 172.0 |
| 6/4/2001 18:33 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:33 | 119.63 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.2 | 16.8 | 172.3 |
| 6/4/2001 18:33 | 119.40 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 172.0 |
| 6/4/2001 18:33 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:34 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:34 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:34 | 119.63 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.2 | 16.8 | 172.3 |
| 6/4/2001 18:34 | 119.40 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 172.0 |
| 6/4/2001 18:35 | 118.94 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.5 | 16.8 | 171.3 |
| 6/4/2001 18:35 | 118.94 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.5 | 16.8 | 171.3 |
| 6/4/2001 18:35 | 119.63 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.2 | 16.8 | 171.0 |
| 6/4/2001 18:35 | 119.40 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 172.0 |
| 6/4/2001 18:36 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:36 | 118.49 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.1 | 16.8 | 170.7 |
| 6/4/2001 18:36 | 118.49 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.1 | 16.8 | 170.7 |
| 6/4/2001 18:36 | 119.40 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 172.0 |
| 6/4/2001 18:37 | 118.71 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.3 | 16.8 | 171.0 |
| 6/4/2001 18:37 | 118.94 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.5 | 16.8 | 171.3 |
| 6/4/2001 18:37 | 119.63 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.2 | 16.8 | 172.3 |
| 6/4/2001 18:37 | 120.32 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.9 | 16.7 | 170.7 |
| 6/4/2001 18:38 | 119.63 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.2 | 16.8 | 171.0 |
| 6/4/2001 18:38 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:38 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:38 | 118.71 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.3 | 16.8 | 171.0 |
| 6/4/2001 18:39 | 118.71 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.3 | 16.8 | 171.0 |
| 6/4/2001 18:39 | 119.17 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.7 | 16.8 | 171.7 |
| 6/4/2001 18:39 | 119.63 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.2 | 16.8 | 171.0 |
| 6/4/2001 18:39 | 118.49 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 119.1 | 16.8 | 170.7 |
| 6/4/2001 18:40 | 119.63 | 16.78 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.2 | 16.8 | 172.3 |
| 6/4/2001 18:40 | 119.40 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.0 | 16.8 | 170.7 |
| 6/4/2001 18:40 | 120.32 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.9 | 16.7 | 170.7 |
| 6/4/2001 18:40 | 120.09 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.6 | 16.7 | 170.3 |
| 6/4/2001 18:41 | 119.86 | 16.75 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.4 | 16.8 | 171.3 |
| 6/4/2001 18:41 | 120.54 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.1 | 16.7 | 171.0 |
| 6/4/2001 18:41 | 120.54 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 121.1 | 16.7 | 171.0 |
| 6/4/2001 18:42 | 120.32 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.9 | 16.7 | 170.7 |
| 6/4/2001 18:42 | 120.32 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.9 | 16.7 | 170.7 |
| 6/4/2001 18:42 | 120.25 | 16.72 | RUN 8 | -1.81 | 100.54 | 4.94 | 20.91 | 120.8 | 16.7 | 170.6 |
| RUN 8 Average | | | | | | | | 120.3 | 16.8 | 171.9 |
| 6/4/2001 18:42 | 101.10 | 16.97 | STANDBY | | | | | | | |
| 6/4/2001 18:43 | 99.95 | 20.14 | STANDBY | | | | | | | |
| 6/4/2001 18:43 | 100.19 | 20.70 | STANDBY | | | | | | | |
| STANDBY Average | | | | | | | | | | |
| 6/4/2001 18:43 | 100.41 | 20.83 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 18:43 | 100.64 | 20.89 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 18:44 | 100.64 | 20.89 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 101.3 NOX, 20.9 O2 Average | | | | | | | | | | |
| 6/4/2001 18:44 | 85.77 | 20.89 | STANDBY | | | | | | | |
| 6/4/2001 18:44 | 17.15 | 16.63 | STANDBY | | | | | | | |
| 6/4/2001 18:44 | 1.37 | 7.73 | STANDBY | | | | | | | |
| 6/4/2001 18:45 | -1.15 | 5.69 | STANDBY | | | | | | | |
| 6/4/2001 18:45 | 1.01 | 5.15 | STANDBY | | | | | | | |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOX, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|---------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 18:45 | -1.84 | 5.03 | STANDBY | | | | | | | |
| 6/4/2001 18:45 | -2.07 | 4.97 | STANDBY Average | | | | | | | |
| 6/4/2001 18:46 | -2.07 | 4.94 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 18:46 | -2.07 | 4.91 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 18:46 | 38.88 | 6.91 | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 18:46 | 107.96 | 14.40 | STANDBY | | | | | | | |
| 6/4/2001 18:47 | 118.71 | 16.16 | STANDBY | | | | | | | |
| 6/4/2001 18:47 | 119.63 | 16.53 | STANDBY | | | | | | | |
| 6/4/2001 18:47 | 118.71 | 16.69 | STANDBY | | | | | | | |
| 6/4/2001 18:47 | 118.94 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 18:48 | 118.49 | 16.78 | STANDBY Average | | | | | | | |
| 6/4/2001 18:48 | 118.94 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.9 | 16.9 | 174.6 |
| 6/4/2001 18:48 | 118.26 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.3 | 16.9 | 175.3 |
| 6/4/2001 18:48 | 118.03 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.9 | 174.3 |
| 6/4/2001 18:49 | 117.80 | 16.82 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.9 | 174.0 |
| 6/4/2001 18:49 | 117.57 | 16.82 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.9 | 175.0 |
| 6/4/2001 18:49 | 118.03 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.0 | 16.9 | 174.6 |
| 6/4/2001 18:49 | 118.26 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.9 | 174.0 |
| 6/4/2001 18:50 | 117.80 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.9 | 174.3 |
| 6/4/2001 18:50 | 118.03 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.9 | 173.6 |
| 6/4/2001 18:50 | 118.03 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.9 | 174.0 |
| 6/4/2001 18:51 | 117.80 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.9 | 174.0 |
| 6/4/2001 18:51 | 117.34 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.9 | 173.6 |
| 6/4/2001 18:51 | 117.80 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.7 | 16.9 | 173.0 |
| 6/4/2001 18:51 | 117.80 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.9 | 173.6 |
| 6/4/2001 18:52 | 118.26 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.9 | 173.6 |
| 6/4/2001 18:52 | 117.80 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.9 | 172.9 |
| 6/4/2001 18:52 | 116.66 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.9 | 172.2 |
| 6/4/2001 18:52 | 116.66 | 16.82 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.1 | 16.9 | 172.0 |
| 6/4/2001 18:53 | 117.11 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.1 | 16.9 | 173.3 |
| 6/4/2001 18:53 | 117.57 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.5 | 16.9 | 172.6 |
| 6/4/2001 18:53 | 117.34 | 16.78 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.0 | 16.9 | 173.3 |
| 6/4/2001 18:53 | 118.49 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.7 | 16.9 | 173.0 |
| 6/4/2001 18:54 | 118.26 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.9 | 16.8 | 171.9 |
| 6/4/2001 18:54 | 118.03 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.9 | 172.9 |
| 6/4/2001 18:54 | 118.03 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.9 | 172.6 |
| 6/4/2001 18:54 | 117.80 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.9 | 172.6 |
| 6/4/2001 18:55 | 118.09 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.9 | 172.2 |
| 6/4/2001 18:55 | 118.26 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.5 | 16.8 | 172.5 |
| 6/4/2001 18:55 | 119.40 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.9 | 172.9 |
| 6/4/2001 18:55 | 119.63 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.8 | 16.8 | 173.2 |
| 6/4/2001 18:56 | 119.17 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 120.0 | 16.8 | 173.5 |
| 6/4/2001 18:56 | 117.57 | 16.75 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.5 | 16.8 | 172.9 |
| 6/4/2001 18:56 | 119.17 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.0 | 16.9 | 171.9 |
| 6/4/2001 18:56 | 119.63 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.5 | 16.8 | 172.9 |
| 6/4/2001 18:57 | 119.17 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 120.0 | 16.8 | 172.2 |
| 6/4/2001 18:57 | 118.71 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.5 | 16.8 | 172.9 |
| 6/4/2001 18:57 | 119.17 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.1 | 16.8 | 172.2 |
| 6/4/2001 18:57 | 118.49 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.5 | 16.8 | 172.9 |
| 6/4/2001 18:58 | 118.94 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.9 | 16.8 | 171.9 |
| 6/4/2001 18:58 | 118.94 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.3 | 16.8 | 172.6 |
| 6/4/2001 18:58 | 120.09 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.3 | 16.8 | 172.6 |
| 6/4/2001 18:58 | 119.17 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 120.4 | 16.8 | 172.9 |
| 6/4/2001 18:59 | 119.85 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.5 | 16.8 | 171.6 |
| 6/4/2001 18:59 | 118.49 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 120.2 | 16.8 | 171.2 |
| 6/4/2001 18:59 | 117.80 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.9 | 16.8 | 171.9 |
| 6/4/2001 18:59 | 117.57 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.8 | 170.9 |
| 6/4/2001 19:00 | 118.03 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.0 | 16.8 | 170.6 |
| 6/4/2001 19:00 | 118.49 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.8 | 171.3 |
| 6/4/2001 19:00 | 119.40 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.9 | 16.8 | 170.6 |
| 6/4/2001 19:00 | 119.54 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.8 | 16.8 | 170.6 |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|----------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 19:01 | 118.49 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.9 | 16.8 | 170.6 |
| 6/4/2001 19:01 | 118.94 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.3 | 16.8 | 169.9 |
| 6/4/2001 19:01 | 117.80 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.8 | 169.6 |
| 6/4/2001 19:01 | 116.88 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.3 | 16.8 | 169.6 |
| 6/4/2001 19:02 | 117.57 | 16.72 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.0 | 16.8 | 170.6 |
| 6/4/2001 19:02 | 118.26 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.8 | 170.3 |
| 6/4/2001 19:02 | 118.94 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.3 | 16.8 | 169.9 |
| 6/4/2001 19:02 | 118.71 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.1 | 16.8 | 169.6 |
| 6/4/2001 19:03 | 118.94 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.3 | 16.8 | 169.9 |
| 6/4/2001 19:03 | 117.34 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.7 | 16.8 | 169.0 |
| 6/4/2001 19:03 | 117.57 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.0 | 16.8 | 169.3 |
| 6/4/2001 19:03 | 118.03 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.8 | 170.0 |
| 6/4/2001 19:04 | 117.80 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.8 | 169.6 |
| 6/4/2001 19:04 | 117.57 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.0 | 16.8 | 169.3 |
| 6/4/2001 19:04 | 118.26 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.8 | 169.0 |
| 6/4/2001 19:04 | 118.63 | 16.63 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 120.0 | 16.7 | 169.6 |
| 6/4/2001 19:05 | 118.71 | 16.63 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.1 | 16.7 | 168.3 |
| 6/4/2001 19:05 | 118.26 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.8 | 169.0 |
| 6/4/2001 19:05 | 117.80 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.8 | 169.6 |
| 6/4/2001 19:05 | 117.80 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.8 | 169.6 |
| 6/4/2001 19:06 | 117.80 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.2 | 16.8 | 168.3 |
| 6/4/2001 19:06 | 117.11 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.5 | 16.8 | 168.7 |
| 6/4/2001 19:06 | 117.11 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.5 | 16.8 | 168.7 |
| 6/4/2001 19:06 | 118.26 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.6 | 16.8 | 170.3 |
| 6/4/2001 19:07 | 118.94 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.3 | 16.8 | 169.9 |
| 6/4/2001 19:07 | 119.17 | 16.63 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.5 | 16.7 | 169.0 |
| 6/4/2001 19:07 | 119.17 | 16.63 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.5 | 16.7 | 169.0 |
| 6/4/2001 19:07 | 119.63 | 16.63 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 120.0 | 16.7 | 169.6 |
| 6/4/2001 19:08 | 118.03 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.4 | 16.8 | 168.6 |
| 6/4/2001 19:08 | 117.11 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 117.5 | 16.8 | 168.7 |
| 6/4/2001 19:08 | 118.71 | 16.66 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 119.1 | 16.8 | 169.6 |
| 6/4/2001 19:08 | 117.57 | 16.69 | RUN 9 | -1.96 | 100.69 | 4.93 | 20.78 | 118.0 | 16.8 | 169.3 |
| | | | RUN 9 Average | | | | | 118.6 | 16.8 | 171.5 |
| 6/4/2001 19:09 | 116.43 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 19:09 | 116.66 | 16.72 | STANDBY | | | | | | | |
| 6/4/2001 19:09 | 117.34 | 16.31 | STANDBY | | | | | | | |
| 6/4/2001 19:09 | 103.39 | 7.51 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 19:10 | 100.64 | 20.63 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 19:10 | 100.64 | 20.65 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 19:10 | 100.64 | 20.67 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 19:10 | 100.87 | 20.67 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 19:11 | 100.87 | 20.73 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 19:11 | 101.10 | 20.73 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/4/2001 19:11 | 100.87 | 20.73 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/4/2001 19:11 | 71.82 | 20.64 | STANDBY | | | | | | | |
| 6/4/2001 19:12 | 13.72 | 12.46 | STANDBY | | | | | | | |
| 6/4/2001 19:12 | 0.91 | 6.63 | STANDBY | | | | | | | |
| 6/4/2001 19:12 | -1.38 | 5.41 | STANDBY | | | | | | | |
| 6/4/2001 19:12 | -1.61 | 5.10 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/4/2001 19:13 | -1.84 | 4.97 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 19:13 | -1.84 | 4.91 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 19:13 | -1.84 | 4.91 | ZERO NOX, 4.97 O2 | | | | | | | |
| 6/4/2001 19:13 | -1.84 | 4.88 | ZERO NOX, 4.97 O2 | | | | | | | |
| | | | ZERO NOX, 4.97 O2 Average | | | | | | | |
| 6/4/2001 19:14 | 15.32 | 4.75 | END TEST | | | | | | | |
| 6/4/2001 19:14 | 86.00 | 11.46 | END TEST | | | | | | | |
| 6/4/2001 19:14 | 50.32 | 17.29 | END TEST | | | | | | | |
| 6/4/2001 19:14 | 6.86 | 19.51 | END TEST | | | | | | | |
| 6/4/2001 19:15 | 9.00 | 18.57 | END TEST | | | | | | | |
| 6/4/2001 19:15 | 2.97 | 20.26 | END TEST | | | | | | | |
| 6/4/2001 19:15 | 0.91 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:15 | 0.91 | 20.75 | END TEST | | | | | | | |

