SESPE
CONSULTING, INC.

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468 Poli Street, Suite 2E • Ventura, California 93001

2012 – 2013 TITLE V COMPLIANCE CERTIFICATION

New-Indy Oxnard, LLC
5936 Perkins Road
Oxnard, California

May 11, 2013

Prepared for:
New-Indy Oxnard, LLC
P.O. Box 519
Pt. Hueneme, California 93044

Prepared by:
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TABLE OF CONTENTS

2012 - 2013
Annual Title V Compliance Certification
New-Indy Oxnard, LLC
May 11, 2013

TABLE OF CONTENTS

2012 - 2013
Annual Title V Compliance Certification
New-Indy Oxnard, LLC
May 11, 2013

2012 - 2013
Annual Title V Compliance Certification
New-Indy Oxnard, LLC
May 11, 2013

Section 1 Signature Cover Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
SIGNATURE COVER FORM

A copy of each Annual Compliance Certification shall be submitted to EPA, Region 9, at the following address:

Mr. Gerardo Rios, Chief
Permits Office (AIR-3)
Office of Air Division
EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

Confidentiality

All information in a Part 70 permit compliance certification is public information. The Part 70 permit is also public information.

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this compliance certification are true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Title: Mill Manager	5/13/2013

Time Period Covered by Compliance Certification

04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

2012 - 2013
Annual Title V Compliance Certification
New-Indy Oxnard, LLC
May 11, 2013

Section 2 Deviation Summary Forms

Deviation Summary Table

Date	Breakdown/Event	Comment
May 25, 2012	Surge in CO emissions.	Reported to VCAPCD but no exceedence occurred.
July 19, 2012	Power supply failure	Reported to VCAPCD. Power supply upgraded to prevent reoccurrence.
August 17, 2012	NOx chemiluminescence detector (CLD) losing signal intermittently.	Reported to VCAPCD. Replaced NOx CLD and focus on putting into service the back-up analyzer for APCD certification.
August 18, 2012	Inlet NOx CLD lost communication with multicomponent analyzer (MLT) unit.	Reported to VCAPCD. CLD was rebuilt and reprogrammed to restore communication.
November 19, 2012	Exhaust line for NOx analyzer plugged resulting in low ammonia use.	Reported to VCAPCD. Replaced plugged line and reviewed existing preventive maintenance on sample handling lines.
November 28, 2012	High pressure compressor (HPC) spline damage resulting in Cogen shutdown and Nebraska operation.	Reported to VCAPCD. Nebraska boiler operated 87 hours under emergency status. Spline damage investigated, and lease turbine installed, by GE.
January 12, 2013	Air leak from cracked plastic fittings caused O2 reading to drift and low NOx readings.	Reported to VCAPCD. Cracked fittings were replaced with stainless steel fittings and the unit recalibrated manually.
January 13, 2013	PI data loss resulting from partial failure of multiple tap points into the ABB process network.	Reported to VCAPCD. Replaced two transceivers that failed and restored network connection.
February 28, 2013	CEMS stack NOx CLD failed due to overheating.	Reported to VCAPCD. Monitor air conditioning daily and installed additional louvers to CEMS cabinet to promote exhaust of air from sample handling fans.

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
DEVIATION SUMMARY FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157-NOx,CO, NH3	Cogeneration Unit	Begin: 5/25/12, 12:00 AM End: 5/25/11, 2:00 AM When Discovered: Date & Time 5/25/11, 1:30 AM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
CO	63.43 lb/hr	62.48 lb/hr
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
Unknown.	Monitor CEMS and cogen unit operating parameters.	

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157-NOx,CO, NH3	Cogeneration Unit	Begin: 7/19/12, 5:00 AM End: 7/19/12, 3:55 PM When Discovered: Date & Time 7/19/12, 5:05 AM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx	12 ppmvd NOx @ 15% O2 rolling 3-hour average	unknown
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
Breakdown of CEMS power supply caused NOx data loss.	Upgraded power supply.	

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157-NOx,CO, NH3	Cogeneration Unit	Begin: 8/17/12, 9:05 AM End: 8/17/12, 1:05 PM When Discovered: Date & Time 8/17/12, 11:40 AM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx	12 ppmvd NOx @ 15% O2 rolling 3-hour average	unknown
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
NOx chemiluminescence detector (CLD) failure.	NOx CLD replaced.	

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
DEVIATION SUMMARY FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157-NOx,CO, NH3	Cogeneration Unit	Begin: 8/18/12, 12:00 PM End: 8/20/12, 2:30 PM When Discovered: Date & Time 8/18/12, 3:00 PM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx	12 ppmvd NOx @ 15% O2 rolling 3-hour average	< 12 ppmvd NOx @ 15% O2
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
Inlet NOx CLD lost communication with multicomponent analyzer.	Rebuilt and reprogrammed CLD. Focus on installing back-up analyzer for APCD certification.	

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157-NOx,CO, NH3	Cogeneration Unit	Begin: 11/19/12, 7:00 AM End: 11/19/12, 8:30 AM When Discovered: Date & Time 11/19/12, 7:00 AM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx	12 ppmvd NOx @ 15% O2 rolling 3-hour average	< 12 ppmvd NOx @ 15% O2
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
Exhaust line for NOx analyzer was plugged.	Replaced plugged exhaust line.	

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157-NOx,CO, NH3	Cogeneration Unit	Begin: 1/11/13, 8:00 PM End: 1/14/13, 2:15 PM When Discovered: Date & Time 1/12/13, 10:30 AM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx, O2	12 ppmvd NOx @ 15% O2 rolling 3-hour average	< 12 ppmvd NOx @ 15% O2
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
Air leak through cracked plastic fittings at bottom of CEMS sample handling chiller assembly.	Replaced plastic fittings with stainless steel fittings.	

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
DEVIATION SUMMARY FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157 - NOx, CO, NH3	Cogeneration Unit	Begin: 1/13/13, 5:35 AM End: 1/14/13, 12:35 PM When Discovered: Date & Time 1/13/13, 11:00 AM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx, CO, NH3	12 ppmvd NOx @ 15% O2	< 12 ppmvd NOx @ 15% O2
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
PI data loss due to partial failure of multiple tap points into the ABB process network.	Replace transceivers that failed and restore network connection.	

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157- NOx,CO, NH3	Cogeneration Unit	Begin: 2/28/13, 1:17 AM End: 3/1/13, 4:00 AM When Discovered: Date & Time 2/28/13, 1:17 AM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx	12 ppmvd NOx @ 15% O2 rolling 3-hour average	Unknown due to loss of data
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
NOx CLD failed due to overheating.	Monitor air conditioning units daily and install additional louvers to CEMS cabinet to improve air flow.	

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
6.c. STRMLN0157- NOx,CO, NH3	Cogeneration Unit	Begin: 11/28/12, 6:00 AM End: 12/1/12, 9:00 PM When Discovered: Date & Time 11/28/12, 6:00 AM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx, CO, NH3, O2	12 ppmvd NOx @ 15% O2 rolling 3-hour average	< 12 ppmvd NOx @ 15% O2
G. Probable Cause of Deviation:	**H. Corrective actions taken:**	
Replace turbine due to high pressure compressor (HPC) spline damage.	Operate Nebraska boiler without excess emissions until leased turbine was installed. GE investigating spline damage.	

2012 - 2013
Annual Title V Compliance Certification
New-Indy Oxnard, LLC
May 11, 2013

Section 3 Source Test Summary Forms

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION

SOURCE TEST SUMMARY FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Emission Unit Description:			B. Pollutant:
Gas turbine based cogeneration unit			NOx
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
10.8 ppm @ 15% O2	12 ppm @ 15% O2	AirX Source Test	3/20/2013

A. Emission Unit Description:			B. Pollutant:
Gas turbine based cogeneration unit			NH3
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
1.1 ppm @ 15% O2	20 ppm @ 15% O2	AirX Source Test	3/20/2013

A. Emission Unit Description:			B. Pollutant:
Gas turbine based cogeneration unit			CO
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
15.42 lbs/hr	59.65 lbs/hr	AirX Source Test	3/20/2013

A. Emission Unit Description:			B. Pollutant:
Gas turbine based cogeneration unit			NOx
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
45.56 tons/year calculated by CEMS	50 tons/year	AirX RATA Test to confirm CEMS data.	3/20/2013

A. Emission Unit Description:			B. Pollutant:
Gas turbine based cogeneration unit			CO
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
62.08 tons/year calculated by CEMS.	97.66 tons/year	AirX RATA Test to confirm CEMS data.	3/20/2013

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION

SOURCE TEST SUMMARY FORM

Period Covered by Compliance Certification: 04 / 01 / 11 (MM/DD/YY) to 03 / 31 / 12 (MM/DD/YY)

A. Emission Unit Description:			B. Pollutant:
Nebraska Boiler (stand-by only, natural gas only)			NOx
C. Measured Emission Rate:	**D. Limited Emission Rate:**	**E. Specific Source Test or Monitoring Record Citation:**	**F. Test Date:**
52 ppm @ 3% O2	74 ppm @ 3% O2	West Coast Environmental	12/22/94

A. Emission Unit Description:			B. Pollutant:
Nebraska Boiler (stand-by, fuel oil only)			NOx
C. Measured Emission Rate:	**D. Limited Emission Rate:**	**E. Specific Source Test or Monitoring Record Citation:**	**F. Test Date:**
not applicable	67 ppm @ 3% O2	n/a, not operated on fuel oil.	n/a

A. Emission Unit Description:			B. Pollutant:
Maxon Duct Burner			NOx
C. Measured Emission Rate:	**D. Limited Emission Rate:**	**E. Specific Source Test or Monitoring Record Citation:**	**F. Test Date:**
0.92 tons/year	1.90 tons/year	West Coast Environmental	8/17/95

A. Emission Unit Description:			B. Pollutant:
C. Measured Emission Rate:	**D. Limited Emission Rate:**	**E. Specific Source Test or Monitoring Record Citation:**	**F. Test Date:**

A. Emission Unit Description:			B. Pollutant:
C. Measured Emission Rate:	**D. Limited Emission Rate:**	**E. Specific Source Test or Monitoring Record Citation:**	**F. Test Date:**

2012 - 2013
Annual Title V Compliance Certification
New-Indy Oxnard, LLC
May 11, 2013

Section 4 Permit Attachment Forms

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 6.a.74.15N3-0157	D. Frequency of monitoring: Continuous
B. Description: Rule 75.15.C.3. Boilers, Steam Generators, and Process Heaters - Exemption for Emergency Stand-by Units	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Hour meter and CEMS. Nebraska unit operated 87 hours. Tune-up performed on October 18, 2012.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 6.b.103N5-0157	D. Frequency of monitoring: Continuous
B. Description: Rule 103, Stack Monitoring - Nebraska Boiler	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Fuel meter and CEMS. Maximum rolling 12-month capacity factor is 0.562% and unit remain exempt from 103.A.2.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 6.c.STRMLN157-NOx,CO,NH3	D. Frequency of monitoring: Continuous
B. Description: Gas Turbine Based Cogeneration Unit; NOx, CO, NH3 Applicable Requirements - NOx Streamline	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: EPA Method 20, ARB Method 100 BAAQMD Method ST-1B
C. Method of monitoring: Annual source test and CEMS for fuel use, NOx, CO, O2, NH3, and control system operating parameters.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): I H. *Excursions, exceedances, or other non-compliance? (Y or N): Y *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 /12 (MM/DD/YY) to 03 / 31 /13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 6.d. STRMLN157-SOx	D. Frequency of monitoring: Continuous
B. Description: Gas Turbine Based Cogeneration Unit; SOx Applicable Requirements - Streamlined	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: EPA Method 6, 6A, 6C, 15, 16A, 16B, or SCAQMD 307-94
C. Method of monitoring: Facility burns PUC quality gas only. Annual source test would be required if non-PUC quality gas were used.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: New Requirement	D. Frequency of monitoring: Continuous and monthly
B. Description: Mandatory Greenhouse Gas Reporting (40 CFR 98)	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Natural gas consumption by fuel meters, CEMS, and invoices from gas company.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: New Requirement	D. Frequency of monitoring: Monthly
B. Description: Rule 74.20 - Adhesives and Sealants	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Maintain records of quantity and ROC content for each adhesive purchased to document emissions less than 200 lb/yr. No adhesives or sealants were used this year.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 /12 (MM/DD/YY) to 03 / 31 /13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 7.a. PO00157PC1	D. Frequency of monitoring: Continuous
B. Description: General Recordkeeping Requirements	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Monthly records of throughput and consumption.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7.b. PO00157PC1	D. Frequency of monitoring: Continuous
B. Description: Solvent Cleaning Additional Requirements	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Monthly records of solvent purchases. MSDS provided for new material in Section 5 (Brakleen Non-chloronated).	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7.c. PO00157PC1	D. Frequency of monitoring: continuous
B. Description: Stationary Gas Turbine Gas Path Cleaning Solvent Use	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Maintain solvent information. No cleaning activities occurred during permit year.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 /12 (MM/DD/YY) to 03 / 31 /13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 7.d. PO00157PC2	D. Frequency of monitoring: Continuous
B. Description: Turbine NOx and CO Emissions Limits	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Monthly calculations based upon NOx and CO hourly emissions from CEMS.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7.e. PO00157PC2	D. Frequency of monitoring: Continuous
B. Description: Turbine and Duct Burner Natural Gas Only Requirement	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Fueled by natural gas only.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7.f. PO00157PC2	D. Frequency of monitoring: Continuous
B. Description: Nebraska Boiler and Turbine Simultaneous Operation Limits	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Annual compliance certification and records of operation of the Boiler.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County Air Pollution Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 7.g. PO00157PC2	D. Frequency of monitoring: Continuous, Daily
B. Description: Nebraska Boiler NOx Emissions Limits	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: CEMS for fuel consumption, NOx and oxygen. Daily zero and span drift checks when boiler is in operation.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7.h. PO00157PC2	D. Frequency of monitoring: Continuous, Daily
B. Description: Nebraska Boiler NOx and Oxygen Continuous Monitoring Requirements.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: CEMS for fuel consumption, NOx and oxygen. Daily zero and span drift checks when boiler is in operation.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7.i. PO00157PC2	D. Frequency of monitoring: Continuous
B. Description: Nebraska Boiler Oil Limitations	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: ASTM Method D4294-83 or D2622-87
C. Method of monitoring: No diesel fuel was burned. If fuel oil is burned, then record: the reason for firing fuel oil; delivery dates and amounts; and fuel sulfur content.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 7.j. PO00157PC2	D. Frequency of monitoring: Continuous
B. Description: Recordkeeping Requirements for the Nebraska Boiler Fuel Oil Limitations	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: ASTM Method D4294-83 or D2622-87
C. Method of monitoring: No diesel fuel was burned. If fuel oil is burned, then record: the reason for firing fuel oil; delivery dates and amounts; and fuel sulfur content.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7.k. PO00157PC2	D. Frequency of monitoring: Continuous
B. Description: Recordkeeping Requirements for the Maxon Duct Burner	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Monitor time and duration of the Maxon Burner's use, and fuel consumption.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 8.a. Rule 50	D. Frequency of monitoring: Quarterly
B. Description: Opacity	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: EPA Method 22
C. Method of monitoring: Stack opacity routinely observed. Observations on 5/15/12, 8/14/12, 11/5/12, and 2/28/13 are formally documented.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 /12 (MM/DD/YY) to 03 / 31 /13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 8.b. Rule 54.B.1	D. Frequency of monitoring: Continuous
B. Description: Sulfur Compounds - SOx at Point of Discharge	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Follow Rule 64 monitoring requirements. Compliance with Rule 64 ensures compliance with this rule based on District analysis.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 8.c. Rule 54.B.2	D. Frequency of monitoring: Continuous
B. Description: Sulfur Compounds - SOx at or Beyond Property Line	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Compliance by use of PUC quality natural gas as discussed in District memo (5/23/96)	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C *H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 8.d. Rule 55	D. Frequency of monitoring: Continuous
B. Description: Fugitive Dust	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: EPA Methods 9 and 22
C. Method of monitoring: There are no operations, disturbed surface areas or man-made conditions at this stationary source that are subject to Rule.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 8.e. Rule 57.1	D. Frequency of monitoring: Continuous
B. Description: Particulate Matter Emissions from Fuel Burning Equipment	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Compliance assured based on District analysis (12/3/97).	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 8.f. Rule 64.B.1	D. Frequency of monitoring: Continuous
B. Description: Sulfur Content of Fuels - Gaseous Fuel Requirements	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: SCAQMD Method 307-94 or ASTM Method D1072-90
C. Method of monitoring: Monitor source of natural gas and perform source test annually if non-PUC gas is burned.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 8.g. Rule 64.B.2	D. Frequency of monitoring: Continuous
B. Description: Sulfur Content of Fuels - Liquid Fuel Requirements	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: ASTM Method D4294-83 or D2622-87
C. Method of monitoring: Monitor type of fuel burned and obtain a fuel supplier certification or fuel test per each delivery.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 8.h. Rule 74.6 (2003)	D. Frequency of monitoring: Continuous
B. Description: Surface Cleaning and Degreasing	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Maintain current solvent information. Routine surveillance of solvent cleaning activities. Solvent testing upon request.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 8.i. Rule 74.11.1	D. Frequency of monitoring: Continuous
B. Description: Large Water Heaters and Small Boilers	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Facility did not install an affected unit (between 75,000 BTU/hr and 2,000,000 BTU/hr).	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 8.j. Rule 74.22	D. Frequency of monitoring: Continuous
B. Description: Natural Gas-Fired, Fan Type Central Furnaces	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Maintain furnace identification. Rule only applies to future installs.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 /12 (MM/DD/YY) to 03 / 31 /13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 9.a. Rule 74.1	D. Frequency of monitoring: Continuous
B. Description: Abrasive Blasting	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Routine surveillance and visual inspections. CD Lyon Construction, Inc. (PTO 7141) performs abrasive blasting at the facility.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 9.b. Rule 74.2	D. Frequency of monitoring: Continuous
B. Description: Architectural Coatings	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Routine surveillance and visual inspections. CD Lyon Construction, Inc. (PTO 7141) performs architectural coating activities at the facility.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 9.c. 40CFR61.M	D. Frequency of monitoring: Continuous
B. Description: Asbestos NESHAPS	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: X
C. Method of monitoring: Follow inspection, recordkeeping, and notification procedures from 40CFR61.145.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 10.a. Part 70 General	D. Frequency of monitoring: Continuous
B. Description: Part 70 Permit General Conditions	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Throughput and emissions limits; other requirements of the permit; notification; permit modification and renewal; and reporting requirements.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 10.b. PO General	D. Frequency of monitoring: Continuous
B. Description: Permit to Operate General Conditions	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: The facility operated in compliance with these requirements including postings.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 11.a 40CFR68RMP-157	D. Frequency of monitoring: Continuous
B. Description: Accidental Release Prevention and Risk Management Plans	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: The facility is exempt from federal regulation based on quantity stored. State plan was updated in 2011 in coordination with Oxnard Fire Dept.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County
Air Pollution
Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 / 11 (MM/DD/YY) to 03 / 31 / 12 (MM/DD/YY)

A. Attachment # or Permit Condition #: 11.b 40CFR82	D. Frequency of monitoring: Continuous
B. Description: Protection of Stratospheric Ozone	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Facility did not conduct activities subject to this regulation.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 11.c.1 SHIELD-D,Da,Db,Dc	D. Frequency of monitoring: Continuous
B. Description: Permit Shield for 40CFR60, Subparts D, Da, Db, and Dc	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Facility did not modify or install equipment that would trigger these requirements. Therefore, this permit shield remains in effect.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 11.c.2. SHIELD-60KKKK	D. Frequency of monitoring: Continuous
B. Description: 40CFR60 Subpart KKKK, Standards of Performance for Stationary Combustion Turbines	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Facility did not modify or install equipment that would trigger these requirements. Therefore, this permit shield remains in effect.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

Ventura County Air Pollution Control District

ANNUAL COMPLIANCE CERTIFICATION
PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 04 / 01 / 12 (MM/DD/YY) to 03 / 31 / 13 (MM/DD/YY)

A. Attachment # or Permit Condition #: 11.c.3 SHIELD-63YYYY	D. Frequency of monitoring: Continuous
B. Description: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Emissions of Hazardous Air Pollutants remain less than major source thresholds (10 tpy single HAP, 25 tpy combined HAPs).	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 11.c.4 SHIELD-Engines	D. Frequency of monitoring: Annual and continuous during operation
B. Description: Permit Shield for 40CFR60 Subparts JJJJ and 40CFR63 Subpart ZZZZ	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: Facility did not modify or install equipment subject to the NSPS JJJJ. Non-resettable hour meter and reasons for operation as needed to qualify for this permit shield.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 11.c.5 SHIELD-40CFR72-78	D. Frequency of monitoring: Continuous
B. Description: Permit Shield for 40CFR Parts 72 through 78	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: n/a
C. Method of monitoring: The facility supplied less than 219,000 MW-hr/yr to any utility power distribution system. Therefore, this permit shield remains in effect.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

2012 - 2013
Annual Title V Compliance Certification
New-Indy Oxnard, LLC
May 11, 2013

Section 5 Supporting Records

INTERNATIONAL PAPER

5936 PERKINS ROAD
OXNARD, CA 93033

T (805) 986-3881
F (805) 488-5186

May 29, 2012

Lyle Olson
County of Ventura Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: May 25, 2012 CO Emission Surge

Dear Mr. Olson:

This letter is a follow up on the call made by Victor Kumpera to the VCAPCD Breakdown Center Hotline on May 25, 2012 at about 1:30 AM.

A call was made to the District due to a surge in CO emissions and potential CO emission limit exceedance on May 25, 2012. However, review of daily emissions showed that the mill was in compliance and did not exceed the turbine and duct burner's permitted total CO limit of 63.43 lbs/hr. The mill is currently conducting further investigation on this matter.

The Daily Emission Sheet, PI and DCS trends have been provided for your review. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

Robyn Lebrilla
Environmental Engineer

DAILY ENVIRONMENTAL REPORT

End Time: 5/25/2012 7:00 — Start Time: 5/24/2012 7:00

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O2)
8:00	21.74	276.76	637.07	65.80	29.53	1.11	2.70	0.80	11.40	14.89	66.53	43.91	10.51	10.50	23.85	0.92	
9:00	20.42	276.59	636.33	66.29	29.79	1.13	2.72	0.80	11.34	14.89	64.89	42.84	10.51	10.50	23.82	0.73	
10:00	17.76	276.59	635.38	61.07	31.79	1.28	2.72	0.80	10.91	14.98	57.62	37.44	10.51	10.51	23.90	0.63	
11:00	16.10	276.59	634.06	60.27	30.97	1.32	2.72	0.80	10.86	14.97	56.68	36.87	10.35	10.45	19.91	7.20	
12:00	17.31	276.96	632.75	57.87	29.84	1.23	2.73	0.81	11.03	14.98	59.67	38.79	10.34	10.40	23.84	-0.72	
13:00	15.18	278.10	630.04	53.46	26.85	1.29	2.82	0.83	11.38	15.07	54.09	35.32	10.67	10.45	23.78	-0.91	
14:00	8.96	276.59	623.40	57.39	29.32	1.33	2.71	0.80	10.91	15.17	42.41	26.75	10.52	10.51	23.81	-0.91	
15:00	8.93	276.59	622.77	57.16	29.36	1.34	2.70	0.80	10.92	15.17	42.60	26.74	10.52	10.57	23.85	-0.91	
16:00	9.61	276.59	622.14	58.50	28.88	1.33	2.70	0.80	10.95	15.16	44.69	28.37	10.54	10.53	23.80	-0.91	
17:00	9.49	276.08	621.51	57.24	29.91	1.37	2.67	0.80	10.87	15.16	41.41	26.15	10.48	10.51	23.84	-1.45	
18:00	9.41	275.05	620.88	57.10	29.75	1.36	2.66	0.79	10.85	15.14	41.22	26.02	10.50	10.51	23.93	-1.91	
19:00	8.89	273.87	620.25	57.34	30.03	1.37	2.66	0.79	10.78	15.17	39.94	25.03	10.48	10.49	23.84	-1.82	
20:00	9.66	272.12	620.50	56.83	29.31	1.36	2.60	0.79	10.73	15.16	42.14	26.29	10.49	10.49	23.91	-1.23	
21:00	9.64	273.19	622.04	58.45	28.81	1.33	2.63	0.79	10.76	15.16	44.24	27.76	10.49	10.49	23.92	-0.85	
22:00	12.15	273.83	624.32	55.45	28.06	1.33	2.63	0.79	10.84	15.10	49.64	31.39	10.45	10.47	23.89	-0.13	
23:00	24.90	275.43	635.64	51.76	26.36	1.25	2.68	0.79	11.38	14.88	73.48	49.13	10.45	10.46	23.89	-0.13	
0:00	28.93	276.79	642.95	48.50	25.21	1.26	2.77	0.82	11.64	14.78	92.25	62.48	10.48	10.46	23.86	-0.13	
1:00	24.39	278.25	640.34	52.96	27.26	1.30	2.74	0.81	11.82	14.79	79.83	53.68	10.75	10.56	23.87	-0.13	
2:00	17.34	280.05	636.86	63.58	33.82	1.34	2.56	0.75	11.29	14.88	55.25	36.44	10.46	10.56	23.87	-0.13	
3:00	17.45	280.30	638.36	64.30	34.42	1.34	2.56	0.75	11.35	14.86	54.64	35.86	10.49	10.57	23.86	-0.13	
4:00	20.27	279.51	641.20	63.47	33.76	1.32	2.54	0.75	11.38	14.81	61.63	40.88	10.45	10.47	23.84	-0.13	
5:00	19.54	277.10	638.43	64.48	34.06	1.34	2.51	0.74	11.35	14.83	58.19	38.25	10.54	10.49	23.85	-0.13	
6:00	11.25	278.32	630.99	67.77	36.92	1.40	2.51	0.74	11.06	15.00	43.08	27.49	10.51	10.50	23.90	-0.13	
7:00	20.04	277.09	636.34	64.74	34.75	1.33	2.48	0.73	11.26	14.88	61.02	39.88	10.44	10.49	23.94	-0.26	

Comments :

Daily Av Cogen	Daily Av Cogen+Neb
NOx	NOx
lb/h	lb/h
11.12	11.12

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
35.97	35.97

Stack NOx analyzer	
zero value	0.09
zero drift %	0.09
span value	79.94
span drift %	1.23

Stack CO Analyzer	
zero value	-0.78
zero drift %	-0.78
span value	93.22
span drift %	-0.12

Stack O2 Analyzer	
zero value	20.99
zero drift%	0.35
span value	-0.01
span drift %	-0.03

Nebraska Gas	

PRINT TIME: 5/25/20127:53 AM

NOTE: This document is valid for only ONE week after print time


COGEN
2012-05-29 09:17
33LB FGS
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
75
0.75
50
0.50
25
0.25
0
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
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931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 00:00 2012-05-25 95.87 13.81 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 00:00 2012-05-25 14.78 15.40 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 00:00 2012-05-25 10.91 9.79 PPM
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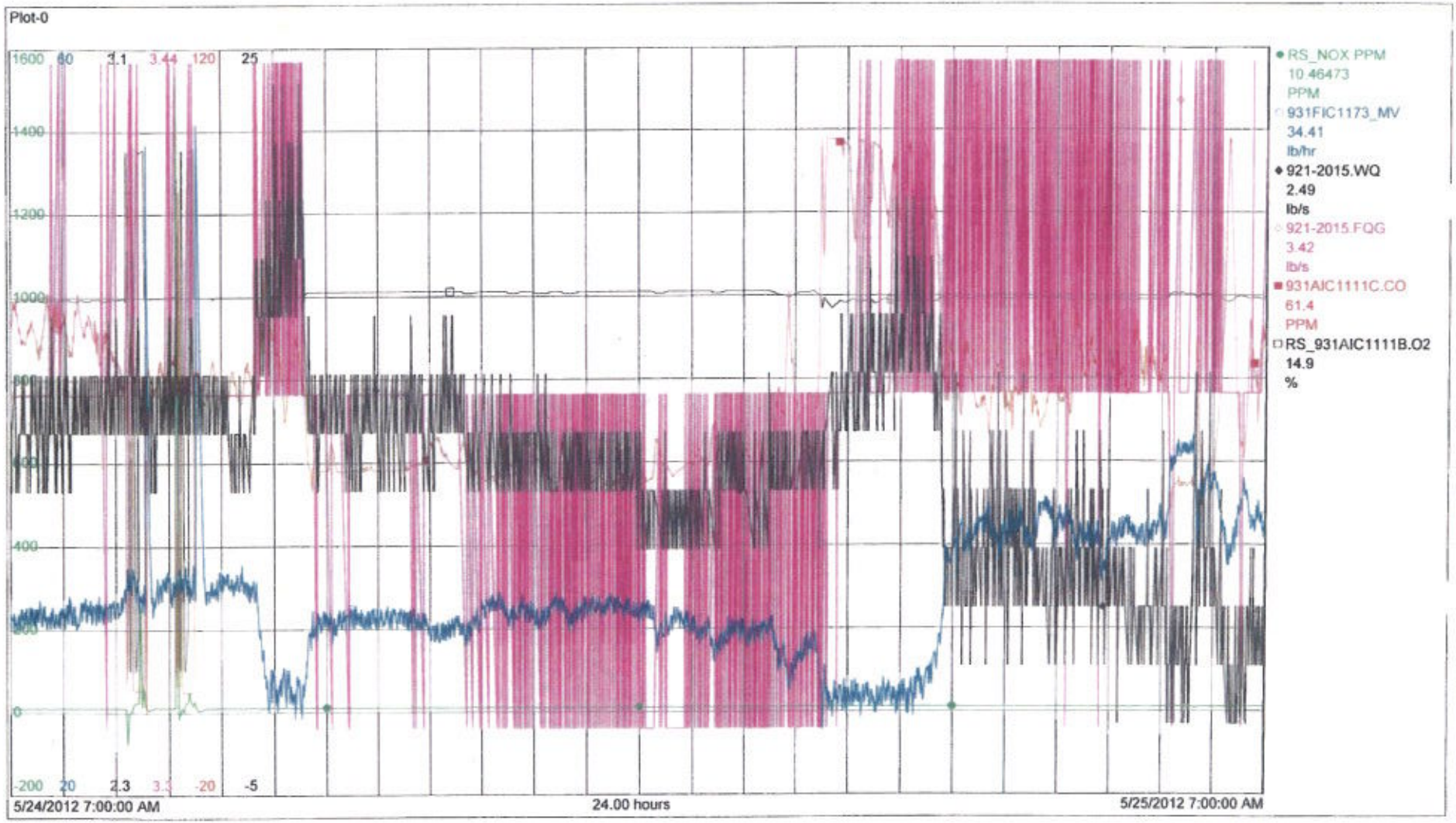
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 00:00 2012-05-25 0 0
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB


Plot-0
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1400
1200
1000
800
600
400
200
0
-200 20 2.3 3.3 -20 -5
5/24/2012 7:00:00 AM
24.00 hours
5/25/2012 7:00:00 AM
RS_NOX PPM
10.46473
PPM
931FIC1173_MV
34.41
lb/hr
921-2015.WQ
2.49
lb/s
921-2015.FQG
3.42
lb/s
931AIC1111C.CO
61.4
PPM
RS_931AIC1111B.O2
14.9
%

NEW INDY
CONTAINERBOARD

July 20, 2012

Lyle Olson
Ventura County Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: CEMS breakdown – power supply failure

Dear Mr. Olson:

This letter is a follow up on the call made by Chuck Richards to the VCAPCD Breakdown Center Hotline on July 19, 2012 at about 5:20 AM.

The operator received an emission alarm on July 19, 2012 at about 5:05 AM. Troubleshooting showed that the 24 VDC power supply had failed and affected the stack NOX CLD and the calibration valve for the inlet CLD NOx.

The 24 VDC power supply was replaced and a spare NOx CLD module was put into service. Upon start-up, some differences (i.e., validation, purge time) were observed in the CLD module. Rosemount apparently had upgraded the software and there were changes on the CLD calibration clock (validation, purge time, etc).

A decision was made to focus on the CLD module that was removed after the 5:00 AM breakdown and making sure that it was in working condition. After placing the CLD back into service, no software validation and purge time issues were detected. A passing calibration was completed and the CEMS was back into service at about 3:55 PM. CEMS lost NOx data from 5:00 AM to 3:55 PM, a total of 10.92 hrs. The 24 VDC power supply will be upgraded to prevent reoccurrence of this incident.

The Daily Emission Sheet, PI trends, DCS trends, Cogen Report and Environmental Incident Report have been provided for your review. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

Robyn Lebrilla
Environmental Engineer

Ventura County
Air Pollution

Control District

RESPONSIBLE OFFICIAL'S CERTIFICATION FORM

Ventura County APCD Rule 33.9 requires that "*any document, including reports, schedule of compliance progress reports and compliance certifications, required by a Part 70 permit shall be certified by a responsible official.*" Therefore, this form shall be signed by the company's Responsible Official and submitted with all such reports, including, but not limited to semi-annual reports, deviation and emergency reports and any periodic reports required by a Part 70 permit. However, when submitting your Annual Compliance Certifications, please use the form titled Annual Compliance Certification Signature Cover Form.

Semi-annual reports, deviations and emergency reports and any periodic reports required by your Part 70 permit should be submitted to:

Lyle Olson
Air Quality Engineer
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document is true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Signature: Judy Gellen	7/23/2012
Title: Mill Manager	

End Time 7/19/2012 7:00 Start Time 7/18/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/h	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	3.34	280.69	631.27	87.07	38.71	1.15	2.74	0.80	11.15	14.86	18.66	12.15	10.62	10.62	23.99	1.45	
9:00	0.11	282.05	629.13	88.93	40.02	1.18	2.76	0.80	10.95	14.88	15.71	9.96	10.52	10.52	23.97	1.53	
10:00	0.11	282.21	629.22	89.01	40.73	1.19	2.78	0.81	10.97	14.88	14.91	9.40	10.53	10.55	23.99	1.42	
11:00	0.11	282.24	629.30	89.88	42.20	1.22	2.79	0.81	10.36	14.85	14.70	9.42	10.14	10.39	23.98	0.92	
12:00	0.11	283.41	629.38	89.85	41.82	1.20	2.83	0.81	11.00	14.90	14.57	9.25	10.50	10.39	24.05	0.56	
13:00	0.11	285.51	629.47	88.94	41.07	1.19	2.85	0.82	11.01	14.84	14.65	9.34	10.44	10.36	24.02	0.65	
14:00	0.11	284.74	629.55	88.86	40.82	1.18	2.86	0.82	11.05	14.84	14.63	9.41	10.52	10.49	24.01	0.43	
15:00	0.11	284.82	629.63	89.09	41.42	1.55	2.86	0.82	11.05	14.86	14.53	9.30	10.50	10.49	23.97	0.48	
16:00	0.11	285.96	629.72	88.78	40.78	2.24	2.87	0.83	11.11	14.85	14.83	9.56	10.52	10.51	23.98	0.71	
17:00	0.11	282.55	629.80	89.56	41.69	1.67	2.81	0.81	10.96	14.85	14.72	9.26	10.50	10.51	23.96	0.67	
18:00	0.11	282.75	629.88	89.80	41.22	1.52	2.82	0.81	11.00	14.81	14.40	9.18	10.53	10.52	23.95	0.59	
19:00	0.11	282.40	629.97	90.62	42.04	1.42	2.79	0.81	10.97	14.79	13.86	8.81	10.51	10.51	23.91	0.59	
20:00	1.94	281.74	631.87	90.43	41.91	1.42	2.78	0.81	11.00	14.76	16.19	10.33	10.51	10.52	23.96	0.57	
21:00	0.08	283.05	631.69	91.09	42.42	1.36	2.81	0.81	11.02	14.80	14.12	9.00	10.52	10.52	23.97	0.66	
22:00	0.07	282.04	629.90	90.06	41.35	1.33	2.76	0.80	10.95	14.86	14.33	9.08	10.52	10.52	23.92	0.72	
23:00	3.92	247.31	619.02	73.21	29.98	1.31	2.33	0.77	9.31	15.16	24.77	13.52	9.85	10.30	23.93	0.66	
0:00	8.30	194.96	600.19	52.25	14.91	1.28	1.65	0.70	7.81	15.84	42.31	19.31	10.43	10.26	23.92	0.66	
1:00	8.30	195.93	599.74	52.50	14.91	1.29	1.68	0.70	7.94	15.62	41.94	19.12	10.58	10.29	23.93	1.34	
2:00	9.87	250.23	621.37	78.40	29.80	1.29	2.27	0.74	10.44	14.99	22.90	13.31	10.91	10.64	23.93	1.69	
3:00	12.25	254.54	631.06	81.24	32.35	1.29	2.28	0.74	10.35	14.91	20.57	12.33	10.50	10.66	23.86	1.69	
4:00	8.03	275.68	633.32	87.99	38.46	1.29	2.64	0.78	11.21	14.75	19.41	12.39	10.74	10.72	23.84	1.69	
5:00	8.03	282.05	636.59	84.11	40.58	1.28	2.78	0.81	11.23	14.68	19.34	12.48	10.48	10.57	23.89	1.73	
6:00	4.85	282.57	634.89	76.62	29.31	1.28	2.80	0.81	24.27	14.73	17.66	11.48	25.38	15.73	23.89	1.63	
7:00	0.01	284.97	630.92	60.40	41.18	1.20	2.84	0.82	548.94	99.69	7.51	5.10	525.61	187.36	23.82	1.63	

Comments : CEMS Breakdown due to 24V power supply issue affecting the NOx CLD module on 7/19/12 at about 5:00 AM. C. Richards called APCD at about 5:20 AM

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
10.58	10.58

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
10.94	10.94

Stack NOx analyzer	
zero value	0.06
zero drift %	0.06
span value	79.38
span drift %	0.51

Stack CO Analyzer	
zero value	-0.66
zero drift %	-0.66
span value	92.91
span drift %	-0.45

Stack O2 Analyzer	
zero value	20.90
zero drift%	-0.10
span value	-0.03
span drift %	-0.13

Nebraska Gas	

PRINT TIME: 7/19/201210:10 AM

NOTE: This document is valid for only ONE week after print time

End Time 7/20/2012 7:00 Start Time 7/19/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3 NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	0.01	285.98	630.71	5.80	41.00	-71.77	2.92	0.84	3588.42	10.45	4.00	-0.27	3382.93	1311.51	23.87	1.63	
9:00	0.02	286.84	630.51	29.82	41.10	40.13	3.05	0.87	50.69	12.06	11.63	7.71	48.24	1318.93	23.84	1.63	
10:00	0.02	286.87	630.30	54.27	40.93	27.21	3.05	0.87	29.77	14.78	18.35	13.53	21.28	1154.14	23.88	1.18	
11:00	0.01	276.83	630.05	69.48	41.08	2.67	2.49	0.76	147.27	15.67	10.37	0.67	151.28	76.95	23.84	0.81	
12:00	0.01	270.85	629.56	77.08	41.12	1.37	2.59	0.78	-32.59	15.37	12.72	2.43	-34.36	49.42	23.85	0.81	
13:00	0.01	288.71	630.51	77.00	41.11	1.36	3.08	0.88	13.11	14.99	18.08	11.69	12.31	43.11	23.93	1.00	
14:00	0.01	287.89	631.07	69.93	46.27	1.74	3.04	0.86	10.98	14.71	17.49	12.60	10.46	-3.86	23.97	0.91	
15:00	0.02	288.02	631.23	69.36	47.50	1.55	3.08	0.87	51.12	14.57	9.05	7.06	49.94	24.24	23.98	0.48	
16:00	0.02	287.84	631.37	64.23	47.60	2.24	2.98	0.85	24.43	14.23	7.32	5.87	20.62	27.01	23.98	0.03	
17:00	0.02	286.84	631.52	82.46	42.97	1.67	2.94	0.84	10.38	14.66	12.15	7.85	9.85	26.80	23.92	-0.30	
18:00	0.02	286.84	631.67	83.58	40.91	1.52	2.91	0.83	11.15	14.62	11.51	7.31	10.52	13.66	23.88	-0.73	
19:00	0.02	286.84	631.81	82.81	39.99	1.42	2.99	0.85	11.07	14.56	11.33	7.21	10.45	10.28	23.85	-0.83	
20:00	0.33	286.84	631.97	84.81	41.53	1.42	2.95	0.84	11.10	14.55	10.95	7.06	10.48	10.49	23.91	-0.17	
21:00	2.04	286.84	635.81	84.80	41.51	1.36	2.92	0.84	11.27	14.54	12.37	8.29	10.55	10.50	23.91	0.27	
22:00	0.05	286.31	633.04	86.05	42.14	1.33	2.88	0.83	11.12	14.60	10.51	6.68	10.52	10.52	23.93	0.90	
23:00	0.05	281.71	631.92	87.43	42.82	1.31	2.75	0.80	10.94	14.63	10.31	6.51	10.51	10.53	23.85	1.34	
0:00	0.05	281.68	631.71	88.36	43.48	1.28	2.78	0.80	10.95	14.63	10.25	6.51	10.51	10.51	23.94	1.34	
1:00	0.05	282.23	631.49	88.78	43.88	1.29	2.77	0.80	10.94	14.63	10.25	6.52	10.49	10.51	23.93	1.34	
2:00	0.05	281.71	631.29	88.95	43.75	1.29	2.74	0.80	10.92	14.66	10.31	6.53	10.49	10.50	23.87	1.34	
3:00	0.05	281.71	631.05	88.63	43.61	1.29	2.72	0.80	10.91	14.69	10.36	6.56	10.49	10.49	23.91	1.34	
4:00	0.05	281.71	630.85	88.85	43.38	1.29	2.72	0.80	10.93	14.69	10.38	6.56	10.50	10.49	23.92	1.34	
5:00	0.05	280.69	630.18	88.98	43.22	1.28	2.72	0.79	10.88	14.69	10.76	6.77	10.48	10.49	23.89	1.34	
6:00	0.05	281.54	629.55	88.69	42.93	1.28	2.72	0.80	10.92	14.69	10.91	6.90	10.49	10.49	23.92	1.36	
7:00	0.05	278.47	628.32	85.66	39.94	1.20	2.69	0.79	10.73	14.75	11.90	7.44	10.44	10.47	23.91	1.37	

Comments : CEMS Breakdown due to 24V power supply issue affecting the NOx CLD module on 7/19/12 from 8:00 AM - 3:55 PM, a total CEMS downtime of 10.92 hrs.