JEA KGS CT5 FOGGERS ON

| Time | NOx ppm | OXYGEN % | COMMENTS | Nox 0 Response | Nox 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOX, ppm | CORRECTED O2, % | Nox CORRECTED TO 15% O2 |
|----------------|---------|----------|----------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/4/2001 19:16 | -0.46 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:16 | -0.92 | 20.83 | END TEST | | | | | | | |
| 6/4/2001 19:16 | -1.15 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:16 | -1.15 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:17 | -1.15 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:17 | -1.15 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:17 | -1.15 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:17 | -1.15 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:18 | -1.15 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:18 | -1.38 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:18 | -1.61 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:18 | -1.61 | 20.80 | END TEST | | | | | | | |
| 6/4/2001 19:19 | -1.61 | 20.76 | END TEST | | | | | | | |
| 6/4/2001 19:19 | -1.81 | 20.76 | END TEST | | | | | | | |
| 6/4/2001 19:19 | -0.92 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:19 | -1.15 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:20 | -1.15 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:20 | -0.01 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:20 | 0.22 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:20 | -0.01 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:21 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:21 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:21 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:21 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:22 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:22 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:22 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:22 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:23 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:23 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:23 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:23 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:24 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:24 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:24 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:24 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:25 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:25 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:25 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:25 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:26 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:26 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:26 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:26 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:27 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:27 | -0.01 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:27 | -0.01 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:27 | -0.01 | 20.73 | END TEST | | | | | | | |
| 6/4/2001 19:28 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:28 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:28 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:28 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:29 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:29 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:29 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:29 | -0.01 | 20.70 | END TEST | | | | | | | |
| 6/4/2001 19:30 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:30 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:30 | -0.01 | 20.67 | END TEST | | | | | | | |
| 6/4/2001 19:30 | -0.01 | 20.67 | END TEST | | | | | | | |

DATA RECORDER PRINTOUTS WITH FOGGERS OFF

JEA - KGS CT5 FOGGERS OFF

| Time | NOx PPM | OXYGEN % | COMMENTS | NOx @ Response | NOx 101.3 | O2 @ 97 RESPONSE | O2 70.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|----------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/5/2001 12 10 | 0.64 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 10 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 10 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 10 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 11 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 11 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 11 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 11 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 11 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 12 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 12 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 12 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 12 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 12 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 12 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 13 | 0.64 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 12 13 | 0.64 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 13 | 0.64 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 13 | 0.64 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 14 | 0.64 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 14 | 0.64 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 14 | 0.64 | 20.76 | STANDBY | | | | | | | |
| 6/5/2001 12 14 | 0.64 | 20.76 | STANDBY | | | | | | | |
| 6/5/2001 12 15 | 0.64 | 20.76 | STANDBY | | | | | | | |
| 6/5/2001 12 15 | 0.64 | 20.76 | STANDBY | | | | | | | |
| 6/5/2001 12 16 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 16 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 16 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 16 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 16 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 17 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 17 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 17 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 17 | 0.64 | 20.70 | STANDBY | | | | | | | |
| 6/5/2001 12 18 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 18 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 18 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 18 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 19 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 19 | 0.64 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 12 19 | 0.87 | 20.76 | STANDBY | | | | | | | |
| 6/5/2001 12 20 | 0.64 | 20.76 | STANDBY | | | | | | | |
| 6/5/2001 12 20 | 0.17 | 20.76 | STANDBY | | | | | | | |
| 6/5/2001 12 20 | 0.17 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 20 | 0.17 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 21 | 0.41 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 21 | 0.87 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 21 | 0.87 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 12 21 | 0.64 | 20.89 | STANDBY | | | | | | | |
| 6/5/2001 12 22 | 2.97 | 20.86 | STANDBY | | | | | | | |
| 6/5/2001 12 22 | 0.64 | 20.98 | STANDBY | | | | | | | |
| 6/5/2001 12 22 | 0.41 | 21.05 | STANDBY | | | | | | | |
| 6/5/2001 12 22 | 0.41 | 21.05 | STANDBY | | | | | | | |
| 6/5/2001 12 23 | 0.41 | 21.05 | STANDBY | | | | | | | |
| 6/5/2001 12 23 | 0.17 | 21.08 | STANDBY | | | | | | | |
| 6/5/2001 12 23 | -0.06 | 21.08 | STANDBY | | | | | | | |
| 6/5/2001 12 23 | -0.06 | 21.08 | STANDBY | | | | | | | |
| 6/5/2001 12 24 | -0.06 | 21.08 | STANDBY | | | | | | | |
| 6/5/2001 12 24 | -0.06 | 21.08 | STANDBY | | | | | | | |
| 6/5/2001 12 24 | -0.06 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 24 | -0.06 | 21.05 | STANDBY | | | | | | | |
| 6/5/2001 12 25 | 0.06 | 21.05 | STANDBY | | | | | | | |
| 6/5/2001 12 25 | -0.53 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 25 | -0.99 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 25 | -0.99 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 26 | -0.99 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 26 | 0.99 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 26 | 0.70 | 21.05 | STANDBY | | | | | | | |
| 6/5/2001 12 26 | 0.53 | 21.05 | STANDBY | | | | | | | |
| 6/5/2001 12 27 | 0.53 | 21.05 | STANDBY | | | | | | | |
| 6/5/2001 12 27 | 0.53 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 27 | 0.53 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 27 | 0.53 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 28 | 0.53 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 28 | 0.4 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 28 | 0.17 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 28 | 0.17 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 29 | 0.29 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 29 | 0.76 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 29 | 0.76 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 29 | 1.02 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 29 | 1.02 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 29 | 0.47 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 29 | 0.47 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 29 | 0.47 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 31 | 1.02 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 31 | 1.02 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 31 | 1.02 | 21.06 | STANDBY | | | | | | | |
| 6/5/2001 12 31 | 1.02 | 21.06 | STANDBY | | | | | | | |