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
10.95	10.95

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
6.92	6.92

Stack NOx analyzer	
zero value	-0.09
zero drift %	-0.09
span value	78.97
span drift %	0.00

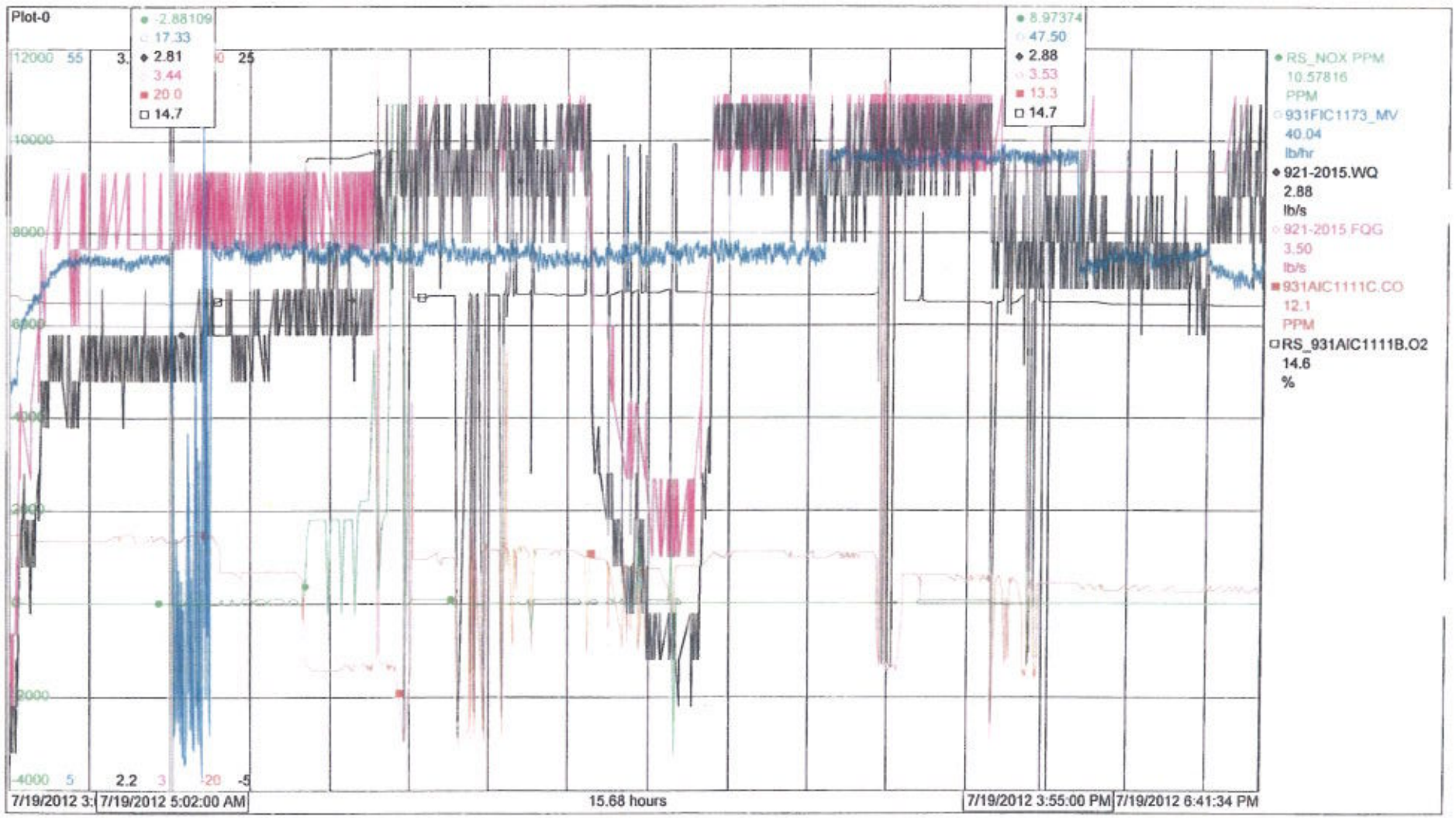
Stack CO Analyzer	
zero value	-0.88
zero drift %	-0.88
span value	95.09
span drift %	1.89

Stack O2 Analyzer	
zero value	21.11
zero drift%	0.91
span value	-0.05
span drift %	-0.19

Nebraska Gas	

PRINT TIME: 7/20/20128:03 AM

NOTE: This document is valid for only ONE week after print time


Plot-0
2.88109
17.33
2.81
3.44
20.0
14.7
8.97374
47.50
2.88
3.53
13.3
14.7
RS_NOX PPM
10.57816
PPM
931FIC1173_MV
40.04
lb/hr
921-2015.WQ
2.88
lb/s
921-2015 FQG
3.50
lb/s
931AIC1111C.CO
12.1
PPM
RS_931AIC1111B.O2
14.6
%
12000
10000
8000
6000
4000
2000
0
-2000
-4000
7/19/2012 5:02:00 AM
15.68 hours
7/19/2012 3:55:00 PM
7/19/2012 6:41:34 PM


COGEN
2012-07-20 14:01
93-HWTR.ALRM
COGEN HARD WATER
Value
13:32:57
36LB FGS
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name
Description
Attribute
Treatment
Ruler Time
Ruler Value
Current Value
Unit
Filter
Time Offset
Form
931AIC1111A.NOX
B&W SCR INLET NOX
MV
Mom
05:24 2012-07-19
79.28
88.03
PPM
931AIC1111C.CO
B&W BLR STACK RAW CO
MV
Mom
05:24 2012-07-19
20.97
13.91
PPM
931AIC1111B.O2
B&W BLR RAW O2%
MV
Mean
05:24 2012-07-19
14.68
14.84
%
931AIC1111D.NOX
B&W BLR STACK NOX
MV
Mean
05:24 2012-07-19
***
10.78
PPM
931-AIC-1111.INCAL
RSMT CEMS IN CAL
MV
Mom
05:24 2012-07-19
0
0
931-aic-1111.trb
RSMT CEMS TROUBLE
MV
Mom
05:24 2012-07-19
0
0
<
>
<<
>>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

SAFETY IS ALWAY. NO. 1

Hueneme Paper Mill

DATE: 7-18-12

CHEMICAL PUMPS	
Stecmate	
Cortrol	
Polymer	
Caustic (as needed)	

STEAM & WATER READINGS

	[illegible] / [illegible] / [illegible]	LP	HP	SCG LP	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
	4223854351871719847519507	192272	1944	9864290	7171749	463389	70071		11317
	92344396185873864746311	3200075	1918	9861100	6802980	463323	33772		10773

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES NO % FULL:

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	53.9	61.6	C	66.3	68.3	62.0	62.8	63.7	35.9	38.4	59.9	63.8
Inlet Temp	°F	54	55	O	56	55	56	55	55	55	55	55	55
Humidity	%	56	49		40	44	49	41	47	52	56	57	55
Vibration (Max)	MILS	14	14	W	13	14	14	.13	.14	.23	.23	.13	.13
Steam Injection	#/SEC	2.69	2.81	A	2.88	2.94	2.81	2.63	2.87	1.70	2.07	2.74	2.84
Turbine L.O. Level	%	100	100	S	100	100	100	100	100	100	100	100	100
T48	°F	1506	1518	H	1524	1521	1523	1523	1521	1325	1381	1518	1522

BATTERIES 135 V | HP RECOUPE FAL | BATTERIES 135 V | HP RECOUPE 156 FAL

AIR INLET DIFF IN/H20 | HP RECOUPE FAR | AIR INLET DIFF 3.2 IN/H20 | HP RECOUPE 156 FAR

L.O. DIFFERENTIAL 5 PSI | HP RECOUPE AFT | L.O. DIFFERENTIAL 5 PSI | HP RECOUPE 50 AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	163	164	B	165	165	165	165	165	165	165	165	165
L.O. Supply	°F	142	144	G	144	144	144	144	144	144	144	144	144
Gen. Vibration (Max)	IPS	.38	.37	L	.30	.36	.36	.31	.37	.44	.50	.41	.37
Tie Line	MW	13.6	13.81	T	13.78	13.62	13.81	13.80	13.72	13.58	13.60	13.66	13.52

GEN. 1200 AMPS | GEN.VARS 892 MEGA VARS | GEN. 1225 AMPS | GEN.VARS 764 MEGA VARS

FIELD 225 AMPS | FIELD VOLTS 210 V | FIELD 228 AMPS | FIELD VOLTS 212 V

COOLING TWR INLET F | COOLING TWR INLET F | COOLING TWR INLET 102 F | COOLING TWR INLET 96 F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	711	710	D	711	710	710	711	709	708	710	710	710
HP Drum Level	IN	0.7	1.1	R	1.1	1.2	1.1	1.0	1.1	1.1	1.2	1.4	0.9
LP Drum Level	IN	1.0	1.0	Y	1.0	1.1	0.9	1.1	0.9	1.4	1.2	0.7	1.1
HP Drum Pressure	PSI	485	485		485	485	485	485	485	478	478	485	485
LP Drum Pressure	PSI	150	147	E	148	148	148	148	149	151	151	149	149
CO	PPM	22.7	14.7	N	14.9	14.9	14.8	13.8	14.2	41.5	35.4	19.0	18.9
NOX	PPM	10.4	10.5	D	10.6	10.3	10.5	10.5	14.2	10.7	11.1	10.8	-11.9
O2	%	1482	14.88		14.84	14.85	14.85	1480	1490	1563	15.38	1468	1468
Hot Well Level	%	141	153		155	151	141	148	160	153	144	140	142

1150 SET POINT 449 | 1103 B SET POINT 444 | 1150 SET POINT 444 | 1103 B SET POINT 444

SCANNER BLOWER (ON) N | DUCT BURNER 442 SP | SCANNER BLOWER ON N | DUCT BURNER S.P. 442

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	236	236		236	236	236	236	238	238	250	242	240
Gas Receiver	PSI	425	425		425	425	425	425	426	425	425	425	425

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO | CODUCTIVITY MHOS | BOILER FEED WATER PUMP OPERATION NO. 1 ✓ (YES) NO | NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75– 9.5	7.32	5.57
Conductivity <5mmhos	6.51	6.38
Silica < 20 ppb	12	-6. U.R.
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		7.53
CONDENSATE		
HP–pH 8.5 –9.5	8.26	8.22
Conductivity<20mmhos	8.03	8.02
LP–pH 8.5–9.5	7.96	7.87
Conductivity<20mmhos	33.16	21.10
HP		
pH 9.5 – 10.5	8.04	8.45
Conductivity 75–150	43.72	43.31
Phosphate 5–15 ppm	10.41	9.60
Silica < 5 ppm	.18	.120
Iron ppm		
LP		
pH 9.5 – 10.5	8.03	8.24
Conductivity 75 – 150	131.0	1325
Phosphate 5–15 ppm	26.74	O.R.
Silica <5 ppm	.23	.342
Iron ppm		
MIXED BED		
pH 6.0 – 7.5	7.98	8.55
Conductivity< 1mmhos	.86	.61
Silica <10 ppb	4	2
HP Steam Test		
Silica <20 ppb		18
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)	2	
NEBRASKA		
pH 9.5 – 10.5		
Conductivity 75 – 200		
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES: AMMONIA ON MANUEL- 65%
B&W BLR STACK NOX, RSMY AI INPUT,
WENT BAD AT 5:01 A/M.
RSMY CEMS TROUBLE.

NIGHT SHIFT OPERATOR NAME: Van Zandt

DAY SHIFT OPERATOR NAME: [illegible]

OFFICIAL DAILY COGENERATION LOG

OFFICIAL DAILY COGENERATION LOG

SAFETY IS ALWAYS NO. 1

DATE: 7-19-12

Huenome Paper Mill

NIGHT SHIFT OPERATOR — NAME: mf

DAY SHIFT OPERATOR — NAME: 1203

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H_2O	CONCENTRATE H_2O	LP	HP	SCG LP
CURRENT	92433709	18826716	47570685	200094	3038	9864390
PREVIOUS	92388543	18717198	47519507	192272	1944	9864290

GAS & ELECTRIC READING

	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	7555300	4636093	2974	/	12016
PREVIOUS	7171760	4633389	70071	/	11377

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES NO % FULL:

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	61.5		90.3	94.9	45.1	48.6	67.8	58.3	57.7	58.3	57.5	54.8
Inlet Temp	°F	56		57	56	57	57	58	57	57	56	561	56
Humidity	%	55		46.8	43.7	29.7	28.8	41.1	48.9	46.1	54.2	67.7	60.5
Vibration (Max)	MILS	13		14	14	14	14	14	14	14	14	14	14
Steam Injection	#/SEC	2.68		3.12	3.12	2.94	2.94	2.94	2.81	2.75	2.75	2.69	2.69
Turbine L.O. Level	%	100		100	100	100	100	100	100	100	100	100	100
T48	°F	1523		1531	1532	1531	1533	1538	1531	1527	1528	1522	1514

Day: BATTERIES 135 V; AIR INLET DIFF 2 IN/H20; L.O. DIFFERENTIAL 5 PSI; HP RECOUPE 150 FAL; HP RECOUPE 150 FAR; HP RECOUPE 49 AFT

Night: BATTERIES V; AIR INLET DIFF IN/H20; L.O. DIFFERENTIAL PSI; HP RECOUPE FAL; HP RECOUPE FAR; HP RECOUPE AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	165		167	167	167	167	168	168	168	168	168	168
L.O. Supply	°F	195		194	146	146	146	144	144	144	142	142	142
Gen. Vibration (Max)	IPS	36		37	37	36	36	.36	.36	.37	.38	.39	.40
Tie Line	MW	13.5		13.7	13.7	13.6	13.7	13.66	13.47	13.62	13.47	13.56	13.52

Day: GEN. 1,250 AMPS; FIELD 225 AMPS; COOLING TWR INLET 104 F; GEN.VARS MEGA VARS; FIELD VOLTS 217 V; COOLING TWR INLET 98 F

Night: GEN. AMPS; FIELD AMPS; COOLING TWR INLET F; GEN.VARS 781 MEGA VARS; FIELD VOLTS V; COOLING TWR INLET F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	710		711	710	710	710	710	710	710	710	710	710
HP Drum Level	IN	1		1	.8	.9	1	1.2	1.1	1.1	1.1	1.0	1.0
LP Drum Level	IN	1		.8	1	1	1.1	0.9	0.9	1.0	1.0	1.0	1.0
HP Drum Pressure	PSI	485		485	485	485	485	485	485	485	485	485	485
LP Drum Pressure	PSI	149		149	145	149	149	149	149	149	149	149	148
CO	PPM			18.4	18.4		12.7	10.9	10.3	10.3	10.3	10.4	11.9
NOX	PPM			12.1	12.3		10.2	10.6	10.5	10.5	10.5	10.5	10.5
O2	%			14.9	14.9		14.6	14.55	14.62	14.62	14.62	19.69	14.75
Hot Well Level	%	158		151	142	160	142	158	141	137	160	155	157

Day: 1150 SET POINT 449; SCANNER BLOWER (ON) Y/N; 1103 B SET POINT 444; DUCT BURNER 442 SP

Night: 1150 SET POINT; SCANNER BLOWER ON Y/N; 1103 B SET POINT; DUCT BURNER S.P.

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	238		236	236	254	238	236	238	240	242	242	240
Gas Receiver	PSI	425		421	425	427	427	427	429	427	427	427	427

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO — CODUCTIVITY MHOS — BOILER FEED WATER PUMP OPERATION NO. 1 YES NO NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75- 9.5	8.49	8.63
Conductivity <5mmhos	6.28	7.26
Silica < 20 ppb	7	
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)	7.61	
CONDENSATE		
HP-pH 8.5 -9.5	8.19	7.8
Conductivity<20mmhos	8.04	45.67
LP-pH 8.5-9.5	7.83	8.91
Conductivity<20mmhos	23	
HP		
pH 9.5 - 10.5	8.91	8.63
Conductivity 75-150	95.3	431
Phosphate 5-15 ppm	9.63	10.18
Silica < 5 ppm	.13	22
Iron ppm		
LP		
pH 9.5 - 10.5	8.27	8.46
Conductivity 75 - 150	134.5	140
Phosphate 5-15 ppm	23.1	21.78
Silica <5 ppm	.32	18
Iron ppm		
MIXED BED		
pH 6.0 - 7.5	8.99	8.96
Conductivity< 1mmhos	.71	.66
Silica <10 ppb	6	10
HP Steam Test		
Silica <20 ppb	12	11
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)	2	
NEBRASKA		
pH 9.5 - 10.5		
Conductivity 75 - 200		
Silica		
Phosphate 5-25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:

[illegible] @ 1016 [illegible] ct panel [illegible]
[illegible] compressor [illegible] Inlet Temp 73F
[illegible] 73 → Tie Line [illegible]

RATIO!

Oxnard Mill Environmental Incident Report

Shaded section to be completed by the EMR

Name of Incident Loss of valid Stack Nox 4-20 ma signal to ABB and PI		Incident Date 7/19/12
Exact Location Incident Cogen		
Reported By Chuck Richards	Estimated Start and Stop Times of Incident: @0500 AM 7/19/12	Possible Cause: 24 VDC power supply

Incident Type:
- ☐ Spill Internal
- ☐ Improper Waste Disposal
- ☐ Spill External
- ☐ Near miss or below spill release guidelines
- X Air Emission
- ☐ Other_____

Released To
- ☐ Storm Water System
- ☐ Secondary Containment
- ☐ Process Sewer
- X Air
- ☐ Ground (External)
- ☐ Ground (Inside Mill Property)
- ☐ Near Miss
- ☐ Other_____

Detailed Description of Event

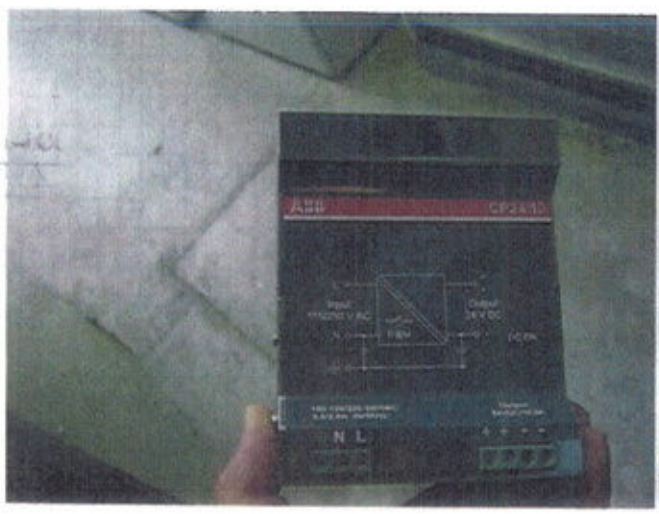
On 19 July 2012, at about 0500 AM, appears that 24 VDC failed and affected the stack NOX CLD and the calibration valve for the Inlet CLD Nox. Cogen mechanic put NH3 control valve from E1 control to Manual at setting it was prior to incident. E/I reps were contacted and enroute.

E/I reps were sent to investigate the Rosemount CEMS. Initial troubleshooting efforts in the AM hours found the suspect 24 VDC power supply, the affected inlet Nox calibration valve and suspected damage to Stack NOx - ozone generator.

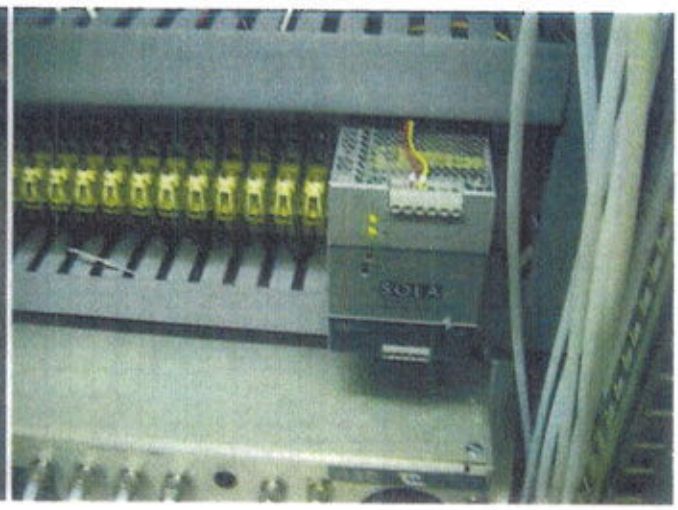
A spare 24 VDC was located and replaced. A CLD module that just recently returned to Mill from Rosemount after being serviced was put into the Stack Nox position. Upon startup- power was back but there were difference in the CLD Module. Apparently, Rosemount- upgraded the software and upon comparison with other CLD module- there were changes on how the CLD calibration clock was working (validation, purge time etc).

Decision was made to focus on the CLD that was removed after the 5:00 AM breakdown and make sure that it was in working order. Then this CLD analyzer was again put into service and none of the software, validation, purge time etc. that were seen on the previous CLD analyzer were seen. A local zero/Span calibration was performed. Verified with Tech Dept- (Robyn Lebrilla) that calibration passed.

Word was passed to Cogen mechanic on duty to again put the NH3 control valve from manual mode to E1 mode for control.



Picture 1- 24 VDC power supply that failed



Picture 2- new 24 VDC power supply installed.

(if required use additional paper and attach)

Estimated Amount Released	pH	CONSISTENCY (%)	Estimated Monetary Loss
☐ _____ Gallons ☐ _____ Pounds ☐ Other_____			

Print Time: 7/20/2012 8:56:35 AM

Note: This document is valid for only ONE week after print time!

Oxnard Mill Environmental Incident Report

Shaded section to be completed by the EMR

List Any External Emergency Clean Up Personnel Contacted N/A	List Any External Agencies Contacted *(Agency, person and time of call.)* APCD was contacted @0520 message left by Chuck Richards.
List Hueneme Personnel Contacted *(Foreman, Mill Manager, etc.)* Lars Gustavson, Rudy Rehbein, Robyn Lebrilla , Victor Kumpera	Any Acute or Chronic Health Risks *(refer to MSDS)N/A*
Describe Any Emergency Response Actions N/A	

Suggestions to Prevent Reoccurrence 1. Work to upgrade the 24 VDC power supply per E/I rep suggestions.	Estimated Completion Date 1. Cogen foreman- 1 Sep 2012
2.	2.
3.	3.
4.	4.

Root Cause after investigation Failed 24 VDC power supply component	Severity Level *(level 1 and 2 must be tracked through SHIMS)* ☐ 1 ☐ 2 ☐ 3 ☐ 4
Investigated By: Charlie Wilson	Investigated Date 7/19/2012

Follow Up	By When	Completion Date	By Whom

Issued by	Reviewed by	Approved by
Department Manager 7/22/12	Technical Superintendent for Victor Kumpera 7/23/12	Mill Manager 7/23/2012

Print Time: 7/20/2012 8:56:35 AM

Note: This document is valid for only ONE week after print time!

NEW INDY
CONTAINERBOARD

August 23, 2012

Lyle Olson
Ventura County Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: CEMS breakdown – stack NOx CLD malfunction

Dear Mr. Olson:

This letter is a follow up on the call I placed to the VCAPCD Breakdown Center Hotline on August 17, 2012 at about 11:40 AM.

Daily CEMS review showed potential stack NOx analyzer issue. E&I investigation followed immediately. It was found that the stack NOx chemiluminescence detector (CLD) was starting to lose the signal intermittently. The CEMS was put offline and the stack NOX CLD was replaced. CEMS lost stack NOx data from 9:05 AM – 1:05 PM, a total of 4 hours. There was no excess emission during this period. The mill is working with Rosemount to address the CLD failure issue and to service the failed CLD analyzer for spare. In addition, the mill will focus its efforts on putting into service the back-up analyzer for APCD certification.

The Daily Emission Sheet, PI trends, DCS trends, Cogen Report and Environmental Incident Report have been provided for your review. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

Robyn Lebrilla
Environmental Engineer

NEW INDY OXNARD, LLC

5936 PERKINS ROAD • OXNARD, CALIFORNIA 93033 • WWW.NEWINDYCONTAINERBOARD.COM
PHONE (805) 986-3881 • FAX (805) 488-5186

Ventura County
Air Pollution
Control District

RESPONSIBLE OFFICIAL'S CERTIFICATION FORM

Ventura County APCD Rule 33.9 requires that "*any document, including reports, schedule of compliance progress reports and compliance certifications, required by a Part 70 permit shall be certified by a responsible official.*" Therefore, this form shall be signed by the company's Responsible Official and submitted with all such reports, including, but not limited to semi-annual reports, deviation and emergency reports and any periodic reports required by a Part 70 permit. However, when submitting your Annual Compliance Certifications, please use the form titled Annual Compliance Certification Signature Cover Form.

Semi-annual reports, deviations and emergency reports and any periodic reports required by your Part 70 permit should be submitted to:

Lyle Olson
Air Quality Engineer
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document is true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Signature: Judy Gerber Title: Mill Manager	8/22/2012

End Time: 8/18/2012 7:00 Start Time: 8/17/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	0.01	278.29	625.97	76.47	33.38	1.16	2.71	0.79	10.73	14.97	15.53	9.70	11.14	8.46	24.24	0.41	
9:00	2.46	279.49	628.29	75.45	37.11	1.24	2.72	0.79	10.79	14.94	18.96	12.18	10.47	8.43	24.23	0.34	
10:00	0.08	279.17	627.03	55.55	44.99	2.69	2.72	0.80	-11.57	14.85	14.87	7.90	-11.86	3.25	24.25	0.30	
11:00	0.08	280.54	626.70	70.07	44.92	1.75	2.73	0.80	-12.73	14.86	15.04	9.69	-12.37	-4.59	24.24	-0.16	
12:00	0.08	281.71	627.01	38.40	44.77	4.34	2.78	0.81	-55.17	15.06	33.88	5.15	-50.36	-24.87	24.21	-0.31	
13:00	0.08	281.54	627.31	57.40	44.71	3.72	2.77	0.80	16.73	14.65	13.24	6.80	14.15	-16.20	24.19	-0.28	
14:00	0.08	281.71	627.62	73.47	41.83	1.48	2.77	0.81	11.16	14.88	15.07	9.36	10.74	-8.49	24.21	-0.46	
15:00	0.08	281.71	627.92	52.04	44.27	1.57	2.78	0.81	9.90	14.57	23.73	8.31	10.85	11.91	24.21	-0.82	
16:00	0.08	281.54	628.23	71.50	45.32	1.51	2.78	0.81	10.84	14.86	18.10	22.84	10.46	10.68	24.24	-1.11	
17:00	5.12	281.54	632.59	71.86	40.19	1.43	2.77	0.81	11.00	14.72	22.87	14.53	10.42	10.58	24.28	-1.38	
18:00	0.02	281.54	629.56	75.09	42.55	1.47	2.77	0.81	11.03	14.81	13.94	8.76	10.58	10.49	24.25	-1.46	
19:00	0.02	281.88	628.75	74.67	42.07	1.46	2.81	0.81	10.91	14.77	13.74	8.72	10.48	10.49	24.19	-1.43	
20:00	0.02	280.86	628.34	74.55	42.00	1.47	2.75	0.80	10.88	14.80	13.79	8.68	10.48	10.51	24.24	-0.96	
21:00	0.02	281.86	628.10	73.69	41.25	1.45	2.80	0.81	10.88	14.80	14.34	8.97	10.46	10.47	24.24	-0.40	
22:00	0.02	281.54	627.86	73.73	41.19	1.46	2.78	0.81	10.94	14.80	14.19	8.93	10.52	10.49	24.25	-0.16	
23:00	0.02	281.71	627.62	73.70	41.26	1.46	2.78	0.81	10.96	14.80	14.29	9.21	10.53	10.50	24.24	0.09	
0:00	0.02	278.96	626.58	73.16	40.92	1.47	2.71	0.79	10.83	14.86	14.34	8.93	10.50	10.52	24.21	0.45	
1:00	0.02	277.62	625.70	72.97	40.70	1.46	2.71	0.79	10.76	14.87	14.84	9.37	10.50	10.51	24.21	0.15	
2:00	0.02	277.97	625.57	73.06	40.52	1.47	2.72	0.79	10.80	14.87	14.96	9.33	10.53	10.51	24.22	0.12	
3:00	0.02	277.83	625.80	72.81	40.18	1.46	2.69	0.79	10.74	14.87	14.98	9.36	10.48	10.50	24.21	0.14	
4:00	0.02	277.07	626.02	72.44	39.72	1.45	2.67	0.79	10.72	14.87	14.98	9.31	10.47	10.49	24.22	0.16	
5:00	0.02	276.93	626.25	72.47	39.67	1.44	2.66	0.79	10.75	14.88	15.01	9.35	10.52	10.49	24.20	0.32	
6:00	5.93	277.96	629.88	69.98	37.75	1.39	2.71	0.79	10.96	14.77	23.19	14.75	10.47	10.49	24.18	0.38	
7:00	2.36	277.96	627.93	71.73	38.98	1.43	2.69	0.79	10.96	14.83	17.66	11.21	10.58	10.52	24.20	0.44	

Comments : CEMS down on 8/17/12 from 0905 to 1305 due to stack NOx CLD failure (intermittently lost signal). Data loss for stack NOx for a total of 4 hrs. Stack NOx CLD was replaced.
APCD called on 8/17/12 at 11:38 AM.

Daily Av Cogen NOx lb/h	Daily Av Cog+Neb NOx lb/h
10.83	10.83

Daily Av Cogen CO lb/h	Daily Av Cog+Neb CO lb/h
10.06	10.06

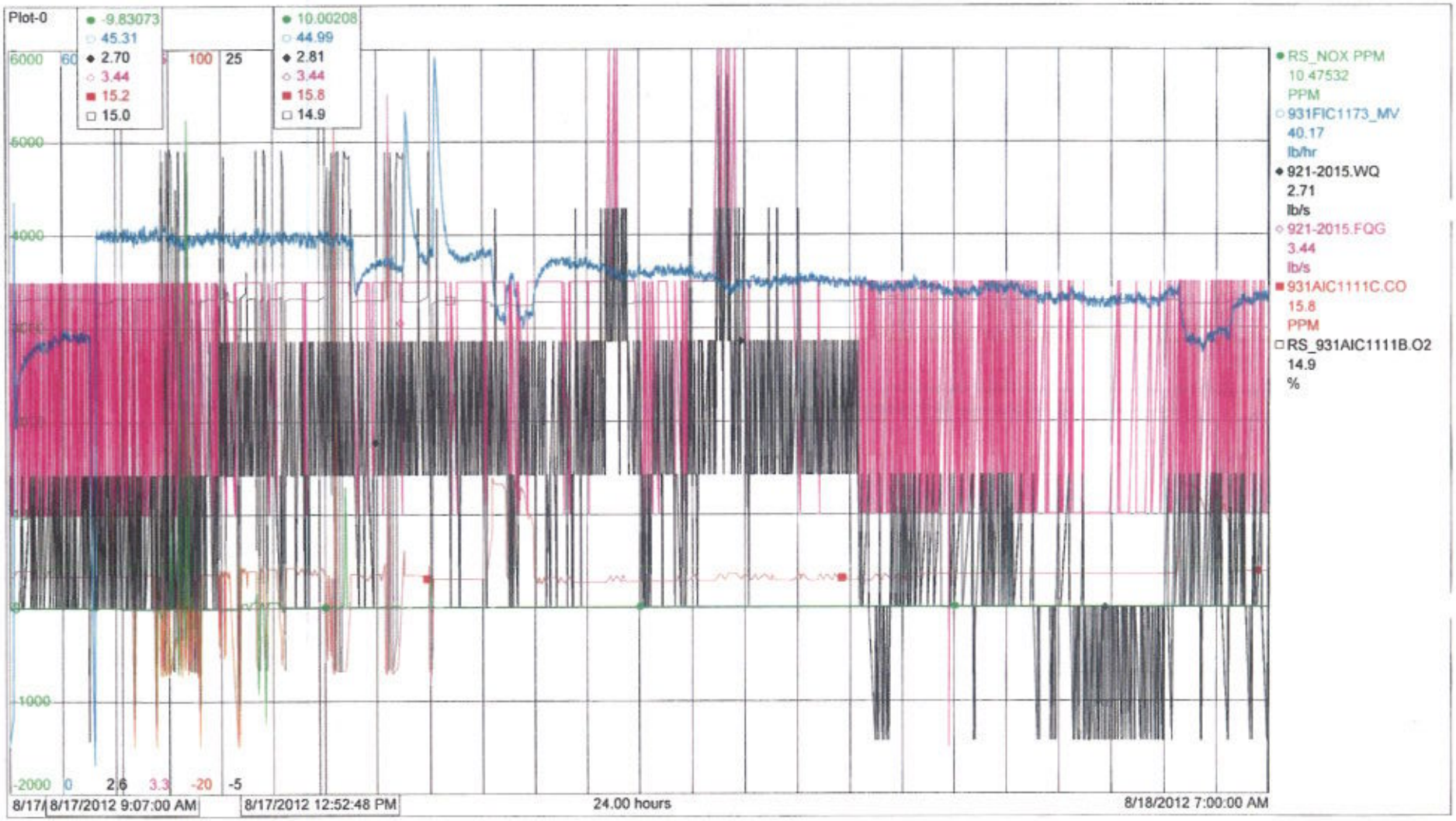
Stack NOx analyzer	
zero value	0.03
zero drift %	0.03
span value	82.69
span drift %	0.13

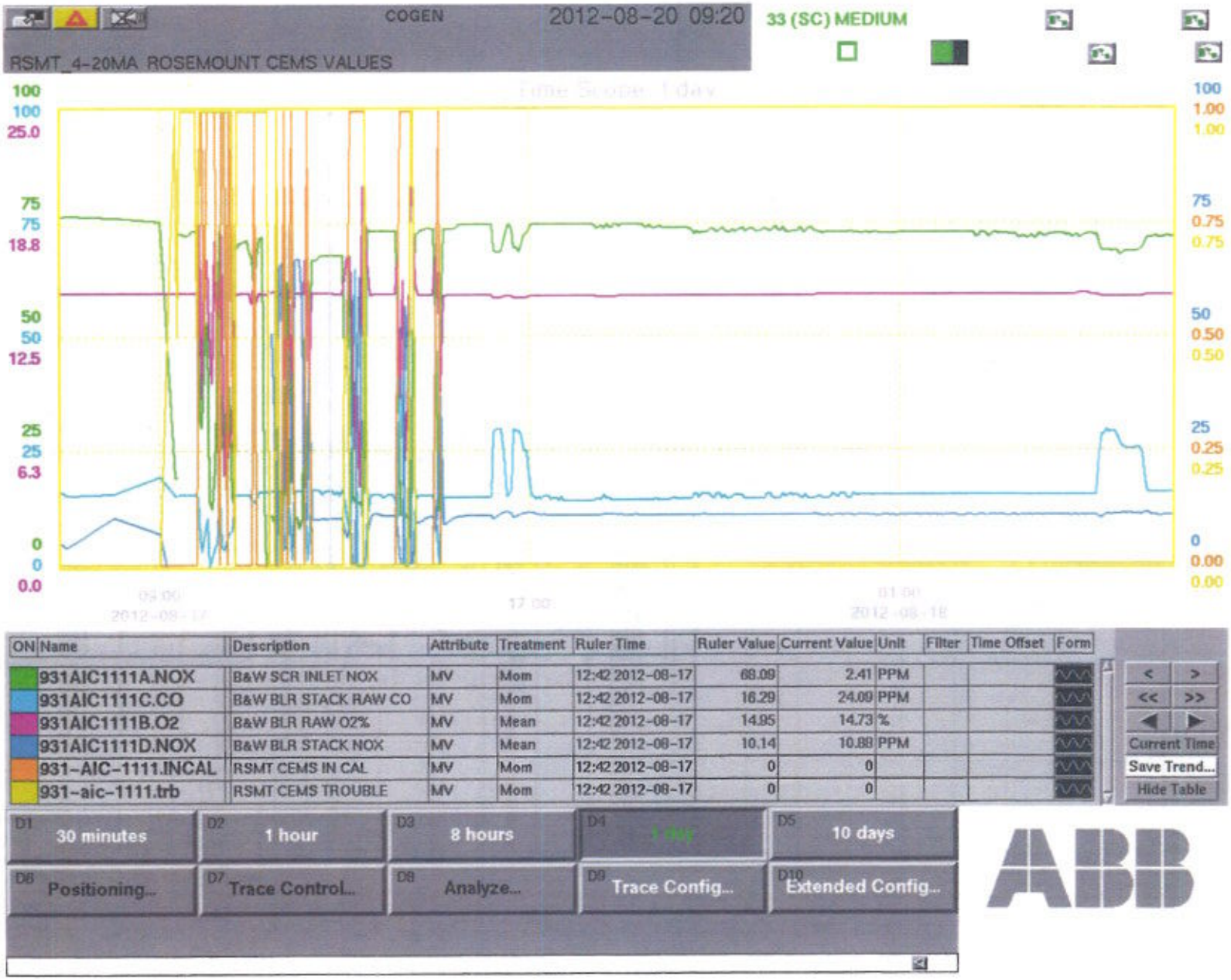
Stack CO Analyzer	
zero value	-0.69
zero drift %	-0.69
span value	93.59
span drift %	0.28

Stack O2 Analyzer	
zero value	20.90
zero drift%	-0.10
span value	-0.07
span drift %	-0.28

Nebraska Gas	

PRINT TIME: 8/18/20129:03 AM
NOTE: This document is valid for only ONE week after print time


Plot-0
-9.83073
45.31
2.70
3.44
15.2
15.0
10.00208
44.99
2.81
3.44
15.8
14.9
6000
5000
4000
1000
-2000
100
25
0
2.6
3.3
-20
-5
RS_NOX.PPM
10.47532
PPM
931FIC1173_MV
40.17
lb/hr
921-2015.WQ
2.71
lb/s
921-2015.FQG
3.44
lb/s
931AIC1111C.CO
15.8
PPM
RS_931AIC1111B.O2
14.9
%
8/17/
8/17/2012 9:07:00 AM
8/17/2012 12:52:48 PM
24.00 hours
8/18/2012 7:00:00 AM


COGEN
2012-08-20 09:20
33 (SC) MEDIUM
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 12:42 2012-08-17 68.09 2.41 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 12:42 2012-08-17 16.29 24.09 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 12:42 2012-08-17 14.95 14.73 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 12:42 2012-08-17 10.14 10.88 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 12:42 2012-08-17 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 12:42 2012-08-17 0 0
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

Hueneme Mill Environmental Incident Report

Shaded section to be completed by the EMR

Name of Incident CEMS Stack NOx Analyzer Failure.		Incident Date 8/17/2012
Exact Location Incident COGEN		
Reported By L. Gustavson	Estimated Start and Stop Times of Incident: 9:05 AM – 1:05 PM	Possible Cause: CLD analyzer failed.