JEA - KGS CT5 FOGGERS OFF

| Time | NOx ppm | O2%EN % | COMMENTS | NOx 0 Response | NOx 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx, ppm | CORRECTED O2, % | NOx CORRECTED TO 15% O2 |
|----------------|---------|---------|-----------------------------------|----------------|-----------|------------------|---------|--------------------|-----------------|-------------------------|
| 6/5/2001 17:07 | 135.69 | 16.66 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 136.0 | 16.7 | 192.3 |
| 6/5/2001 17:07 | 133.59 | 16.72 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 133.9 | 16.8 | 192.3 |
| 6/5/2001 17:08 | 134.99 | 16.69 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 135.3 | 16.8 | 192.8 |
| 6/5/2001 17:08 | 135.46 | 16.66 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 135.8 | 16.7 | 192.0 |
| 6/5/2001 17:08 | 134.06 | 16.69 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 134.4 | 16.8 | 191.5 |
| 6/5/2001 17:08 | 131.50 | 16.78 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 131.8 | 16.9 | 192.2 |
| 6/5/2001 17:09 | 132.20 | 16.78 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 132.5 | 16.9 | 193.2 |
| 6/5/2001 17:09 | 134.29 | 16.72 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 134.6 | 16.8 | 193.3 |
| 6/5/2001 17:09 | 133.59 | 16.72 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 133.9 | 16.8 | 192.3 |
| 6/5/2001 17:09 | 132.90 | 16.72 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 133.2 | 16.8 | 191.3 |
| 6/5/2001 17:10 | 131.03 | 16.75 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 131.3 | 16.8 | 190.0 |
| 6/5/2001 17:10 | 133.13 | 16.72 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 133.4 | 16.8 | 191.6 |
| 6/5/2001 17:10 | 135.46 | 16.63 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 135.8 | 16.7 | 190.6 |
| 6/5/2001 17:10 | 135.92 | 16.63 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 136.2 | 16.7 | 191.2 |
| 6/5/2001 17:11 | 135.46 | 16.63 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 135.8 | 16.7 | 190.6 |
| 6/5/2001 17:11 | 134.76 | 16.66 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 135.1 | 16.7 | 191.0 |
| 6/5/2001 17:11 | 132.43 | 16.69 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 132.7 | 16.8 | 189.2 |
| 6/5/2001 17:11 | 132.43 | 16.72 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 132.7 | 16.8 | 190.6 |
| 6/5/2001 17:12 | 131.27 | 16.78 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 131.6 | 16.9 | 191.9 |
| 6/5/2001 17:12 | 131.27 | 16.78 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 131.6 | 16.9 | 191.9 |
| 6/5/2001 17:12 | 131.03 | 16.82 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 131.3 | 16.9 | 193.0 |
| 6/5/2001 17:12 | 130.80 | 16.82 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 131.1 | 16.9 | 192.6 |
| 6/5/2001 17:13 | 132.66 | 16.75 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 133.0 | 16.8 | 192.4 |
| 6/5/2001 17:13 | 132.66 | 16.75 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 133.0 | 16.8 | 192.4 |
| 6/5/2001 17:13 | 132.90 | 16.72 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 133.2 | 16.8 | 191.3 |
| 6/5/2001 17:13 | 133.59 | 16.72 | RUN 9 | -0.31 | 101.00 | 4.87 | 20.84 | 133.9 | 16.8 | 192.3 |
| | | | RUN 9 Average | | | | | 134.4 | 16.8 | 192.4 |
| 6/5/2001 17:14 | 132.43 | 16.75 | STANDBY | | | | | | | |
| 6/5/2001 17:14 | 130.34 | 16.82 | STANDBY | | | | | | | |
| 6/5/2001 17:14 | 131.73 | 16.78 | STANDBY | | | | | | | |
| 6/5/2001 17:14 | 132.20 | 16.75 | STANDBY | | | | | | | |
| 6/5/2001 17:15 | 131.73 | 16.75 | STANDBY | | | | | | | |
| 6/5/2001 17:15 | 119.39 | 18.13 | STANDBY | | | | | | | |
| 6/5/2001 17:15 | 94.48 | 20.26 | STANDBY | | | | | | | |
| 6/5/2001 17:15 | 98.67 | 20.70 | STANDBY | | | | | | | |
| 6/5/2001 17:16 | 100.07 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 17:16 | 100.53 | 20.83 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/5/2001 17:16 | 100.76 | 20.83 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/5/2001 17:16 | 101.00 | 20.83 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/5/2001 17:17 | 101.00 | 20.83 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/5/2001 17:17 | 101.23 | 20.83 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/5/2001 17:17 | 101.00 | 20.83 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/5/2001 17:17 | 100.76 | 20.83 | 101.3 NOX, 20.9 O2 | | | | | | | |
| 6/5/2001 17:18 | 101.00 | 20.83 | 101.3 NOX, 20.9 O2 | | | | | | | |
| | | | 101.3 NOX, 20.9 O2 Average | | | | | | | |
| 6/5/2001 17:18 | 99.60 | 20.83 | STANDBY | | | | | | | |
| 6/5/2001 17:18 | 47.44 | 19.98 | STANDBY | | | | | | | |
| 6/5/2001 17:18 | 9.26 | 10.33 | STANDBY | | | | | | | |
| 6/5/2001 17:19 | 1.80 | 6.19 | STANDBY | | | | | | | |
| 6/5/2001 17:19 | 0.41 | 5.32 | STANDBY | | | | | | | |
| 6/5/2001 17:19 | -0.06 | 5.06 | STANDBY | | | | | | | |
| 6/5/2001 17:19 | -0.06 | 4.94 | STANDBY | | | | | | | |
| 6/5/2001 17:20 | -0.06 | 4.91 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| 6/5/2001 17:20 | -0.29 | 4.86 | 0 NOX, 4.97 O2 | | | | | | | |
| 6/5/2001 17:20 | -0.29 | 4.86 | 0 NOX, 4.97 O2 | | | | | | | |
| 6/5/2001 17:20 | -0.29 | 4.85 | 0 NOX, 4.97 O2 | | | | | | | |
| 6/5/2001 17:21 | 0.29 | 4.85 | 0 NOX, 4.97 O2 | | | | | | | |
| 6/5/2001 17:21 | 0.29 | 4.87 | 0 NOX, 4.97 O2 | | | | | | | |
| 6/5/2001 17:21 | 0.29 | 4.87 | 0 NOX, 4.97 O2 | | | | | | | |
| 6/5/2001 17:21 | 0.29 | 4.87 | 0 NOX, 4.97 O2 | | | | | | | |
| 6/5/2001 17:22 | 0.29 | 4.87 | 0 NOX, 4.97 O2 | | | | | | | |
| | | | 0 NOX, 4.97 O2 Average | | | | | | | |
| 6/5/2001 17:22 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:22 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:22 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |
| 6/5/2001 17:23 | ... | ... | STANDBY | | | | | | | |

JEA - KGS CT5 FOGGERS OFF

| Time | NOx ppm | OXYGEN % | COMMENTS | NOx O Response | NOx 101.3 | O2 4.97 RESPONSE | O2 20.9 | CORRECTED NOx ppm | CORRECTED O2 % | NOx CORRECTED TO 15% O2 |
|----------------|---------|----------|-----------------|----------------|-----------|------------------|---------|-------------------|----------------|-------------------------|
| 6/5/2001 17 28 | -1.22 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 17 28 | -1.92 | 20.80 | STANDBY | | | | | | | |
| 6/5/2001 17 29 | -1.69 | 20.76 | STANDBY | | | | | | | |
| 6/5/2001 17 29 | -1.46 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 17 29 | -1.69 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 17 29 | -1.69 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 17 29 | -1.69 | 20.73 | STANDBY | | | | | | | |
| 6/5/2001 17 30 | -1.92 | 21.39 | STANDBY | | | | | | | |
| 6/5/2001 17 30 | -1.92 | 21.86 | STANDBY | | | | | | | |
| 6/5/2001 17 30 | -1.92 | 21.92 | STANDBY | | | | | | | |
| 6/5/2001 17 30 | -1.92 | 21.92 | STANDBY | | | | | | | |
| 6/5/2001 17 30 | -1.92 | 21.92 | STANDBY | | | | | | | |
| 6/5/2001 17 31 | -1.92 | 21.92 | STANDBY | | | | | | | |
| 6/5/2001 17 31 | -1.69 | 21.89 | STANDBY | | | | | | | |
| 6/5/2001 17 31 | -1.92 | 21.86 | STANDBY | | | | | | | |
| | | | STANDBY Average | | | | | | | |
| | | | Grand Average | | | | | | | |

6/5/01 JEA Kennedy CTS w/o Foggers

12:30 START INITIAL CALIBRATIONS

4.97% O₂ / 0 NO_x
11.9 % O₂ / 0 NO_x
20.9% O₂ / 200.4 NO_x
20.9% O₂ / 101.3 NO_x

START RUN 1 1245 - 1306

101.3 / 20.9
0 / 4.97

VE START

START RUN 2 1315 - 1345

101.3 / 20.9
0 / 4.97

START RUN 3 1353 - 1414

101.3 / 20.9
0 / 4.97

VE END

START RUN 4 1422 - 1443

101.3 / 20.9
0 / 4.97

START RUN 5 1452 - 1513

101.3 / 20.9
0 / 4.97

START RUN 6 1520 - 1541

101.3 / 20.9
0 / 4.97

START RUN 7 1552 - 1612

101.3 / 20.9
0 / 4.97

START RUN 8 1622 - 1643

101.3 / 20.9
0 / 4.97

START RUN 9 1653 - 1714

101.3 / 20.9
0 / 4.97

6/4/01

JEK Kennedy #5 Tubing NO_x/O₂ Test Foggers ON

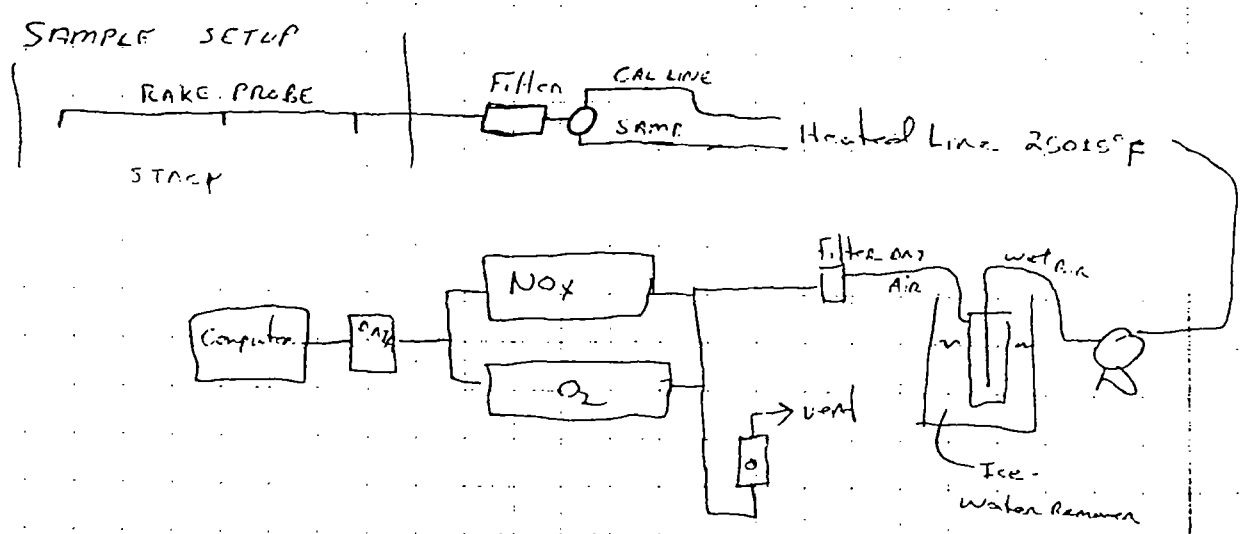
probe in stack 13:50

| | NO _x | O ₂ |
|---|-----------------|----------------|
| 4.97% O ₂ / 0 NO _x | 0.028 = -0.6 | 4.81 |
| 11.9 % O ₂ / 0 NO _x | | 11.83 |
| 200.4 ppm NO _x / 20.9 O ₂ | 0.704 = 199.9 | 20.92 |
| 101.3 NO _x / 20.9 O ₂ | 0.480 = 102.9 | |