Incident Type:	Released To
☐ Spill Internal	☐ Storm Water System
☐ Spill External	☐ Process Sewer
X Air Emission	☐ Ground (External)
☐ Other__ _____	☐ Near Miss
☐ Improper Waste Disposal	☐ Other_____ _____
☐ Near miss or below spill release guidelines	☐ Secondary Containment
	X Air
	☐ Ground (Inside Mill Property)

Detailed Description of Event

On 8/17/2012at approx. 9am the CLD Stack NOx analyzer stopped working. Investigation showed that CLD stack NOx analyzer had lost communication with the MLT unit. The CLD analyzer was replaced and was back on line at approx. 1 pm.

(if required use additional paper and attach)

Estimated Amount Released	pH	CONSISTENCY (%)	Estimated Monetary Loss
☐ _____ Gallons ☐ _____ Pounds X Other__N/A_____			

List Any External Emergency Clean Up Personnel Contacted N/A	List Any External Agencies Contacted *(Agency, person and time of call.)* APCD was notified by R. Lebrilla at 11:48 AM
List Hueneme Personnel Contacted *(Foreman, Mill Manager, etc.)* R Lebrilla	Any Acute or Chronic Health Risks *(refer to MSDS)* *N/A*

Describe Any Emergency Response Actions

Suggestions to Prevent Reoccurrence 1. Work with Rosemount to address the CLD failure issue. Rebuild (service & check) the failed stack CLD analyzer for spare.	Estimated Completion Date 1. 9/30/2012
2. Focus on putting into service the back-up analyzer for APCD certification.	2. 12/30/2012
3.	3.

Root Cause after investigation Stack NOx analyzer stopped working – replaced	Severity Level *(level 1 and 2 must be tracked through SHIMS)* ☐ 1 ☐ 2 ☐ 3 ☐ 4
Investigated By Lars Gustavson	Investigated Date 8/17/2012

Follow Up	By When	Completion Date	By Whom

Issued by	Reviewed by	Approved by
Department Manager 8/23/12	Technical Superintendent 8/23/12	Mill Manager 8/23/12

Print Time: 8/22/2012 4:49:43 PM

Note: This document is valid for only ONE week after print time!

NEW INDY
CONTAINERBOARD

August 23, 2012

Lyle Olson
Ventura County Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: CEMS breakdown – inlet NOx CLD malfunction

Dear Mr. Olson:

This letter is a follow up on the call made by Lars Gustavson to the VCAPCD Breakdown Center Hotline on August 18, 2012 at about 5:00 PM.

The inlet NOx chemiluminescence detector (CLD) malfunctioned on August 18, 2012 at about 12:00 PM. Troubleshooting showed that the inlet NOx CLD had lost communication with the multicomponent analyzer (MLT) unit. On August 20, 2012 the CLD was rebuilt and reprogrammed to restore the communication back between the CLD and the MLT unit. CEMS lost inlet NOx data from August 18, 2012 at 12:00 PM to August 20, 2012 at 2:30 PM, a total of 50.5 hours. There was no excess emission during this period. The mill is working with Rosemount to address the CLD failure issue and to service the failed CLD analyzer for spare. In addition, the mill will focus its efforts on putting into service the back-up analyzer for APCD certification.

The Daily Emission Sheet, PI trends, DCS trends, Cogen Report and Environmental Incident Report have been provided for your review. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

Robyn Lebrilla
Environmental Engineer

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5936 PERKINS ROAD • OXNARD, CALIFORNIA 93033 • WWW.NEWINDYCONTAINERBOARD.COM
PHONE (805) 986-3881 • FAX (805) 488-5186

Ventura County
Air Pollution

Control District

RESPONSIBLE OFFICIAL'S CERTIFICATION FORM

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Semi-annual reports, deviations and emergency reports and any periodic reports required by your Part 70 permit should be submitted to:

Lyle Olson
Air Quality Engineer
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document is true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Signature: Judy Gerber Title: Mill Manager	8/22/2012

Hueneme Mill Environmental Incident Report

Shaded section to be completed by the EMR

Name of Incident CEMS Inlet NOx Analyzer Failure.	Incident Date 8/18/2012
Exact Location Incident COGEN	

Reported By L. Gustavson	Estimated Start and Stop Times of Incident: 12:00 PM 8/18/12 – 2:30 PM 8/20/12	Possible Cause: CLD analyzer failed.

Incident Type: ق Spill Internal ق Spill External ق Improper Waste Disposal ق Near miss or below spill release guidelines X Air Emission ق Other	Released To ق Storm Water System ق Process Sewer ق Ground (External) ق Near Miss ق Other ق Secondary Containment X Air ق Ground (Inside Mill Property)

Detailed Description of Event

On 8/18/2012at approx. 3 pm the CLD Inlet NOx analyzer was found not working. Investigation showed that CLD inlet NOx analyzer had lost communication with the MLT unit. The analyzer was rebuilt using parts from spares and replaced. Inlet NOx Analyzer was back on line at approx. 2:30 pm 8/20/12.

(if required use additional paper and attach)

Estimated Amount Released	pH	CONSISTENCY (%)	Estimated Monetary Loss
ق _____ Gallons ق _____ Pounds X Other N/A			

List Any External Emergency Clean Up Personnel Contacted N/A	List Any External Agencies Contacted *(Agency, person and time of call.)* APCD was notified by L. Gustavson at approx. 5 pm 8/18/12.
List Hueneme Personnel Contacted *(Foreman, Mill Manager, etc.)* R Lebrilla, V Kumpera, Foreman Chuck Richards	Any Acute or Chronic Health Risks *(refer to MSDS)* N/A
Describe Any Emergency Response Actions	

Suggestions to Prevent Reoccurrence 1. Work with Rosemount to address the CLD failure issue. Rebuild (service & check) the failed CLD analyzer for spare.	Estimated Completion Date 1. 9/30/2012
2. Focus on putting into service the back-up analyzer for APCD certification.	2. 12/30/2012
3.	4.

Root Cause after investigation Inlet NOx analyzer stopped working – rebuilt & reprogrammed.	Severity Level *(level 1 and 2 must be tracked through SHIMS)* ق 1 ق 2 ق 3 ق 4
Investigated By Lars Gustavson	Investigated Date 8/18/12 & 8/20/12

Follow Up	By When	Completion Date	By Whom

Issued by	Reviewed by	Approved by
Department Manager 8/23/12	Technical Superintendent 8/23/12	Mill Manager 8/23/2012

Print Time: 8/22/2012 4:33:49 PM

Note: This document is valid for only ONE week after print time!

End time 8/19/2012 7:00 Start time 8/18/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3 NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	0.43	277.79	625.58	72.68	40.31	1.46	2.69	0.79	10.81	14.85	15.27	9.55	10.52	10.52	24.18	0.34	
9:00	0.49	277.27	625.76	73.12	40.70	1.47	2.70	0.79	10.79	14.86	14.91	9.30	10.52	10.54	24.14	0.21	
10:00	0.46	278.11	625.93	73.73	41.40	1.48	2.71	0.79	10.82	14.86	14.38	8.98	10.53	10.52	24.10	0.37	
11:00	0.33	277.80	626.10	74.11	43.53	1.54	2.72	0.79	9.99	14.92	14.87	9.25	9.90	10.32	24.04	0.17	
12:00	0.42	278.49	626.28	73.99	41.62	1.48	2.72	0.80	10.80	14.88	14.77	9.25	10.49	10.31	24.06	0.11	
13:00	0.22	275.05	626.57	1.74	40.58	-8.61	2.63	0.78	10.72	14.86	13.88	8.64	10.55	10.32	24.18	0.17	
14:00	2.85	275.72	629.68	-8.05	40.82	-10.62	2.64	0.79	10.83	14.81	17.47	10.99	10.53	10.52	24.20	-0.14	
15:00	0.01	276.76	628.44	-9.72	43.09	-11.70	2.67	0.79	10.78	14.85	14.08	8.77	10.53	10.54	24.22	-0.73	
16:00	2.45	275.57	628.98	-9.72	41.89	-11.32	2.65	0.79	10.64	14.82	17.60	10.98	10.37	10.48	24.22	-0.91	
17:00	4.07	277.10	632.08	-9.72	40.43	-10.87	2.67	0.79	11.05	14.76	19.12	12.18	10.64	10.52	24.23	-1.14	
18:00	0.04	277.26	627.91	-9.72	44.97	-12.19	2.68	0.79	10.80	14.85	13.98	8.71	10.55	10.52	24.22	-1.71	
19:00	1.68	275.75	627.46	35.75	43.31	-4.65	2.66	0.79	10.58	14.81	16.73	10.40	10.32	10.50	24.15	-1.34	
20:00	2.97	275.41	628.60	-10.59	40.17	-9.89	2.62	0.78	10.89	14.82	18.40	11.76	10.59	10.49	24.16	-0.56	
21:00	0.06	275.72	625.76	-10.59	41.80	-10.49	2.64	0.79	10.68	14.90	14.97	9.27	10.50	10.47	24.20	0.10	
22:00	0.06	276.59	626.10	-10.59	41.64	-10.42	2.66	0.79	10.72	14.90	15.18	9.44	10.49	10.53	24.18	0.44	
23:00	2.49	276.42	628.38	-10.59	40.79	-10.17	2.67	0.79	10.80	14.82	18.00	11.38	10.49	10.49	24.16	0.47	
0:00	3.34	276.25	627.38	-10.59	40.27	-10.00	2.64	0.79	10.76	14.84	18.85	11.75	10.42	10.47	24.17	0.47	
1:00	2.01	274.37	626.81	-10.59	40.26	-10.01	2.62	0.78	10.83	14.87	17.15	10.82	10.60	10.50	24.18	0.48	
2:00	0.08	273.67	624.67	-10.59	41.79	-10.55	2.62	0.78	10.63	14.90	14.79	9.11	10.51	10.51	24.18	0.57	
3:00	0.63	273.18	625.18	-10.59	42.09	-10.61	2.60	0.78	10.57	14.91	14.96	9.24	10.44	10.51	24.23	0.94	
4:00	6.43	271.81	629.99	-10.59	39.31	-9.75	2.57	0.77	10.79	14.82	20.31	12.80	10.52	10.49	24.19	0.74	
5:00	6.70	271.64	628.88	-10.59	39.32	-9.83	2.58	0.78	10.73	14.80	21.01	13.11	10.45	10.47	24.16	0.78	
6:00	7.98	271.64	630.80	-10.59	39.21	-9.73	2.57	0.77	10.83	14.78	21.00	13.16	10.49	10.49	24.18	0.78	
7:00	7.94	271.64	631.09	-10.59	39.19	-9.70	2.56	0.77	10.88	14.78	20.75	13.14	10.54	10.49	24.18	0.84	

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
10.74	10.74

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
10.50	10.50

Stack NOx analyzer	
zero value	-0.03
zero drift %	-0.03
span value	82.97
span drift %	0.47

Stack CO Analyzer	
zero value	-0.84
zero drift %	-0.84
span value	93.06
span drift %	-0.29

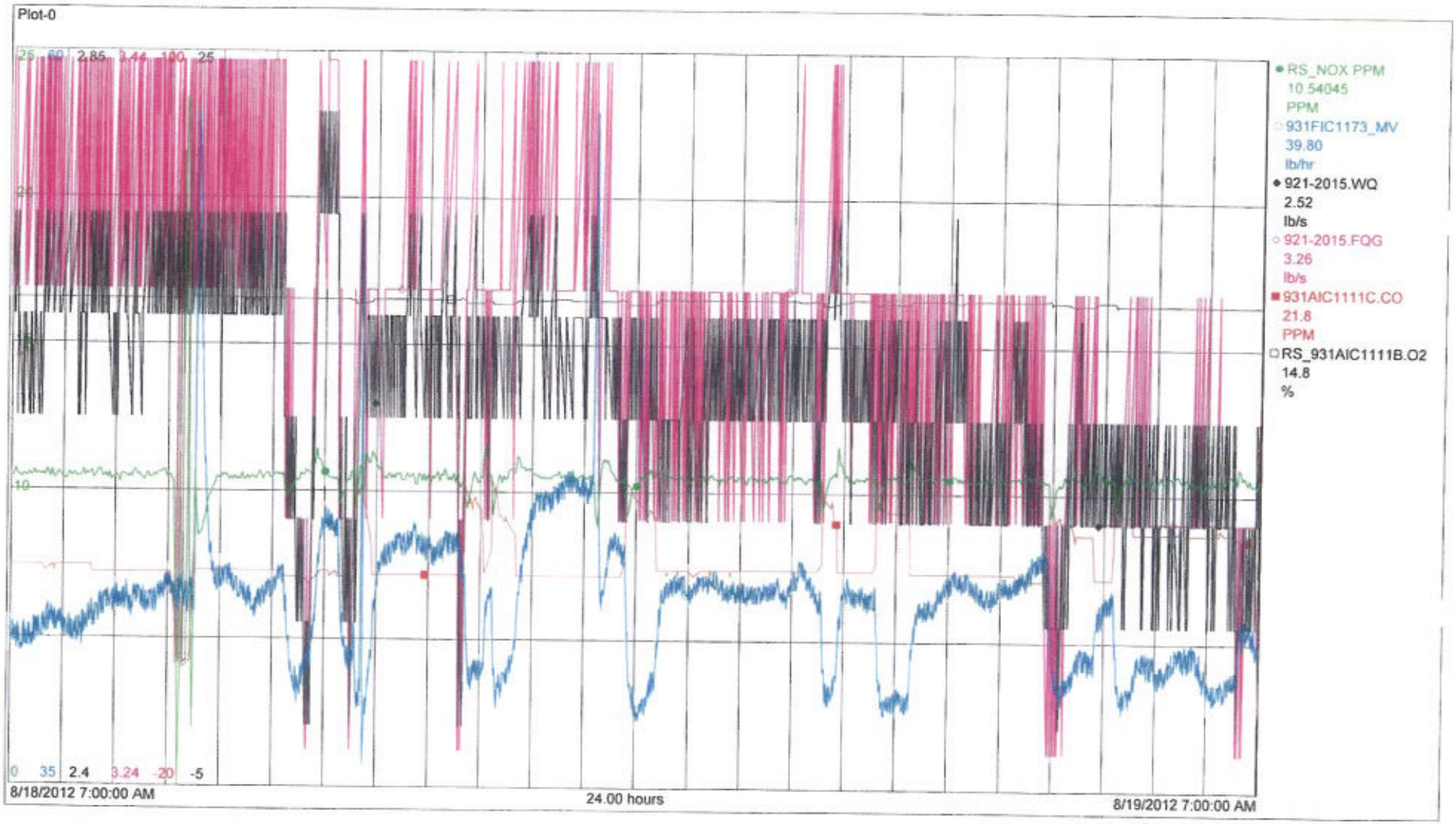
Stack O2 Analyzer	
zero value	20.87
zero drift%	-0.25
span value	-0.02
span drift %	-0.09

Nebraska Gas	

Comments : Inlet NOx CLD malfunction - data loss from 8/18/12 12:00 PM - 8/19/12 7:00 AM, a total of 19 hrs. Weekend call duty (L. Gustavson) discovered incident at about 3 PM and called APCD at about 5 PM.

PRINT TIME: 8/19/20129:03 AM

NOTE: This document is valid for only ONE week after print time


Plot-0
25 80 2.85 3.44 100 25
25
10
0 35 2.4 3.24 -20 -5
8/18/2012 7:00:00 AM
24.00 hours
8/19/2012 7:00:00 AM
RS_NOX PPM
10.54045
PPM
931FIC1173_MV
39.80
lb/hr
921-2015.WQ
2.52
lb/s
921-2015.FQG
3.26
lb/s
931AIC1111C.CO
21.8
PPM
RS_931AIC1111B.O2
14.8
%


COGEN
2012-08-20 09:17
33 (SC) MEDIUM
RSMT_4-20MA_ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 15:06 2012-08-18 -9.72 2.41 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 15:06 2012-08-18 14.44 23.09 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 15:06 2012-08-18 14.85 14.73 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 15:06 2012-08-18 10.84 11.22 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 15:06 2012-08-18 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 15:06 2012-08-18 1 0
< > << >>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

End Time: 8/20/2012 7:00 Start Time: 8/19/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	7.45	271.32	631.26	-10.59	38.87	-9.63	2.55	0.77	10.80	14.79	20.46	12.82	10.49	10.51	24.15	1.24	
9:00	0.04	276.59	626.80	-10.59	41.00	-10.23	2.66	0.79	10.74	14.91	14.85	9.25	10.50	10.51	24.17	1.19	
10:00	0.00	276.39	627.11	-10.59	40.48	-10.14	2.66	0.79	10.70	14.91	14.85	9.23	10.48	10.49	24.06	1.20	
11:00	3.20	275.60	629.94	-10.59	40.39	-10.08	2.64	0.79	10.80	14.90	14.67	9.11	10.59	10.52	24.16	1.03	
12:00	0.07	276.93	627.75	-10.59	41.17	-10.30	2.67	0.79	10.76	14.90	14.65	9.12	10.51	10.53	24.14	0.85	
13:00	0.05	280.19	628.13	-10.59	42.25	-10.42	2.72	0.80	10.90	14.86	14.56	9.17	10.54	10.55	24.23	0.84	
14:00	4.19	278.11	631.36	-10.59	40.49	-9.96	2.71	0.79	10.93	14.78	18.20	11.73	10.49	10.51	24.27	0.28	
15:00	0.08	276.76	628.54	-10.59	42.50	-10.63	2.69	0.79	10.76	14.89	14.34	8.91	10.52	10.52	24.30	-0.20	
16:00	0.08	277.10	627.38	-10.59	43.11	-10.74	2.69	0.79	10.79	14.91	14.37	8.95	10.54	10.52	24.27	-0.67	
17:00	0.08	277.46	627.10	-10.59	43.46	-10.85	2.70	0.79	10.74	14.91	14.37	8.96	10.50	10.52	24.30	-0.75	
18:00	0.08	277.26	626.82	-10.59	43.72	-10.84	2.70	0.79	10.77	14.89	14.32	8.96	10.50	10.51	24.23	-0.77	
19:00	0.08	276.93	626.57	-10.59	42.84	-10.70	2.69	0.79	10.72	14.86	14.38	8.87	10.47	10.49	24.24	-0.52	
20:00	0.13	277.10	627.04	-10.59	42.35	-10.57	2.67	0.79	10.75	14.84	15.17	9.14	10.49	10.49	24.27	-0.05	
21:00	8.06	277.10	632.89	-10.59	39.07	-9.56	2.67	0.79	10.99	14.72	22.52	14.48	10.45	10.47	24.27	0.42	
22:00	3.64	276.61	630.57	-10.59	41.02	-10.08	2.67	0.79	10.95	14.80	17.27	11.08	10.58	10.51	24.27	0.81	
23:00	3.06	277.93	629.24	-10.59	41.76	-10.32	2.68	0.79	10.80	14.79	18.41	11.53	10.42	10.48	24.22	0.87	
0:00	5.61	281.57	632.72	-10.59	41.01	-9.82	2.73	0.80	11.28	14.75	19.90	12.97	10.63	10.54	24.26	1.15	
1:00	7.90	281.54	634.15	-10.59	41.26	-9.89	2.72	0.80	11.13	14.75	20.54	13.33	10.42	10.49	24.24	1.33	
2:00	7.90	280.86	635.23	-10.59	40.79	-9.75	2.72	0.80	11.21	14.77	20.74	13.45	10.51	10.52	24.19	1.14	
3:00	7.90	280.15	635.03	-10.59	41.20	-9.89	2.73	0.80	11.19	14.74	20.64	13.37	10.52	10.49	24.20	1.05	
4:00	7.96	279.00	634.84	-10.59	40.88	-9.85	2.72	0.80	11.12	14.73	20.64	13.33	10.49	10.51	24.19	1.36	
5:00	7.93	279.49	634.64	-10.59	41.15	-9.94	2.71	0.80	11.15	14.71	20.27	13.12	10.50	10.50	24.20	1.53	
6:00	6.81	280.02	633.33	-10.59	40.80	-9.84	2.72	0.80	11.13	14.74	21.16	13.47	10.51	10.50	24.20	1.27	
7:00	4.86	279.82	631.76	-8.24	40.63	-9.86	2.72	0.80	11.03	14.82	18.90	12.27	10.46	10.49	24.19	1.45	

Comments : Inlet NOx CLD malfunction - data loss from 8/19/12 7:00 AM - 8/20/12 7:00 AM, a total of 24 hrs.

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
10.92	10.92

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
11.11	11.11

Stack NOx analyzer	
zero value	0.00
zero drift %	0.00
span value	83.41
span drift %	1.00

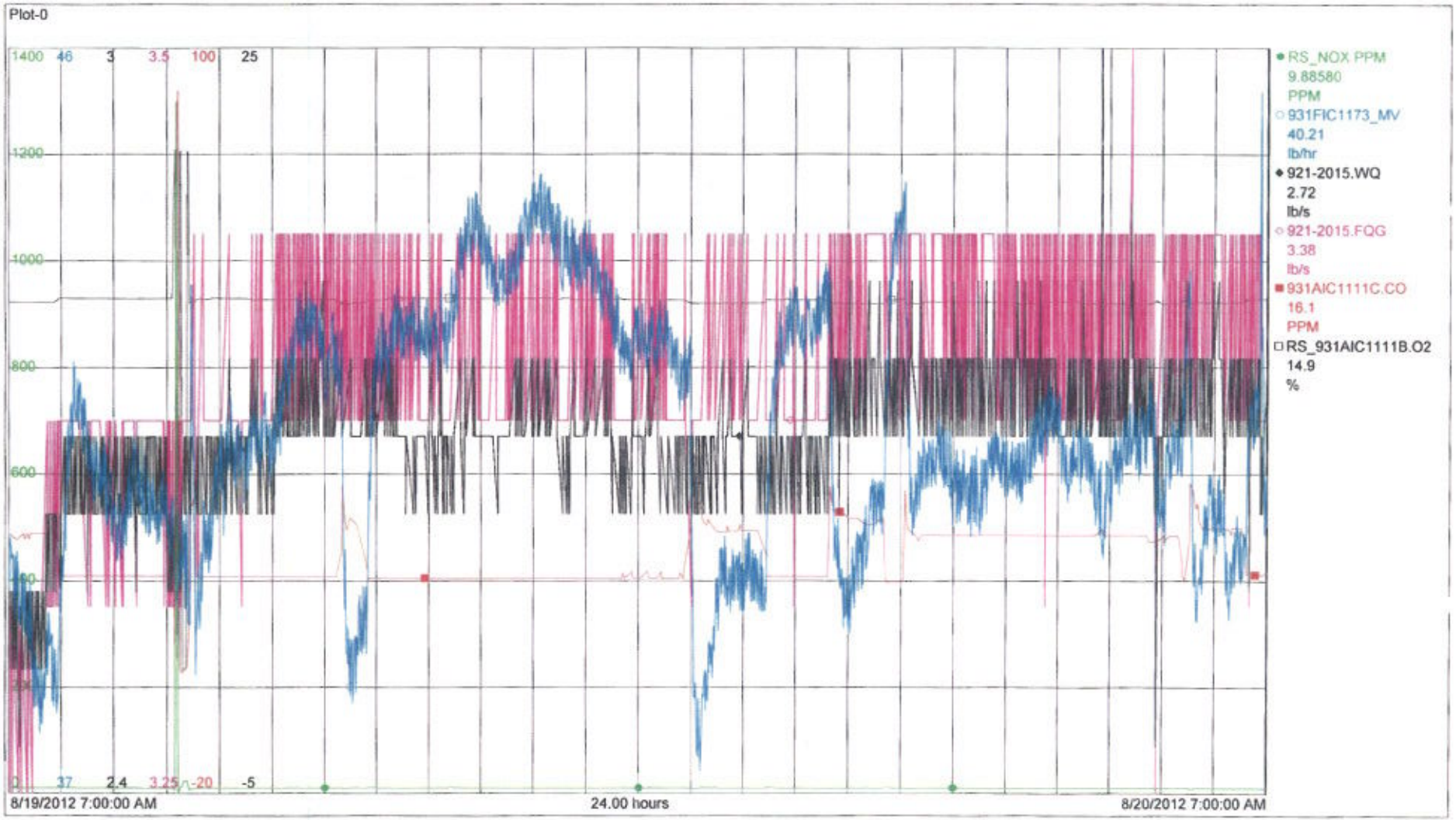
Stack CO Analyzer	
zero value	-0.72
zero drift %	-0.72
span value	93.34
span drift %	0.01

Stack O2 Analyzer	
zero value	20.90
zero drift%	-0.10
span value	-0.02
span drift %	-0.06

Nebraska Gas	

PRINT TIME: 8/20/20129:13 AM

NOTE: This document is valid for only ONE week after print time


Plot-0
1400 46 3 3.5 100 25
1200
1000
800
600
0 37 2.4 3.25 -20 -5
8/19/2012 7:00:00 AM
24.00 hours
8/20/2012 7:00:00 AM
RS_NOX PPM
9.88580
PPM
931FIC1173_MV
40.21
lb/hr
921-2015.WQ
2.72
lb/s
921-2015.FQG
3.38
lb/s
931AIC1111C.CO
16.1
PPM
RS_931AIC1111B.O2
14.9
%


COGEN
2012-08-20 09:24
33 (SC) MEDIUM
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 01:34 2012-08-20 -10.59 2.41 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 01:34 2012-08-20 21.56 24.09 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 01:34 2012-08-20 14.77 14.73 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 01:34 2012-08-20 10.89 10.96 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 01:34 2012-08-20 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 01:34 2012-08-20 1 0
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

End Time 8/21/2012 7:00 Start Time 8/20/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	4.74	281.22	631.58	2.38	38.90	21.00	2.76	0.80	11.00	14.79	21.32	13.75	10.44	10.47	24.17	1.67	
9:00	8.02	282.05	635.71	1.99	37.64	10.84	2.82	0.82	11.25	14.73	23.77	15.52	10.51	10.47	24.17	1.75	
10:00	7.99	281.71	636.30	-1.88	38.27	7.52	2.79	0.81	11.24	14.72	23.12	15.01	10.51	10.49	24.18	1.70	
11:00	8.04	282.05	635.88	47.80	34.36	3.58	2.82	0.81	10.89	14.70	23.26	15.32	10.22	10.41	24.15	1.55	
12:00	1.39	284.23	632.16	13.10	37.45	4.45	2.86	0.83	7.74	14.87	16.43	10.27	8.12	9.82	24.09	1.64	
13:00	0.08	274.42	629.08	11.66	44.25	4.09	2.63	0.78	7.52	14.08	14.60	8.58	7.47	8.61	24.06	1.33	
14:00	0.08	275.52	626.55	34.07	44.08	3.30	2.62	0.78	7.73	15.03	15.35	10.59	7.62	7.74	24.14	1.03	
15:00	5.44	275.43	630.28	52.79	43.83	2.75	2.63	0.78	8.95	14.43	19.23	15.83	8.53	7.87	24.16	0.51	
16:00	8.11	275.40	634.78	69.14	36.20	1.96	2.64	0.79	11.01	14.77	24.21	15.53	10.53	8.89	24.17	0.14	
17:00	8.15	279.34	635.16	72.89	38.00	1.81	2.72	0.80	11.19	14.73	21.45	14.09	10.55	9.87	24.21	-0.40	
18:00	8.17	280.32	635.90	73.33	38.91	1.85	2.75	0.80	11.14	14.66	20.93	13.62	10.46	10.51	24.17	-0.50	
19:00	4.13	281.40	633.64	74.33	40.66	1.55	2.78	0.81	11.15	14.68	17.07	10.86	10.54	10.52	24.21	-0.31	
20:00	4.83	282.40	633.34	71.63	38.86	1.36	2.83	0.82	11.04	14.68	21.10	13.45	10.45	10.48	24.24	0.33	
21:00	4.85	282.23	632.83	72.19	39.15	1.35	2.84	0.82	11.08	14.68	20.06	12.94	10.46	10.48	24.22	0.89	
22:00	6.60	282.57	634.66	70.76	38.10	1.32	2.82	0.82	11.24	14.68	23.04	15.01	10.53	10.48	24.20	1.08	
23:00	5.63	281.54	632.57	72.93	39.09	1.36	2.77	0.81	11.19	14.70	20.16	13.04	10.57	10.52	24.21	1.09	
0:00	6.71	279.48	632.96	72.01	39.30	1.37	2.73	0.80	11.06	14.71	20.65	13.22	10.47	10.52	24.20	1.25	
1:00	3.99	279.87	630.00	73.20	40.09	1.40	2.72	0.80	11.01	14.77	18.03	11.62	10.51	10.51	24.21	1.45	
2:00	7.97	277.41	633.70	70.48	38.08	1.33	2.71	0.79	11.06	14.72	22.75	14.59	10.50	10.49	24.20	1.37	
3:00	6.94	276.62	633.63	70.79	38.24	1.33	2.68	0.79	11.05	14.74	21.55	13.90	10.56	10.52	24.21	1.49	
4:00	0.09	277.07	627.01	75.49	41.56	1.45	2.68	0.79	10.82	14.86	13.33	8.30	10.56	10.54	24.17	1.98	
5:00	6.79	276.59	632.17	72.77	39.18	1.38	2.67	0.79	10.88	14.71	21.21	13.42	10.41	10.51	24.21	1.97	
6:00	7.97	276.93	633.34	74.27	39.60	1.40	2.67	0.79	11.07	14.69	19.94	12.77	10.53	10.50	24.22	1.65	
7:00	5.42	277.97	631.02	73.35	39.65	1.41	2.71	0.79	10.93	14.74	19.66	12.54	10.46	10.46	24.25	1.63	

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
10.55	10.55

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
13.07	13.07

Stack NOx analyzer	
zero value	-0.13
zero drift %	-0.13
span value	83.09
span drift %	0.62

Stack CO Analyzer	
zero value	-0.47
zero drift %	-0.47
span value	93.47
span drift %	0.15

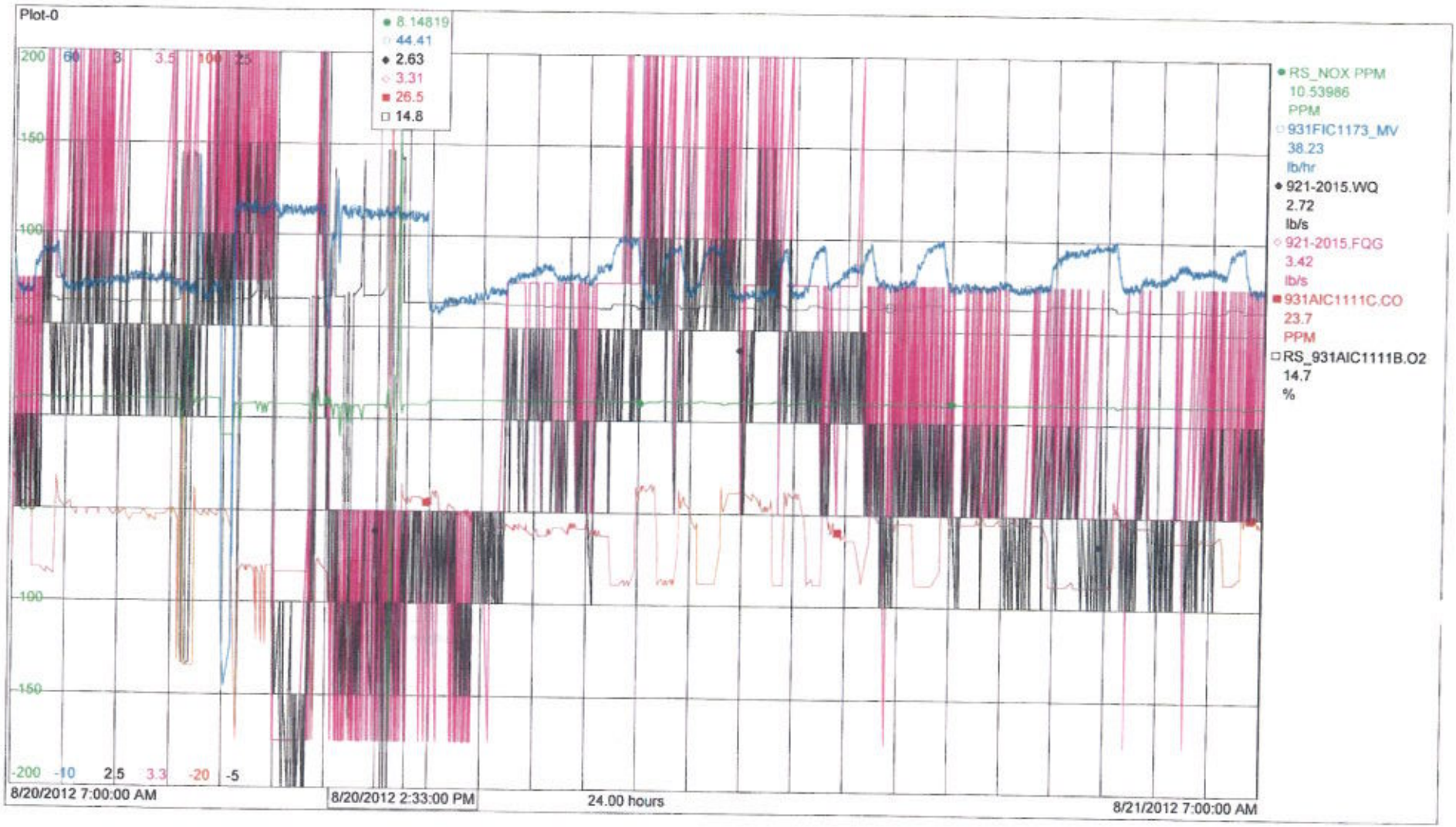
Stack O2 Analyzer	
zero value	20.89
zero drift%	-0.14
span value	-0.03
span drift %	-0.13

Nebraska Gas	

Comments : Inlet NOx CLD malfunction - data loss from 8/20/12 7:00 AM -2:30 PM, a total of 7.5 hrs. Passing calibration completed from 2:00 - 2:30 PM.

PRINT TIME: 8/21/20129:11 AM

NOTE: This document is valid for only ONE week after print time


Plot-0
8.14819
44.41
2.63
3.31
26.5
14.8
200 60 3 3.5 100 25
150
100
50
0
-50
-100
-150
-200 -10 2.5 3.3 -20 -5
RS_NOX PPM
10.53986
PPM
931FIC1173_MV
38.23
lb/hr
921-2015.WQ
2.72
lb/s
921-2015.FQG
3.42
lb/s
931AIC1111C.CO
23.7
PPM
RS_931AIC1111B.O2
14.7
%
8/20/2012 7:00:00 AM
8/20/2012 2:33:00 PM
24.00 hours
8/21/2012 7:00:00 AM


COGEN
2012-08-21 14:30
NIOX 36
R 931TIC1153
450 PSIG STEAM TEMP
MV < L1
14:27:19
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name
Description
Attribute
Treatment
Ruler Time
Ruler Value
Current Value
Unit
Filter
Time Offset
Form
931AIC1111A.NOX
B&W SCR INLET NOX
MV
Mom
14:32 2012-08-20
68.97
73.84
PPM
931AIC1111C.CO
B&W BLR STACK RAW CO
MV
Mom
14:32 2012-08-20
27.50
14.06
PPM
931AIC1111B.O2
B&W BLR RAW O2%
MV
Mean
14:32 2012-08-20
14.77
14.86
%
931AIC1111D.NOX
B&W BLR STACK NOX
MV
Mean
14:32 2012-08-20
8.44
10.68
PPM
931-AIC-1111.INCAL
RSMT CEMS IN CAL
MV
Mom
14:32 2012-08-20
0
0
931-aic-1111.trb
RSMT CEMS TROUBLE
MV
Mom
14:32 2012-08-20
1
1
<
>
<<
>>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

Hueneme Mill Environmental Incident Report

Shaded section to be completed by the EMR

Name of Incident CEMS Inlet NOx Analyzer Failure.	Incident Date 8/18/2012
Exact Location Incident COGEN	

Reported By L. Gustavson	Estimated Start and Stop Times of Incident: 12:00 PM 8/18/12 – 2:30 PM 8/20/12	Possible Cause: CLD analyzer failed.

Incident Type:

- ☐ Spill Internal
- ☐ Spill External
- X Air Emission
- ☐ Other__ _____
- ☐ Improper Waste Disposal
- ☐ Near miss or below spill release guidelines

Released To

- ☐ Storm Water System
- ☐ Process Sewer
- ☐ Ground (External)
- ☐ Near Miss
- ☐ Other_____
- ☐ Secondary Containment
- X Air
- ☐ Ground (Inside Mill Property)

Detailed Description of Event

On 8/18/2012at approx. 3 pm the CLD Inlet NOx analyzer was found not working. Investigation showed that CLD inlet NOx analyzer had lost communication with the MLT unit. The analyzer was rebuilt using parts from spares and replaced. Inlet NOx Analyzer was back on line at approx. 2:30 pm 8/20/12.