Response time ~ 50-60 SEC

ON LINE 14:09

OV = -7.0981 IV = 221.65



EQUIPMENT

| | | | | | |
|--------------------------|------------|----------|---------------|-------|--|
| NO _x Analyzer | - | TEI | 42H-48047-279 | | |
| O ₂ Analyzer | - | Teledyne | -142142 | | |
| NO _x 200.4 | CC69537 | 850 PSI | exp | 10.01 | |
| NO _x 101.3 | CC4555 | 1600 PSI | exp | 4.02 | |
| O ₂ 11.9% | SG 9162947 | 2000 PSI | exp | 9.03 | |
| O ₂ 4.97% | SG 9149509 | 1150 PSI | exp | 3.09 | |

START RUN 1 @ 1435
1456

101.3 NO_x / 20.9 O₂
4.97 O₂ / 0 NO_x

JEA HS Turbine NO_x/O₂ Test 6/4/01

1530
POST RUN 2 CALS-

101.3 NO_x / 20.9 O₂
0 NO_x / 4.97 O₂

START RUN 3 1538 - 1559

101.3 NO_x / 20.9 O₂
0 NO_x / 4.97 O₂

RH 56 92/79

START RUN 4 ~~1609-1630~~
1632-1652

~~1620~~ - VALVE stuck in CAL posn
Replaced

101.3 / 20.9
0 / 4.97

Increasing
Clouds
Temp
dropping
Rain to
west-NORTH

START RUN 5 1657 - 1718

101.3 / 20.9
0 / 4.97

START RUN 6 1726 - 1747

75/83 69%

101.9 / 20.9
0 / 4.97

START RUN 7 1753 - 1814

101.9 / 20.9
0 / 4.97

START RUN 8 1821 - 1842

101.9 / 20.9
0 / 4.97

82/75 = 72% RH

START RUN 9 18:48 → 19:09

101.9 / 20.9
0 / 4.97

APPENDIX B
CALIBRATION DATA

CALIBRATION SUMMARY WITH FOGGERS ON

JEA - KGS #5 TURBINE CALIBRATION GAS SUMMARY WITH FOGGERS

OXIDES OF NITROGEN 0 - 225 ppm

| CALIBRATION GAS VALUE | INITIAL CALIBRATION | CALIBRATION ERROR, % SPAN | POST RUN 1 | POST RUN 2 | POST RUN 3 | POST RUN 4 | POST RUN 5 | POST RUN 6 | POST RUN 7 | POST RUN 8 | POST RUN 9 |
|-----------------------|---------------------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 0.00 | -0.73 | -0.32 | -1.15 | -0.86 | -0.92 | -1.00 | -1.84 | -1.93 | -1.55 | -2.07 | -1.84 |
| 101.30 | 102.84 | 0.68 | 101.79 | 100.46 | 99.59 | 99.38 | 101.00 | 101.44 | 100.51 | 100.57 | 100.81 |
| 200.40 | 199.69 | -0.32 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Co | N/A | N/A | -0.94 | -1.01 | -0.89 | -0.96 | -1.42 | -1.89 | -1.74 | -1.81 | -1.96 |
| Cm | N/A | N/A | 102.32 | 101.13 | 100.03 | 99.49 | 100.19 | 101.22 | 100.98 | 100.54 | 100.69 |
| Cma | N/A | N/A | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 |
| Cdo | N/A | N/A | -0.19 | -0.06 | -0.08 | -0.12 | -0.49 | -0.53 | -0.36 | -0.60 | -0.49 |
| Cdma | N/A | N/A | -0.47 | -1.06 | -1.44 | -1.54 | -0.82 | -0.62 | -1.04 | -1.01 | -0.90 |

OXYGEN 0 - 25 %

| CALIBRATION GAS VALUE | INITIAL CALIBRATION | CALIBRATION ERROR, % SPAN | POST RUN 1 | POST RUN 2 | POST RUN 3 | POST RUN 4 | POST RUN 5 | POST RUN 6 | POST RUN 7 | POST RUN 8 | POST RUN 9 |
|-----------------------|---------------------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 4.97 | 4.81 | -0.64 | 4.92 | 4.88 | 4.88 | 4.94 | 4.94 | 4.95 | 4.94 | 4.94 | 4.92 |
| 20.90 | 20.92 | 0.08 | 20.89 | 20.79 | 20.92 | 20.96 | 21.00 | 20.98 | 20.95 | 20.87 | 20.69 |
| 11.90 | 11.83 | -0.28 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Co | N/A | N/A | 4.87 | 4.90 | 4.88 | 4.81 | 4.94 | 4.95 | 4.95 | 4.94 | 4.93 |
| Cm | N/A | N/A | 20.91 | 20.84 | 20.86 | 20.94 | 20.98 | 20.99 | 20.97 | 20.91 | 20.78 |
| Cma | N/A | N/A | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 |
| Cmao | N/A | N/A | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 |
| Cdo | N/A | N/A | 0.44 | 0.28 | 0.28 | 0.52 | 0.52 | 0.56 | 0.52 | 0.52 | 0.44 |
| Cdma | N/A | N/A | -0.12 | -0.52 | 0.00 | 0.16 | 0.32 | 0.24 | 0.12 | -0.20 | -0.92 |

CALIBRATION SUMMARY WITH FOGGERS OFF

JEA - KGS #5 TURBINE CALIBRATION GAS SUMMARY W/O FOGGERS

OXIDES OF NITROGEN 0 - 225 ppm

| CALIBRATION GAS VALUE | INITIAL CALIBRATION | CALIBRATION ERROR, % SPAN | POST RUN 1 | POST RUN 2 | POST RUN 3 | POST RUN 4 | POST RUN 5 | POST RUN 6 | POST RUN 7 | POST RUN 8 | POST RUN 9 |
|--------------------------|------------------------|---------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 0.00 | -1.25 | -0.56 | 0.87 | 0.41 | 0.25 | -0.29 | -0.53 | -0.29 | -0.06 | -0.29 | -0.32 |
| 101.30 | 101.49 | 0.08 | 103.12 | 102.41 | 101.76 | 101.35 | 100.82 | 100.88 | 101.31 | 101.03 | 100.96 |
| 200.40 | 198.83 | -0.70 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Co | N/A | N/A | -0.19 | 0.64 | 0.33 | -0.02 | -0.41 | -0.41 | -0.18 | -0.18 | -0.31 |
| Cm | N/A | N/A | 102.31 | 102.77 | 102.09 | 101.56 | 101.09 | 100.85 | 101.10 | 101.17 | 101.00 |
| Cma | N/A | N/A | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 | 101.30 |
| Cdo | N/A | N/A | 0.94 | 0.74 | 0.67 | 0.43 | 0.32 | 0.43 | 0.53 | 0.43 | 0.41 |
| Cdma | N/A | N/A | 0.72 | 0.41 | 0.12 | -0.06 | -0.30 | -0.27 | -0.08 | -0.20 | -0.24 |

OXYGEN 0 - 25 %

| CALIBRATION GAS VALUE | INITIAL CALIBRATION | CALIBRATION ERROR, % SPAN | POST RUN 1 | POST RUN 2 | POST RUN 3 | POST RUN 4 | POST RUN 5 | POST RUN 6 | POST RUN 7 | POST RUN 8 | POST RUN 9 |
|--------------------------|------------------------|---------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 4.97 | 4.89 | -0.32 | 4.90 | 4.88 | 4.88 | 4.88 | 4.88 | 4.88 | 4.91 | 4.88 | 4.85 |
| 20.90 | 20.87 | -0.12 | 20.91 | 20.92 | 20.92 | 20.89 | 20.86 | 20.89 | 20.95 | 20.85 | 20.83 |
| 11.90 | 11.93 | 0.12 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Co | N/A | N/A | 4.90 | 4.89 | 4.88 | 4.88 | 4.88 | 4.88 | 4.90 | 4.90 | 4.87 |
| Cm | N/A | N/A | 20.89 | 20.92 | 20.92 | 20.91 | 20.88 | 20.88 | 20.92 | 20.90 | 20.84 |
| Cma | N/A | N/A | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 | 20.90 |
| Cmao | N/A | N/A | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 | 4.97 |
| Cdo | N/A | N/A | 0.04 | -0.04 | -0.04 | -0.04 | -0.04 | -0.04 | 0.08 | -0.04 | -0.16 |
| Cdma | N/A | N/A | 0.16 | 0.20 | 0.20 | 0.08 | -0.04 | 0.08 | 0.32 | -0.08 | -0.16 |

CALIBRATION GAS CERTIFICATES

1 Hamilton Blvd
 Odore, AL 36582
 Box 190969
 Mobile, AL 36619
 Phone: (334) 653-2500
 FAX: (334) 653-2530

Certificate of Analysis: E.P.A. Protocol Gas Mixture

| | | | |
|---------------------|-----------------|------------------|-------------------|
| Cylinder No.: | <u>CC4555</u> | Order No.: | <u>383678</u> |
| Cylinder Pressure: | <u>2000PSIG</u> | Expiration Date: | <u>4/4/02</u> |
| Certification Date: | <u>4/4/00</u> | Laboratory: | <u>ASG-MOBILE</u> |

Reference Standard Information:

| | | | |
|-------------|------------------|--------------------|----------------------|
| <u>Type</u> | <u>Component</u> | <u>Cyl. Number</u> | <u>Concentration</u> |
| NTRM81684 | NITRIC OXIDE | CC66785 | 96.9PPM |

Instrumentation:

| | |
|------------------------------------|-----------------------------|
| <u>Instrument/Model/Serial No.</u> | <u>Analytical Principle</u> |
| ECOPhysics/CLD700EL/72411 | Chemiluminescence |

Analytical Methodology does not require correction for analytical interferences.