(if required use additional paper and attach)

Estimated Amount Released	pH	CONSISTENCY (%)	Estimated Monetary Loss
☐ _____ Gallons ☐ _____ Pounds X Other__N/A_____			

List Any External Emergency Clean Up Personnel Contacted N/A	List Any External Agencies Contacted *(Agency, person and time of call.)* APCD was notified by L. Gustavson at approx. 5 pm 8/18/12.
List Hueneme Personnel Contacted *(Foreman, Mill Manager, etc.)* R Lebrilla, V Kumpera, Foreman Chuck Richards	Any Acute or Chronic Health Risks *(refer to MSDS)* *N/A*

Describe Any Emergency Response Actions

Suggestions to Prevent Reoccurrence 1. Work with Rosemount to address the CLD failure issue. Rebuild (service & check) the failed CLD analyzer for spare.	Estimated Completion Date 1. 9/30/2012
2. Focus on putting into service the back-up analyzer for APCD certification.	2. 12/30/2012
3.	4.

Root Cause after investigation Inlet NOx analyzer stopped working – rebuilt & reprogrammed.	Severity Level *(level 1 and 2 must be tracked through SHIMS)* ☐ 1 ☐ 2 ☐ 3 ☐ 4
Investigated By Lars Gustavson	Investigated Date 8/18/12 & 8/20/12

Follow Up	By When	Completion Date	By Whom

Issued by	Reviewed by	Approved by
Department Manager 8/23/12	Technical Superintendent 8/23/12	Mill Manager 8/23/2012

Print Time: 8/22/2012 4:33:49 PM

Note: This document is valid for only ONE week after print time!

NEW INDY
CONTAINERBOARD

November 20, 2012

Lyle Olson
Ventura County Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: CEMS breakdown – plugged NOx exhaust line

Dear Mr. Olson:

This letter is a follow up on the call made to the VCAPCD Breakdown Center Hotline on November 19, 2012 at about 9:37 AM.

On November 19, 2012 at 7:00 AM, the cogen operator notified the E&I supervisor that the ammonia usage was less than expected. All other emission parameters were normal. Technicians were then assigned to troubleshoot. They discovered that the exhaust line for the NOx analyzer was plugged. The plugged line was replaced immediately. The analyzer was calibrated and back in service by about 8:30 AM. Aside from inspecting the other sample lines, the mill will review the existing preventive maintenance on sample handling lines with the manufacturer to prevent this incident from reoccurring.

The Daily Emission Sheet, PI trends, DCS trends, Cogen Report and Environmental Incident Report have been provided for your review. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

Victor Kumpera
Technical Manager

NEW INDY OXNARD, LLC
5936 PERKINS ROAD • OXNARD, CALIFORNIA 93033 • WWW.NEWINDYCONTAINERBOARD.COM
PHONE (805) 986-3881 • FAX (805) 488-5186

Ventura County
Air Pollution
Control District

RESPONSIBLE OFFICIAL'S CERTIFICATION FORM

Ventura County APCD Rule 33.9 requires that "*any document, including reports, schedule of compliance progress reports and compliance certifications, required by a Part 70 permit shall be certified by a responsible official.*" Therefore, this form shall be signed by the company's Responsible Official and submitted with all such reports, including, but not limited to semi-annual reports, deviation and emergency reports and any periodic reports required by a Part 70 permit. However, when submitting your Annual Compliance Certifications, please use the form titled Annual Compliance Certification Signature Cover Form.

Semi-annual reports, deviations and emergency reports and any periodic reports required by your Part 70 permit should be submitted to:

Lyle Olson
Air Quality Engineer
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document is true, accurate, and complete.

Signature and Title of Responsible Official:	Date: 11/20/12
Signature: Grady Gerber	
Title: Mill Manager	

End Time 11/19/2012 7:00 Start Time 11/18/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3 NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	0.01	281.51	627.53	74.78	21.81	0.75	2.72	0.79	11.14	15.00	15.61	9.99	10.68	10.59	23.96	-0.41	
9:00	5.15	280.72	631.14	73.09	20.13	0.70	2.73	0.80	10.73	14.92	21.52	13.90	10.14	10.41	23.95	-0.31	
10:00	0.08	281.88	628.18	73.84	17.03	0.60	2.77	0.80	10.71	15.02	16.00	10.27	10.28	10.36	23.98	-0.32	
11:00	4.34	283.42	632.13	68.19	6.25	1.67	2.82	0.81	11.04	14.76	26.25	17.28	10.28	10.30	23.96	-0.32	
12:00	8.04	283.44	637.20	63.38	7.02	0.41	2.85	0.82	12.15	14.60	26.23	17.51	11.11	10.63	23.99	0.10	
13:00	8.02	283.75	636.99	71.02	0.92	0.03	2.84	0.82	9.72	14.82	23.84	15.84	9.11	10.24	24.05	-0.34	
14:00	7.98	282.91	636.78	71.46	1.11	0.04	2.82	0.82	10.95	14.82	23.70	15.62	10.16	10.13	24.02	-0.84	
15:00	8.07	281.20	636.56	71.85	1.54	0.06	2.77	0.80	10.84	14.83	23.14	15.13	10.12	9.80	23.96	-1.33	
16:00	5.67	281.20	633.63	72.21	5.72	0.19	2.76	0.80	11.54	14.86	22.07	14.19	10.84	10.37	24.00	-1.50	
17:00	5.39	278.78	632.05	71.99	11.51	0.41	2.68	0.79	11.21	14.92	20.14	12.99	10.61	10.82	23.94	-1.06	
18:00	0.06	280.04	627.54	73.64	4.88	0.18	2.70	0.79	10.31	14.96	15.41	9.72	9.94	10.46	23.97	-0.56	
19:00	0.06	280.32	627.82	73.18	1.55	0.06	2.71	0.79	10.27	14.96	15.67	10.07	9.90	10.15	23.93	-0.56	
20:00	0.14	281.40	628.09	73.09	2.25	0.07	2.72	0.79	11.05	14.96	15.96	10.21	10.57	10.14	23.90	-0.38	
21:00	4.89	281.37	630.92	70.68	1.61	0.06	2.74	0.80	10.78	14.88	21.30	13.74	10.15	10.21	23.93	0.32	
22:00	8.36	281.71	634.44	70.72	1.61	0.06	2.76	0.80	10.71	14.81	24.13	15.59	9.98	10.23	23.98	0.41	
23:00	8.26	281.37	634.51	71.47	1.61	0.06	2.74	0.80	10.73	14.81	23.32	15.25	9.96	10.03	24.00	0.33	
0:00	8.21	281.54	634.59	71.56	1.61	0.06	2.75	0.80	10.23	14.81	23.63	15.31	9.56	9.83	24.02	0.22	
1:00	8.12	281.54	634.67	71.84	2.24	0.08	2.73	0.80	10.32	14.81	23.28	15.38	9.59	9.71	24.04	-0.20	
2:00	8.04	281.71	634.74	72.30	1.82	0.06	2.73	0.80	10.79	14.81	23.04	15.17	9.98	9.71	24.04	-0.06	
3:00	8.16	281.71	634.82	71.97	1.62	0.06	2.74	0.80	11.02	14.81	22.80	15.02	10.27	9.95	24.05	-0.23	
4:00	7.92	280.01	634.90	72.35	1.82	0.06	2.71	0.79	11.03	14.81	22.58	14.65	10.32	10.19	24.07	-0.39	
5:00	8.30	281.03	634.98	71.64	1.82	0.06	2.72	0.79	10.94	14.82	22.84	15.00	10.22	10.27	24.02	-0.04	
6:00	8.41	281.20	635.05	71.51	1.82	0.06	2.72	0.80	10.79	14.83	23.26	15.32	10.03	10.19	24.02	-0.53	
7:00	8.14	281.54	635.13	71.28	2.31	0.07	2.73	0.80	10.05	14.84	23.89	15.68	9.29	9.84	24.05	-0.53	

Comments : On 11/19/12 @ 9:37 AM R. Lebrilla notified APCD Breakdown Hotline on extremely low ammonia usage. The exhaust stack NOx analyzer line was found plugged.

Daily Av Cogen NOx lb/h	Daily Av Cog+Neb NOx lb/h
10.79	10.79

Daily Av Cogen CO lb/h	Daily Av Cog+Neb CO lb/h
14.12	14.12

Stack NOx analyzer	
zero value	0.06
zero drift %	0.06
span value	83.25
span drift %	-0.70

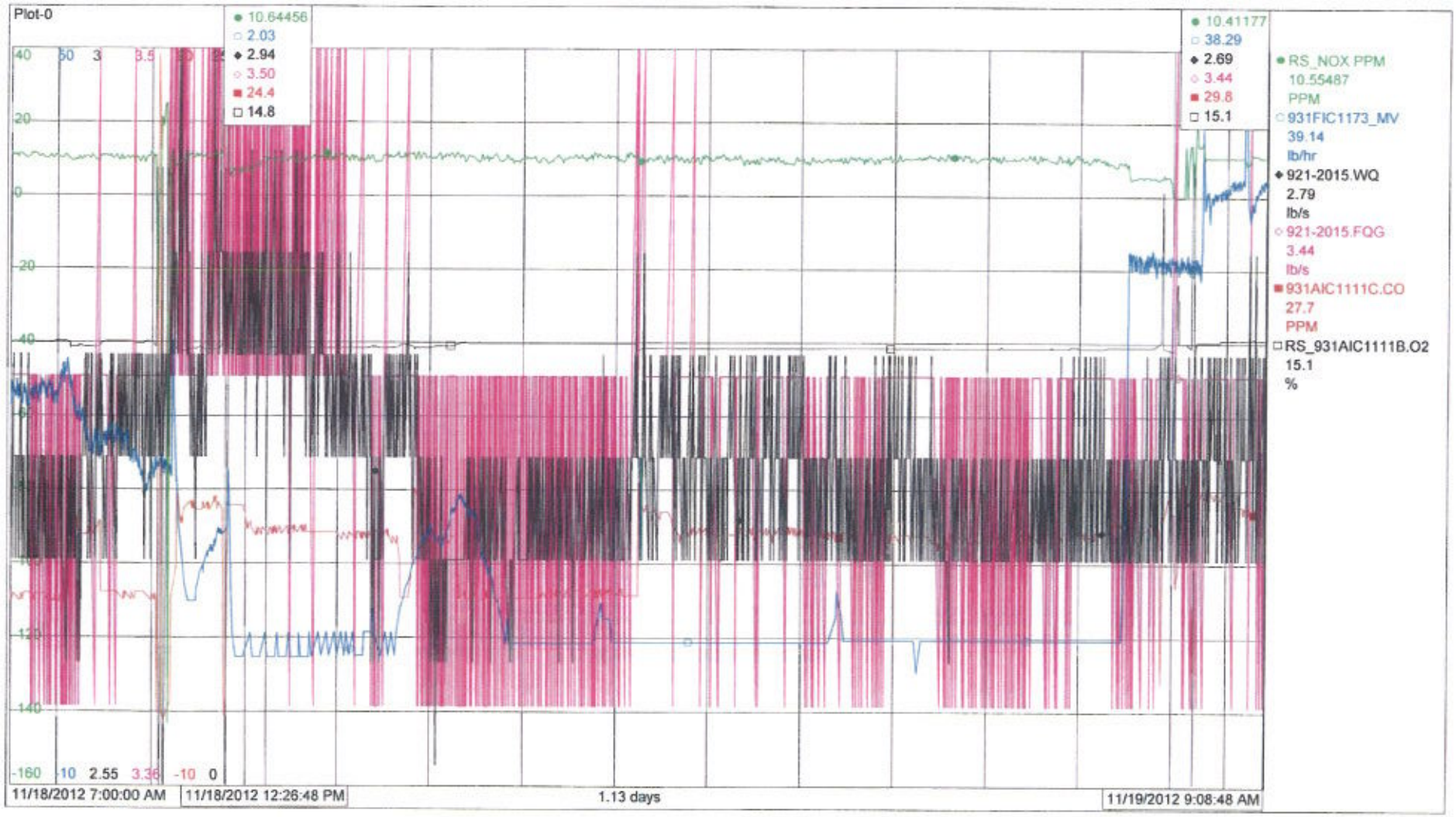
Stack CO Analyzer	
zero value	-0.97
zero drift %	-0.97
span value	89.34
span drift %	-0.45

Stack O2 Analyzer	
zero value	20.95
zero drift%	0.12
span value	0.01
span drift %	0.03

Nebraska Gas	

PRINT TIME: 11/19/201210:00 AM

NOTE: This document is valid for only ONE week after print time


Plot-0
10.64456
2.03
2.94
3.50
24.4
14.8
10.41177
38.29
2.69
3.44
29.8
15.1
RS_NOX.PPM
10.55487
PPM
931FIC1173_MV
39.14
lb/hr
921-2015.WQ
2.79
lb/s
921-2015.FQG
3.44
lb/s
931AIC1111C.CO
27.7
PPM
RS_931AIC1111B.O2
15.1
%
40
20
0
-20
-40
-120
-140
-160
-10
2.55
3.36
-10
0
11/18/2012 7:00:00 AM
11/18/2012 12:26:48 PM
1.13 days
11/19/2012 9:08:48 AM


COGEN
2012-11-19 16:54
36 (SC) MEDIUM
H1
921-2015.DVAR
VARS OUTPUT
Lim H1
16:54:06
RSMT_4-20MA_ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name
Description
Attribute
Treatment
Ruler Time
Ruler Value
Current Value
Unit
Filter
Time Offset
Form
931AIC1111A.NOX
B&W SCR INLET NOX
MV
Mom
08:54 2012-11-18
72.59
70.50
PPM
931AIC1111C.CO
B&W BLR STACK RAW CO
MV
Mom
08:54 2012-11-18
24.72
24.44
PPM
931AIC1111B.O2
B&W BLR RAW O2%
MV
Mean
08:54 2012-11-18
14.85
14.84
%
931AIC1111D.NOX
B&W BLR STACK NOX
MV
Mean
08:54 2012-11-18
10.75
10.79
PPM
931-AIC-1111.INCAL
RSMT CEMS IN CAL
MV
Mom
08:54 2012-11-18
0
0
931-aic-1111.trb
RSMT CEMS TROUBLE
MV
Mom
08:54 2012-11-18
0
0
<
>
<<
>>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...

OFFICIAL DAILY COGENERATION LOG

NIGHT SHIFT OPERATOR NAME: KOLB

DRY SHIFT OPERATOR NAME: [illegible]

DATE: 11-18-12

Hueneme Paper Mill

SAFETY IS ALWAYS NO. 1

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Control 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

0400540

	NEBRASKA	PERMEATE H_2O	CONCENTRATE H_2O	LP	HP	SCG LP	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	98435769	33642090	54109464	201389	2056	~~0390~~	26352250	295323	179884		87858
PREVIOUS	98360005	33537088	54061393	202014	1985	0393790	22615540	293099	8924		87216

NEW DEMIN TRAILER: YES / NO — TIME:

NEBRASKA ONLINE TIME — FROM: — TO:

AMMONIA DELIVERY: YES / (NO) — % FULL: 74-68

NEBRASKA WARM STORAGE CHECK: YES / NO

GAS & ELECTRIC READING

TURBINE

	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR %	58.1	60.5	64.3	65.3	58.5	57.1	56.2	59	55.8	34.9	58.8	60.3
Inlet Temp °F	56	56	57	58	57	57	57	57	56	56	56	54
Humidity %	56	45.8	45.7	45.5	41.4	54.1	57.1	59	60	60	56	56
Vibration (Max) MILS	.17	.17	.17	.17	.17	.17	17	17	17	17	17	17
Steam Injection #/SEC	2.76	2.80	2.80	2.86	2.76	2.72	2.69	2.75	2.75	2.75	2.75	2.75
Turbine L.O. Level %	100+	100+	100+	100+	100+	100+	100	100	100	100	100	100
T4B °F	1518	1524	1528	1527	1520	1517	1517	1521	1514	1516	1518	1517
BATTERIES 1.36 V				HP RECOUPE 155 FAL			BATTERIES 1.35 V			HP RECOUPE 154 FAL		
AIR INLET DIFF 3.6 IN/H20				HP RECOUPE 155 FAR			AIR INLET DIFF 3.8 IN/H20			HP RECOUPE 154 FAR		
L.O. DIFFERENTIAL 5.9 PSI				HP RECOUPE 52 AFT			L.O. DIFFERENTIAL 5 PSI			HP RECOUPE 52 AFT		

GENERATOR

	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain °F	161	161	162	162	163	163	163	162	161	161	160	160
L.O. Supply °F	138	138	140	140	141	141	140	140	140	140	139	139
Gen. Vibration (Max) IPS	.38	.38	.40	.40	.39	.39	38	40	38	39	40	40
Tie Line MW	13.48	13.68	13.33	13.51	13.44	13.54	13.6	13.4	13.3	13.6	13.3	13.4
GEN. 1201 AMPS				GEN.VARS 5.72 MEGA VARS			GEN. 1,600 AMPS			GEN.VARS MEGA VARS		
FIELD 210 AMPS				FIELD VOLTS 193 V			FIELD 212 AMPS			FIELD VOLTS 200 V		
COOLING TWR INLET 94 F				COOLING TWR INLET 88 F			COOLING TWR INLET 98 F			COOLING TWR INLET 92 F		

COGEN BOILER

	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp °F	710	708	709	710	709	710	710	709	710	710	710	710
HP Drum Level IN	1	0.9	0.9	1.2	1.4	0.5	1	.9	1	1	1	1
LP Drum Level IN	1	1.3	0.8	1.2	1.7	1.3	.9	1	1	1	1	1
HP Drum Pressure PSI	488	489	488	488	488	488	488	488	485	488	488	488
LP Drum Pressure PSI	146	149	149	149	151	148	148	148	148	148	148	148
CO PPM	15.9	16.1	26.9	24.3	22.9	16.2	16.5	23.1	23.8	23.8	23.6	23.0
NOX PPM	10.7	11	11.1	9.2	11.1	10.9	10.4	10.1	9.4	9.8	8.8	8.6
O2 %	14.99	14.98	14.79	14.82	14.82	14.96	14.9	14.8	14.8	14.8	14.8	14.6
Hot Well Level %	138	136	138	129	132	148	138	136	136	147	143	151
1150 SET POINT 449				1103 B SET POINT 444			1150 SET POINT 449			1103 B SET POINT 444		
SCANNER BLOWER (ON) OFF				DUCT BURNER 442 SP			SCANNER BLOWER ON OFF			DUCT BURNER S.P. 442		

COMPRESSORS

	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator PSI	234	235	235	235	232	234	234	234	238	238	234	234
Gas Receiver PSI	425	425	426	424	425	425	425	425	424	424	425	425

NEBRASKA BOILER

	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level IN												
Drum Pressure PSI												
Steam Flow #/HR												
Steam Temp °F												
NOX PPM												
O2 %												
Blow Down Conductivity MHOS												

ON LINE TURBINE WATER WASH: YES / NO — CONDUCTIVITY MHOS

BOILER FEED WATER PUMP OPERATION: NO. 1 (YES) NO — NO. 2 YES / NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75–9.5	9.3	9.2
Conductivity <5mmhos	6.9	7.9
Silica < 20 ppb	O/R	6
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)	8.2	
CONDENSATE		
HP–pH 8.5 –9.5	9.6	9.8
Conductivity<20mmhos	18.9	23
LP–pH 8.5–9.5	9.5	9.3
Conductivity<20mmhos	8.8	8.2
HP		
pH 9.5 – 10.5	10.1	9.9
Conductivity 75–150	169.7	172
Phosphate 5–15 ppm	21.6	27.8
Silica < 5 ppm	.127	1.9
Iron ppm		
LP		
pH 9.5 – 10.5	9.2	9.01
Conductivity 75 – 150	116.5	115
Phosphate 5–15 ppm	24.6	25
Silica <5 ppm	.211	1.0
Iron ppm		
MIXED BED		
pH 6.0 – 7.5	8.1	8.4
Conductivity< 1mmhos	.72	.7
Silica <10 ppb	6	8
HP Steam Test		
Silica <20 ppb	4	3
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)	1	2
NEBRASKA		
pH 9.5 – 10.5		
Conductivity 75 – 200		
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:

Hueneme Mill Environmental Incident Report

Shaded section to be completed by the EMR

Name of Incident Low ammonia usage	Incident Date 11/19/12
Exact Location Incident Cogen	
Reported By Cogen operator/R Lebrilla	Estimated Start and Stop Times of Incident:
Possible Cause: plugged line	

Incident Type:
- ☐ Spill Internal
- ☐ Spill External
- X Air Emission
- ☐ Other_____
- ☐ Improper Waste Disposal
- ☐ Near miss or below spill release guidelines

Released To
- ☐ Storm Water System
- ☐ Process Sewer
- ☐ Ground (External)
- ☐ Near Miss
- ☐ Other_____
- ☐ Secondary Containment
- X Air
- ☐ Ground (Inside Mill Property)

Detailed Description of Event:
The E&I supervisor was notified at 7am 11/19/12 by the Cogeneration Operator that the ammonia usage was less than expected. All other emission parameters were normal. Technicians were assigned to troubleshoot. They discovered the exhaust line for the NOx analyzer was plugged. Line was replaced, analyzer calibrated and back in service by 8:30 am 11/19/12. Robyn Lebrilla contacted APCD at 9:36 am.

(if required use additional paper and attach)

Estimated Amount Released	pH	CONSISTENCY (%)	Estimated Monetary Loss
☐ _____ Gallons ☐ _____ Pounds ☐ Other____N/A_____	N/A	N/A	

List Any External Emergency Clean Up Personnel Contacted N/A	List Any External Agencies Contacted *(Agency, person and time of call.)* *VC APCD at about 9:36 AM*
List Hueneme Personnel Contacted *(Foreman, Mill Manager, etc.)* Charlie Wilson, Lars Gustavson, Victor Kumpera, Rudy Rehbein	Any Acute or Chronic Health Risks *(refer to MSDS)*

Describe Any Emergency Response Actions:
Technical Manager and Mill Manager were notified of condition. The ammonia was increased in manual to normal flow during the investigation.

Suggestions to Prevent Reoccurrence	Estimated Completion Date
1. Contact Rosemount and prioritize return of our spare NOx analyzer.	1. 11/19/12
2. Check other sample handling lines for contamination.	2. 12/5/12
3. Contact manufacturer on recommended preventive maintenance (PM) for sample handling lines, review recommendation against our existing PM, and adjust PM accordingly.	3. 11/30/12
4.	4.

Root Cause after investigation	Severity Level *(level 1 and 2 must be tracked through SHIMS)*
Exhaust line for stack NOx analyzer was found plugged.	☐ 1 ☐ 2 ☐ 3 ☐ 4
Investigated By Lars Gustavson	Investigated Date 11/19/12

Follow Up	By When	Completion Date	By Whom

Print Time: 11/19/2012 5:35:24 PM

Note: This document is valid for only ONE week after print time!

Hueneme Mill Environmental Incident Report

Shaded section to be completed by the EMR

Issued by	Reviewed by	Approved by
11/19/2012 Department Manager	Technical Superintendent 11/20/2012	11/19/2012 Mill Manager

NEW INDY
CONTAINERBOARD

December 4, 2012

Lyle Olson
Ventura County Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: Nebraska Operation

Dear Mr. Olson:

This letter is a follow up on the call made to the VCAPCD Breakdown Center Hotline on November 28, 2012 at about 6:00 AM.

Nebraska boiler was fired due to repair work needed on the turbine. The turbine had to be pulled out due to the HPC (high pressure compressor) spline damage. The standby boiler operated without excess emissions from November 28, 2012 6:00 AM to December 1, 2012 9:00 PM for a total of 87 hours. The mill is currently operating on a lease turbine, and GE is investigating on the cause of HPC spline damage.

The Daily Emission Sheets, PI trends, DCS trends and Cogen reports have been provided for your review. The Environmental Incident Report was incomplete since GE is still investigating this incident. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

Robyn Lebrilla
Environmental Engineer

NEW INDY OXNARD, LLC
5936 PERKINS ROAD • OXNARD, CALIFORNIA 93033 • WWW.NEWINDYCONTAINERBOARD.COM
PHONE (805) 986-3881 • FAX (805) 488-5186

Ventura County
Air Pollution

Control District

RESPONSIBLE OFFICIAL'S CERTIFICATION FORM

Ventura County APCD Rule 33.9 requires that "*any document, including reports, schedule of compliance progress reports and compliance certifications, required by a Part 70 permit shall be certified by a responsible official.*" Therefore, this form shall be signed by the company's Responsible Official and submitted with all such reports, including, but not limited to semi-annual reports, deviation and emergency reports and any periodic reports required by a Part 70 permit. However, when submitting your Annual Compliance Certifications, please use the form titled Annual Compliance Certification Signature Cover Form.

Semi-annual reports, deviations and emergency reports and any periodic reports required by your Part 70 permit should be submitted to:

Lyle Olson
Air Quality Engineer
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document is true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Signature: Judy Gerber	12/3/2012
Title: Mill Manager	

End Time 11/28/2012 7:00 Start Time 11/27/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	8.44	268.05	637.86	77.49	41.47	1.43	2.44	0.74	10.69	14.80	19.27	11.94	10.52	10.50	24.46	-0.18	
9:00	8.17	268.60	637.64	77.86	41.40	1.42	2.44	0.75	10.68	14.80	19.38	11.94	10.49	10.50	24.42	-0.13	
10:00	7.45	267.85	636.31	77.95	41.66	1.43	2.43	0.74	10.64	14.81	18.80	11.60	10.50	10.50	24.41	-0.38	
11:00	8.15	269.24	636.73	78.74	43.01	1.46	2.45	0.75	10.42	14.75	19.18	11.84	10.31	10.43	24.38	-0.50	
12:00	2.88	270.99	633.76	80.13	43.76	1.47	2.47	0.75	10.64	14.84	15.77	9.79	10.56	10.46	24.36	-0.62	
13:00	0.08	270.79	631.28	80.78	44.14	1.49	2.47	0.75	10.44	14.90	14.05	8.51	10.48	10.45	24.38	-0.74	
14:00	0.07	271.27	631.17	81.49	44.48	1.49	2.47	0.75	10.49	14.94	13.72	8.32	10.52	10.52	24.33	-0.89	
15:00	0.25	269.96	631.06	80.88	43.68	1.47	2.46	0.75	10.41	14.91	14.08	8.46	10.49	10.50	24.37	-0.54	
16:00	0.01	271.47	630.95	80.98	43.99	1.48	2.47	0.75	10.48	14.87	14.02	8.42	10.49	10.50	24.23	-0.83	
17:00	0.08	270.96	630.85	81.81	44.86	1.49	2.47	0.75	10.48	14.84	13.39	8.07	10.52	10.50	24.31	-0.70	
18:00	0.05	269.22	630.74	81.81	44.47	1.49	2.46	0.75	10.39	14.84	13.71	8.31	10.50	10.50	24.24	-0.38	
19:00	0.12	270.96	630.63	81.81	44.76	1.49	2.47	0.75	10.47	14.84	13.78	8.43	10.50	10.51	24.27	-0.38	
20:00	0.09	269.62	630.52	81.81	44.55	1.49	2.46	0.75	10.42	14.85	13.80	8.19	10.51	10.50	24.25	-0.38	
21:00	0.13	268.89	630.31	81.40	44.54	1.49	2.45	0.74	10.36	14.86	13.88	8.48	10.46	10.49	24.27	0.01	
22:00	0.12	242.75	625.17	73.94	39.90	1.33	2.23	0.96	9.73	15.33	34.60	8.00	10.12	10.36	24.25	0.19	
23:00	0.12	36.20	501.43	10.75	-0.43	-1940.24	0.00	0.02	4.68	19.50	195.47	13.79	10.54	17.04	24.28	0.19	
0:00	0.12	19.46	498.72	4.84	-0.43	-1856.42	0.00	0.00	2.81	19.72	170.23	8.65	36.60	25.75	24.46	0.19	
1:00	0.12	0.00	498.72	0.53	-0.43	-5111.96	0.00	0.01	0.01	20.64	92.64	0.03	17.65	28.28	24.53	0.19	
2:00	0.12	9.22	498.72	1.17	-0.43	-2853.38	0.00	0.02	0.88	20.36	424.93	5.24	21.30	25.19	24.46	0.19	
3:00	0.12	0.00	498.72	0.53	-0.43	-5111.96	0.00	0.02	0.01	20.84	377.78	0.11	20.88	19.95	24.45	0.19	
4:00	0.12	0.00	498.72	0.53	-0.43	-5111.96	0.00	0.00	0.01	20.84	88.18	0.03	18.76	20.31	24.50	0.19	
5:00	0.07	0.00	498.72	0.53	-0.43	10373.87	0.00	0.00	0.01	20.79	60.02	0.01	17.73	19.12	24.62	0.19	
6:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.00	0.00	0.00	20.84	-6.95	0.00	17.03	17.84	22.08	3.21	
7:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.02	0.51	0.00	20.84	6.29	0.00	19.91	18.22	12.22	21.31	43.87

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
6.88	7.28

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
7.01	7.06

Stack NOx analyzer	
zero value	0.06
zero drift %	0.06
span value	84.31
span drift %	0.56

Stack CO Analyzer	
zero value	-1.09
zero drift %	-1.09
span value	89.91
span drift %	0.17

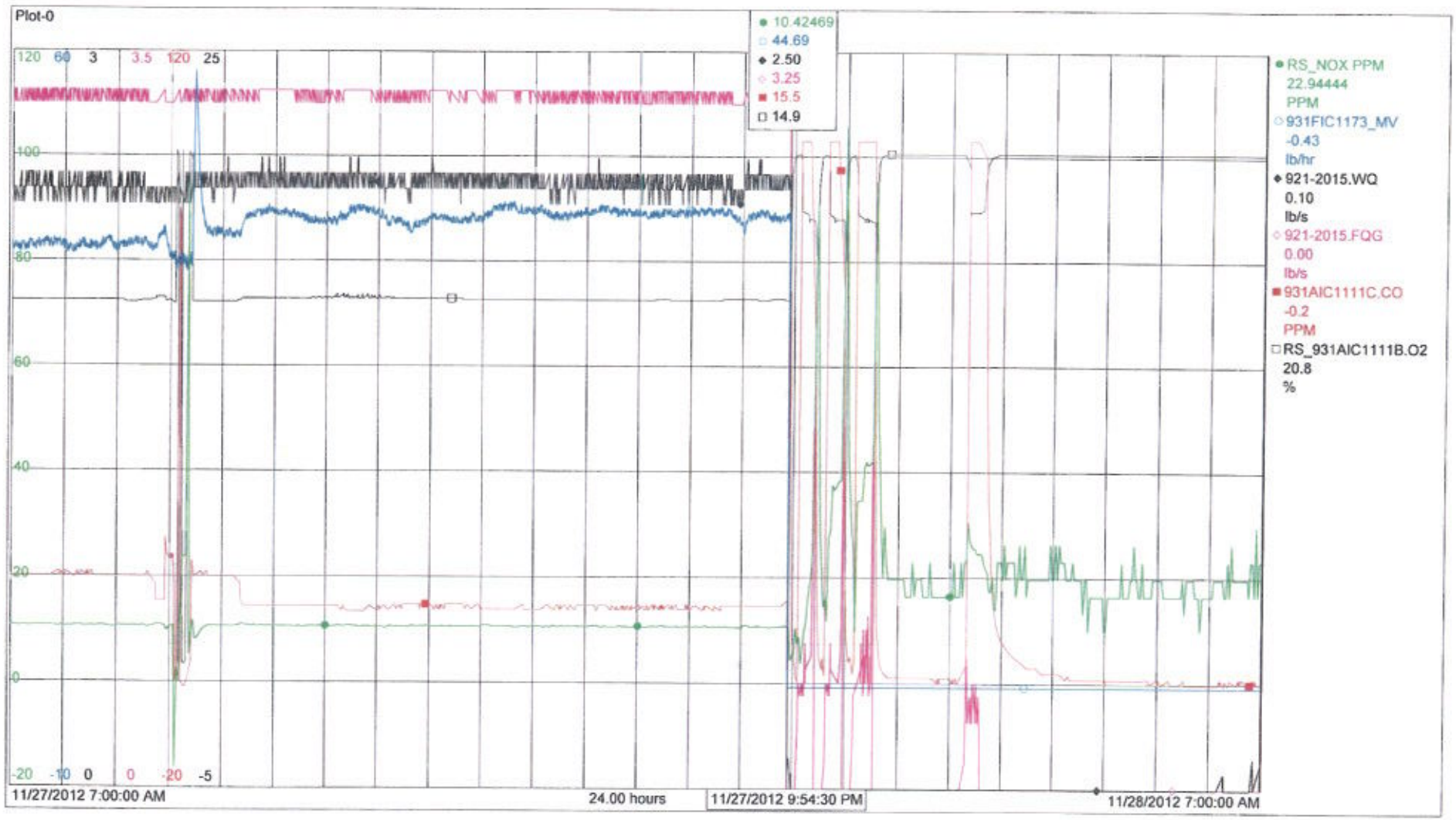
Stack O2 Analyzer	
zero value	20.95
zero drift%	0.12
span value	-0.02
span drift %	-0.06

Nebraska Gas	

Comments : On 11/27/12 turbine tripped offline due to generator differential relay from 21:55 -22:07; then tripped again from 22:26 - 22:45. Discovered failed gear box - down from 22:57 - 7:00 11/28/12. Total downtime was 8.57 hrs. Started Nebraska on 11/28/12 at about 6:00 AM. APCD notified on Nebraska operation.

PRINT TIME: 11/28/20123:09 PM

NOTE: This document is valid for only ONE week after print time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%
11/27/2012 7:00:00 AM
24.00 hours
11/27/2012 9:54:30 PM
11/28/2012 7:00:00 AM

DAILY ENVIRONMENTAL REPORT

End Time: 11/29/2012 7:00 — Start Time: 11/28/2012 7:00

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam ratio lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	lb/h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (@ 3% O_2)
8:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.03	1.22	0.00	[illegible]	-11.61	0.00	-94.05	-19.04	4.22	33.57	[illegible]
9:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.00	0.84	0.01	[illegible]	73.30	0.00	-139.36	-71.17	3.97	33.34	[illegible]
10:00	-0.01	0.00	498.72	0.54	-0.43	60321.10	0.06	1.54	0.01	[illegible]	206.49	0.00	-143.47	-125.82	3.18	31.04	[illegible]
11:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	0.56	0.00	[illegible]	78.67	0.00	-9.16	-97.33	3.13	31.12	[illegible]
12:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.05	0.69	0.00	[illegible]	59.78	0.00	-4.92	-62.52	3.09	31.22	[illegible]
13:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	1.20	0.00	[illegible]	-15.72	0.00	1.01	-4.36	3.07	31.21	[illegible]
14:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	1.69	0.00	[illegible]	-47.18	0.00	6.58	0.89	3.07	30.33	[illegible]
15:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	1.53	0.00	[illegible]	-61.05	0.00	2.57	3.38	3.06	29.97	[illegible]
16:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	1.91	0.00	[illegible]	-17.53	0.00	0.64	3.26	3.09	30.22	[illegible]
17:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	1.76	0.00	[illegible]	55.45	0.00	2.43	1.90	3.13	30.54	[illegible]
18:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	2.30	0.00	[illegible]	103.25	0.00	8.27	3.80	1.97	27.72	[illegible]
19:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	2.26	0.00	[illegible]	103.25	0.00	6.97	5.91	1.27	26.89	[illegible]
20:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	2.35	0.00	[illegible]	103.25	0.00	9.18	8.14	1.23	26.83	[illegible]
21:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	1.80	0.00	[illegible]	103.25	0.00	10.04	9.73	1.35	27.07	[illegible]
22:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.02	1.25	0.00	[illegible]	103.25	0.00	12.73	10.65	1.45	27.80	[illegible]
23:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.00	1.09	0.00	[illegible]	81.94	0.00	15.24	12.67	1.44	27.71	[illegible]
0:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.00	1.08	0.00	[illegible]	45.58	0.00	11.55	13.18	1.42	27.55	[illegible]
1:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.01	1.10	0.00	[illegible]	129.21	0.00	13.79	13.53	1.43	27.51	[illegible]
2:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.05	1.75	0.00	[illegible]	103.25	0.00	20.15	15.17	1.46	27.34	[illegible]
3:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	1.69	0.00	[illegible]	84.57	0.00	17.45	17.13	1.50	27.21	[illegible]
4:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.05	1.54	0.00	[illegible]	103.25	0.00	18.49	18.03	1.52	27.32	[illegible]
5:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.05	1.66	0.00	[illegible]	102.30	0.00	14.20	16.08	1.53	27.53	[illegible]
6:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	2.15	0.00	[illegible]	104.18	0.00	14.13	14.97	1.47	27.55	[illegible]
7:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	2.43	0.00	[illegible]	203.50	-0.01	16.76	15.06	1.37	27.53	[illegible]

Comments : Turbine down for repair. Nebraska operated 24 hrs.