Certified Concentrations:

| Component | Concentration | Accuracy | Procedure |
|--------------|---------------|----------|-----------|
| NITRIC OXIDE | 101.3 PPM | +/-1% | G1 |
| NOX | 101.3 PPM | | |
| NITROGEN | Balance | | |

Analytical Results:

| | | | | | | | |
|-----------------------------------|--------------|--------------|--------------|---|--------------|------|--------------|
| <u>1st Component:</u> | | NITRIC OXIDE | | | | | |
| 1st Analysis Date: <u>3/23/00</u> | | | | | | | |
| R | <u>96.80</u> | S | <u>101.4</u> | Z | <u>0.000</u> | Conc | <u>101.5</u> |
| S | <u>101.2</u> | Z | <u>0.000</u> | R | <u>96.70</u> | Conc | <u>101.4</u> |
| Z | <u>0.000</u> | R | <u>97.00</u> | S | <u>101.7</u> | Conc | <u>101.6</u> |
| | | | | | | AVG | <u>101.5</u> |
| 2nd Analysis Date: <u>4/4/00</u> | | | | | | | |
| R | <u>96.80</u> | S | <u>101.2</u> | Z | <u>0.000</u> | Conc | <u>101.3</u> |
| S | <u>101.1</u> | Z | <u>0.000</u> | R | <u>97.00</u> | Conc | <u>101.0</u> |
| Z | <u>0.000</u> | R | <u>96.90</u> | S | <u>101.1</u> | Conc | <u>101.1</u> |
| | | | | | | AVG | <u>101.1</u> |

Certification performed in accordance with "EPA Traceability Protocol (Sept 1997)" using the assay procedures listed

Do not use cylinder below 150 psig

[Signature]
 Approved for Release

Airgas

Specialty Gases

Hamilton Blvd
 Odore, AL 36582
 Box 190969
 Odore, AL 36619
 Phone (334) 653-2500
 Fax (334) 653-2530

Certificate of Analysis: E.P.A. Protocol Gas Mixture

| | | | |
|--------------------|-----------------|------------------|-------------------|
| Cylinder No : | <u>CC69537</u> | Order No. | <u>356005</u> |
| Cylinder Pressure: | <u>2000PSIG</u> | Expiration Date: | <u>10/15/01</u> |
| Certification Date | <u>10/15/99</u> | Laboratory: | <u>ASG-MOBILE</u> |

Reference Standard Information:

| | | | |
|-------------|------------------|--------------------|----------------------|
| <u>Type</u> | <u>Component</u> | <u>Cyl. Number</u> | <u>Concentration</u> |
| NTRM81687 | NITRIC OXIDE | CC50030 | 980PPM |

Instrumentation:

| | |
|------------------------------------|-----------------------------|
| <u>Instrument/Model/Serial No.</u> | <u>Analytical Principle</u> |
| ECOPhysics/CLD700EL/72411 | Chemiluminescence |

Analytical Methodology does not require correction for analytical interferences.

Certified Concentrations:

| Component | Concentration | Accuracy | Procedure |
|--------------|---------------|----------|-----------|
| NITRIC OXIDE | 197.9 PPM | +/-1% | G1 |
| NOX | 200.4 PPM | | |
| NITROGEN | Balance | | |

Analytical Results:

1st Component: NITRIC OXIDE

| | | | | | | | |
|-----------------------------------|--------------|---|--------------|---|--------------|------|--------------|
| 1st Analysis Date: <u>10/8/99</u> | | | | | | | |
| R | <u>978.0</u> | S | <u>198.0</u> | Z | <u>0.000</u> | Conc | <u>198.4</u> |
| S | <u>198.0</u> | Z | <u>0.000</u> | R | <u>980.0</u> | Conc | <u>198.0</u> |
| Z | <u>0.000</u> | R | <u>981.0</u> | S | <u>198.0</u> | Conc | <u>197.8</u> |
| | | | | | | AVG | <u>198.1</u> |

| | | | | | | | |
|------------------------------------|--------------|---|--------------|---|--------------|------|--------------|
| 2nd Analysis Date: <u>10/15/99</u> | | | | | | | |
| R | <u>980.0</u> | S | <u>197.0</u> | Z | <u>0.000</u> | Conc | <u>197.0</u> |
| S | <u>198.0</u> | Z | <u>0.000</u> | R | <u>980.0</u> | Conc | <u>198.0</u> |
| Z | <u>0.000</u> | R | <u>980.0</u> | S | <u>198.0</u> | Conc | <u>198.0</u> |
| | | | | | | AVG | <u>197.7</u> |

Certification performed in accordance with "EPA Traceability Protocol (Sept 1997)" using the assay procedures listed

Do not use cylinder below 150 psig.

Burkett H. Richardson
 Approved for Release

For Technical Information Call
1-800-752-1597



Air Products and Chemicals, Inc. * 12722 S. Wentworth Avenue, Chicago, IL 60628

ISO CERTIFICATION: 9002

CERTIFICATE OF ANALYSIS: EPA PROTOCOL GAS STANDARD

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer: 834 -1
APCI - GREENVILLE
101 MOUNTAIN RIDGE DRIVE
TAYLORS SC 29687

Order No: 833083827-01
Batch No: 86180527
PO:
Release:

Cylinder No: SG9149509BAL
Bar Code No: FAF784
Cylinder Pressure*: 2000 psig
Certification Date: 03/14/2001
Expiration Date: 03/14/2004

| CERTIFIED CONCENTRATION | | REFERENCE STANDARDS | | | ANALYTICAL INSTRUMENTATION | | | |
|-------------------------|-------------------------|---------------------|---------------|------------------------|----------------------------|---------------|------------------|-----------------------|
| Component | Certified Concentration | Cylinder Number | Standard Type | Standard Concentration | Instrument Make/Model | Serial Number | Last Calibration | Measurement Principal |
| OXYGEN | 4.97±.026 % | SG9198967BAL | NTRM 82657X | 4.521 % | SERVOMEX 1100 | 2974C | 03/11/01 | PARAMAGNETIC |

NITROGEN Balance Gas

* STANDARD SHOULD NOT BE USED BELOW 150 PSIG

EPA PROTOCOL GAS MIXTURE : OXYGEN IN NITROGEN
To reorder this mixture please use Mix ID: 17830

Analyst:

Sharon Hault

Approved By:

James Laas

James Laas

For Technical Information Call
1-800-752-1597



Air Products and Chemicals, Inc. * 12722 S. Wentworth Avenue, Chicago, IL 60628

ISO CERTIFICATION: 9002

CERTIFICATE OF ANALYSIS: EPA PROTOCOL GAS STANDARD

PERFORMED ACCORDING TO EPA TRACEABILITY PROTOCOL FOR ASSAY AND CERTIFICATION OF GASEOUS CALIBRATION STANDARDS (PROCEDURE #G1)

Customer: 239 -1
APCI
2710 BROADWAY
CAMDEN

NJ 08104-

Order No: SRP545682-06
Batch No: 86173889
PO:
Release:

Cylinder No: SG9162947BAL
Bar Code No: DUK577
Cylinder Pressure*: 2000 psig
Certification Date: 09/22/2000
Expiration Date: 09/22/2003

| CERTIFIED CONCENTRATION | | REFERENCE STANDARDS | | | ANALYTICAL INSTRUMENTATION | | | |
|-------------------------|-------------------------|---------------------|---------------|------------------------|----------------------------|---------------|------------------|-----------------------|
| Component | Certified Concentration | Cylinder Number | Standard Type | Standard Concentration | Instrument Make/Model | Serial Number | Last Calibration | Measurement Principal |
| OXYGEN | 11.9±0.06 % | SG909740ALB | NTRM | 16.04 % | SERVOMEX 1100 | 2974C | 09/11/00 | PARAMAGNETIC |

NITROGEN Balance Gas

* STANDARD SHOULD NOT BE USED BELOW 150 PSIG

To reorder this mixture please use Mix ID: 20348

Analyst:

HOLLY HATTENDORF

Approved By:

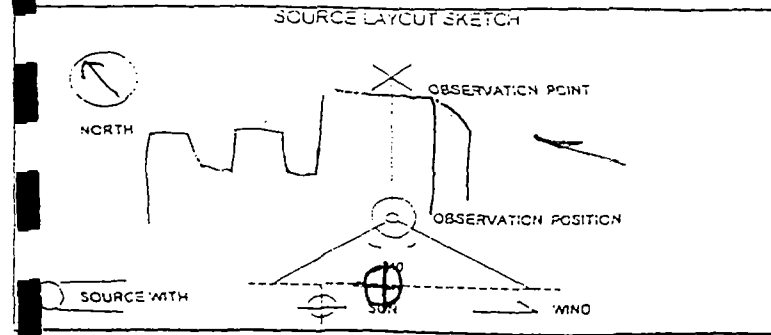
JAMES LAAS

APPENDIX C
VISIBLE EMISSIONS

FACILITY JEA
 SOURCE CT-5
 ADDRESS
 CITY Jx STATE FL ZIP
 PHONE SOURCE ID NO.
 PROCESS Turbine OPERATING MCCE
 CONTROL EQUIP. OPERATING MCCE
 DESCRIBE EMISSION POINT
 Rectangular Stack ~12'x5'
 HEIGHT OF EMISSION POINT
 START ~21' END ✓ HEIGHT RELATIVE TO OBSERVER
 START ~20' END ✓
 DISTANCE TO EMISSIONS POINT
 START 100 END DIRECTION TO EM. PT.
 START 120° END
 VERTICAL ANGLE TO CBS. PT.
 START 5° END ✓
 DESCRIBE EMISSIONS
 START Clear END ✓
 EMISSION COLOR WATER DROPLET PLUME YES (NO)
 START Clear END ✓ ATTACHED DETACHED
 DESCRIBE PLUME BACKGROUND
 START Sky END ✓
 BACKGROUND COLOR SKY CONDITION
 START blue/white END Scattered clouds
 WIND SPEED WIND DIRECTION
 START 3-5 mph END ✓ START Southerly ✓
 AMBIENT TEMPERATURE WET BULB TEMP %RH
 START 94 END 95 80 54%

COMMENTS..... Observer on Ground
 + in shade

| SECMM | 0 | 15 | 30 | 45 | SECMM | 0 | 15 | 30 | 45 |
|-------|---|----|----|----|-------|---|----|----|----|
| 1 | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 |
| 3 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 |
| 6 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 0 |
| 7 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 0 |
| 10 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 |
| 11 | 0 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 0 |
| 12 | 0 | 0 | 0 | 0 | 42 | 0 | 0 | 0 | 0 |
| 13 | 0 | 0 | 0 | 0 | 43 | 0 | 0 | 0 | 0 |
| 14 | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 0 |
| 15 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 0 |
| 16 | 0 | 0 | 0 | 0 | 46 | 0 | 0 | 0 | 0 |
| 17 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 0 | 0 |
| 18 | 0 | 0 | 0 | 0 | 48 | 0 | 0 | 0 | 0 |
| 19 | 0 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 0 |
| 20 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 |
| 21 | 0 | 0 | 0 | 0 | 51 | 0 | 0 | 0 | 0 |
| 22 | 0 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 0 |
| 23 | 0 | 0 | 0 | 0 | 53 | 0 | 0 | 0 | 0 |
| 24 | 0 | 0 | 0 | 0 | 54 | 0 | 0 | 0 | 0 |
| 25 | 0 | 0 | 0 | 0 | 55 | 0 | 0 | 0 | 0 |
| 26 | 0 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 0 |
| 27 | 0 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 0 |
| 28 | 0 | 0 | 0 | 0 | 58 | 0 | 0 | 0 | 0 |
| 29 | 0 | 0 | 0 | 0 | 59 | 0 | 0 | 0 | 0 |
| 30 | 0 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 0 |



HIGHEST CAPACITY FOR HIGHEST PERIOD: 0.72

OBSERVER'S NAME (PRINT) David Satter
 SIGNATURE [Signature] DATE 6-5-01
 ORGANIZATION TECHNICAL SERVICES, INC.
 CERTIFIED BY ETA DATE 12/00

VISIBLE EMISSIONS EVALUATOR

This is to certify that

David Salter

meets the specifications of Federal Reference Method 9 and qualified as a visible emissions evaluator.