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
0.00	9.61

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
0.00	1.20

Stack NOx analyzer	
zero value	0.03
zero drift %	0.03
span value	84.26
span drift %	0.53

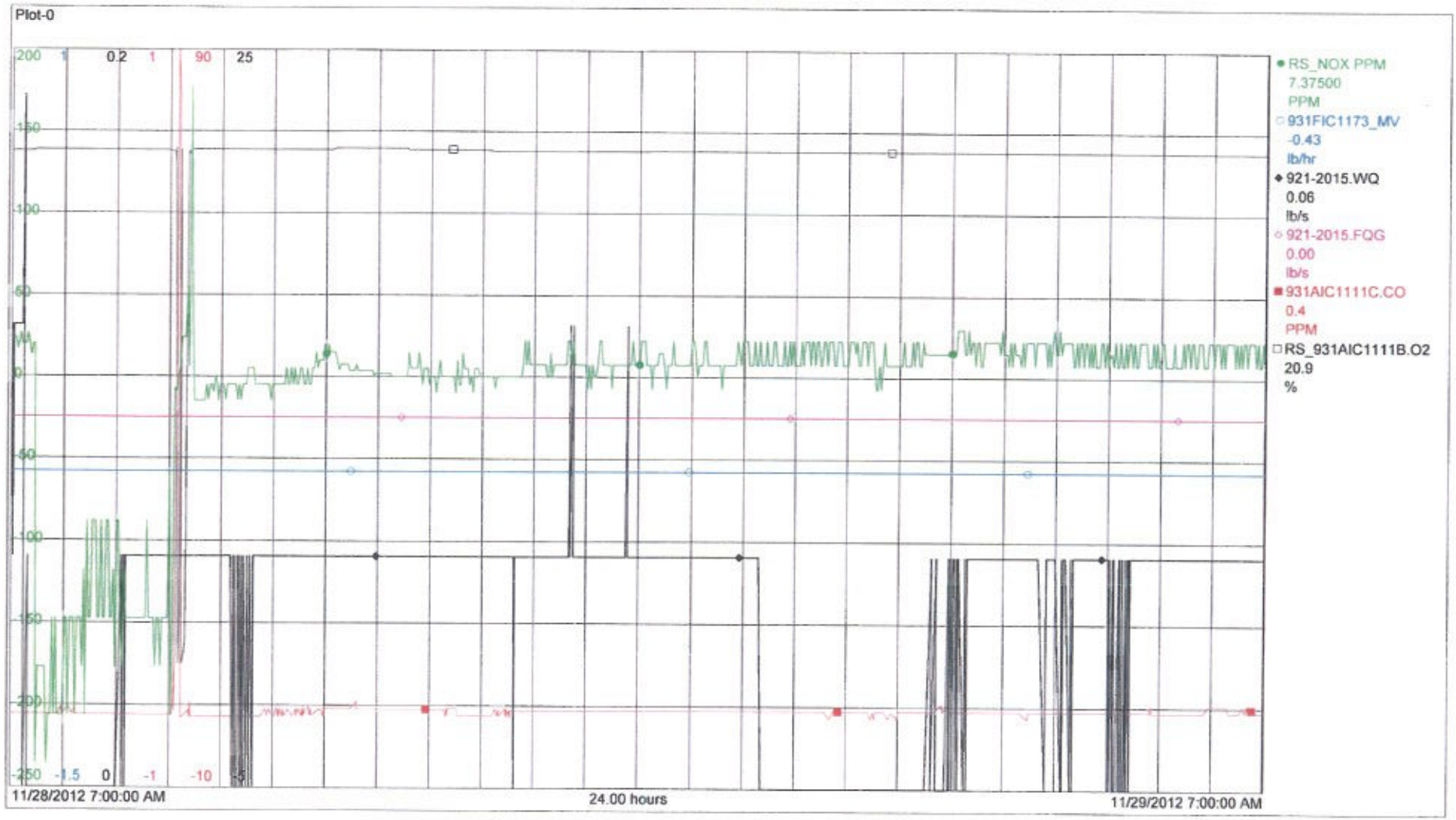
Stack CO Analyzer	
zero value	-0.72
zero drift %	-0.72
span value	89.97
span drift %	0.24

Stack O2 Analyzer	
zero value	20.98
zero drift%	0.27
span value	-0.01
span drift %	-0.03

Nebraska Gas	1,497,727

PRINT TIME: 11/29/20128:44 AM

NOTE: This document is valid for only ONE week after print time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24.00 hours
11/29/2012 7:00:00 AM
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PPM
RS_931AIC1111B.O2
20.9
%

DAILY ENVIRONMENTAL REPORT

End Time: 11/30/2012 7:00 — Start Time: 11/29/2012 7:00

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3 NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	2.08	0.00	[illegible]	132.99	0.00	16.03	15.64	1.32	27.29	[illegible]
9:00	-0.01	0.00	498.72	0.53	-0.43	60321.10	0.06	1.95	0.00	[illegible]	127.22	0.00	18.21	17.00	1.31	27.12	[illegible]
10:00	-0.01	0.00	498.72	0.56	-0.43	60321.10	0.06	1.69	0.00	[illegible]	-18.76	0.00	1.16	11.81	1.27	26.86	[illegible]
11:00	-0.01	0.00	498.72	0.66	-0.43	57834.77	0.03	1.08	0.00	[illegible]	-2.14	0.00	-3.73	5.22	1.21	25.96	[illegible]
12:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.04	1.06	0.00	[illegible]	9.50	0.00	-4.27	-2.27	1.15	24.50	[illegible]
13:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.05	1.04	0.00	[illegible]	9.50	0.00	-4.47	-4.16	1.23	26.07	[illegible]
14:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.06	1.13	0.00	[illegible]	8.01	0.00	-5.31	-4.68	2.32	28.74	[illegible]
15:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.06	1.01	0.00	[illegible]	10.83	0.00	-6.26	-5.35	1.70	27.32	[illegible]
16:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.06	0.46	0.00	[illegible]	10.83	0.00	-6.35	-5.98	1.32	26.74	[illegible]
17:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.06	0.80	0.00	[illegible]	10.83	0.00	-6.84	-6.15	1.39	26.99	[illegible]
18:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.04	0.46	0.00	[illegible]	10.83	0.00	-6.22	-6.14	1.55	27.40	[illegible]
19:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.01	0.43	0.00	[illegible]	10.83	0.00	-5.60	-5.88	1.61	27.57	[illegible]
20:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.51	0.00	[illegible]	10.83	0.00	-4.34	-5.39	2.47	39.04	[illegible]
21:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.53	0.00	[illegible]	10.83	0.00	-4.71	-4.88	3.09	47.58	[illegible]
22:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.47	0.00	[illegible]	10.83	0.00	-5.27	-4.77	3.10	47.97	[illegible]
23:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.52	0.00	[illegible]	10.83	0.00	-4.98	-4.99	3.10	48.60	[illegible]
0:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.42	0.00	[illegible]	10.83	0.00	-5.70	-5.32	3.10	47.99	[illegible]
1:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.37	0.00	[illegible]	5.40	0.00	-5.62	-5.43	3.11	47.52	[illegible]
2:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.00	0.00	[illegible]	6.73	0.00	-5.05	-5.46	3.12	47.80	[illegible]
3:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.09	0.00	[illegible]	3.28	0.00	-5.01	-5.23	3.11	47.65	[illegible]
4:00	-0.01	0.00	498.72	0.66	-0.43	48831.37	0.00	0.00	0.00	[illegible]	5.41	0.00	-5.13	-5.06	3.14	47.66	[illegible]
5:00	-0.01	0.00	498.72	0.67	-0.43	49816.13	0.00	0.00	0.00	[illegible]	2.42	0.00	-5.49	-5.21	3.11	47.77	[illegible]
6:00	-0.01	0.00	498.72	0.63	-0.43	51272.93	0.00	0.00	0.00	[illegible]	3.36	0.00	-6.21	-5.61	3.10	47.49	[illegible]
7:00	-0.01	0.00	498.72	0.63	-0.43	51272.93	0.00	0.00	0.00	[illegible]	6.50	0.00	-5.52	-5.74	3.05	46.80	[illegible]

Comments : Turbine down for repair. Nebraska operated 24 hrs.

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
0.00	9.61

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
0.00	1.20

Stack NOx analyzer	
zero value	-0.03
zero drift %	-0.03
span value	84.09
span drift %	0.30

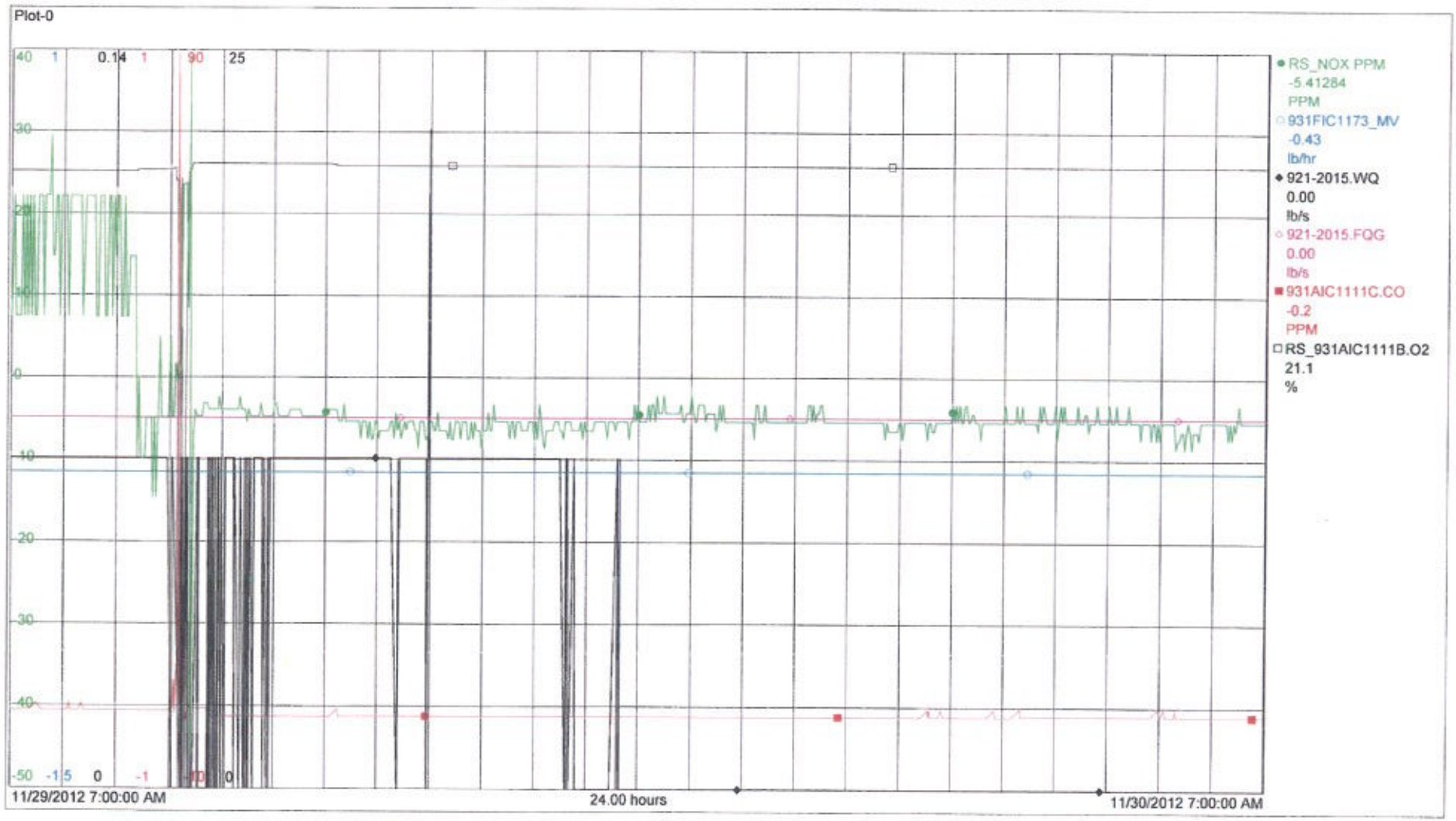
Stack CO Analyzer	
zero value	-0.91
zero drift %	-0.91
span value	89.89
span drift %	-0.07

Stack O2 Analyzer	
zero value	21.13
zero drift%	1.02
span value	0.01
span drift %	0.03

Nebraska Gas	1,429,515

PRINT TIME: 11/30/20128:40 AM

NOTE: This document is valid for only ONE week after print time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20
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-20
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-50 -1.5 0 -1 -70 0
11/29/2012 7:00:00 AM
24.00 hours
11/30/2012 7:00:00 AM
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PPM
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lb/hr
921-2015.WQ
0.00
lb/s
921-2015.FQG
0.00
lb/s
931AIC1111C.CO
-0.2
PPM
RS_931AIC1111B.O2
21.1
%

End Time: 12/1/2012 7:00 Start Time: 11/30/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3 NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	-0.01	0.00	498.72	0.63	-0.43	51272.93	0.00	0.00	0.00	21.07	6.50	0.00	-4.21	-5.32	3.04	47.12	47.24
9:00	-0.01	0.00	498.72	0.63	-0.43	51272.93	0.00	0.00	0.00	21.07	6.50	0.00	-3.97	-4.57	3.05	46.64	46.77
10:00	-0.01	0.00	498.72	3.06	-0.43	40773.34	0.00	0.00	0.00	18.47	-3.32	0.00	1.33	-2.28	3.07	46.76	46.94
11:00	-0.01	0.00	498.72	0.47	-0.43	53727.03	0.00	0.00	0.00	21.13	-5.71	0.00	-2.79	-1.81	3.51	45.83	47.17
12:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	8.32	0.00	-3.10	-1.52	3.28	45.75	46.49
13:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	7.98	0.00	-3.72	-3.20	3.26	45.75	46.43
14:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	8.68	0.00	-3.73	-3.52	3.25	45.39	46.02
15:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	18.12	0.00	-4.10	-3.85	3.24	45.37	45.98
16:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	8.79	0.00	-3.59	-3.81	3.18	45.38	45.83
17:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.07	17.61	0.00	-5.65	-4.45	3.17	45.58	46.01
18:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.06	18.15	0.00	-5.22	-4.82	3.20	45.63	46.15
19:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.06	18.15	0.00	-5.21	-5.36	3.21	45.35	45.90
20:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.08	0.00	21.06	18.15	0.00	-5.64	-5.36	3.23	45.57	46.15
21:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.06	1.74	0.00	-5.10	-5.32	3.25	45.92	46.56
22:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.06	3.69	0.00	-6.02	-5.59	3.27	46.46	47.18
23:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.12	-6.74	0.00	-4.81	-5.31	3.29	46.39	47.14
0:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	1.18	0.00	-4.53	-5.12	3.28	46.65	47.39
1:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	-4.79	0.00	-4.33	-4.56	3.25	46.03	46.58
2:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	1.18	0.00	-4.38	-4.41	3.24	46.23	46.86
3:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	-0.94	0.00	-4.40	-4.37	3.20	45.78	46.31
4:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	-1.95	0.00	-3.71	-4.16	3.20	45.96	46.48
5:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	-5.82	0.00	-3.88	-4.00	3.24	45.33	45.94
6:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	-4.72	0.00	-3.93	-3.84	3.26	45.94	46.62
7:00	-0.01	0.00	498.72	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	-5.74	0.00	-3.93	-3.92	3.36	44.01	44.90

Comments : Turbine down for repair. Nebraska operated 24 hrs.

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
0.00	9.61

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
0.00	1.20

Stack NOx analyzer	
zero value	0.03
zero drift %	0.03
span value	84.44
span drift %	0.71

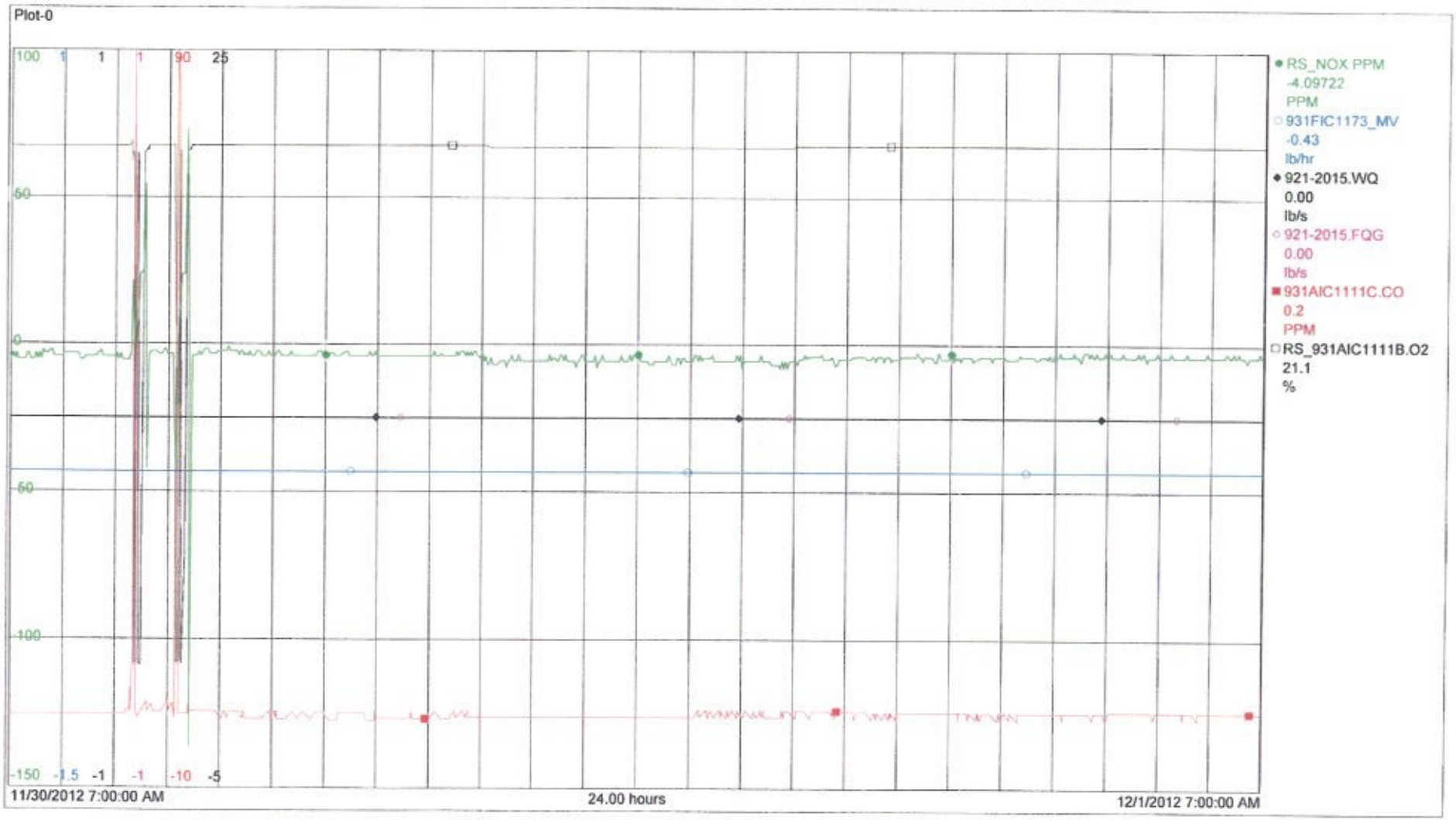
Stack CO Analyzer	
zero value	-0.75
zero drift %	-0.75
span value	89.50
span drift %	-0.28

Stack O2 Analyzer	
zero value	21.19
zero drift%	1.28
span value	0.00
span drift %	0.00

Nebraska Gas	1,439,299

PRINT TIME: 12/1/201211:46 AM

NOTE: This document is valid for only ONE week after print time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100 1 1 1 90 25
60
0
-60
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-150 -1.5 -1 -1 -10 -5
11/30/2012 7:00:00 AM
24.00 hours
12/1/2012 7:00:00 AM
RS_NOX.PPM
-4.09722
PPM
931FIC1173_MV
-0.43
lb/hr
921-2015.WQ
0.00
lb/s
921-2015.FQG
0.00
lb/s
931AIC1111C.CO
0.2
PPM
RS_931AIC1111B.O2
21.1
%

End Time 12/2/2012 7:00 Start Time 12/1/2012 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	-0.01	0.00	499.64	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	-1.89	0.00	-3.97	-3.94	3.44	41.89	42.95
9:00	-0.01	0.00	499.65	0.47	-0.43	68363.91	0.00	0.00	0.00	21.13	1.80	0.00	-3.71	-3.87	3.49	41.26	42.41
10:00	-0.01	0.00	499.66	0.50	-0.43	68363.91	0.00	0.00	0.00	21.13	-0.12	0.00	-3.45	-3.71	3.47	41.48	42.61
11:00	-0.01	0.00	499.67	0.63	-0.43	64439.38	0.00	0.00	0.00	21.13	-5.37	0.00	-3.85	-3.67	3.42	40.79	41.76
12:00	-0.01	0.00	499.69	0.63	-0.43	51272.93	0.00	0.00	0.00	21.13	-2.14	0.00	-3.61	-3.64	3.39	40.05	40.94
13:00	-0.01	0.00	499.70	0.63	-0.43	51272.93	0.00	0.00	0.00	21.13	5.80	0.00	-3.82	-3.76	3.42	39.85	40.81
14:00	-0.01	0.00	499.71	0.63	-0.43	51272.93	0.00	0.00	0.00	21.13	1.55	0.00	-3.81	-3.75	3.33	38.79	39.53
15:00	-0.01	0.00	499.72	0.63	-0.43	51272.93	0.00	0.00	0.00	21.13	-1.39	0.00	-4.03	-3.85	3.32	38.46	39.16
16:00	-0.01	0.00	499.73	0.63	-0.43	51272.93	0.00	0.00	0.00	21.13	7.75	0.00	-3.58	-3.81	3.29	37.81	38.43
17:00	-0.01	0.00	499.74	0.63	-0.43	51272.93	0.00	0.00	0.00	21.13	9.22	0.00	-3.52	-3.71	3.34	38.98	39.74
18:00	-0.01	0.00	499.75	0.63	-0.43	51272.93	0.00	0.00	0.00	21.00	15.15	0.00	-4.85	-3.98	3.53	38.92	40.11
19:00	-0.01	0.00	499.76	0.63	-0.43	51272.93	0.01	0.04	0.00	21.06	13.27	0.00	-5.42	-4.60	3.03	38.77	38.83
20:00	0.22	45.94	499.93	14.94	-0.32	30592.33	0.06	0.24	10.99	18.39	105.84	15.17	6.20	-1.36	3.01	38.88	38.91
21:00	43.67	146.57	616.66	41.77	15.74	1.54	0.78	0.40	10.63	15.37	62.78	26.28	12.88	4.56	8.05	12.91	17.97
22:00	8.08	167.61	582.14	32.93	11.34	1.45	1.27	0.63	6.74	16.37	93.20	36.59	10.44	9.84	13.01	-0.92	-2.07
23:00	8.09	163.41	578.54	32.17	10.73	1.41	1.22	0.61	6.63	16.42	100.47	38.64	10.50	11.27	14.98	-0.97	-2.92
0:00	9.27	202.03	591.81	42.00	15.61	1.42	1.76	0.71	8.23	15.93	64.01	28.70	10.71	10.55	17.44	-1.19	
1:00	8.06	261.52	616.48	67.45	32.61	1.40	2.41	0.76	10.77	15.45	29.31	17.67	10.94	10.72	19.64	-1.75	
2:00	5.59	271.13	621.35	71.44	37.12	1.39	2.56	0.78	10.75	15.46	24.32	15.08	10.56	10.74	20.59	-1.81	
3:00	7.60	271.30	621.88	69.82	36.94	1.40	2.59	0.78	10.67	15.39	28.88	17.94	10.41	10.64	20.81	-1.81	
4:00	8.01	271.47	622.83	70.38	37.00	1.39	2.59	0.78	10.78	15.36	26.66	17.97	10.49	10.49	21.01	-1.81	
5:00	7.99	271.30	622.68	71.60	37.09	1.37	2.57	0.78	10.79	15.40	26.66	16.71	10.50	10.47	21.06	-2.10	
6:00	7.98	271.47	622.52	71.65	37.65	1.38	2.59	0.78	10.84	15.34	26.77	16.80	10.55	10.52	20.97	-2.56	
7:00	8.10	271.47	622.36	71.66	38.30	1.41	2.59	0.78	10.77	15.26	27.39	17.18	10.47	10.51	21.07	-2.56	

Comments : Turbine down for repair 7:00 - 19:24 for 12.4 hours, Nebraska operated 7:00 a.m. - 20:56 PM for 14 hours

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
4.94	11.35

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
11.03	11.83

Stack NOx analyzer	
zero value	0.03
zero drift %	0.03
span value	84.28
span drift %	0.53

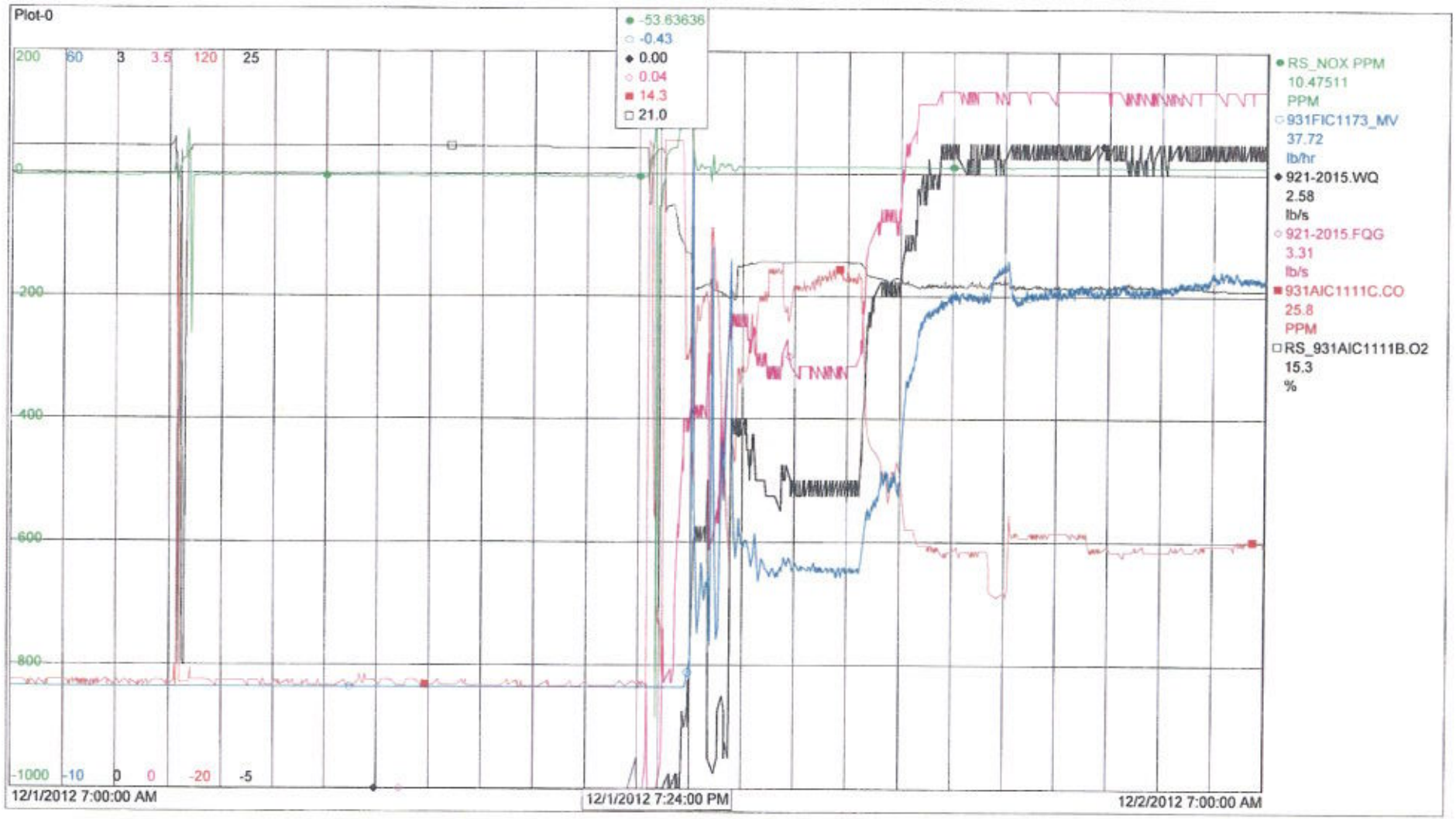
Stack CO Analyzer	
zero value	-0.94
zero drift %	-0.94
span value	89.78
span drift %	0.03

Stack O2 Analyzer	
zero value	21.48
zero drift%	2.66
span value	-0.04
span drift %	-0.16

Nebraska Gas	786,206

PRINT TIME: 12/2/201211:45 AM

NOTE: This document is valid for only ONE week after print time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0.04
14.3
21.0
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0
-200
-400
-600
-800
-1000 -10 0 0 -20 -5
12/1/2012 7:00:00 AM
12/1/2012 7:24:00 PM
12/2/2012 7:00:00 AM
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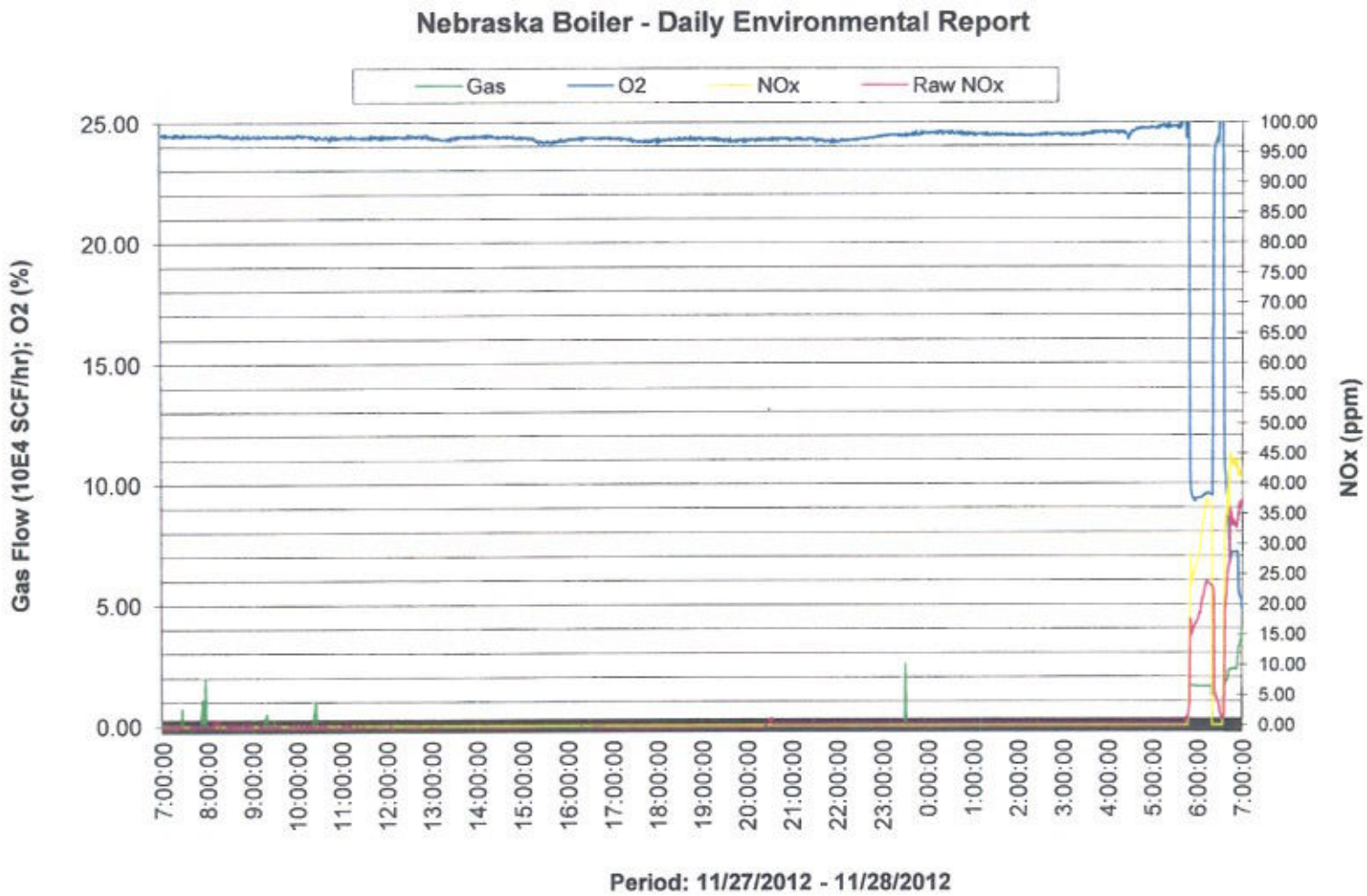
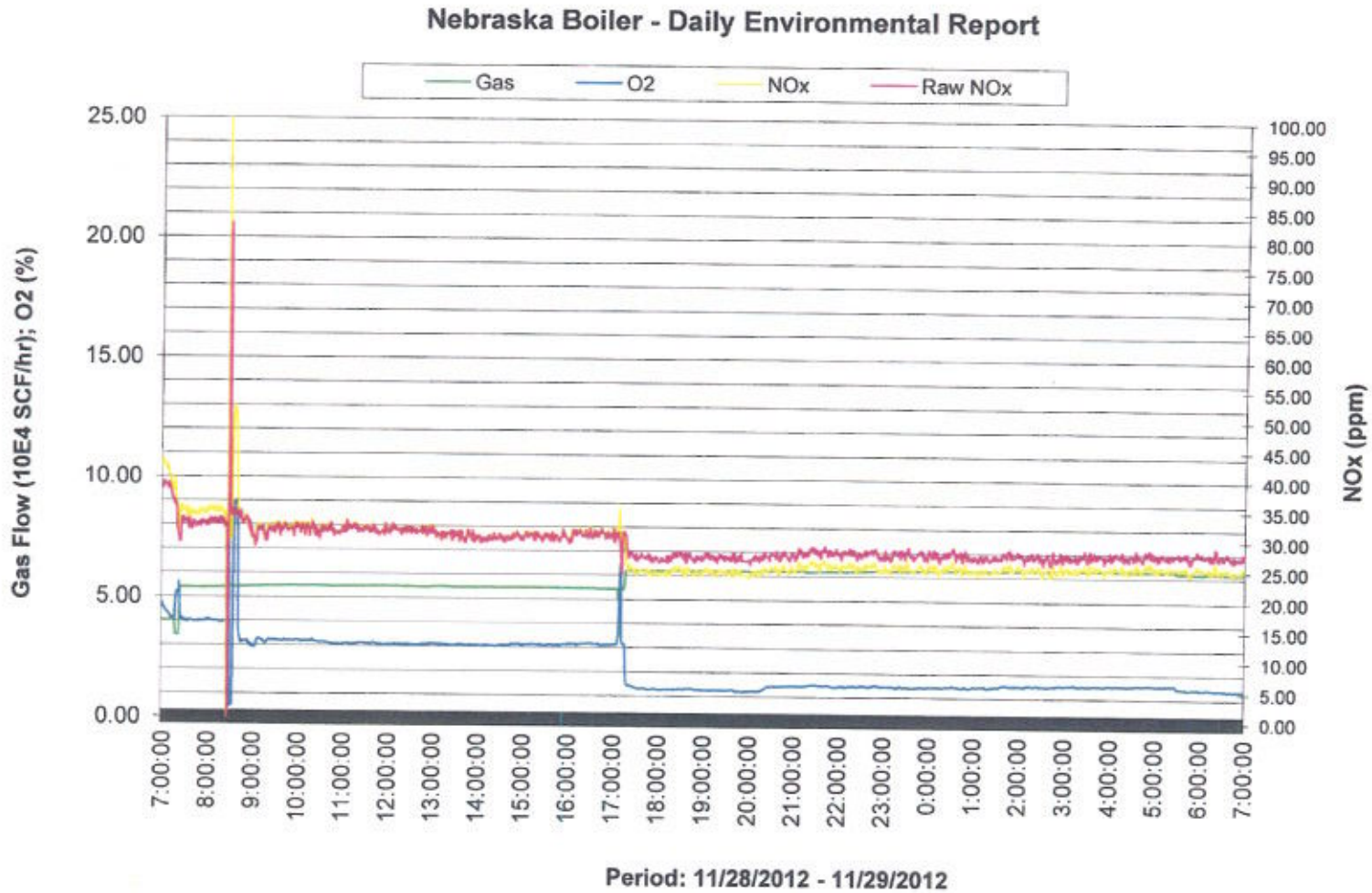
10.47511
PPM
931FIC1173_MV
37.72
lb/hr
921-2015.WQ
2.58
lb/s
921-2015.FQG
3.31
lb/s
931AIC1111C.CO
25.8
PPM
RS_931AIC1111B.O2
15.3
%


Nebraska Boiler - Daily Environmental Report
Gas
O2
NOx
Raw NOx
Gas Flow (10E4 SCF/hr); O2 (%)
NOx (ppm)
25.00
20.00
15.00
10.00
5.00
0.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
7:00:00
8:00:00
9:00:00
10:00:00
11:00:00
12:00:00
13:00:00
14:00:00
15:00:00
16:00:00
17:00:00
18:00:00
19:00:00
20:00:00
21:00:00
22:00:00
23:00:00
0:00:00
1:00:00
2:00:00
3:00:00
4:00:00
5:00:00
6:00:00
7:00:00
Period: 11/27/2012 - 11/28/2012


Nebraska Boiler - Daily Environmental Report
Gas
O2
NOx
Raw NOx
Gas Flow (10E4 SCF/hr); O2 (%)
NOx (ppm)
25.00
20.00
15.00
10.00
5.00
0.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
7:00:00
8:00:00
9:00:00
10:00:00
11:00:00
12:00:00
13:00:00
14:00:00
15:00:00
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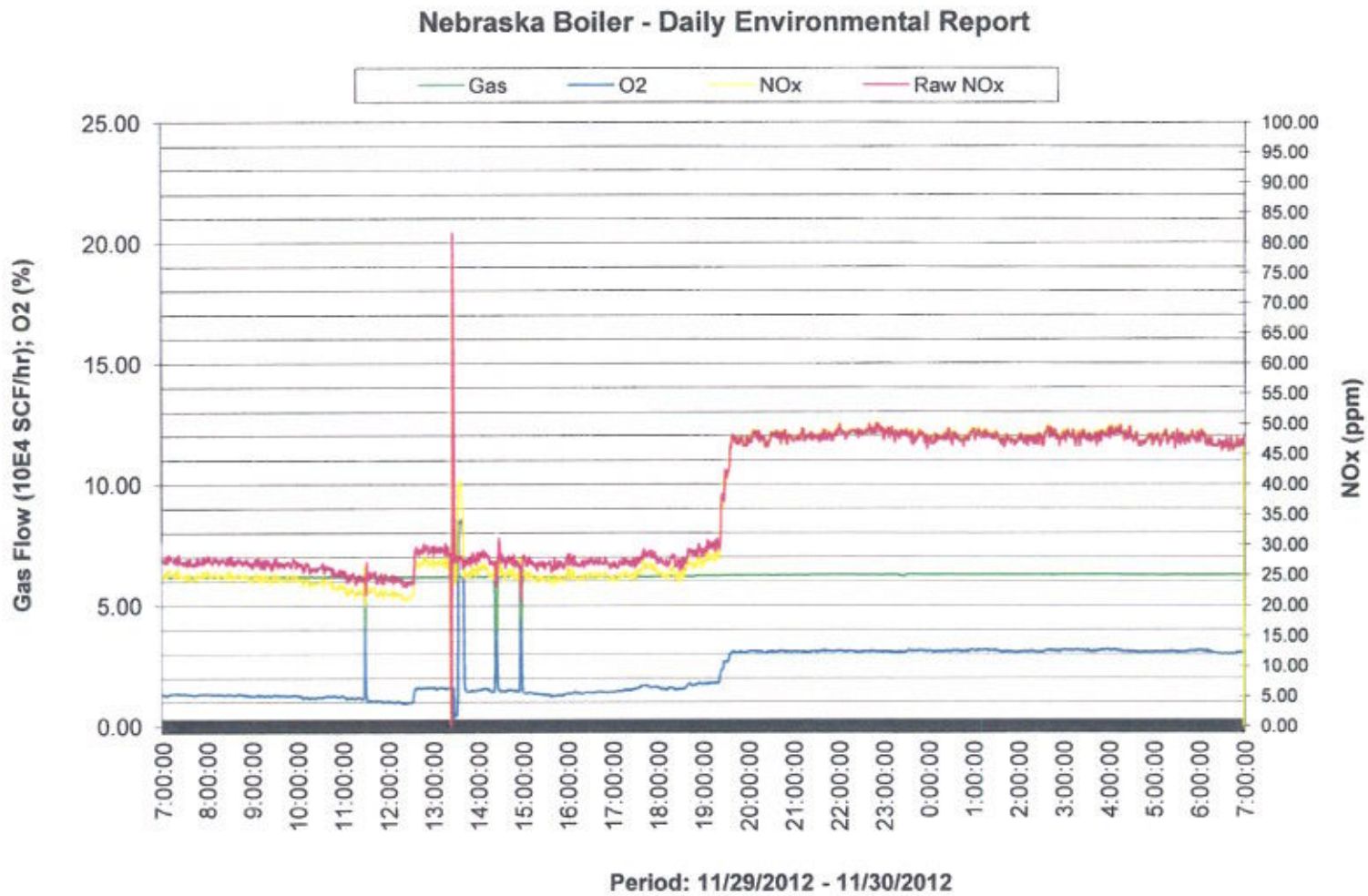
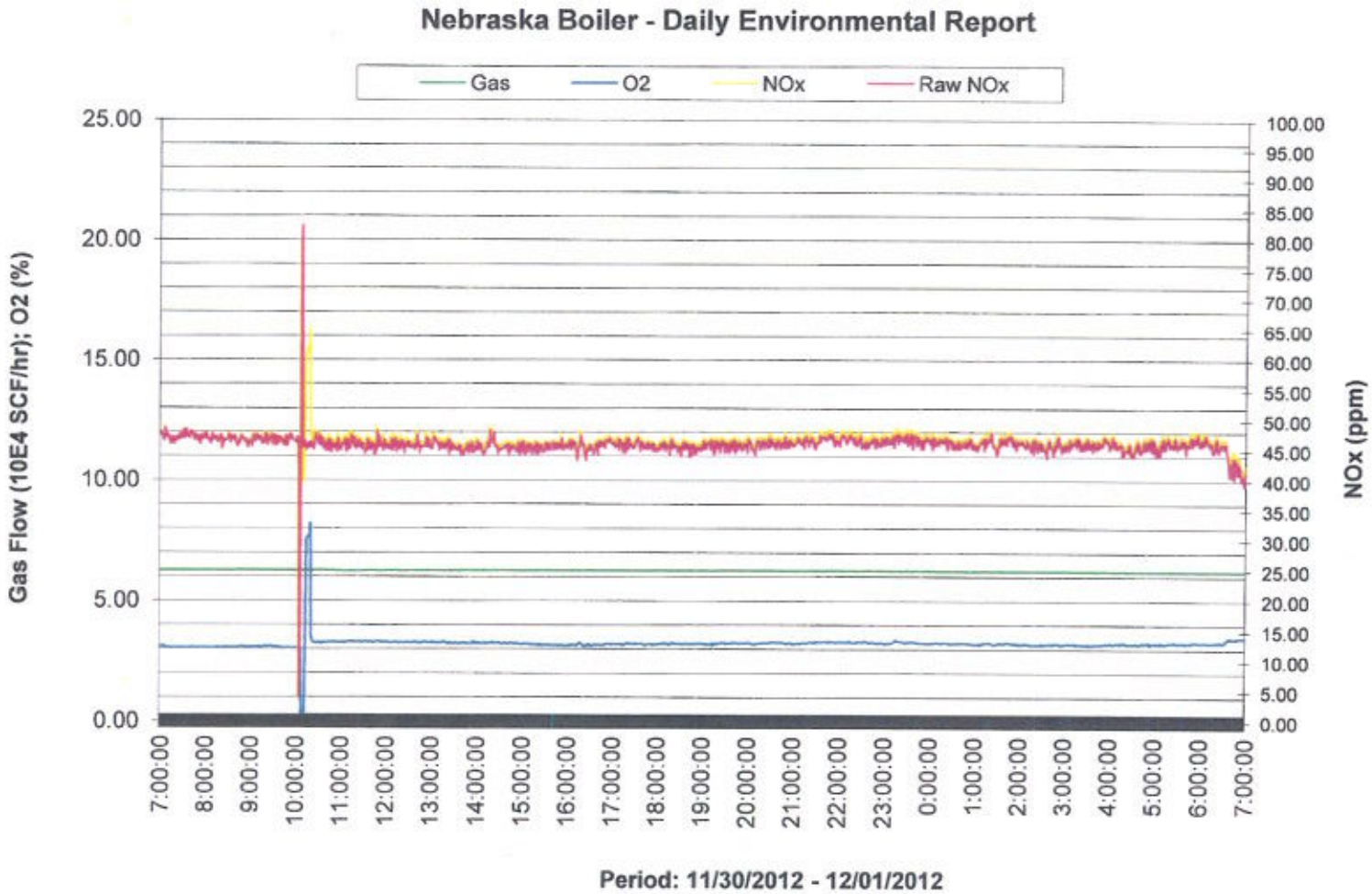
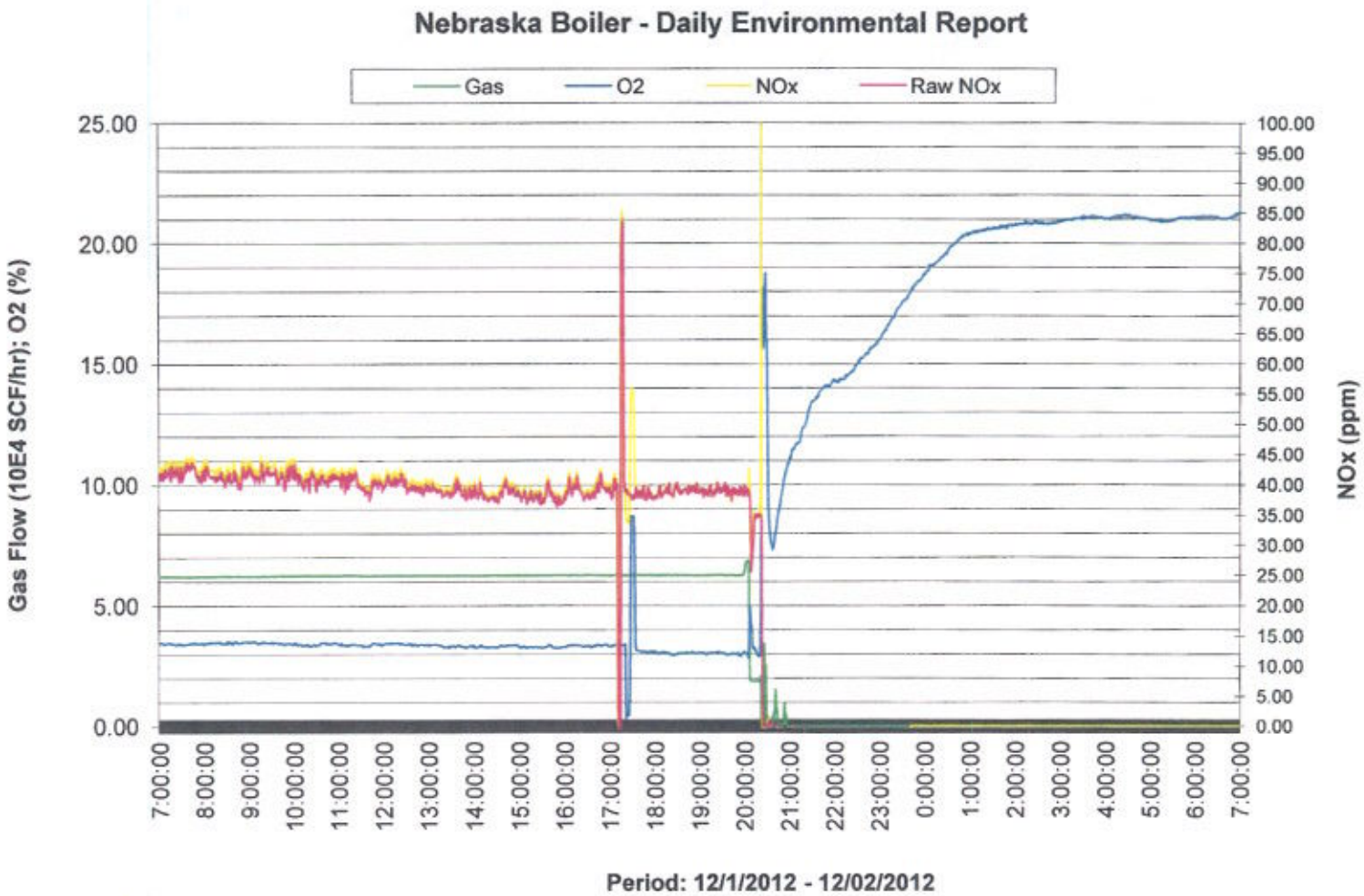
6:00:00
7:00:00
Period: 11/28/2012 - 11/29/2012


Nebraska Boiler - Daily Environmental Report
Gas
O2
NOx
Raw NOx
Gas Flow (10E4 SCF/hr); O2 (%)
NOx (ppm)
25.00
20.00
15.00
10.00
5.00
0.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
7:00:00
8:00:00
9:00:00
10:00:00
11:00:00
12:00:00
13:00:00
14:00:00
15:00:00
16:00:00
17:00:00
18:00:00
19:00:00
20:00:00
21:00:00
22:00:00
23:00:00
0:00:00
1:00:00
2:00:00
3:00:00
4:00:00
5:00:00
6:00:00
7:00:00
Period: 11/29/2012 - 11/30/2012


Nebraska Boiler - Daily Environmental Report
Gas
O2
NOx
Raw NOx
Gas Flow (10E4 SCF/hr); O2 (%)
NOx (ppm)
25.00
20.00
15.00
10.00
5.00
0.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
7:00:00
8:00:00
9:00:00
10:00:00
11:00:00
12:00:00
13:00:00
14:00:00
15:00:00
16:00:00
17:00:00
18:00:00
19:00:00
20:00:00
21:00:00
22:00:00
23:00:00
0:00:00
1:00:00
2:00:00
3:00:00
4:00:00
5:00:00
6:00:00
7:00:00
Period: 11/30/2012 - 12/01/2012


Nebraska Boiler - Daily Environmental Report
Gas
O2
NOx
Raw NOx
Gas Flow (10E4 SCF/hr); O2 (%)
NOx (ppm)
25.00
20.00
15.00
10.00
5.00
0.00
100.00
95.00
90.00
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
7:00:00
8:00:00
9:00:00
10:00:00
11:00:00
12:00:00
13:00:00
14:00:00
15:00:00
16:00:00
17:00:00
18:00:00
19:00:00
20:00:00
21:00:00
22:00:00
23:00:00
0:00:00
1:00:00
2:00:00
3:00:00
4:00:00
5:00:00
6:00:00
7:00:00
Period: 12/1/2012 - 12/02/2012


node 20
2012-12-03 16:21
26 (SC) MEDIUM
782-SEQ5
5HDCLNR JNK TRAP SEQ
Step Alm
16:18:20
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 06:00 2012-11-28 0.53 63.27 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 06:00 2012-11-28 -0.15 27.03 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 06:00 2012-11-28 20.84 15.46 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 06:00 2012-11-28 0.16 9.93 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 06:00 2012-11-28 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 06:00 2012-11-28 0 1
<< >>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...

OFFICIAL DAILY COGENERATION LOG

SAFETY IS ALWAYS NO. 1

DATE: 11-27-12

NIGHT SHIFT OPERATOR NAME: Ros
DRY SHIFT OPERATOR NAME: MH

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS / GAS & ELECTRIC READING

	NEBRASKA	PERMEATE H2O	CONCENTRATE H2O		HP	SCG LP	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	98927898	34662926	54559984	124312	1359	0428790	5835310	331964	36542		93230
PREVIOUS	98878179	34589060	54526163	187939	2001	0424600	5606890	305795	123366		92851

NEW DEMIN TRAILER YES NO TIME:
AMMONIA DELIVERY (YES) NO % FULL: 80 - 65
NEBRASKA ONLINE TIME FROM: TO:
NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	48.6	48.1	48.7	48.2	49.4	48.6	48.1	47				
Inlet Temp	°F	53	55	55	56	56	56	56	55				
Humidity	%	58.2	53.3	42.9	43.6	40.8	53.6	52.4	54.6				
Vibration (Max)	MILS	.15	.15	.15	.15	.15	.15	15	15				
Steam Injection	#/SEC	2.49	2.72	2.50	2.46	2.52	2.49	2.44	2.38				
Turbine L.O. Level	%	100+	100+	100+	100+	100+	100+	100	100				
T48	°F	1527	1530	1534	1538	1542	1538	1539	1528				

Day: BATTERIES 135 V; HP RECOUPE 147 FAL; AIR INLET DIFF 3.4 IN/H2O; HP RECOUPE 147 FAR; L.O. DIFFERENTIAL 5.9 PSI; HP RECOUPE 50 AFT
Night: BATTERIES 135 V; HP RECOUPE 199 FAL; AIR INLET DIFF 3.4 IN/H2O; HP RECOUPE 199 FAR; L.O. DIFFERENTIAL 6 PSI; HP RECOUPE 50 AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	158	158	162	163	163	163	162	162				
L.O. Supply	°F	137	137	139	139	135	139	139	139				
Gen. Vibration (Max)	IPS	.42	.41	.49	.43	.42	.41	42	45				
Tie Line	MW	12.01	12.06	12.05	12.15	11.94	12.02	11.95	11.9				

Day: GEN. 1170 AMPS; GEN.VARS 6.88 MEGA VARS; FIELD 209 AMPS; FIELD VOLTS 190 V; COOLING TWR INLET 90 °F; COOLING TWR INLET 84 °F
Night: GEN. 1,195 AMPS; GEN.VARS 6.75 MEGA VARS; FIELD 205 AMPS; FIELD VOLTS 190 V; COOLING TWR INLET 96 °F; COOLING TWR INLET 92 °F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	711	710	710	710	711	710	710	711				
HP Drum Level	IN	0.9	1.3	1.6	1.1	1	0.9	1	1.1				
LP Drum Level	IN	1	0.7	1	1.1	1	.1	1	1				
HP Drum Pressure	PSI	489	485	482	482	482	482	482	482				
LP Drum Pressure	PSI	146	153	146	148	148	148	148	148				
CO	PPM	19.1	19.1	14	14.2	13.4	13.3	13.2	14.3				
NOX	PPM	10.7	10.5	10.5	10.4	10.6	10.6	10.9	10.2				
O2	%	14.80	14.80	14.89	14.95	14.90	14.84	14.8	14.9				
Hot Well Level	%	139	140	142	151	162	162	162	151				

Day: 1150 SET POINT 449; 1103 B SET POINT 444; SCANNER BLOWER (ON) OFF; DUCT BURNER 442 SP
Night: 1150 SET POINT 449; 1103 B SET POINT 444; SCANNER BLOWER ON OFF; DUCT BURNER S.P. 442

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	232	232	234	234	234	234	234	236				
Gas Receiver	PSI	424	425	425	425	425	426	425	425				

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO; CODUCTIVITY MHOS; BOILER FEED WATER PUMP OPERATION (NO. 1) (YES) NO; NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75 - 9.5		8.9
Conductivity <5mmhos		13.9
Silica < 20 ppb		102 —
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		7.6
CONDENSATE		
HP-pH 8.5 - 9.5		9.07
Conductivity<20mmhos		12.5
LP-pH 8.5-9.5		9.56
Conductivity<20mmhos		32.7
HP		
pH 9.5 - 10.5		8
Conductivity 75-150		146
Phosphate 5-15 ppm		29.1
Silica < 5 ppm		O/R
Iron ppm		
LP		
pH 9.5 - 10.5		7.4
Conductivity 75 - 150		64.3
Phosphate 5-15 ppm		13.7
Silica <5 ppm		O/R
Iron ppm		
MIXED BED		
pH 6.0 - 7.5		8.6
Conductivity< 1mmhos		2.1
Silica <10 ppb		O/R
HP Steam Test		
Silica <20 ppb		217
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		1
NEBRASKA		
pH 9.5 - 10.5		
Conductivity 75 - 200		
Silica		
Phosphate 5-25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

Day shift column (written across): CLEANED TURBINE, 1st comp

NOTES:
Mike H-7 close down LP conductivity, to low e 53 e1515 cu
1st Trip 21:55 2nd 22:26
Idle @ 22:07 idle 22:45
online @ 22:22 Online 22:56

OFFICIAL DAILY COGENERATION LOG

NIGHT SHIFT OPERATOR

DRY SHIFT OPERATOR

NAME:

NAME:

Huenome Paper Mill

SAFETY IS ALWAYS NO. 1

DATE: 11-28-12

CHEMICAL PUMPS

	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Contro 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H_2O	CONCENTRATE H_2O	LP	HP	SCG LP	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	9899282	34730651	54558935	17	39	0569580	5835390	411919	0		93230
PREVIOUS	9892818	34662926	54559984	124312	139	0428740	5835370	331964	36502		93230

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES NO % FULL:

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	2.50											
Inlet Temp	°F	64											
Humidity	%	56.4											
Vibration (Max)	MILS	0											
Steam Injection	#/SEC	0											
Turbine L.O. Level	%	100+											
T48	°F	71											

BATTERIES 135 V HP RECOUPE 0 FAL

AIR INLET DIFF 0 IN/H20 HP RECOUPE 0 FAR

L.O. DIFFERENTIAL 0 PSI HP RECOUPE 0 AFT

BATTERIES V HP RECOUPE FAL

AIR INLET DIFF IN/H20 HP RECOUPE FAR

L.O. DIFFERENTIAL PSI HP RECOUPE AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	100											
L.O. Supply	°F	100											
Gen. Vibration (Max)	IPS	0											
Tie Line	MW	-.64											

GEN. 0 AMPS GEN.VARS 0 MEGA VARS

FIELD 0 AMPS FIELD VOLTS 0 V

COOLING TWR INLET 60 F COOLING TWR INLET 60 F

GEN. AMPS GEN.VARS MEGA VARS

FIELD AMPS FIELD VOLTS V

COOLING TWR INLET F COOLING TWR INLET F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	297											
HP Drum Level	IN	14.3											
LP Drum Level	IN	-.7											
HP Drum Pressure	PSI	6											
LP Drum Pressure	PSI	2											
CO	PPM	-16.4											
NOX	PPM	11.1											
O2	%	20.84											
Hot Well Level	%	135											

1150 SET POINT 449 1103 B SET POINT 444

SCANNER BLOWER (ON) Y/N DUCT BURNER 447 SP

1150 SET POINT 1103 B SET POINT

SCANNER BLOWER ON Y/N DUCT BURNER S.P.

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	248											
Gas Receiver	PSI	276											

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN	B	50	50	50	50	50	50	50	50	50	50	50
Drum Pressure	PSI		466	315	315	315	315	390	340	340	358	343	360
Steam Flow	#/HR			60000	60000	60000	60000	LOK	LOK	LOK	LOK	LOK	LOK
Steam Temp	°F			630	630	630	630	610	610	610	610	610	610
NOX	PPM		29.2	31.2	30.3	30.1	31.2	24.7	25.3	25.2	25.8	25.8	24.7
O2	%		2.91	3.09	3.13	3.11	3.12	1.3	1.4	1.4	1.4	1.5	1.4
Blow Down Conductivity MHOS													

ON LINE TURBINE WATER WASH YES NO CODUCTIVITY MHOS

BOILER FEED WATER PUMP OPERATION NO. 1 YES NO NO. 2 YES NO

GAS & ELECTRIC READING

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75 – 9.5		
Conductivity <5mmhos		
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		
CONDENSATE		
HP–pH 8.5 –9.5		
Conductivity<20mmhos		
LP–pH 8.5–9.5		
Conductivity<20mmhos		
HP		
pH 9.5 – 10.5		
Conductivity 75–150		
Phosphate 5–15 ppm		
Silica < 5 ppm		
Iron ppm		
LP		
pH 9.5 – 10.5		
Conductivity 75 – 150		
Phosphate 5–15 ppm		
Silica <5 ppm		
Iron ppm		
MIXED BED		
pH 6.0 – 7.5		
Conductivity< 1mmhos		
Silica <10 ppb		
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 – 10.5		
Conductivity 75 – 200		
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:

OFFICIAL DAILY COGENERATION LOG

NIGHT SHIFT OPERATOR NAME: MK

DRY SHIFT OPERATOR NAME: Brian Salvine

Hueneme Paper Mill

SAFETY IS ALWAYS NO. 1

DATE: 11-28-12

CHEMICAL PUMPS

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Control 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H_2O	CONCENTRATE H_2O	LP
CURRENT	99053133	34883207	54631774	25
PREVIOUS	9899/282	34730651	54588975	17

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES NO % FULL:

GAS & ELECTRIC READING

	HP	SCG LP	TURBINE	MAXON	BURNER	NEBRASKA	AWATTS
CURRENT	61	05951160	58352901	471173	0		93230
PREVIOUS	39	05695801	58353901	411919	8		93230

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%												
Inlet Temp	°F												
Humidity	%												
Vibration (Max)	MILS												
Steam Injection	#/SEC												
Turbine L.O. Level	%												
T4B	°F												

BATTERIES 135 V HP RECOUPE FAL

AIR INLET DIFF 0 IN/H20 HP RECOUPE FAR

L.O. DIFFERENTIAL 0 PSI HP RECOUPE AFT

BATTERIES V HP RECOUPE FAL

AIR INLET DIFF IN/H20 HP RECOUPE FAR

L.O. DIFFERENTIAL PSI HP RECOUPE AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F												
L.O. Supply	°F												
Gen. Vibration (Max)	IPS												
Tie Line	MW												

GEN. 8 AMPS GEN.VARS 6 MEGA VARS

FIELD 8 AMPS FIELD VOLTS 0 V

COOLING TWR INLET 60 F COOLING TWR INLET 60 F

GEN. AMPS GEN.VARS MEGA VARS

FIELD AMPS FIELD VOLTS V

COOLING TWR INLET F COOLING TWR INLET F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F												
HP Drum Level	IN												
LP Drum Level	IN												
HP Drum Pressure	PSI												
LP Drum Pressure	PSI												
CO	PPM												
NOX	PPM												
O2	%												
Hot Well Level	%												

1150 SET POINT 1103 B SET POINT

SCANNER BLOWER (ON) Y/N DUCT BURNER SP

1150 SET POINT 1103 B SET POINT

SCANNER BLOWER ON Y/N DUCT BURNER S.P.

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI												
Gas Receiver	PSI												

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN	50	50	50	50	50	50	50	50	50	50	50	50
Drum Pressure	PSI	350	350	390	390	400	425	325	325	325	325	325	325
Steam Flow	#/HR	60000	60080	56000	57000	49000	48000	57000	60,000	60,000	60,000	60K	60K
Steam Temp	°F	600	600	750	750	750	750	630	630	630	630	630	630
NOX	PPM	25.2	25.2	22.2	21.7	28.2	23.7	27.7	46.3	49.2	49.3	49.8	49.9
O2	%	1.36	1.30	1.17	1.57	1.53	1.42	1.81	3.11	3.09	3.17	3.20	3.11
Blow Down Conductivity MHOS													

ON LINE TURBINE WATER WASH YES NO CODUCTIVITY MHOS

BOILER FEED WATER PUMP OPERATION NO. 1 YES NO NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75- 9.5		
Conductivity <5mmhos		
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		
CONDENSATE		
HP-pH 8.5 -9.5		
Conductivity<20mmhos		
LP-pH 8.5-9.5		
Conductivity<20mmhos		
HP		
pH 9.5 - 10.5		
Conductivity 75-150		
Phosphate 5-15 ppm		
Silica < 5 ppm		
Iron ppm		
LP		
pH 9.5 - 10.5		
Conductivity 75 - 150		
Phosphate 5-15 ppm		
Silica <5 ppm		
Iron ppm		
MIXED BED		
pH 6.0 - 7.5		
Conductivity< 1mmhos		
Silica <10 ppb		
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 - 10.5		
Conductivity 75 - 200		
Silica		
Phosphate 5-25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:

OFFICIAL DAILY COGENERATION LOG

NIGHT SHIFT OPERATOR

DRY SHIFT OPERATOR

NAME: Rob

NAME:

SAFETY IS ALWAYS NO. 1

Hueneme Paper Mill

DATE: 11-30-12

CHEMICAL PUMPS

	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Control 5.3 ml/min		
Polymer 5.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H_2O	CONCENTRATE H_2O	LP	HP	SCG LP	TURBINE
CURRENT	9910960	73491275	05466822	0	63	0680790	5835280
PREVIOUS	9905313	73483210	05463177	25	61	0595140	5835590

NEW DEMIN TRAILER: YES / NO — TIME:

NEBRASKA ONLINE TIME — FROM: — TO:

AMMONIA DELIVERY: YES / NO — % FULL:

NEBRASKA WARM STORAGE CHECK: YES / NO

GAS & ELECTRIC READING

MAXON	BURNER	NEBRASKA	MEGAWATTS
576844	0		93226
571173	0		93230

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%												
Inlet Temp	°F												
Humidity	%												
Vibration (Max)	MILS												
Steam Injection	#/SEC												
Turbine L.O. Level	%												
T4B	°F												

BATTERIES ___ V — HP RECOUPE ___ FAL

AIR INLET DIFF ___ IN/H2O — HP RECOUPE ___ FAR

L.O. DIFFERENTIAL ___ PSI — HP RECOUPE ___ AFT

BATTERIES ___ V — HP RECOUPE ___ FAL

AIR INLET DIFF ___ IN/H2O — HP RECOUPE ___ FAR

L.O. DIFFERENTIAL ___ PSI — HP RECOUPE ___ AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F												
L.O. Supply	°F												
Gen. Vibration (Max)	IPS												
Tie Line	MW												

GEN. ___ AMPS — GEN.VARS ___ MEGA VARS

FIELD ___ AMPS — FIELD VOLTS ___ V

COOLING TWR INLET ___ F — COOLING TWR INLET ___ F

GEN. ___ AMPS — GEN.VARS ___ MEGA VARS

FIELD ___ AMPS — FIELD VOLTS ___ V

COOLING TWR INLET ___ F — COOLING TWR INLET ___ F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F												
HP Drum Level	IN												
LP Drum Level	IN												
MP Drum Pressure	PSI												
LP Drum Pressure	PSI												
CO	PPM												
NOX	PPM												
O2	%												
Hot Well Level	%												

1150 SET POINT — 1103 B SET POINT

SCANNER BLOWER (ON) Y/N — DUCT BURNER SP

1150 SET POINT — 1103 B SET POINT

SCANNER BLOWER ON Y/N — DUCT BURNER S.P.

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI												
Gas Receiver	PSI												

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN	50	50	50	50	50	50	60	50	50	50	50	50
Drum Pressure	PSI	325	325	325	325	325	325	315	315	310	315	315	315
Steam Flow	#/HR	60,000	60K	60K	60K	60K	60K	60K	60K	60K	60K	60K	60K
Steam Temp	°F	615	615	605	610	620	630	630	630	630	630	630	630
NOX	PPM	47.8	46.8	45.8	46.8	45.3	47.1	45.4	46.3	47.8	46.3	46.3	46.3
O2	%	3.04	3.12	3.32	3.28	3.2	3.2	3.12	3.23	3.5	3.25	3.26	3.25
Blow Down Conductivity MHOS													

ON LINE TURBINE WATER WASH: YES / NO — CODUCTIVITY MHOS — BOILER FEED WATER PUMP OPERATION: NO. 1 / NO. 2

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75– 9.5		
Conductivity <5mmhos		
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		
CONDENSATE		
HP–pH 8.5 –9.5		
Conductivity<20mmhos		
LP–pH 8.5–9.5		
Conductivity<20mmhos		
HP		
pH 9.5 – 10.5		
Conductivity 75–150		
Phosphate 5–15 ppm		
Silica < 5 ppm		
Iron ppm		
LP		
pH 9.5 – 10.5		
Conductivity 75 – 150		
Phosphate 5–15 ppm		
Silica <5 ppm		
Iron ppm		
MIXED BED		
pH 6.0 – 7.5		
Conductivity< 1mmhos		
Silica <10 ppb		
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 – 10.5		
Conductivity 75 – 200		
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:

OFFICIAL DAILY COGENERATION LOG

SAFETY IS ALWAYS NO 1

DATE: 12-1-12

NIGHT SHIFT OPERATOR — NAME:

DAY SHIFT OPERATOR — NAME: MSQ

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS / GAS & ELECTRIC READING

	NEBRASKA	PERMEATE H_2O	CONCENTRATE H_2O		HP	SCG LP	TURBINE	MAXON	BURNER	NEBR	MEGAWATTS
CURRENT	99158579	35027338	54717972	800016	759	0734260	6983060	542519	122716		93465
PREVIOUS	99109607	34912750	54668122	0	13	0680780	5835280	576844	0		93226

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES NO % FULL:

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%									36.12	54.00	53.69	53.56
Inlet Temp	°F									64	64	63	63
Humidity	%									64.8	63.8	62.8	62.9
Vibration (Max)	MILS									.24	.23	.25	.21
Steam Injection	#/SEC									1.75	2.67	2.56	2.56
Turbine L.O. Level	%									95%	95%	95%	95%
T48	°F									1287	1438	1438	1439

BATTERIES V | HP RECOUPE FAL | BATTERIES V | HP RECOUPE FAL
AIR INLET DIFF IN/H2O | HP RECOUPE FAR | AIR INLET DIFF IN/H2O | HP RECOUPE FAR
L.O. DIFFERENTIAL PSI | HP RECOUPE AFT | L.O. DIFFERENTIAL PSI | HP RECOUPE AFT

GENERATOR

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F									158	158	160	160
L.O. Supply	°F									136	136	138	138
Gen. Vibration (Max)	IPS								[illegible]	.47	.44	.42	.42
Tie Line	MW								[illegible]	11.44	13.50	13.41	13.62

GEN. AMPS | GEN.VARS MEGA VARS | GEN. AMPS | GEN.VARS MEGA VARS
FIELD AMPS | FIELD VOLTS V | FIELD AMPS | FIELD VOLTS V
COOLING TWR INLET F | COOLING TWR INLET F | COOLING TWR INLET F | COOLING TWR INLET F

COGEN BOILER

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F									764	710	710	710
HP Drum Level	IN									1.8	1.5	.9	1.1
LP Drum Level	IN									.6	1.8	.3	.5
HP Drum Pressure	PSI									474	481	481	481
LP Drum Pressure	PSI									150	146	146	146
CO	PPM									57.8	26.7	26.7	27.3
NOX	PPM									10.6	10.6	10.5	10.7
O2	%									15.91	15.42	15.37	15.31
Hot Well Level	%									107	150	146	162

1150 SET POINT | 1103 B SET POINT | 1150 SET POINT | 1103 B SET POINT
SCANNER BLOWER (ON) Y/N | DUCT BURNER SP | SCANNER BLOWER ON Y/N | DUCT BURNER S.P.

COMPRESSORS

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI									246	240	240	138
Gas Receiver	PSI									425	426	425	425

NEBRASKA BOILER

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN	50	56	50	50	50	50						
Drum Pressure	PSI	325	325	320	325	325	325						
Steam Flow	#/HR	60K	60K	60K	60K	60K	60K						
Steam Temp	°F	600	610	610	600	610	610						
NOX	PPM	41.8	40.7	39.6	37.5	34.8	35.0						
O2	%	3.56	3.48	3.41	3.29	3.09	3.03						
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO | CODUCTIVITY MHOS | BOILER FEED WATER PUMP OPERATION NO. 1 YES NO NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75– 9.5		
Conductivity <5mmhos		
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		
CONDENSATE		
HP–pH 8.5 –9.5		
Conductivity<20mmhos		
LP–pH 8.5–9.5		
Conductivity<20mmhos		
HP		
pH 9.5 – 10.5		
Conductivity 75–150		
Phosphate 5–15 ppm		
Silica < 5 ppm		
Iron ppm		
LP		
pH 9.5 – 10.5		
Conductivity 75 – 150		
Phosphate 5–15 ppm		
Silica <5 ppm		
Iron ppm		
MIXED BED		
pH 6.0 – 7.5		
Conductivity< 1mmhos		
Silica <10 ppb		
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 – 10.5		
Conductivity 75 – 200		
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:

IDLE 19:11
AUTO 19:36
Online 19:43

ACAD# 300-7017 – REV E WCX 100D

Hueneme Mill Environmental Incident Report

Shaded section to be completed by the EMR

Name of Incident Turbine- LM2500 down- HPC spline damage	Incident Date 28 Nov 12
Exact Location Incident Cogen	

Reported By C. Wilson	Estimated Start and Stop Times of Incident: @ 2300 11/27/12 @1900 12/1/12	Possible Cause: HPC spline failure

Incident Type: ☐ Spill Internal ☐ Improper Waste Disposal ☐ Spill External ☐ Near miss or below spill release guidelines X Air Emission ☐ Other_____	Released To ☐ Storm Water System ☐ Secondary Containment ☐ Process Sewer X Air ☐ Ground (External) ☐ Ground (Inside Mill Property) ☐ Near Miss ☐ Other_____

Detailed Description of Event

On 28 Nov 2012- @ 6 AM approx- Nebraska package boiler was started because of failure at the LM2500 plus turbine.
Mill's turbine had to be removed from package.
Lease turbine was brought in and installed. Lease turbine started up on 12/1/12- @1900 approx.
Once Lease engine was operating per GE specs- Nebraska boiler was brought offline.
APCD was contacted @6 AM approx message left by R. Rehbein on 11/28/12.

(if required use additional paper and attach)

Estimated Amount Released	pH	CONSISTENCY (%)	Estimated Monetary Loss
☐ _____ Gallons ☐ _____ Pounds ☐ Other_____			

List Any External Emergency Clean Up Personnel Contacted N/A	List Any External Agencies Contacted *(Agency, person and time of call.) APCD @6 AM approx*
List Hueneme Personnel Contacted *(Foreman, Mill Manager, etc.)* Lars Gustavson, Rudy Rehbein, Robyn Lebrilla , Victor Kumpera	Any Acute or Chronic Health Risks *(refer to MSDS)N/A*

Describe Any Emergency Response Actions
N/A

Suggestions to Prevent Reoccurrence	Estimated Completion Date
1.	1.
2.	2
3.	3.
4.	4.

Root Cause after investigation	Severity Level *(level 1 and 2 must be tracked through SHIMS)* ☐ 1 ☐ 2 ☐ 3 ☐ 4
Investigated By: Charlie Wilson	Investigated Date 11/27-28/12

Follow Up	By When	Completion Date	By Whom

Issued by	Reviewed by	Approved by
_____ Department Manager	_____ Technical Superintendent	_____ Mill Manager

Print Time: 12/3/2012 2:30:08 PM
Note: This document is valid for only ONE week after print time!

NEW INDY
CONTAINERBOARD

January 17, 2013

Lyle Olson
Ventura County Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: CEMS breakdown – O2 drift

Dear Mr. Olson:

This letter is a follow up on the call made by Rudy Rehbein to the VCAPCD Breakdown Center Hotline on January 12, 2013 at about 1:30 PM.

After the 10:30 AM calibration on January 12, 2013, a weekend call team member observed the increasing drift on stack O2 and low stack NOx. Technicians were called in to troubleshoot but were unable to resolve the issue. On January 14, 2013, the mill pursued an extensive troubleshooting with the help of a CEMS specialist. They found that the O2 drift was due to an air leak from a cracked fitting at the bottom of the sample handling chiller assembly. The cracked plastic fittings were replaced with stainless steel fittings. There was no excess emission during this O2 drift incident (17% O2 at about 8:00 PM on January 11 increasing to 19% O2 until the air leak was eliminated at 2:15 PM on January 14, 2013). A passing manual calibration was completed at 3:08 PM on January 14, 2013.

The Daily Emission Sheet, PI trends, DCS trends, Cogen Report and Environmental Incident Report have been provided for your review. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

Robyn Lebrilla
Environmental Engineer

NEW INDY OXNARD, LLC
5936 PERKINS ROAD • OXNARD, CALIFORNIA 93033 • WWW.NEWINDYCONTAINERBOARD.COM
PHONE (805) 986-3881 • FAX (805) 488-5186

Ventura County
Air Pollution
Control District

RESPONSIBLE OFFICIAL'S CERTIFICATION FORM

Ventura County APCD Rule 33.9 requires that "*any document, including reports, schedule of compliance progress reports and compliance certifications, required by a Part 70 permit shall be certified by a responsible official.*" Therefore, this form shall be signed by the company's Responsible Official and submitted with all such reports, including, but not limited to semi-annual reports, deviation and emergency reports and any periodic reports required by a Part 70 permit. However, when submitting your Annual Compliance Certifications, please use the form titled Annual Compliance Certification Signature Cover Form.