Maximum deviation on white and black smoke did not exceed 7.5% opacity and no single error exceeding 15% opacity was incurred during the certification test conducted by Eastern Technical Associates of Raleigh, North Carolina. This certificate is valid for six months from date of issue.

286720

Certificate Number

Jacksonville, Florida

Location

June 6, 2001

Date of Issue

Thomas Lore

President

Michael W. Jansford

Director of Training

APPENDIX D
PROCESS DATA

4377 Heckscher Drive
Jacksonville, Florida 32226-3099

06/26/01



Mr. Harvey C. Gray, President
Technical Services, Inc.
2901 Danese Street
Jacksonville, FL 32206

Dear Sir,

#2FO environmental NOx testing was conducted on JEA J.D. Kennedy Generating Station, Combustion Turbine #5 (KCT5) on 6/4 - 5/01.

This testing was conducted with and without the inlet fogger system in operation.

The unit operational data for these tests is as follows:

| RUN # | with FOGGER | | w/o FOGGER |
|---------------|----------------|-----|-----------------|
| MWe(socc) | 48.56 | | 46.59 |
| Comp In DEGF | 95.76 | | 102.91 |
| H2O gpm | 17.27 | | 0.00 |
| #2FO gpm | 86.15 | | 84.91 |
| BTU/gal - HHV | 137269 | | 137175 |
| MMBTU/hr | 7.095E+08 | | 6.988E+08 |
| Start | 6/4/01 2:35 PM | EST | 6/5/01 12:45 PM |
| Finish | 6/4/01 7:09 PM | EST | 6/5/01 5:15 PM |

To the best of my knowlege, this information is true and accurate.

Sincerely,

Joseph W. Werner, PE

Fuel Analysis Report

| | | | |
|---------------|-----------|-------------|---------|
| Sample Number | 01-0258 | Sample Type | Fuel2 |
| Station/Unit | kct 5 | Description | kct5 |
| Sample Date | 04-Jun-01 | Sample Time | 3:00 PM |

| | |
|------------------|-----------|
| BTU per LB | 19,342 |
| BTU per GALLON: | 137,269 |
| BTU PER BARRELL: | 5,770,858 |

| | |
|-----------------------------|---------------|
| Ash % | |
| Asphaltenes % | |
| Sulfur % | 0.0 (< .65) |
| Specific Gravity | 0.853 |
| Water % | |
| Viscosity 210 SUS: | |
| Viscosity 122 SUS: | |
| Desired Burner Temp @ 135F: | |
| Desired Burner Temp @ 85F: | |
| Carbon % | 87.22 |
| Hydrogen % | 13.11 |
| Nitrogen % | 0 |
| Oxygen %: | |
| Vanadium PPM | |

Report Comments:

Reported by: C. Jackson

Approval Date:6/12/01

Central Laboratory

Tuesday, June 12, 2001

Fuel Analysis Report

| | | | |
|---------------|-----------|-------------|---------|
| Sample Number | 01-0259 | Sample Type | Fuel2 |
| Station/Unit | kct 5 | Description | kct 5 |
| Sample Date | 05-Jun-01 | Sample Time | 3:00 PM |

| | |
|------------------|-----------|
| BTU per LB | 19,306 |
| BTU per GALLON: | 137,175 |
| BTU PER BARRELL: | 5,766,870 |

Ash %

Asphaltenes %

Sulfur %

0.0 (< .05)

Specific Gravity

0.854

Water %

Viscosity 210 SUS:

Viscosity 122 SUS:

Desired Burner Temp @ 135F:

Desired Burner Temp @ 85F:

Carbon %

87.1

Hydrogen %

13.18

Nitrogen %

0

Oxygen %:

Vanadium PPM

Report Comments:

Reported by: C. jackson

Approval Date: 6/11/01

Central Laboratory

Tuesday, June 12, 2001

JEA KCT5
INLET FOGGER NOx
ENVIRONMENTAL TEST

| | RUN # | with FOGGER | w/o FOGGER |
|------------------------------------|---------------|-------------|------------|
| JEA J.D.Kennedy Generating Station | MWe(socc) | 48.56 | 46.59 |
| Combustion Turbine #5 (JEA KCT5) | Comp In DEGF | 95.76 | 102.91 |
| Inlet Fogger Acceptance Testing | H2O gpm | 17.27 | 0.00 |
| #2FO 6/4 - 5/01 | | | |
| | #2FO gpm | 86.15 | 84.91 |
| | BTU/gal - HHV | 137269 | 137175 |
| | MMBTU/hr | 7.095E+08 | 6.988E+08 |

| | AVERAGE | AVERAGE |
|--------|----------------|-----------------|
| Start | 6/4/01 2:35 PM | 6/5/01 12:45 PM |
| Finish | 6/4/01 7:09 PM | 6/5/01 5:15 PM |

| | | | |
|----------------------------|----------------------------|----------------------|----------------------|
| PS:kct5:Aborts Counter | Aborts Counter | 251 | 251 |
| PS:kct5:Accel/Decel Rate | Accel/Decel Rate | RPM -0.00151138 | -0.001942044 |
| PS:kct5:Alarms #1 through | Alarms #1 through #16 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #113 throug | Alarms #113 through #128 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #129 throug | Alarms #129 through #144 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #145 throug | Alarms #145 through #160 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #161 throug | Alarms #161 through #176 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #17 throug | Alarms #17 through #32 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #177 throug | Alarms #177 through #192 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #193 throug | Alarms #193 through #208 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #209 throug | Alarms #209 through #224 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #225 throug | Alarms #225 through #240 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #241 throug | Alarms #241 through #256 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #257 throug | Alarms #257 through #272 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #33 throug | Alarms #33 through #48 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #49 throug | Alarms #49 through #64 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #65 throug | Alarms #65 through #80 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #81 throug | Alarms #81 through #96 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Alarms #97 throug | Alarms #97 through #112 | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Anti-Surge Limiter | Anti-Surge Limiter Control | % 82.99652863 | 81.99989319 |
| PS:kct5:Atomizing Air Pres | Atomizing Air Pressure | PSIG 124.0524063 | 121.0819473 |
| PS:kct5:Atomizing Air Tank | Atomizing Air Tank Pressur | PSIG 196.9498901 | 196.5349579 |
| PS:kct5:Auto Voltage Regul | Auto Voltage Regulator Pos | % 34.1707077 | 36.41930389 |
| PS:kct5:Average Blade Pat | Average Blade Path Tempera | DegF 832.9858398 | 860.0263062 |
| PS:kct5:Average Cold Junct | Average Cold Junction Comp | DegF 73.43309021 | 72.47605133 |
| PS:kct5:Average Exhaust G | Average Exhaust Gas Temper | DegF 818.2990723 | 843.5164795 |
| PS:kct5:Base Load Hours T | Base Load Hours Timer | Hcurs 5618.59668 | 5624.052246 |
| PS:kct5: Bearing #4 Comp J | Bearing #4 Comp Journal Ba | DegF 194.3178406 | 194.8629913 |

JEA KCT5
INLET FOGGER NOx
ENVIRONMENTAL TEST

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|------------------------------|----------------------------|----------|----------------------|----------------------|
| PS:kct5: Bearing #5 Babbitt | Bearing #5 Babbitt Tempera | DegF | 60.28810883 | 59.57033539 |
| PS:kct5: Bearing Lube Oil Pr | Bearing Lube Oil Pressure | PSIG | 17.89771843 | 17.65142059 |
| PS:kct5: Bearing Oil Supply | Bearing Oil Supply Tempera | DegF | 120.5834427 | 120.7922974 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #1 | DegF | 847.8173218 | 873.8300781 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #10 | DegF | 828.3647461 | 854.9771118 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #11 | DegF | 797.3828735 | 824.6088867 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #12 | DegF | 837.3384399 | 859.9293823 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #13 | DegF | 845.0993652 | 877.8886108 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #14 | DegF | 862.0918579 | 888.777832 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #15 | DegF | 852.4834595 | 881.7497559 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #16 | DegF | 797.3375854 | 819.6733398 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #2 | DegF | 847.5203857 | 877.9942627 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #3 | DegF | 847.8317261 | 873.8218384 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #4 | DegF | 847.2585449 | 877.5969238 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #5 | DegF | 833.117981 | 860.6933594 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #6 | DegF | 822.1583862 | 846.6263428 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #7 | DegF | 828.0944824 | 854.9326172 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #8 | DegF | 811.0099487 | 837.2425537 |
| PS:kct5: Blade Path Temper | Blade Path Temperature #9 | DegF | 822.4001465 | 850.1248779 |
| PS:kct5: Blade Path Temper | Blade Path Temperature Con | % | 100.1957397 | 86.6697464 |
| PS:kct5: Blade Path Temper | Blade Path Temperature Con | DegF | 887.1971436 | 893.7073364 |
| PS:kct5: Bus Frequency | Bus Frequency | Hz | 59.17043686 | 59.09493637 |
| PS:kct5: Bus Phase #1 Volta | Bus Phase #1 Voltage | KV | 13.31110573 | 13.56843567 |
| PS:kct5: Bus Phase #2 Volta | Bus Phase #2 Voltage | KV | 13.31110573 | 13.68841934 |
| PS:kct5: Bus Phase #3 Volta | Bus Phase #3 Voltage | KV | 13.31110573 | 13.63338661 |
| PS:kct5: Bypass Valve Posit | Bypass Valve Position | % | 55.85724258 | 55.9040451 |
| PS:kct5: Calculated Power F | Calculated Power Factor | | 99.65006256 | 96.39404297 |
| PS:kct5: Combustor Shell Pr | Combustor Shell Pressure (| PSIG | 125.1932449 | 122.315033 |
| PS:kct5: Compressor Discha | Compressor Discharge Tempe | DegF | 655.6074219 | 670.5887451 |
| PS:kct5: Compressor Inlet L | Compressor Inlet Left Temp | DegF | 95.31956482 | 102.4454651 |
| PS:kct5: Compressor Inlet R | Compressor Inlet Right Tem | DegF | 96.19702148 | 103.3814392 |
| PS:kct5: Compressor Seismi | Compressor Seismic Vibrati | mils | 1.12900877 | 1.198586702 |
| PS:kct5: Control LSS Output | Control LSS Output | % | 83 | 81.49636078 |
| PS:kct5: Cooldown Time Re | Cooldown Time Remaining | sec | 0 | 0 |
| PS:kct5: Cooldown Time Set | Cooldown Time Setpoint | sec | 120 | 120 |
| PS:kct5: Cooling Adjust Setp | Water Injection Cooling Ad | % | 0 | 0 |
| PS:kct5: Cooling Air Temper | Cooling Air Temperature | DegF | 343.0484009 | 348.0976868 |
| ps:kct5: Cost Per Net MWH | Cost Per Net MWH | \$/MWH | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5: Cost Per Net MWH | Cost Per Net MWH - Smoothe | \$/MWH | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5: Dev from Exp Cost | Dev from Exp Cost per Net | \$/MWH | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5: Disc Cavity #2-1 Te | Disc Cavity #2-1 Temperatu | DegF | 613.9475098 | 632.5504761 |
| PS:kct5: Disc Cavity #2-2 Te | Disc Cavity #2-2 Temperatu | DegF | 655.2506714 | 688.3179932 |
| PS:kct5: Disc Cavity #3-1 Te | Disc Cavity #3-1 Temperatu | DegF | 517.9769287 | 637.446106 |
| PS:kct5: Disc Cavity #3-2 Te | Disc Cavity #3-2 Temperatu | DegF | 619.8361206 | 638.4313354 |
| PS:kct5: Disc Cavity #4-1 Te | Disc Cavity #4-1 Temperatu | DegF | 673.0610352 | 690.208374 |
| PS:kct5: Disc Cavity #4-2 Te | Disc Cavity #4-2 Temperatu | DegF | 642.0429077 | 658.6635132 |
| PS:kct5: Disc Cavity #5 Tem | Disc Cavity #5 Temperature | DegF | 68.53284454 | 67.79876709 |
| PS:kct5: Disc Cavity #6 Tem | Disc Cavity #6 Temperature | DegF | 541.2191162 | 546.1604004 |
| ps:kct5: Disp Coeff A | Disp Coeff A | Constant | 290.2279968 | 290.2279968 |