Semi-annual reports, deviations and emergency reports and any periodic reports required by your Part 70 permit should be submitted to:

Lyle Olson
Air Quality Engineer
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document is true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Signature: [signature]	1/17/13
Title: Mill Manager	

DAILY ENVIRONMENTAL REPORT

End Time: 1/12/2013 7:00 — Start Time: 1/11/2013 7:00

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	Hr Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O2)
8:00	9.97	268.24	617.57	65.02	34.92	1.42	2.63	0.80	10.51	16.38	32.48	20.46	10.51	10.48	24.47	-1.13	
9:00	13.17	271.47	623.93	67.90	38.07	1.45	2.68	0.81	11.19	16.33	28.83	18.56	10.62	10.52	24.46	-1.20	
10:00	9.00	271.81	622.55	71.57	42.26	1.56	2.71	0.82	11.01	16.26	27.90	17.66	10.59	10.57	24.42	-1.34	
11:00	8.06	271.64	622.34	71.53	44.65	1.60	2.73	0.82	10.98	16.21	26.73	16.89	10.58	10.60	24.40	-1.55	
12:00	7.99	272.65	621.99	74.09	46.77	1.59	2.74	0.82	9.80	16.43	26.85	16.82	9.75	10.31	24.33	-1.78	
13:00	8.53	230.52	606.31	58.57	46.76	2.54	2.15	0.76	5.58	16.75	38.40	20.38	6.18	8.83	24.39	-1.83	
14:00	10.23	275.06	628.84	76.25	46.76	1.60	2.79	0.83	10.67	16.35	23.67	15.18	10.12	8.68	24.41	-1.81	
15:00	7.95	274.18	628.05	74.15	46.72	1.78	2.78	0.83	10.91	15.98	21.52	13.34	10.43	8.91	24.38	-1.81	
16:00	8.00	272.87	627.76	77.11	46.76	1.58	2.74	0.82	10.16	16.34	21.77	13.67	9.78	10.11	24.39	-1.90	
17:00	7.94	271.61	627.53	79.42	46.76	1.55	2.71	0.81	10.54	16.51	20.67	13.04	10.22	10.14	24.37	-1.77	
18:00	7.98	271.97	627.30	79.66	46.76	1.53	2.74	0.82	10.90	16.64	20.35	12.83	10.51	10.17	24.46	-2.07	
19:00	8.01	272.68	626.96	77.44	46.77	1.56	2.77	0.83	10.38	16.79	21.17	13.42	9.97	10.23	24.50	-1.90	
20:00	8.01	272.66	625.18	75.11	44.97	1.55	2.75	0.83	10.06	16.95	22.20	14.14	9.71	10.06	24.46	-1.71	
21:00	8.22	272.66	624.42	73.36	39.42	1.40	2.75	0.82	10.88	17.00	22.26	14.19	10.47	10.05	24.42	-1.59	
22:00	7.97	271.47	623.65	73.58	41.02	1.48	2.72	0.82	10.89	17.15	22.44	14.14	10.52	10.24	24.41	-1.45	
23:00	8.26	271.47	621.57	70.87	39.41	1.44	2.74	0.82	10.81	17.28	24.44	15.37	10.44	10.48	24.45	-1.48	
0:00	8.00	270.80	620.31	69.74	37.96	1.43	2.71	0.82	10.76	17.16	25.27	15.75	10.42	10.46	24.46	-1.77	
1:00	7.30	271.46	617.52	69.04	36.05	1.37	2.71	0.82	10.83	17.21	25.38	15.82	10.51	10.46	24.44	-1.86	
2:00	10.25	271.47	621.80	67.84	35.43	1.35	2.71	0.81	10.92	17.27	25.44	16.24	10.47	10.47	24.46	-1.77	
3:00	8.09	271.47	619.24	67.64	34.77	1.35	2.71	0.82	10.86	17.40	25.99	16.37	10.50	10.49	24.47	-1.50	
4:00	9.32	270.96	619.66	68.18	34.53	1.32	2.67	0.81	10.87	17.44	26.21	16.50	10.47	10.48	24.47	-1.47	
5:00	12.03	271.30	620.69	67.14	34.05	1.30	2.66	0.81	10.99	17.39	26.06	16.57	10.48	10.48	24.47	-1.49	
6:00	16.05	271.30	625.58	65.84	33.08	1.27	2.66	0.81	11.13	17.31	26.87	17.46	10.47	10.48	24.47	-1.72	
7:00	14.80	271.47	625.50	66.24	32.95	1.27	2.67	0.81	11.14	17.18	27.37	17.65	10.51	10.49	24.46	-2.04	

Comments :

Daily Av Cogen NOx lb/h	Daily Av Cog+Neb NOx lb/h
10.55	10.55

Daily Av Cogen CO lb/h	Daily Av Cog+Neb CO lb/h
15.94	15.94

Stack NOx analyzer	
zero value	0.09
zero drift %	0.09
span value	84.34
span drift %	0.60

Stack CO Analyzer	
zero value	-0.75
zero drift %	-0.75
span value	90.22
span drift %	0.52

Stack O2 Analyzer	
zero value	21.07
zero drift%	0.72
span value	-0.09
span drift %	-0.34

Nebraska Gas	0

PRINT TIME: 1/12/201311:44 AM

NOTE: This document is valid for only ONE week after print time


COGEN
2013-01-14 08:33
3601 (HM) MEDIUM
H1
921-2015.DVAR
VARS OUTPUT
Lim H1
08:31:06
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 06:00 2013-01-11 68.06 71.69 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 06:00 2013-01-11 22.89 9.07 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 06:00 2013-01-11 16.23 18.69 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 06:00 2013-01-11 8.30 3.74 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 06:00 2013-01-11 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 06:00 2013-01-11 1 1
< >
<< >>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

OFFICIAL DAILY COGENERATION LOG

SAFETY IS ALWAYS NO. 1

DATE: 1-11-13

Hueneme Paper Mill

NIGHT SHIFT OPERATOR — NAME: [illegible]

DRY SHIFT OPERATOR — NAME: RoB

EMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H_2O	CONCENTRATE H_2O		HP	SCC LP
CURRENT	00959649	39787195	56813286	216-25	1887	1164520
PREVIOUS	00902150	39670998	56762835	206754	1860	1153670

GAS & ELECTRIC READING

	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	0208370	6863996	229846	/	2915
PREVIOUS	9843170	6850810	169666	/	2294

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES NO % FULL:

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	57.8	63	62.3	60.3	60.7	61.2	63.5	64.1	64.5	61.3	60.4	55.0
Inlet Temp	°F	42	53	55	59	59	59	55	55	48	46	46	43
Humidity	%	41.2	15.1	15.1	7	7	7	13	16	19	23	26	26
Vibration (Max)	MILS	18	18	18	19	19	19	18	17	17	19	18	18
Steam Injection	#/SEC	2.62	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.69	2.69	2.62
Turbine L.O. Level	%	90	90	90	90	90	90	90	90	90	90	90	90
T48	°F	1403	1436	1442	1456	1456	1456	1443	1425	1425	1418	1418	1405

BATTERIES 135 V | HP RECOUPE 141 FAL | BATTERIES V | HP RECOUPE FAL

AIR INLET DIFF 3.5 IN/H20 | HP RECOUPE 141 FAR | AIR INLET DIFF IN/H20 | HP RECOUPE FAR

L.O. DIFFERENTIAL 5 PSI | HP RECOUPE 48 AFT | L.O. DIFFERENTIAL PSI | HP RECOUPE AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	154	158	159	159	159	158	158	156	156	154	154	154
L.O. Supply	°F	128	132	135	136	136	131	135	134	134	132	132	130
Gen. Vibration (Max)	IPS	39	44	44	43	42	43	.43	.40	.41	40	40	40
Tie Line	MW	13.5	13.5	13.4	13.5	13.4	13.5	13.45	13.47	13.48	13.53	13.47	13.53

GEN. 11,200 AMPS | GEN.VARS MEGA VARS | GEN. AMPS | GEN.VARS 5.20 MEGA VARS

FIELD 205 AMPS | FIELD VOLTS 184 V | FIELD AMPS | FIELD VOLTS V

COOLING TWR INLET 75 F | COOLING TWR INLET 71 F | COOLING TWR INLET F | COOLING TWR INLET F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	709	710	711	710	711	710	710	710	708	710	708	710
HP Drum Level	IN	.5	1	1	1	1	1.1	0.9	1.1	1.0	0.8	0.4	1.1
LP Drum Level	IN	1.1	1.1	.9	1	1	.9	1.0	1.0	1.0	1.2	1.1	1.0
HP Drum Pressure	PSI	481	481	481	488	488	488	488	488	488	481	481	481
LP Drum Pressure	PSI	147	147	147	147	147	147	147	147	147	146	146	146
CO	PPM	33.8		26.9	19.9	17.8	19.9	22.6	24.4	24.4	24.1	26.1	26.9
NOX	PPM	10.8		9.9	10.7	10.3	10.7	9.6	10.5	10.5	10.4	10.4	10.7
O2	%	16.3		16.3	16.3	16.3	16.5	16.93	16.99	17.13	17.12	17.43	14.30
Hot Well Level	%	129	140	158	158	197	152	158	149	142	141	143	159

1150 SET POINT 449 | 1103 B SET POINT 444 | 1150 SET POINT | 1103 B SET POINT

SCANNER BLOWER (ON) Y/N | DUCT BURNER 442 SP | SCANNER BLOWER ON Y/N | DUCT BURNER S.P.

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	223	229	229	231	231	231	229	231	231	233	233	231
Gas Receiver	PSI	420	420	420	420	420	420	420	420	420	420	420	420

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO | CODUCTIVITY MHOS | BOILER FEED WATER PUMP OPERATION | NO. 1 YES NO | NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75– 9.5	8.51	8.46
Conductivity <5mmhos	6.9	7.62
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		563
Permeate TDS<10 ppm		4.98
ph (Feed 7.5)	7.3	
CONDENSATE		
HP–pH 8.5 –9.5	8.72	8.69
Conductivity<20mmhos	9.3	8.41
LP–pH 8.5–9.5	8.9	8.99
Conductivity<20mmhos	16.5	15.41
HP		
pH 9.5 – 10.5	9.31	9.26
Conductivity 75–150	102	100.1
Phosphate 5–15 ppm	13.3	13.21
Silica < 5 ppm	.32	
Iron ppm		
LP		
pH 9.5 – 10.5	9.1	8.40
Conductivity 75 – 150	123	122.1
Phosphate 5–15 ppm	13.5	13.49
Silica <5 ppm	.34	
Iron ppm		
MIXED BED		
pH 6.0 – 7.5	7.9	8.13
Conductivity< 1mmhos	.71	.62
Silica <10 ppb	8	
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 – 10.5		
Conductivity 75 – 200		
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:

ACADM 000-3011 – REV.E WOX 1050

End Time 1/13/2013 7:00 Start Time 1/12/2013 7:00

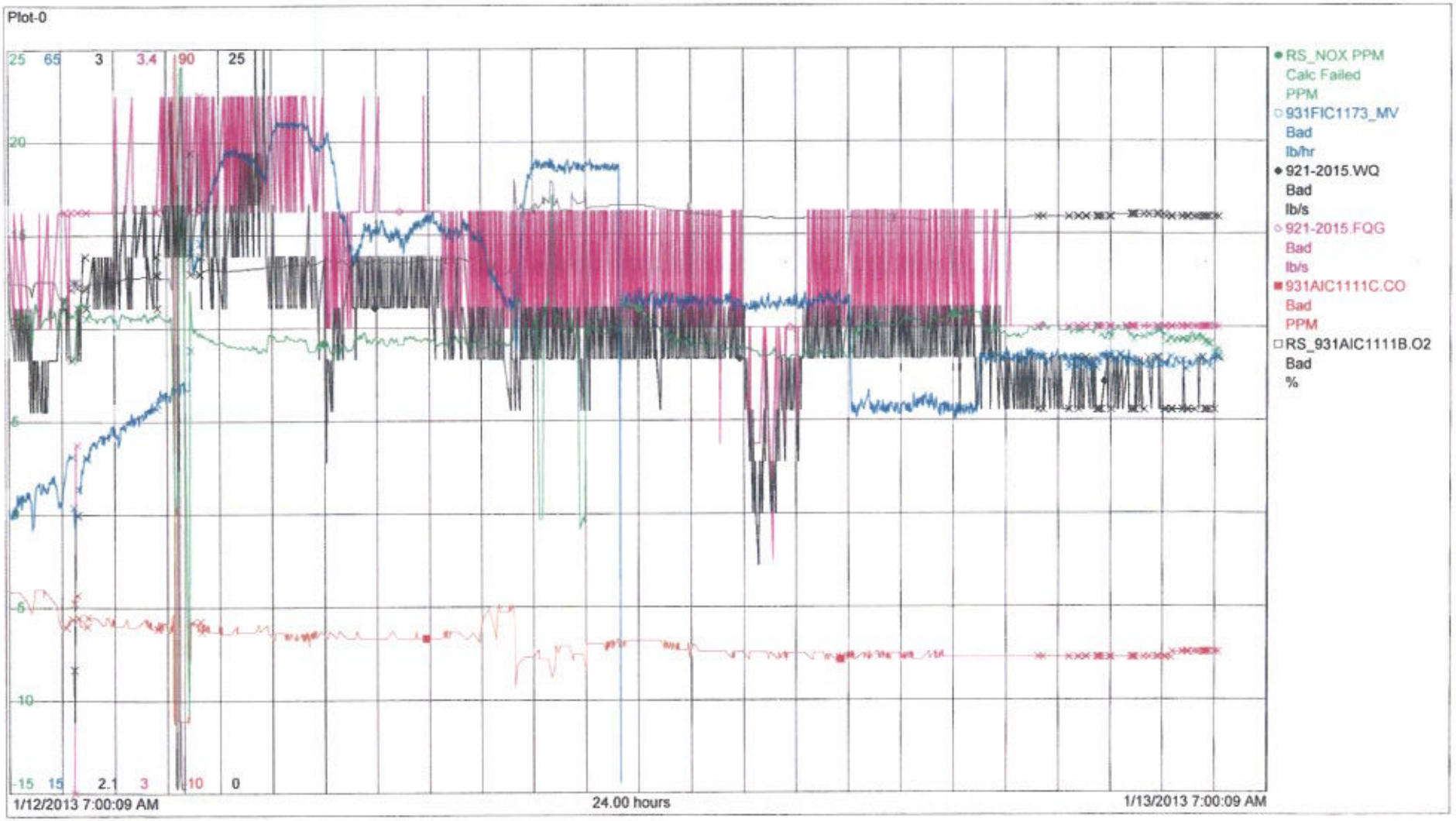
DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O2)	Daily Av Cogen NOx lb/h	Daily Av Cog+Neb NOx lb/h
																		9.97	9.97
8:00	17.05	268.74	625.95	68.98	34.93	1.33	2.63	0.80	11.11	[illegible]	25.44	16.47	10.53	10.51	24.48	-2.17			
9:00	32.97	270.46	650.35	70.79	37.55	1.34	2.68	0.81	12.06	[illegible]	20.73	14.00	10.70	10.58	24.45	-1.88		Daily Av Cogen CO lb/h	Daily Av Cog+Neb CO lb/h
10:00	21.98	271.97	639.86	72.30	40.38	1.39	2.76	0.83	11.49	[illegible]	20.73	13.75	10.56	10.69	24.43	-2.35		21.89	21.89
11:00	19.10	272.85	638.16	77.91	54.18	1.76	2.78	0.83	10.28	[illegible]	21.25	13.96	9.45	10.24	24.43	-2.20			
12:00	18.24	274.90	637.58	78.00	57.53	1.85	2.80	0.83	9.77	[illegible]	21.13	13.84	9.02	9.68	24.47	-2.40		Stack NOx analyzer	
13:00	15.85	275.72	636.47	80.18	59.46	1.85	2.72	0.81	10.00	[illegible]	21.17	13.90	9.23	9.23	24.46	-2.37		zero value	0.03
14:00	17.12	271.13	634.15	77.18	53.92	1.78	2.69	0.81	9.71	[illegible]	21.99	14.32	9.12	9.13	24.49	-2.12		zero drift %	0.03
15:00	19.22	271.47	638.46	76.99	52.77	1.73	2.72	0.82	10.03	[illegible]	21.26	13.91	9.32	9.22	24.45	-2.28		span value	84.84
16:00	15.70	271.14	633.05	76.50	52.85	1.76	2.67	0.81	9.82	[illegible]	22.45	14.59	9.24	9.23	24.35	-2.45		span drift %	1.20
17:00	14.49	268.86	630.66	72.44	50.41	1.79	2.64	0.81	10.07	[illegible]	29.30	18.37	9.62	9.39	24.36	-1.96			
18:00	13.34	269.62	629.01	67.99	57.08	2.09	2.65	0.81	9.91	[illegible]	48.56	30.13	8.33	9.06	24.35	-1.52			
19:00	16.31	268.74	629.66	67.61	53.39	2.03	2.66	0.81	10.46	[illegible]	50.18	32.21	10.23	9.39	24.37	-1.24		Stack CO Analyzer	
20:00	17.99	267.39	628.99	66.38	48.05	1.87	2.65	0.81	10.47	[illegible]	45.78	30.11	9.85	9.47	24.42	-1.26		zero value	-0.72
21:00	18.37	267.17	628.57	66.29	47.93	1.86	2.66	0.81	9.49	[illegible]	35.22	22.80	8.96	9.68	24.44	-1.32		zero drift %	-0.72
22:00	20.97	263.96	629.28	66.33	47.77	1.85	2.53	0.79	9.04	[illegible]	32.11	20.92	8.56	9.12	24.45	-1.28		span value	89.53
23:00	19.73	267.20	629.80	66.30	48.00	1.84	2.64	0.81	9.10	[illegible]	30.98	20.39	8.56	8.69	24.47	-1.10		span drift %	-0.24
0:00	18.93	268.04	629.55	66.56	41.27	1.58	2.66	0.81	10.44	[illegible]	30.73	20.02	9.88	9.60	24.45	-1.30			
1:00	18.57	269.28	629.55	67.27	41.01	1.56	2.68	0.81	10.97	[illegible]	29.84	18.76	10.32	9.59	24.45	-1.28		Stack O2 Analyzer	
2:00	17.93	267.53	627.77	68.44	42.45	1.58	2.63	0.81	10.93	[illegible]	29.81	19.19	10.30	10.17	24.45	-1.28		zero value	21.09
3:00	16.47	266.35	626.42	68.47	44.18	1.67	2.59	0.80	10.22	[illegible]	30.56	19.43	9.77	10.13	24.46	-1.28		zero drift%	0.79
4:00	15.71	266.35	625.24	67.90	44.00	1.67	2.59	0.80	10.18	[illegible]	31.00	19.71	9.74	9.94	24.48	-1.36		span value	0.04
5:00	16.93	266.35	624.89	66.86	43.94	1.69	2.59	0.80	10.13	[illegible]	32.26	20.58	9.69	9.73	24.49	-1.23		span drift %	0.16
6:00	18.93	266.35	625.25	65.48	43.83	1.72	2.57	0.79	9.91	[illegible]	33.34	21.32	9.36	9.60	24.49	-1.57			
7:00	18.36	266.35	625.45	64.69	44.23	1.76	2.62	0.80	9.26	[illegible]	33.71	21.64	8.78	9.28	Good Data Fo	Good Data Fo		Nebraska Gas	0

Comments: Called APCD for CEMS O2 drift on 1/12/13 @ 1:30 PM. Technicians called in to troubleshoot. Can't find the potential air leak into sample line. OEM on schedule for Monday.

PRINT TIME: 1/13/201311:23 AM

NOTE: This document is valid for only ONE week after print time


Plot-0
25 65 3 3.4 90 25
20
15
10
5
-15 15 2.1 3 10 0
1/12/2013 7:00:09 AM
24.00 hours
1/13/2013 7:00:09 AM
RS_NOX PPM
Calc Failed
PPM
931FIC1173_MV
Bad
lb/hr
921-2015.WQ
Bad
lb/s
921-2015.FQG
Bad
lb/s
931AIC1111C.CO
Bad
PPM
RS_931AIC1111B.O2
Bad
%


COGEN
2013-01-14 08:38
3601 (HM) MEDIUM
931LIC1221
SFNR BRINE TANK LVL
MV > H1
08:39:01
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 07:04 2013-01-12 66.81 71.69 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 07:04 2013-01-12 17.22 9.03 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 07:04 2013-01-12 17.14 18.71 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 07:04 2013-01-12 6.73 3.73 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 07:04 2013-01-12 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 07:04 2013-01-12 1 1
< >
<< >>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

Hueneme Paper Mill

SAFETY IS ALWAYS NO. 1

DATE: 1-12-13

[...]ICAL PUMPS	Level	Feed Rate ml/min
Steamate 39 ml/min		
Cortrol 53 ml/min		
Polymer 68 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H2O	CONCENTRATE H2O	LP	HP	SCG LP	TURBINE
CURRENT	0101 8983	39899158	5696 1869	203002	2061	1186220	0578940
PREVIOUS	00959649	39797145	56813284	210035	1887	1169 5520	0205370

GAS & ELECTRIC READING

MAXON	BURNER	NEBRASKA	MEGAWATTS
689018	438981		18832
6086390	229 946		2915

NEW DEMIN TRAILER YES (NO) TIME:

AMMONIA DELIVERY YES (NO) % FULL: 60%

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	54.1	60.2	77.1	52.9	53.3	73.6	527	53.1	528	51.1	513	515
Inlet Temp	°F	46	52	59	59	57	54	50	47	45	47	45	43
Humidity	%	26.2	19.2	8.3	10.4	13.4	24.5	26	29	34	26	25	24
Vibration (Max)	MILS	18	19	19	17	19	19	19	18	18	18	19	19
Steam Injection	#/SEC	2.62	2.75	2.88	2.69	2.62	2.69	2.69	2.62	2.67	2.56	2.56	2.56
Turbine L.O. Level	%	90	90	90	90	90	90	90	90	90	90	90	98
T48	°F	1412	1937	1957	1445	1934	1934	1422	1410	1910	1411	1397	1396

BATTERIES 135 V; HP RECOUPE 199 FAL; AIR INLET DIFF 3.6 IN/H2O; HP RECOUPE 199 FAR; L.O. DIFFERENTIAL 5 PSI; HP RECOUPE 50 AFT

BATTERIES V; HP RECOUPE FAL; AIR INLET DIFF IN/H2O; HP RECOUPE FAR; L.O. DIFFERENTIAL PSI; HP RECOUPE AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	154	156	159	160	161	159	158	156	156	154	154	154
L.O. Supply	°F	127	129	131	132	133	133	133	132	132	130	130	130
Gen. Vibration (Max)	IPS	38	41	41	43	42	42	42	41	.41	41	.40	.40
Tie Line	MW	13.5	13.3	13.4	12.9	13	13	12.91	13.09	13.02	13.03	13.10	12.97

GEN. 1,200 AMPS; GEN.VARS MEGA VARS; FIELD 265 AMPS; FIELD VOLTS 155 V; COOLING TWR INLET 78 °F; COOLING TWR INLET 74 °F

GEN. AMPS; GEN.VARS 5.8 MEGA VARS; FIELD AMPS; FIELD VOLTS V; COOLING TWR INLET °F; COOLING TWR INLET °F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	715	710	710	710	710	710	711	710	710	704	709	709
HP Drum Level	IN	.2	7	9	1.8	1	.5	1.1	1.1	1.1	1.2	1.0	.09
LP Drum Level	IN	1	1.4	1	1.4	.8	1.1	1.2	1.1	1.1	.09	0.8	0.9
HP Drum Pressure	PSI	481	459	459	481	481	489	486	489	489	489	487	487
LP Drum Pressure	PSI	150	150	150	144	151	151	151	151	151	150	151	151
CO	PPM	20.7	20.3	21.6	23.6	24.2	48.6	538	338	334	24.8	331	337
NOX	PPM	9.9	10.9	9.1	9.1	9.1	10.2	10.8	9.9	9.8	10.8	10.0	9.3
O2	%	16.8	17.2	17.7	17.7	17.3	19.7	9.74	19.34	19.36	19.27	19.34	19.34
Hot Well Level	%	156	152	154	118	163	147	161	143	143	158	141	161

1150 SET POINT 449; 1103 B SET POINT 444; SCANNER BLOWER (ON) 60; DUCT BURNER 442 SP

1150 SET POINT; 1103 B SET POINT; SCANNER BLOWER ON Y/N; DUCT BURNER S.P.

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	225	227	231	231	231	229	229	229	231	233	233	233
Gas Receiver	PSI	420	421	425	425	425	425	423	427	425	425	425	425

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO; CODUCTIVITY MHOS; BOILER FEED WATER PUMP OPERATION NO. 1 YES NO; NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75- 9.5	8.45	8.63
Conductivity <5mmhos	7.67	7.55
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		575
Permeate TDS<10 ppm		4.11
ph (Feed 7.5)	7.2	
CONDENSATE		
HP-pH 8.5 -9.5	8.71	8.75
Conductivity<20mmhos	8.47	8.67
LP-pH 8.5-9.5	8.92	8.68
Conductivity<20mmhos	15.39	17.91
HP		
pH 9.5 - 10.5	9.27	9.51
Conductivity 75-150	101	112
Phosphate 5-15 ppm	13.54	12.73
Silica < 5 ppm	.33	
Iron ppm		
LP		
pH 9.5 - 10.5	9.85	8.91
Conductivity 75 - 150	123	122
Phosphate 5-15 ppm	13.51	15.11
Silica <5 ppm	34	
Iron ppm		
MIXED BED		
pH 6.0 - 7.5	8.17	8.29
Conductivity< 1mmhos	65	7
Silica <10 ppb	7	
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 - 10.5		
Conductivity 75 - 200		
Silica		
Phosphate 5-25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES: CO Alarmed By Sacquin Tolerance.

OFFICIAL DAILY COGENERATION LOG

NIGHT SHIFT OPERATOR NAME:

DRY SHIFT OPERATOR NAME: Ro13

ACADE 000-3011 - REV I   WDX 10210

DAILY ENVIRONMENTAL REPORT

End Time: 1/14/2013 7:00 — Start Time: 1/13/2013 7:00

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	Good Data For	No Good Data For Ca	625.91	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	9.07	Good Data Fo	Good Data Fo	
9:00	Good Data For	No Good Data For Ca	626.44	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	8.78	Good Data Fo	Good Data Fo	
10:00	Good Data For	No Good Data For Ca	627.07	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	#DIV/0!	Good Data Fo	Good Data Fo	
11:00	Good Data For	No Good Data For Ca	627.25	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	#DIV/0!	Good Data Fo	Good Data Fo	
12:00	Good Data For	No Good Data For Ca	624.82	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	#DIV/0!	24.46	-2.66	
13:00	Good Data For	No Good Data For Ca	622.22	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	#DIV/0!	24.45	-2.65	
14:00	18.68	248.19	623.53	66.33	44.22	1.93	2.38	0.79	7.47	15.38	27.93	16.61	7.72	7.72	24.43	-2.49	
15:00	9.79	268.89	626.16	74.59	45.30	1.81	2.67	0.82	10.41	16.10	25.36	15.67	10.12	8.92	24.34	-2.71	
16:00	14.39	268.54	626.46	54.88	46.02	3.59	2.70	0.83	9.45	16.14	21.52	16.93	9.04	8.96	24.32	-2.18	
17:00	12.54	270.13	629.19	76.41	46.67	1.58	2.72	0.83	10.42	16.53	29.72	18.76	9.94	9.70	24.34	-1.98	
18:00	12.08	269.38	628.11	74.67	42.65	1.49	2.72	0.83	10.30	16.61	25.42	16.18	9.89	9.83	24.34	-1.69	
19:00	11.94	267.56	627.08	74.22	41.14	1.43	2.72	0.83	10.32	16.51	24.17	15.13	9.96	9.93	24.39	-1.73	
20:00	11.06	266.52	622.61	69.65	37.42	1.42	2.69	0.82	10.18	16.62	26.76	17.01	9.91	9.92	24.43	-1.32	
21:00	12.05	266.86	622.87	68.94	38.49	1.39	2.70	0.82	10.30	16.53	26.54	16.86	9.98	9.95	24.49	-1.33	
22:00	14.58	266.71	624.22	70.24	37.20	1.39	2.71	0.82	10.50	16.41	25.81	16.34	10.09	9.99	24.57	-1.52	
23:00	16.39	266.86	628.68	72.10	38.91	1.40	2.70	0.82	10.48	16.30	24.53	15.57	9.99	10.02	24.67	-1.93	
0:00	24.48	268.93	637.85	73.63	38.92	1.33	2.72	0.83	10.84	15.92	22.27	14.66	10.01	10.03	24.76	-1.82	
1:00	24.76	267.55	639.19	73.66	39.91	1.35	2.68	0.82	10.90	15.84	23.19	15.48	10.05	10.02	24.84	-1.84	
2:00	28.88	267.59	641.14	73.33	40.09	1.37	2.71	0.83	10.99	15.74	22.13	14.88	9.97	10.01	24.88	-1.72	
3:00	28.69	266.63	642.19	73.02	39.92	1.36	2.68	0.82	10.90	15.87	22.66	14.69	9.93	9.98	24.92	-1.24	
4:00	27.91	266.35	640.22	72.80	39.99	1.35	2.69	0.82	11.00	15.92	23.21	15.59	10.02	9.97	24.88	-0.97	
5:00	Good Data For	No Good Data For Ca	642.66	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	9.97	24.84	-0.93	
6:00	Good Data For	No Good Data For Ca	642.24	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	10.02	24.95	-0.93	
7:00	Good Data For	No Good Data For Ca	642.22	ood Data Fo	No Good Data For Calc	Good Data For	ood Data	Good Data Fo	Good Data Fo	Good Data Fo	ood Data	Good Data Fo	Good Data Fo	#DIV/0!	25.02	-2.01	

Comments :

PI data integrity loss on 1/13/13 from 5:35 AM - 1:18 PM, a totalof 7.72 hrs. APCD notified on 1/13/13 at about 2:30 PM.

PI data integrity loss on 1/14/13 from 3:30 AM - 7:00 AM, total of 3.5 hrs. APCD notified on 1/14/13 at 9:08 AM.

O2 still above normal limits - OEM ongoing.

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
10.30	10.99

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
16.02	16.02

Stack NOx analyzer	
zero value	-0.22
zero drift %	-0.22
span value	84.06
span drift %	0.27

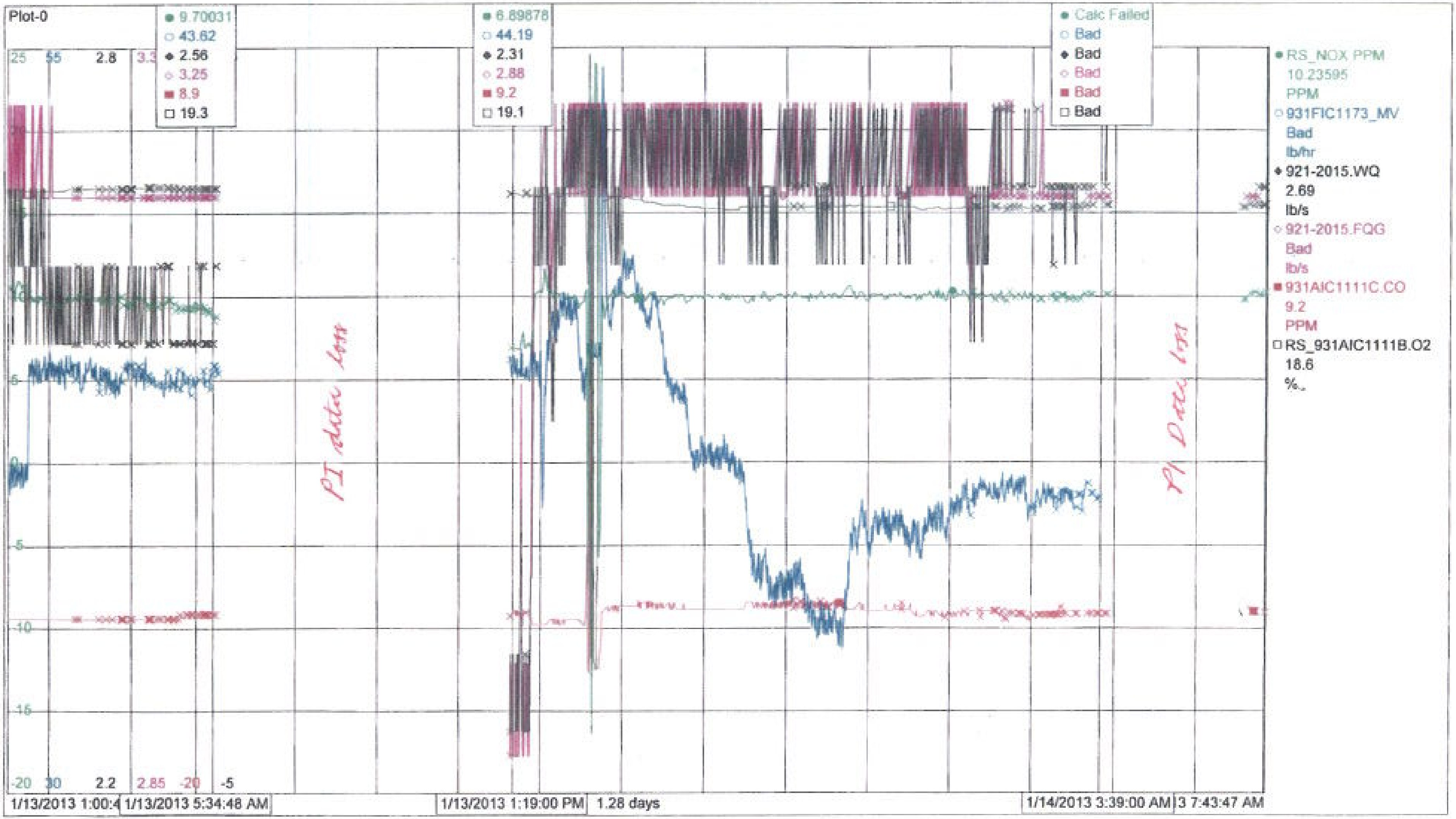
Stack CO Analyzer	
zero value	-0.66
zero drift %	-0.66
span value	90.09
span drift %	0.38

Stack O2 Analyzer	
zero value	21.13
zero drift%	0.98
span value	-0.03
span drift %	-0.13

Nebraska Gas	0

PRINT TIME: 1/14/20139:57 AM

NOTE: This document is valid for only ONE week after print time



Plot-0
9.70031
43.62
2.56
3.25
8.9
19.3
6.89878
44.19
2.31
2.88
9.2
19.1
Calc Failed
Bad
Bad
Bad
Bad
Bad
25
55
2.8
-20
30
2.2
2.85
-20
-5
5
0
-5
-10
-15
PI data loss
PI Data loss
RS_NOX PPM
10.23595
PPM
931FIC1173_MV
Bad
lb/hr
921-2015.WQ
2.69
lb/s
921-2015.FQG
Bad
lb/s
931AIC1111C.CO
9.2
PPM
RS_931AIC1111B.O2
18.6
%
1/13/2013 1:00:4
1/13/2013 5:34:48 AM
1/13/2013 1:19:00 PM
1.28 days
1/14/2013 3:39:00 AM
3 7:43:47 AM


COGEN
2013-01-14 08:39
931LIC1221
SFNR BRINE TANK LVL
MV > H2
08:40:22
3601 (HM) MEDIUM
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 07:04 2013-01-13 65.69 71.80 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 07:04 2013-01-13 8.94 8.92 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 07:04 2013-01-13 19.40 18.70 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 07:04 2013-01-13 2.43 3.78 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 07:04 2013-01-13 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 07:04 2013-01-13 0 1
< > << >>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

Hueneme Paper Mill

OFFICIAL DAILY COGENERATION LOG

DATE: 1-13-13

NIGHT SHIFT OPERATOR NAME: RoB

DRY SHIFT OPERATOR NAME: mH

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H_2O	CONCENTRATE H_2O		HP	SCG LP
CURRENT	01078531	40003083	56908274	206..54	2053	1208010
PREVIOUS	01018983	39898158	56861869	203002	2061	1186220

GAS & ELECTRIC READING

	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	09338.5C	689199	448777		1945.9
PREVIOUS	0574940	688018	438981		1883.5

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES (NO) % FULL: 64-40

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	52.4	52.6	52.5	52.3	52.5	57.4	54.5			53.6	52.7	52
Inlet Temp	°F	45	50	56	57	57	56	48			49	48	48
Humidity	%	20.3	19.3	8.3	14.3	14.3	17.5	35.6			8.7	10.9	10.9
Vibration (Max)	MILS	.19	.18	.20	.19	.19	.15	.19			.18	.19	.19
Steam Injection	#/SEC	2.63	2.65	2.65	2.73	2.74	2.77	2.75			2.75	2.64	2.67
Turbine L.O. Level	%	83	83	83	83	83	83	85			85	85	85
T48	°F	1403	1420	1434	1440	1440	1435	1421			1422	1411	1411

Day: BATTERIES .35 V; AIR INLET DIFF 3.6 IN/H20; L.O. DIFFERENTIAL 4.5 PSI; HP RECOUPE 157 FAL; HP RECOUPE 154 FAR; HP RECOUPE 54 AFT

Night: BATTERIES 135 V; AIR INLET DIFF 3.4 IN/H20; L.O. DIFFERENTIAL 5 PSI; HP RECOUPE 153 FAL; HP RECOUPE 157 FAR; HP RECOUPE 55 AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	153	154	157	157	157	157	157			155	156	154
L.O. Supply	°F	128	129	133	133	133	133	132			131	130	129
Gen. Vibration (Max)	IPS	.39	.41	.44	.44	.44	.42	.41			41	40	40
Tie Line	MW	13.01	12.96	13.01	13.11	13.04	13.08	13.08			12.9	13	12.9

Day: GEN. 1175 AMPS; GEN.VARS 5.88 MEGA VARS; FIELD 202 AMPS; FIELD VOLTS 181 V; COOLING TWR INLET 78 F; COOLING TWR INLET 73 F

Night: GEN. 1,200 AMPS; GEN.VARS 5.7 MEGA VARS; FIELD 205 AMPS; FIELD VOLTS 185 V; COOLING TWR INLET 81 F; COOLING TWR INLET 76 F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	710	709	710	710	709	710	710			712	710	710
HP Drum Level	IN	/	/	1.2	0.5	1.1	0.7	1.1			.9	1.1	/
LP Drum Level	IN	0.7	/	0.9	0.9	1.1	1.1	.9			-.3	/	/
HP Drum Pressure	PSI	482	482	482	488	488	488	481			481	489	489
LP Drum Pressure	PSI	151	151	151	150	150	150	150			146	150	150
CO	PPM	32.4	28.6	24.1	32.1	32.1	25.5	25.1			21.1	25.5	25.5
NOX	PPM	9.9	11.4	12.0	10.4	10.2	10.0	10			10.1	10.2	10.2
O2	%	19.27	19.21	19.09	18.85	18.55	18.65	18.5			18.5	18.6	18.6
Hot Well Level	%	163	157	150	154	143	136	141			139	138	139

Handwritten across 21:00 and 23:00 columns: Belt / Belt

Day: 1150 SET POINT 449; SCANNER BLOWER (ON (Y)/N; 1103 B SET POINT 444; DUCT BURNER 442 SP

Night: 1150 SET POINT; SCANNER BLOWER ON Y/N; 1103 B SET POINT; DUCT BURNER S.P.