JEA KCT5
INLET FOGGER NOx
ENVIRONMENTAL TEST

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|-------------------------------|----------------------------|----------|----------------------|----------------------|
| ps:kct5:Disp Coeff AA | Disp Coeff AA | Constant | 0.250176013 | 0.250176013 |
| ps:kct5:Disp Coeff B | Disp Coeff B | Constant | 8.755000114 | 8.755000114 |
| ps:kct5:Disp Coeff BB | Disp Coeff BB | Constant | 0.999984026 | 0.999984026 |
| ps:kct5:Disp Coeff C | Disp Coeff C | Constant | -0.00838804 | -0.00838804 |
| ps:kct5:Disp Coeff CC | Disp Coeff CC | Constant | 2.75182E-07 | 2.75182E-07 |
| ps:kct5:Disp Coeff D | Disp Coeff D | Constant | 0.000286768 | 0.000286768 |
| PS:kct5:Dry Bulb Temperat | Dry Bulb Temperature | DegF | 92.4550705 | 95.52545929 |
| PS:kct5:Electrical Skid Tem | Electrical Skid Temperatur | DegF | 88.68042755 | 85.55389404 |
| PS:kct5:Emergency Starts | Emergency Starts Counter | | 939.1762085 | 944.3146973 |
| PS:kct5:Excitation Field Cur | Excitation Field Current | Amps | 0 | 0 |
| PS:kct5:Excitation Field Volt | Excitation Field Voltage | Volts | 0 | 0 |
| PS:kct5:Exciter Bearing Dra | Exciter Bearing Drain Temp | DegF | 113.3576202 | 113.6840134 |
| PS:kct5:Exciter Cold Air Inle | Exciter Cold Air Inlet Tem | DegF | 117.8061981 | 117.8351517 |
| PS:kct5:Exciter Seismic Vib | Exciter Seismic Vibration | mils | 1.538143516 | 1.721845746 |
| PS:kct5:Exciter Vibration (sl | Exciter Vibration (slot 3, | mils | 3.705094576 | 3.849182606 |
| PS:kct5:Exciter Warm Air Di | Exciter Warm Air Discharge | DegF | 120.8616562 | 121.3214722 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #1 | DegF | 820.102478 | 844.6591797 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #1 | DegF | 822.361145 | 849.1159058 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #1 | DegF | 814.7017212 | 838.9926147 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #1 | DegF | 816.4122925 | 837.2247314 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #1 | DegF | 806.5595093 | 833.0632324 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #1 | DegF | 806.7081299 | 835.1040649 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #1 | DegF | 799.0063477 | 822.8570557 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #1 | DegF | 797.3682861 | 815.246582 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #2 | DegF | 830.0055542 | 854.4310913 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #3 | DegF | 829.210022 | 853.5298462 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #4 | DegF | 829.2775269 | 856.7858887 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #5 | DegF | 823.7769775 | 851.319519 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #6 | DegF | 825.8127441 | 852.5653076 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #7 | DegF | 829.4122314 | 855.5634155 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #8 | DegF | 830.1451416 | 855.3637085 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature #9 | DegF | 811.8652954 | 840.5133667 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature Co | % | 86.50702667 | 81.5823822 |
| PS:kct5:Exhaust Gas Temp | Exhaust Gas Temperature Co | DegF | 837.1577148 | 843.7340698 |
| ps:kct5:Exp Cost Per Net M | Exp Cost Per Net MWH | \$/MWH | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:Exp Gas Net MW | Exp Gas Net MW | MW | 48.39487457 | 46.28121567 |
| ps:kct5:Exp Heat Input | Exp Heat Input | MMBTU/HR | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:Exp Net Heat Rate | Exp Net Heat Rate | BTU/KWH | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:Exp Total Fuel Cost | Exp Total Fuel Cost per Ho | \$/HR | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Fuel Control Dema | Fuel Control Demand (HSS O | % | 82.99956512 | 81.60274506 |
| ps:kct5:Fuel Cost % Deviat | Fuel Cost % Deviation from | %/100 | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:Fuel Cost Deviation | Fuel Cost Deviation from E | \$/HR | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:Fuel Flow On-line | Fuel Flow While On-line | GPM | 86.14917755 | 84.90827179 |
| PS:kct5:Fuel Flow Signal | Fuel Flow Signal | GPM | 86.07254028 | 84.93524933 |
| PS:kct5:Fuel Nozzle Pressu | Fuel Nozzle Pressure | PSIG | 483.8856201 | 473.2286072 |
| PS:kct5:Fuel Oil Flow Divid | Fuel Oil Flow Divider Inle | DegF | 82.62120056 | 84.80838776 |
| PS:kct5:Fuel Pump Bypass | Fuel Pump Bypass Valve Con | % | 58 | 57.99531174 |
| PS:kct5:Fuel Pump Dischar | Fuel Pump Discharge Pressu | PSIG | 939.5090942 | 939.6533203 |
| PS:kct5:Fuel Pump Dischar | Fuel Pump Discharge Pressu | PSIG | 940 | 940 |

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INLET FOGGER NOx
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|------------------------------|----------------------------|---------|----------------------|----------------------|
| PS:kct5:Gen Phase #1 Curr | Gen Phase #1 Current | Amps | 2189.974365 | 2138.668945 |
| PS:kct5:Gen Phase #1 Volt | Gen Phase #1 Voltage | KV | 13.31110573 | 13.4509964 |
| PS:kct5:Gen Phase #2 Curr | Gen Phase #2 Current | Amps | 2164.372559 | 2111.288086 |
| PS:kct5:Gen Phase #2 Volt | Gen Phase #2 Voltage | KV | 13.31110573 | 13.48336601 |
| PS:kct5:Gen Phase #3 Curr | Gen Phase #3 Current | Amps | 2188.895508 | 2122.763672 |
| PS:kct5:Gen Phase #3 Volt | Gen Phase #3 Voltage | KV | 13.31110573 | 13.59949112 |
| PS:kct5:Generator Inboard | Generator Inboard Bearing | DegF | 126.118309 | 128.3819733 |
| PS:kct5:Generator Inlet Air | Generator Inlet Air Temper | DegF | 93.16732025 | 93.73299408 |
| PS:kct5:Generator Outboar | Generator Outboard Bearing | DegF | 165.1468201 | 165.1703186 |
| PS:kct5:Generator Outlet Ai | Generator Outlet Air Tempe | DegF | 170.6776581 | 170.2277374 |
| PS:kct5:Generator Stator T | Generator Stator Temperatu | DegF | 154.3183136 | 152.8053741 |
| PS:kct5:Generator Stator T | Generator Stator Temperatu | DegF | 151.6012268 | 150.1525269 |
| PS:kct5:Generator Stator T | Generator Stator Temperatu | DegF | 141.3712921 | 140.3271027 |
| PS:kct5:Generator Stator T | Generator Stator Temperatu | DegF | 151.4928894 | 150.0982361 |
| PS:kct5:Generator Stator T | Generator Stator Temperatu | DegF | 148.9230499 | 147.0663605 |
| PS:kct5:Generator Stator T | Generator Stator Temperatu | DegF | 153.4763031 | 151.5665741 |
| ps:kct5:Gross MW On-line | Gross MW While On-line | MW | 48.56414032 | 46.53457642 |
| ps:kct5:Heat Rate % Deviati | Heat Rate % Deviation | %/100 | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:Heat Rate Deviation | Heat Rate Deviation | BTU/KWH | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Horizontal Compres | Horizontal Compressor Vibr | mils | 2.276237249 | 1.798419952 |
| PS:kct5:Horizontal Turbine | Horizontal Turbine Vibrati | mils | 2.250657082 | 2.914161921 |
| ps:kct5:House Load | House Load | MW | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:HR Cost Dev A Cre | Heat Rate Cost Dev For 'A' | \$/HR | 0 | 0 |
| ps:kct5:HR Cost Dev B Cre | Heat Rate Cost Dev For 'B' | \$/HR | 0 | 0 |
| ps:kct5:HR Cost Dev C Cre | Heat Rate Cost Dev For 'C' | \$/HR | 0 | 0 |
| ps:kct5:HR Cost Dev D Cre | Heat Rate Cost Dev For 'D' | \$/HR | 0 | PI-API error: -11059 |
| PS:kct5:Humidity | Humidity | % | 47.80441666 | 43.46512222 |
| PS:kct5:Ignition Failure Wai | Ignition Failure Wait Time | sec | 1800 | 1800 |
| PS:kct5:Ignition Time Rema | Ignition Time Remaining | sec | 0 | 0 |
| PS:kct5:Ignition Time Setpo | Ignition Time Setpoint | sec | 30 | 30 |
| PS:kct5:Inboard Seismic Vi | Inboard Seismic Vibration | mils | 1.899040937 | 1.86839664 |
| PS:kct5:Inboard Vibration (s | Inboard Vibration (slot 5, | mils | 3.086453438 | 3.001006603 |
| ps:kct5:iorate | KGS CT5 PI Interface I/O R | | 3326.848389 | 3165.294922 |
| PS:kct5:LNM1-3A.1-6 Spar | LNM1-3A.1-6 Spare T/C Inpu | % | 1063 | 1063 |
| PS:kct5:LNM103A.14-6 Spa | LNM103A.14-6 Spare T/C Inp | % | 1055 | 1055 |
| PS:kct5:LNM103A.2-6 Spar | LNM103A.2-6 Spare T/C Inpu | % | 1063 | 1063 |
| PS:kct5:LNM103A.5-2 Spar | LNM103A.5-2 Spare T/C Inpu | % | 391.5154724 | 409.684082 |
| PS:kct5:LNM103A.5-3 Spar | LNM103A.5-3 Spare T/C Inpu | % | 1063 | 1063 |
| PS:kct5:LNM103A.7-2 Spar | LNM103A.7-2 Spare 4-20Ma I | % | 50.0005188 | 48.13542938 |
| PS:kct5:Load Control.Setpoi | Load Control Setpoint | MW | 51.08798599 | 49.32943726 |
| PS:kct5:Lube Oil Reservoir | Lube Oil Reservoir Tempera | DegF | 151.643158 | 151.8163147 |
| PS:kct5:Manual Voltage Re | Manual Voltage Regulator P | % | 48 | 48 |
| PS:kct5:Maximum Blade Pa | Maximum Blade Path Tempera | DegF | 65.11457062 | 68.59226227 |
| PS:kct5:Maximum Exhaust | Maximum Exhaust Gas Temper | DegF | 32.67088318 | 41.29216003 |
| PS:kct5:Maximum Speed of | Maximum Speed of Turbine S | RPM | 3613 | 3613 |
| PS:kct5:MCC Phase #1 Cur | MCC Phase #1 Current | Amps | 268.1123657 | 266.2529297 |
| PS:kct5:MCC Phase #1 Volt | MCC Phase #1 Voltage | Volts | 455.0167542 | 462.3771362 |
| PS:kct5:MCC Phase #2 Cur | MCC Phase #2 Current | Amps | 250.29245 | 248.3691406 |
| PS:kct5:MCC Phase #2 Volt | MCC Phase #2 Voltage | Volts | 0 | 0 |

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|------------------------------|----------------------------|----------|----------------------|----------------------|
| PS:kct5:MCC Phase #3 Cur | MCC Phase #3 Current | Amps | 266.06073 | 264.117981 |
| PS:kct5:MCC Phase #3 Volt | MCC Phase #3 Voltage | Volts | 453.3419495 | 461.1481018 |
| PS:kct5:Mechanical Skid Te | Mechanical Skid Temperatur | DegF | 88.69671631 | 88.04771423 |
| PS:kct5:MegaVAR Control | MegaVAR Control Setpoint | MVAR | 4 | 11.51095676 |
| PS:kct5:MegaVAR Load Sig | MegaVAR Load Signal | MVAR | 3.980400562 | 12.09710312 |
| PS:kct5:MegaWatt Load Sig | MegaWatt Load Signal | MW | 48.55939865 | 46.5940094 |
| PS:kct5:Min Fuel Setting | Min Fuel Setting | % | 0 | 0 |
| ps:kct5:MW Capability | MW Capability | MMBTU/HR | 49.07060242 | 46.9950676 |
| ps:kct5:MW Capability Inter | MW Capability Intercept | Constant | 76.69999695 | 76.69999695 |
| ps:kct5:MW Capability Slop | MW Capability Slope | Constant | -0.289999992 | -0.289999992 |
| ps:kct5:Net Heat Rate | Net Heat Rate | BTU/KWH | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:Net Heat Rate - Sm | Net Heat Rate - Smoothed | BTU/KWH | PI-API error: -11059 | PI-API error: -11059 |
| ps:kct5:Net Megawatts | Net Megawatts | MW | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Normal Starts Coun | Normal Starts Counter | | 616 | 616 |
| PS:kct5:Nose Cone Temper | Nose Cone Temperature | DegF | 391.5297546 | 409.6757813 |
| PS:kct5:Number of BP TCs | Number of BP TC's in Avera | | 16 | 16 |
| PS:kct5:Number of EGT TC | Number of EGT TC's in Aver | | 16 | 16 |
| PS:kct5:Number of First Out | Number of First Out Trip | | 0 | 0 |
| PS:kct5:Outboard Seismic | Outboard Seismic Vibration | mils | 1.636821628 | 1.732321978 |
| PS:kct5:Outboard Vibration | Outboard Vibration (slot 4 | mils | 1.775231123 | 1.783804893 |
| PS:kct5:Overspeed Test Ti | Overspeed Test Timer | Secs | 0 | 0 |
| PS:kct5:Peak Reserve Load | Peak Reserve Load Hours Ti | Hours | 0 | 0 |
| PS:kct5:Post Lube Time Re | Post Lube Time Remaining | min | 4320 | 4320 |
| PS:kct5:Post Lube Time Set | Post Lube Time Setpoint | min | 4320 | 4320 |
| PS:kct5:Power Factor Contr | Power Factor Control Setpo | | 84.99862671 | 84.99862671 |
| PS:kct5:Purge Time Remai | Purge Time Remaining | sec | 0 | 0 |
| PS:kct5:Purge Time Setpoi | Purge Time Setpoint | sec | 10 | 10 |
| PS:kct5:Spare Seismic Vibr | Spare Seismic Vibration (s | mils | 0 | 0 |
| PS:kct5:Spare Vibration (slo | Spare Vibration (slot 3,ch | mils | 0 | 0 |
| PS:kct5:Spare Vibration (slo | Spare Vibration (slot 4,ch | mils | 0 | 0 |
| PS:kct5:Spare Vibration (slo | Spare Vibration (slot 5,ch | mils | 0 | 0 |
| PS:kct5:Speed Control Setp | Speed Control Setpoint | RPM | 3600 | 3600 |
| PS:kct5:Speed/Load Contro | Speed/Load Control PID Sig | % | 83.89963531 | 82.56438446 |
| PS:kct5:Start Motor Failure | Start Motor Failure Wait T | sec | 2400 | 2400 |
| PS:kct5:Start Ramp Control | Start Ramp Control Signal | % | 101 | 101 |
| ps:kct5:Starts Per Day | Total Starts Per Day | | 1 | 1 |
| ps:kct5:Stops Per Day | Total Stops Per Day | | 1 | 1 |
| PS:kct5:Synchronizer Spee | Synchronizer Speed Bias | % | 0 | 0 |
| PS:kct5:Throttle Valve Cont | Throttle Valve Control Sig | % | 77.02687836 | 75.63339233 |
| PS:kct5:Throttle Valve Posit | Throttle Valve Position | % | 74.96350098 | 73.1047821 |
| PS:kct5:Thrust Bearing Bab | Thrust Bearing Babbitt (Ge | DegF | 199.8749084 | 203.4660645 |
| PS:kct5:Thrust Bearing Bab | Thrust Bearing Babbitt (Tu | DegF | 155.7433929 | 155.8840332 |
| ps:kct5:Time On-line | Total Time Unit On-Line | | 5.865277767 | 5.111111164 |
| PS:kct5:Too Many Ignition | Too Many Ignition Failures | sec | 3600 | 3600 |
| ps:kct5:Total Fuel Cost per | Total Fuel Cost per Hour | \$/HR | 4446.408691 | 4384.52832 |
| ps:kct5:Total Fuel Used | Total Fuel Consumed | gallons | 0 | 0 |
| PS:kct5:Trips #1 through #1 | Trips #1 through #16 | | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Trips #17 through # | Trips #17 through #32 | | PI-API error: -11059 | PI-API error: -11059 |
| PS:kct5:Trips #33 through # | Trips #33 through #48 | | PI-API error: -11059 | PI-API error: -11059 |

JEA KCT5
INLET FOGGER NOx
ENVIRONMENTAL TEST

| | | | PI-API error: -11059 | PI-API error: -11059 |
|------------------------------|----------------------------|---------------|----------------------|----------------------|
| PS:kct5:Trips #49 through # | Trips #49 through #64 | | | |
| PS:kct5:Turbine Compartm | Turbine Compartment Fan #2 | DegF | 185.8409119 | 203.7478027 |
| PS:kct5:Turbine Compartm | Turbine Compartment Fan #4 | DegF | 162.4042969 | 148.5082092 |
| PS:kct5:Turbine Seismic Vi | Turbine Seismic Vibration | mils | 0 | 0 |
| PS:kct5:Turbine Speed | Turbine Speed | RPM | 3599.609375 | 3599.457764 |
| PS:kct5:Turning Gear Cycli | Turning Gear Cycling 'Off' | sec | 14400 | 14400 |
| PS:kct5:Turning Gear Cycli | Turning Gear Cycling 'Off' | sec | 14400 | 14400 |
| PS:kct5:Turning Gear Cycli | Turning Gear Cycling 'On' | sec | 0 | 0 |
| PS:kct5:Turning Gear Cycli | Turning Gear Cycling 'On' | sec | 600 | 600 |
| ps:kct5:Unit Start | Unit Start Indicator | # of Starts | 0 | 0 |
| ps:kct5:Unit Stop | Unit Stop Indicator | # of Shutdown | 0 | 0 |
| PS:kct5:Vertical Compresso | Vertical Compressor Vibrat | mils | 2.29938221 | 1.675306916 |
| PS:kct5:Vertical Turbine Vib | Vertical Turbine Vibration | mils | 3.435255766 | 3.556434155 |
| PS:kct5:Voltage Regulator | Voltage Regulator DC Curre | Amps | 10 | 10.37061691 |
| PS:kct5:Voltage Regulator | Voltage Regulator DC Volta | Volts | 13.39732361 | 14.31774712 |
| PS:kct5:Voltage Regulator | Voltage Regulator Null Sig | % | 10.22566891 | 10.49030876 |
| PS:kct5:Water Injection Flo | Water Injection Flow | GPM | 17.27485275 | 0 |
| PS:kct5:Wet Bulb Depressi | Wet Bulb Depression | DegF | 15.83734417 | 18.05887985 |
| PS:kct5:Wet Bulb Depressi | Wet Bulb Depression Effici | % | 85.11212921 | 0 |
| PS:kct5:Wet Bulb Temperat | Wet Bulb Temperature | DegF | 75.83105469 | 77.06003571 |

APPENDIX E
PROJECT PARTICIPANTS

Project Participants

JOE COOKSEY

REPORT PREPARATION
FIELD TESTING
CALIBRATIONS
CALCULATIONS

GEORGE HAWKINS

FIELD TESTING

BEN MOORE

FIELD TESTING

DAVE SALTER

REPORT PREPARATION

HARVEY GRAY

REPORT REVIEW