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	227	232	229	235	237	231	229			233	225	225
Gas Receiver	PSI	426	425	425	435	425	425	426			425	425	425

Handwritten across 21:00 and 23:00 columns: Turb to Turbs / Turb to Turbs

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO | CODUCTIVITY MHOS | BOILER FEED WATER PUMP OPERATION NO. 1 YES NO NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75- 9.5		8.64
Conductivity <5mmhos		7.56
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		7.5
CONDENSATE		
HP-pH 8.5 -9.5		8.74
Conductivity<20mmhos		8.69
LP-pH 8.5-9.5		8.64
Conductivity<20mmhos		12.83
HP		
pH 9.5 - 10.5		9.49
Conductivity 75-150		137
Phosphate 5-15 ppm		18.49
Silica < 5 ppm		
Iron ppm		
LP		
pH 9.5 - 10.5		8.89
Conductivity 75 - 150		110
Phosphate 5-15 ppm		15.10
Silica <5 ppm		
Iron ppm		
MIXED BED		
pH 6.0 - 7.5		8.31
Conductivity< 1mmhos		.7
Silica <10 ppb		.9
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 - 10.5		
Conductivity 75 - 200		
Silica		
Phosphate 5-25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

Day shift (handwritten across column): Removed clamp track off of belt

NOTES:

SAFETY IS ALWAYS NO. 1

ACAD# 000-3011 - REV1 WOX 1020

DAILY ENVIRONMENTAL REPORT

End Time: 1/15/2013 7:00 — Start Time: 1/14/2013 7:00

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	28.57	266.35	642.22	71.71	No Good Data For Ca	Good Data For	2.69	0.82	11.13	14.94	24.12	16.21	10.12	10.12	25.01	3.01	
9:00	28.72	No Good Data For Ca	642.22	ood Data F	41.44	Good Data For	ood Data I	Good Data Fo	Good Data Fo	14.94	24.52	ood Data F	Good Data Fo	10.12	24.95	3.19	
10:00	28.72	No Good Data For Ca	No Good Data For C	ood Data F	41.44	Good Data For	ood Data I	Good Data Fo	Good Data Fo	14.94	24.52	ood Data F	Good Data Fo	10.12	Good Data Fo	Good Data For	
11:00	28.72	No Good Data For Ca	No Good Data For C	ood Data F	41.44	Good Data For	ood Data I	Good Data Fo	Good Data Fo	14.94	24.52	ood Data F	Good Data Fo	#DIV/0!	Good Data Fo	Good Data For	
12:00	28.72	No Good Data For Ca	No Good Data For C	ood Data F	41.44	Good Data For	ood Data I	Good Data Fo	Good Data Fo	14.94	24.52	ood Data F	Good Data Fo	#DIV/0!	Good Data Fo	Good Data For	
13:00	28.25	266.35	645.99	79.31	42.81	1.39	2.70	0.82	-3.34	14.94	117.73	105.12	-2.54	-2.54	24.61	0.78	
14:00	25.27	267.71	644.42	65.63	44.07	2.89	2.72	0.83	6.15	14.94	-117.16	-98.36	5.64	1.55	24.59	0.97	
15:00	18.85	267.03	637.83	52.69	45.35	5.48	2.72	0.83	12.27	14.94	7.35	7.89	12.23	5.11	24.48	-0.05	
16:00	18.23	267.91	635.19	68.06	38.70	4.45	2.72	0.83	12.44	15.35	18.32	11.41	11.31	9.73	24.41	-1.85	
17:00	18.96	269.24	634.75	71.51	36.47	1.28	2.72	0.83	10.50	14.96	21.88	13.90	9.86	11.13	24.41	-1.67	
18:00	22.64	271.13	638.58	69.76	36.48	1.29	2.73	0.83	10.53	14.88	21.24	13.90	9.71	10.29	24.43	-1.16	
19:00	22.02	267.90	636.80	68.85	37.44	1.37	2.72	0.83	11.17	14.92	22.00	14.45	10.38	9.98	24.42	-0.92	
20:00	20.92	273.49	636.77	71.06	38.09	1.34	2.82	0.84	11.00	14.95	22.29	14.77	10.09	10.06	24.45	-1.95	
21:00	21.28	275.60	636.83	70.82	40.05	1.38	2.85	0.85	10.72	14.93	22.42	15.07	9.76	10.07	24.48	-2.08	
22:00	18.01	275.40	634.14	70.88	37.85	1.32	2.84	0.85	11.12	14.99	23.01	15.20	10.24	10.03	24.53	-2.13	
23:00	19.64	274.68	634.21	70.67	43.35	1.52	2.83	0.84	10.86	15.01	22.69	14.94	9.96	9.98	24.58	-1.20	
0:00	21.38	274.04	636.43	70.84	39.19	1.38	2.83	0.84	10.86	14.99	22.41	14.98	9.94	10.05	24.65	-0.13	
1:00	20.02	273.86	636.85	71.42	40.25	1.39	2.83	0.84	10.92	14.97	22.13	14.56	10.04	9.98	24.72	0.07	
2:00	22.45	272.15	636.81	69.84	41.03	1.44	2.81	0.84	10.95	14.96	22.67	14.97	10.04	10.00	24.65	0.00	
3:00	21.78	272.14	635.69	69.22	42.02	1.51	2.79	0.84	10.85	14.99	23.29	15.48	9.98	10.02	24.58	-0.66	
4:00	22.09	271.14	635.40	68.84	40.96	1.48	2.76	0.83	10.79	14.98	23.36	15.36	9.94	9.98	24.55	-0.86	
5:00	22.93	271.47	636.64	68.37	39.85	1.45	2.78	0.84	10.91	14.97	23.44	15.48	10.00	9.97	24.49	-2.10	
6:00	24.62	271.97	637.69	67.81	39.05	1.42	2.79	0.84	10.95	14.95	23.44	15.52	9.98	9.97	24.49	-1.91	
7:00	23.94	272.85	638.62	68.19	39.73	1.44	2.80	0.84	11.04	14.96	23.43	15.67	10.04	10.01	24.49	-1.71	

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
10.98	10.98

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
14.73	14.73

Stack NOx analyzer	
zero value	0.03
zero drift %	0.03
span value	84.47
span drift %	0.75

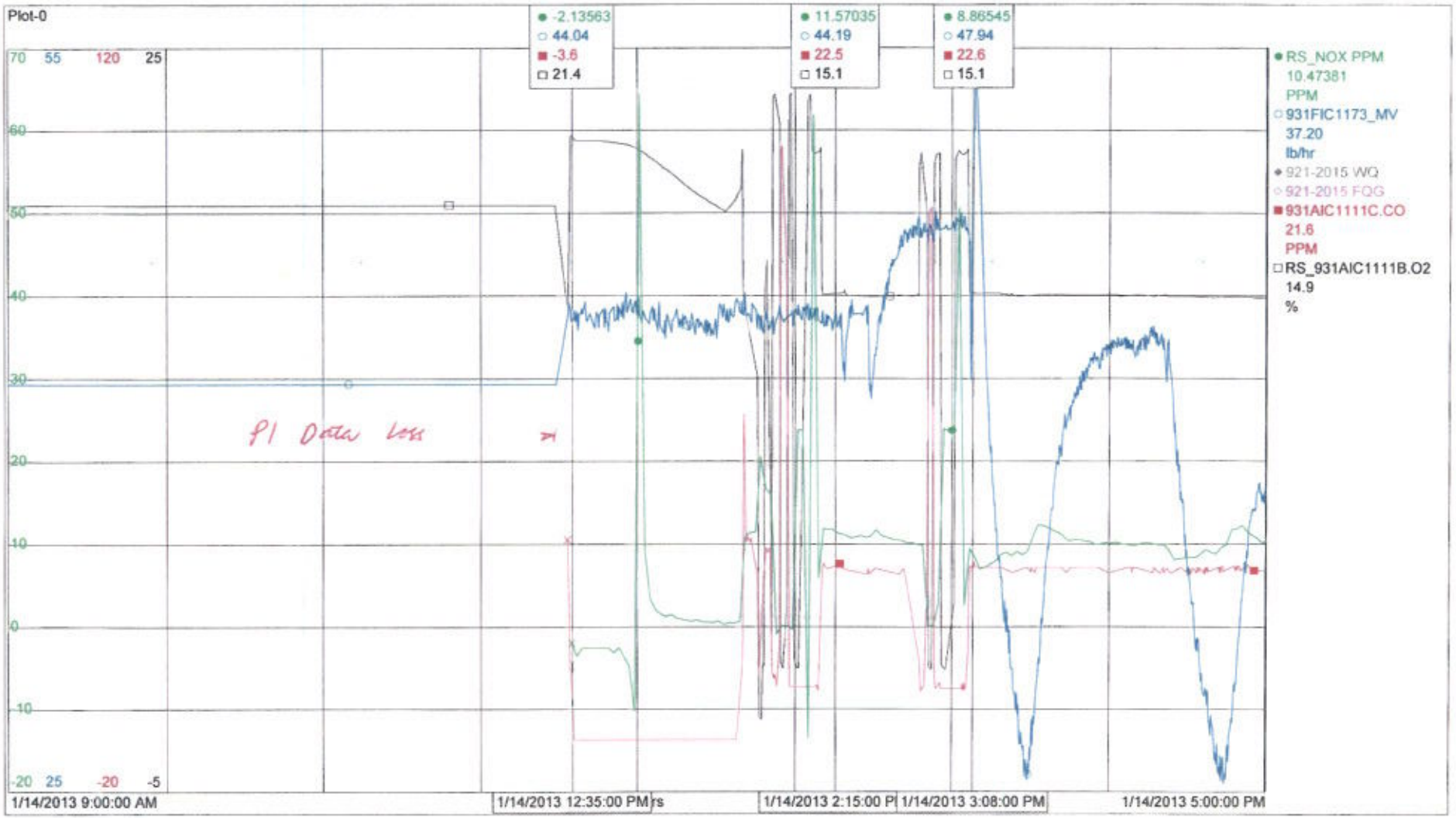
Stack CO Analyzer	
zero value	-1.06
zero drift %	-1.06
span value	90.06
span drift %	0.35

Stack O2 Analyzer	
zero value	20.95
zero drift%	0.16
span value	-0.05
span drift %	-0.22

Nebraska Gas	0

Comments: PI data integrity loss on 1/14/13 from 7:00 AM - 12:35 PM, total of 5.58 hrs. Network connection loss due to failure of multiple tap points @ process network.
CEMS Troubleshooting: found air leak due to broken fitting at the bottom of sample chiller. Manual cal completed at 3:08 PM. CEMS downtime from 7:00 AM - 3:08 PM, total of 8.13 hrs.

PRINT TIME: 1/15/201310:21 AM
NOTE: This document is valid for only ONE week after print time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21.4
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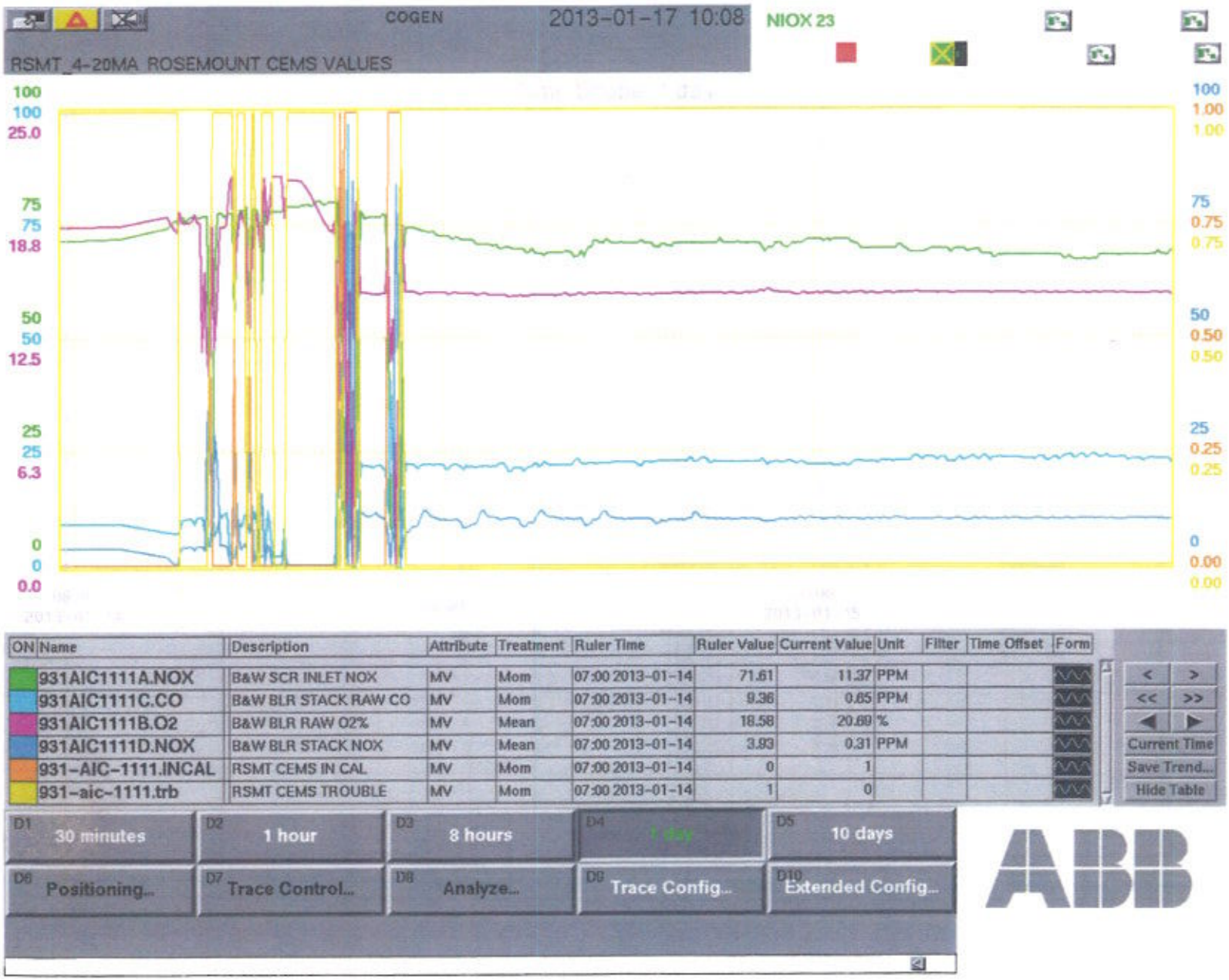
15.1
8.86545
47.94
22.6
15.1
70 55 120 25
60
50
40
30
20
10
0
-10
-20 25 -20 -5
PI Data Loss
RS_NOX PPM
10.47381
PPM
931FIC1173_MV
37.20
lb/hr
921-2015 WQ
921-2015 FQG
931AIC1111C.CO
21.6
PPM
RS_931AIC1111B.O2
14.9
%
1/14/2013 9:00:00 AM
1/14/2013 12:35:00 PM
1/14/2013 2:15:00 PM
1/14/2013 3:08:00 PM
1/14/2013 5:00:00 PM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2013-01-17 10:08
NIOX 23
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75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 07:00 2013-01-14 71.61 11.37 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 07:00 2013-01-14 9.36 0.65 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 07:00 2013-01-14 18.58 20.69 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 07:00 2013-01-14 3.93 0.31 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 07:00 2013-01-14 0 1
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 07:00 2013-01-14 1 0
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

SAFETY IS ALWAYS NO. 1

DATE: 1-14-13

	STEAM & WATER READINGS							GAS & ELECTRIC READING			
	NEBRASKA	PERMEATE H2O	CONCENTRATE H2O		HP	SCG LP	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	01142586	40111760	56959901	20..14	2191	1235920	1303280	690468	551843	/	20?100
PREVIOUS	01078531	4000 3083	56908274	2005.54	2053	1208C10	C933850	689199	449777		19459

EMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Control 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

NEW DEMIN TRAILER YES NO TIME:
AMMONIA DELIVERY YES (NO) % FULL: 55-30
NEBRASKA ONLINE TIME FROM: TO:
NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	52.3	TRAINING		52.6	51.9	52.8	55.7	60	56.4	58.1	59.7	56.1
Inlet Temp	°F	49			59	58	55	52	52	52	52	49	48
Humidity	%	8.9			1.1	7.4	21.4	11.2	7.2	7.2	7.2	8.2	10.2
Vibration (Max)	MILS	.19			.19	.19	.19	19	19	19	19	18	19
Steam Injection	#/SEC	2.70			2.74	2.70	2.75	2.75	2.81	2.81	2.81	2.81	2.75
Turbine L.O. Level	%	80			80	80	80	80	80	80	80	80	80
T48	°F	1411			1441	1438	1934	1425	1454	1930	1451	1427	1419

Day: BATTERIES 135 V; AIR INLET DIFF 3.7 IN/H2O; L.O. DIFFERENTIAL 4.2 PSI; HP RECOUPE 154 FAL; HP RECOUPE 154 FAR; HP RECOUPE 54 AFT
Night: BATTERIES 135 V; AIR INLET DIFF 3.8 IN/H2O; L.O. DIFFERENTIAL 4.5 PSI; HP RECOUPE 155 FAL; HP RECOUPE 156 FAR; HP RECOUPE 56 AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	153			154	155	158	158	158	157	157	157	155
L.O. Supply	°F	129			130	130	134	134	134	133	133	133	131
Gen. Vibration (Max)	IPS	.39			.45	.43	.41	42	41	42	42	42	40
Tie Line	MW	13.03			13.00	13.08	13.04	12.9	13.4	13.5	13.5	13.4	13.4

Day: GEN. 1190 AMPS; FIELD 207 AMPS; COOLING TWR INLET 78 F; GEN.VARS 6.16 MEGA VARS; FIELD VOLTS 187 V; COOLING TWR INLET 73 F
Night: GEN. 1,200 AMPS; FIELD 205 AMPS; COOLING TWR INLET 85 F; GEN.VARS MEGA VARS; FIELD VOLTS 190 V; COOLING TWR INLET 80 F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	710	CO-GEN		711	710	710	710	709	709	709	710	710
HP Drum Level	IN	1			1.1	0.9	1.1	1.2	1.1	1	1	1	1.1
LP Drum Level	IN	1			0.9	1.1	0.5	1	.9	1	1	1	1.1
HP Drum Pressure	PSI	489			489	489	489	489	489	489	489	489	489
LP Drum Pressure	PSI	150			150	150	150	150	150	150	150	150	150
CO	PPM	24.5			CAL	22.6	22.2	22.4	23	22.1	22.1	23.5	23.4
NOX	PPM	10.4				7.5	9.8	9.8	10	10	10	10	9.9
O2	%	18.65			↓	15.09	14.92	14.9	15	14.9	15	14.9	14.9
Hot Well Level	%	129			141	141	138	148	143	141	152	163	154

Day: 1150 SET POINT 449; SCANNER BLOWER (ON Y/N); 1103 B SET POINT 444; DUCT BURNER 442 SP
Night: 1150 SET POINT 449; SCANNER BLOWER ON Y/N; 1103 B SET POINT 444; DUCT BURNER S.P. 442

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	221			229	231	231	227	227	231	231	233	239
Gas Receiver	PSI	425			425	424	425	424	425	425	425	424	424

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity MHOS													

ON LINE TURBINE WATER WASH YES NO COODUCTIVITY MHOS
BOILER FEED WATER PUMP OPERATION NO. 1 YES NO (NO. 2) (YES) NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75- 9.5		
Conductivity <5mmhos		
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		
CONDENSATE		
HP-pH 8.5 -9.5		
Conductivity<20mmhos		
LP-pH 8.5-9.5		
Conductivity<20mmhos		
HP		
pH 9.5 - 10.5	9.05 (CW)	
Conductivity 75-150	c/6/u	
Phosphate 5-15 ppm		
Silica < 5 ppm		
Iron ppm		
LP		
pH 9.5 - 10.5	8.8 (CW)	
Conductivity 75 - 150		
Phosphate 5-15 ppm		
Silica <5 ppm		
Iron ppm		
MIXED BED		
pH 6.0 - 7.5		
Conductivity< 1mmhos		
Silica <10 ppb		
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 - 10.5		
Conductivity 75 - 200		
Silica		
Phosphate 5-25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

Day shift (written across column): CO-GEN-TRAINING
Night shift (written across column): Forklift Clamp / C-M-U / Turn table Belt

NOTES:
o Emul [illegible] for [illegible] on [illegible] (40 CS)
New Demin trailer
Permeate: 40040040
concentrate: 56925033
Meter: 21922 (Rob)

NIGHT SHIFT OPERATOR NAME: Rob
DRY SHIFT OPERATOR NAME: MH

OFFICIAL DAILY COGENERATION LOG

Hueneme Mill Environmental Incident Report

Shaded section to be completed by the EMR

Name of Incident Stack CEM's Analyzer O2 Drift		Incident 1/12/13
Exact Location Incident Cogen		
Reported By Rudy Rehbein	Estimated Start and Stop Times of Incident: 1/11/13 approx 10:00 PM – 1/14/13 approx 3:00 PM	Possible Cause: Cracked fitting in sample handling chiller

Incident Type: ☐ Spill Internal ☐ Improper Waste Disposal ☐ Spill External ☐ Near miss or below spill release guidelines X Air Emission ☐ Other_____	Released To ☐ Storm Water System ☐ Secondary Containment ☐ Process Sewer X Air ☐ Ground (External) ☐ Ground (Inside Mill Property) ☐ Near Miss ☐ Other_____

Detailed Description of Event

On Saturday 1/12/13 after the 10:30 AM calibration, the call team member observed the following: (1) increasing drift on stack O2; and (2) low raw stack NOx. Technicians were called in to troubleshoot and APCD was notified at about 1:30 PM. The two technicians were unable to resolve the issue. On Monday 1/14/13, CEMS specialist was called in. After extensive troubleshooting, a cracked fitting was discovered at the bottom of the sample handling chiller assembly. Fittings were replaced and manual calibration was completed at 3:08 PM.

(if required use additional paper and attach)

Estimated Amount Released	pH	CONSISTENCY (%)	Estimated Monetary Loss
☐ _____ Gallons ☐ _____ Pounds ☐ Other_____			

List Any External Emergency Clean Up Personnel Contacted N/A	List Any External Agencies Contacted *(Agency, person and time of call.) APCD @ about 1:30 PM.*
List Hueneme Personnel Contacted *(Foreman, Mill Manager, etc.)* Victor Kumpera	Any Acute or Chronic Health Risks *(refer to MSDS)N/A*

Describe Any Emergency Response Actions
Called E&I to troubleshoot

Suggestions to Prevent Reoccurrence	Estimated Completion Date
1. Order a spare chiller assembly	1. 3/15/13
2.	2
3.	3.
4.	4.

Root Cause after investigation Cracked fitting causing air leak in sample handler.	Severity Level *(level 1 and 2 must be tracked through SHIMS)* ☐ 1 ☐ 2 ☐ 3 ☐ 4
Investigated By: Lars Gustavson	Investigated Date 1/14/2013

Follow Up	By When	Completion Date	By Whom

Issued by	Reviewed by	Approved by
1/17/13	01/16/2013	01/16/13
Department Manager	Technical Superintendent	Mill Manager

Print Time: 1/16/2013 11:43:04 AM

Note: This document is valid for only ONE week after print time!

NEW INDY
CONTAINERBOARD

January 17, 2013

Lyle Olson
Ventura County Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: PI data loss due to failed transceivers

Dear Mr. Olson:

This letter is a follow up on the calls made to the VCAPCD Breakdown Center Hotline on January 13, 2013 at 2:30 PM by Rudy Rehbein and on January 14, 2013 at 9:08 AM by Robyn Lebrilla.

During emission review at about 11:00 AM on January 13, 2013, a weekend call duty member noticed emission PI data loss. IT support was contacted to resolve the issue. After resetting PI interfaces, the network connection between ABB and PI was restored. On the following day, emission review at 8:00 AM revealed another PI data loss issue. The ABB specialist found that the data loss was due to a partial failure of multiple tap points into the ABB process network. These failures did not result in ABB process network data loss but PI did not get the data in a timely manner. After replacing the two transceivers that failed, the network connection was restored. The PI data integrity loss on January 13, 2012 was from 5:35 AM – 1:18 PM and from 3:30 AM – 12:35 PM on January 14, 2013, a total of 16.8 hours. There was no excess emission based on ABB emission data.

The Daily Emission Sheets, PI trends, DCS trends, Cogen Reports and Environmental Incident Report have been provided for your review. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

rmblebrilla

Robyn Lebrilla
Environmental Engineer

End Time 1/13/2013 7:00 Start Time 1/12/2013 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3 NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)
8:00	17.05	268.74	625.95	68.98	34.93	1.33	2.63	0.80	11.11	[illegible]	25.44	16.47	10.53	10.91	24.46	-2.17	
9:00	32.97	270.46	650.35	70.79	37.55	1.34	2.68	0.81	12.06	[illegible]	20.73	14.00	10.70	10.58	24.45	-1.88	
10:00	21.98	271.97	639.86	72.30	40.38	1.39	2.76	0.83	11.49	[illegible]	20.73	13.75	10.56	10.60	24.43	-2.35	
11:00	19.10	272.85	638.16	77.91	54.18	1.76	2.78	0.83	10.26	[illegible]	21.25	13.96	9.45	10.24	24.43	-2.20	
12:00	18.24	274.90	637.58	78.00	57.53	1.85	2.80	0.83	9.77	[illegible]	21.13	13.84	9.02	9.68	24.47	-2.40	
13:00	15.85	275.72	636.47	80.18	59.46	1.85	2.72	0.81	10.00	[illegible]	21.17	13.90	9.23	9.23	24.48	-2.37	
14:00	17.12	271.13	634.15	77.18	53.92	1.78	2.69	0.81	9.71	[illegible]	21.99	14.32	9.12	9.13	24.49	-2.12	
15:00	19.22	271.47	638.46	76.99	52.77	1.73	2.72	0.82	10.03	[illegible]	21.28	13.91	9.32	9.22	24.45	-2.28	
16:00	15.70	271.14	633.05	76.50	52.85	1.76	2.67	0.81	9.82	[illegible]	22.45	14.59	9.24	9.23	24.35	-2.45	
17:00	14.46	268.86	630.66	72.44	50.41	1.79	2.64	0.81	10.07	[illegible]	29.30	18.37	9.62	9.39	24.36	-1.96	
18:00	13.34	269.62	629.01	67.99	57.08	2.09	2.65	0.81	9.01	[illegible]	48.56	30.13	8.33	9.06	24.35	-1.52	
19:00	16.31	268.74	629.66	67.61	53.39	2.03	2.66	0.81	10.46	[illegible]	50.18	32.21	10.23	9.39	24.37	-1.24	
20:00	17.99	267.39	628.99	66.38	48.05	1.87	2.65	0.81	10.47	[illegible]	45.78	30.11	9.85	9.47	24.42	-1.26	
21:00	18.37	267.17	628.57	66.29	47.93	1.86	2.66	0.81	9.49	[illegible]	35.22	22.80	8.96	9.68	24.44	-1.32	
22:00	20.97	263.96	629.28	66.33	47.77	1.85	2.53	0.79	9.04	[illegible]	32.11	20.92	8.56	9.12	24.45	-1.28	
23:00	19.73	267.20	629.80	66.30	48.00	1.84	2.64	0.81	9.10	[illegible]	30.98	20.39	8.56	8.69	24.47	-1.10	
0:00	18.93	268.04	629.55	66.56	41.27	1.58	2.66	0.81	10.44	[illegible]	30.73	20.02	9.88	9.00	24.45	-1.30	
1:00	18.57	269.28	629.55	67.27	41.01	1.58	2.66	0.81	10.97	[illegible]	29.84	18.76	10.32	9.59	24.45	-1.28	
2:00	17.93	267.53	627.77	68.44	42.45	1.58	2.63	0.81	10.93	[illegible]	29.81	19.19	10.30	10.17	24.45	-1.28	
3:00	16.47	266.35	626.42	68.47	44.18	1.67	2.59	0.80	10.22	[illegible]	30.56	19.43	9.77	10.13	24.46	-1.28	
4:00	15.71	266.35	625.24	67.90	44.00	1.67	2.59	0.80	10.18	[illegible]	31.00	19.71	9.74	9.94	24.46	-1.36	
5:00	16.93	266.35	624.89	66.86	43.94	1.69	2.59	0.80	10.13	[illegible]	32.26	20.58	9.69	9.73	24.49	-1.23	
6:00	18.93	266.35	625.25	65.48	43.83	1.72	2.57	0.79	9.91	[illegible]	33.34	21.32	9.36	9.60	24.49	-1.57	
7:00	18.36	266.35	625.45	64.69	44.23	1.76	2.62	0.80	9.26	[illegible]	33.71	21.64	8.78	9.28	Good Data Fo	Good Data Fo	

Comments : Called APCD for CEMS O2 drift on 1/12/13 @ 1:30 PM. Technicians called in to troubleshoot. Can't find the potential air leak into sample line. OEM on schedule for Monday.

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
9.97	9.97

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
21.89	21.89

Stack NOx analyzer	
zero value	0.03
zero drift %	0.03
span value	84.84
span drift %	1.20

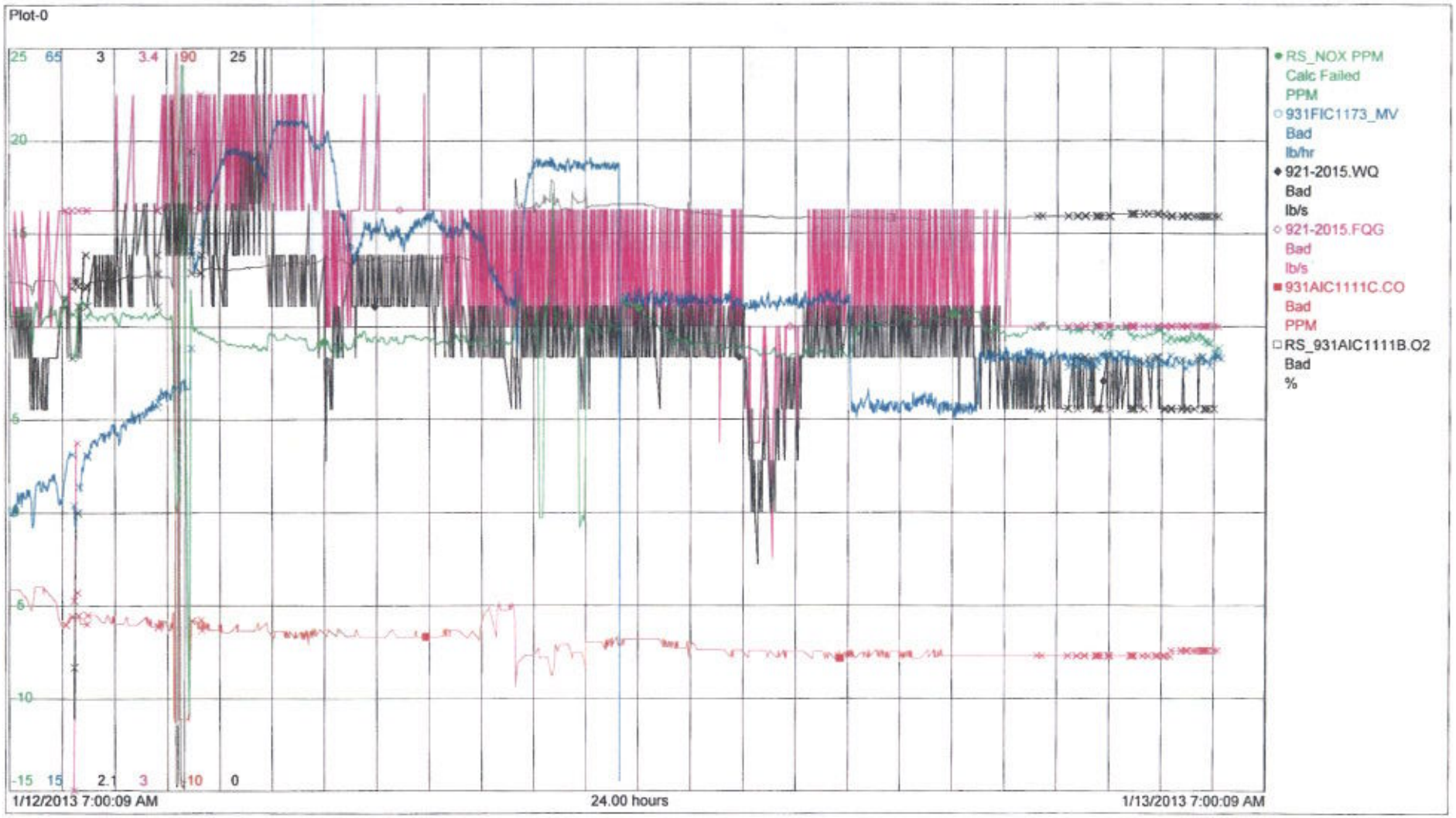
Stack CO Analyzer	
zero value	-0.72
zero drift %	-0.72
span value	89.53
span drift %	-0.24

Stack O2 Analyzer	
zero value	21.00
zero drift%	0.79
span value	0.04
span drift %	0.16

Nebraska Gas	0

PRINT TIME: 1/13/201311:23 AM

NOTE: This document is valid for only ONE week after print time


Plot-0
25 65 3 3.4 90 25
20
5
0
10
-15 15 2.1 3 10 0
1/12/2013 7:00:09 AM
24.00 hours
1/13/2013 7:00:09 AM
RS_NOX PPM
Calc Failed
PPM
931FIC1173_MV
Bad
lb/hr
921-2015.WQ
Bad
lb/s
921-2015.FQG
Bad
lb/s
931AIC1111C.CO
Bad
PPM
RS_931AIC1111B.O2
Bad
%


COGEN
2013-01-14 08:38
931LIC1221
SFNR BRINE TANK LVL
MV > H1
08:39:01
RSMT_4-20MA ROSEMOUNT CEMS VALUES
3601 (HM) MEDIUM
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
75
0.75
50
0.50
25
0.25
0
0.00
2013-01-12
2013-01-13
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 07:04 2013-01-12 66.81 71.69 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 07:04 2013-01-12 17.22 9.03 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 07:04 2013-01-12 17.14 18.71 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 07:04 2013-01-12 8.73 3.73 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 07:04 2013-01-12 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 07:04 2013-01-12 1 1
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

Hueneme Paper Mill

OFFICIAL DAILY COGENERATION LOG

SAFETY IS ALWAYS NO. 1

DATE: 1-12-13

[?]ICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H2O	CONCENTRATE H2O	LP	HP	SCG LP
CURRENT	01018983	39899158	56961869	203002	2061	1186220
PREVIOUS	00959649	39787145	56813286	210035	1887	1169552

GAS & ELECTRIC READING

	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	0578940	688018	438981		19835
PREVIOUS	0208310	6863960	229946		2915

NEW DEMIN TRAILER: YES / NO (circled NO) — TIME:

AMMONIA DELIVERY: YES / NO (circled NO) — % FULL 60%

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK: YES NO

TURBINE		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	54.1	60.2	77.1	52.9	53.3	53.6	527	53.1	528	51.1	513	515
Inlet Temp	°F	46	52	59	59	57	54	50	47	45	47	45	43
Humidity	%	26.2	19.2	8.3	10.4	13.4	245	26	29	34	26	25	24
Vibration (Max)	MILS	18	19	19	17	19	19	19	18	18	18	19	19
Steam Injection	#/SEC	2.61	2.75	2.88	2.69	2.62	2.68	2.69	262	267	2.56	2.56	2.56
Turbine L.O. Level	%	90	90	90	90	90	90	90	90	90	90	90	98
T48	°F	1412	1937	1957	1445	1934	1934	1422	1410	1910	1411	1397	1396

Day shift: BATTERIES 135 V; AIR INLET DIFF 3.6 IN/H2O; L.O. DIFFERENTIAL 5 PSI; HP RECOUPE 149 FAL; HP RECOUPE 147 FAR; HP RECOUPE 50 AFT

Night shift: BATTERIES V; AIR INLET DIFF IN/H2O; L.O. DIFFERENTIAL PSI; HP RECOUPE FAL; HP RECOUPE FAR; HP RECOUPE AFT

GENERATOR		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	154	156	159	160	161	159	158	156	156	154	154	154
L.O. Supply	°F	127	129	131	132	133	133	133	132	132	130	130	130
Gen. Vibration (Max)	IPS	38	41	41	43	42	42	42	41	.41	41	.40	.40
Tie Line	MW	13.5	13.3	13.4	12.9	13	13	12.91	13.09	13.02	13.03	13.10	12.97

Day shift: GEN. 1,200 AMPS; GEN.VARS MEGA VARS; FIELD 265 AMPS; FIELD VOLTS 155 V; COOLING TWR INLET 78 F; COOLING TWR INLET 74 F

Night shift: GEN. AMPS; GEN.VARS 5.8 MEGA VARS; FIELD AMPS; FIELD VOLTS V; COOLING TWR INLET F; COOLING TWR INLET F

COGEN BOILER		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	715	710	710	710	710	710	711	710	710	704	709	709
HP Drum Level	IN	.2	.7	.9	1.8	1	.5	1.1	1.1	1.1	1.2	1.0	09
LP Drum Level	IN	1	1.4	1	1.4	.8	1.1	1.2	1.1	1.1	0.9	0.8	0.9
HP Drum Pressure	PSI	481	489	489	481	481	489	489	489	489	489	487	487
LP Drum Pressure	PSI	150	150	150	149	151	151	151	151	151	150	151	151
CO	PPM	20.7	20.3	21.6	23.6	24.7	486	538	338	334	248	331	337
NOX	PPM	9.9	10.9	9.1	9.1	9.2	10.2	12.8	8.9	9.8	10.8	10.0	9.3
O2	%	16.8	17.2	17.7	17.9	17.3	19.7	18.74	19.34	19.34	18.27	19.34	19.34
Hot Well Level	%	156	152	154	118	163	197	161	143	143	158	141	161

Day shift: 1150 SET POINT 449; 1103 B SET POINT 444; SCANNER BLOWER (ON) ON; DUCT BURNER 442 SP

Night shift: 1150 SET POINT; 1103 B SET POINT; SCANNER BLOWER ON Y/N; DUCT BURNER S.P.

COMPRESSORS		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	225	227	231	231	231	229	229	229	231	233	233	233
Gas Receiver	PSI	420	421	425	425	425	425	425	425	425	425	425	425

NEBRASKA BOILER		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH: YES NO — CODUCTIVITY MHOS

BOILER FEED WATER PUMP OPERATION: NO. 1 YES NO — NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75– 9.5	8.45	8.63
Conductivity <5mmhos	7.67	7.55
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		575
Permeate TDS<10 ppm		4.71
ph (Feed 7.5)	7.2	
CONDENSATE		
HP-pH 8.5 -9.5	8.71	8.75
Conductivity<20mmhos	8.47	8.42
LP-pH 8.5-9.5	8.92	8.18
Conductivity<20mmhos	15.39	17.91
HP		
pH 9.5 – 10.5	9.27	9.51
Conductivity 75–150	101	112
Phosphate 5–15 ppm	13.54	15.73
Silica < 5 ppm	.33	
Iron ppm		
LP		
pH 9.5 – 10.5	8.85	8.91
Conductivity 75 – 150	123	122
Phosphate 5–15 ppm	13.51	15.11
Silica <5 ppm	3.4	
Iron ppm		
MIXED BED		
pH 6.0 – 7.5	5.17	5.29
Conductivity< 1mmhos	.65	.7
Silica <10 ppb	7	
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 – 10.5		
Conductivity 75 – 200		
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES: CO ALARMED BY SAC[?]IN TOLERANCE.

NIGHT SHIFT OPERATOR — NAME:

DRY SHIFT OPERATOR — NAME: R[?]B

ACKGE 300-3011 - REV.1 WOX 0020

DAILY ENVIRONMENTAL REPORT

End Time: 1/14/2013 7:00 — Start Time: 1/13/2013 7:00

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/h	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx ppm	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (lb/ 3% O2)
8:00	Good Data For	No Good Data For Ca	625.91	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	9.07	Good Data Fo	Good Data Fo	
9:00	Good Data For	No Good Data For Ca	628.44	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	9.78	Good Data Fo	Good Data Fo	
10:00	Good Data For	No Good Data For Ca	627.97	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	#DIV/0!	Good Data Fo	Good Data Fo	
11:00	Good Data For	No Good Data For Ca	627.25	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	#DIV/0!	Good Data Fo	Good Data Fo	
12:00	Good Data For	No Good Data For Ca	624.82	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	#DIV/0!	Good Data Fo	Good Data Fo	
13:00	Good Data For	No Good Data For Ca	622.22	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	#DIV/0!	24.45	-2.56	
14:00	18.88	248.19	623.53	68.33	44.22	1.93	2.38	0.79	7.47		27.93	16.61	7.72	7.72	24.43	-2.49	
15:00	9.79	268.89	626.16	74.58	45.30	1.81	2.67	0.82	10.41		25.36	15.67	10.12	8.92	24.34	-2.71	
16:00	14.39	268.54	628.46	54.88	46.02	3.59	2.70	0.83	9.45		21.52	16.93	9.04	8.56	24.32	-2.16	
17:00	12.54	270.13	629.19	76.41	46.67	1.58	2.72	0.83	10.42		29.72	18.76	9.94	9.70	24.34	-1.95	
18:00	12.08	269.38	628.11	74.67	42.65	1.49	2.72	0.83	10.30		25.42	16.16	9.89	9.63	24.34	-1.89	
19:00	11.94	267.56	627.08	74.22	41.14	1.43	2.72	0.83	10.32		24.17	15.13	9.95	9.93	24.59	-1.73	
20:00	11.06	268.52	622.61	69.65	37.42	1.42	2.69	0.82	10.18		26.76	17.01	9.91	9.92	24.43	-1.32	
21:00	12.05	268.86	622.87	68.94	35.49	1.39	2.70	0.82	10.30		26.54	16.86	9.98	9.96	24.49	-1.53	
22:00	14.58	268.71	624.22	70.24	37.20	1.39	2.71	0.82	10.50		25.81	16.34	10.09	9.99	24.57	-1.53	
23:00	16.39	268.86	628.68	72.10	38.91	1.40	2.70	0.82	10.48		24.53	15.57	9.99	10.02	24.67	-1.83	
0:00	24.48	268.93	637.85	73.63	38.92	1.33	2.72	0.83	10.84		22.27	14.66	10.01	10.03	24.76	-1.82	
1:00	24.76	267.55	639.19	73.66	39.91	1.35	2.68	0.82	10.90		23.19	15.48	10.05	10.02	24.84	-1.84	
2:00	28.88	267.59	641.14	73.33	40.09	1.37	2.71	0.83	10.99		22.13	14.88	9.97	10.01	24.85	-1.72	
3:00	28.69	266.83	642.19	73.02	39.92	1.36	2.68	0.82	10.90		22.66	14.69	9.93	9.98	24.92	-1.24	
4:00	27.91	266.35	640.22	72.80	39.99	1.35	2.69	0.82	11.06		23.21	15.59	10.02	9.97	24.88	-0.97	
5:00	Good Data For	No Good Data For Ca	642.66	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	9.97	24.84	-0.93	
6:00	Good Data For	No Good Data For Ca	642.24	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	10.02	24.85	-0.93	
7:00	Good Data For	No Good Data For Ca	642.22	ood Data Fo	No Good Data For Calo	Good Data For	ood Data F	Good Data Fo	Good Data Fo		ood Data F	Good Data Fo	Good Data Fo	#DIV/0!	29.02	2.01	

Comments : PI data integrity loss on 1/13/13 from 5:38 AM - 1:18 PM, a totalof 7.72 hrs. APCD notified on 1/13/13 at about 2:30 PM.
PI data integrity loss on 1/14/13 from 3:30 AM - 7:00 AM, total of 3.5 hrs. APCD notified on 1/14/13 at 9:00 AM.
O2 still above normal limits - OEM onsoing.

Daily Av Cogen	Daily Av Cogen Nebr.
NOx	NOx
lb/h	lb/h
10.30	10.30

Daily Av Cogen	Daily Av Cogen Nebr.
CO	CO
lb/h	lb/h
16.02	16.02

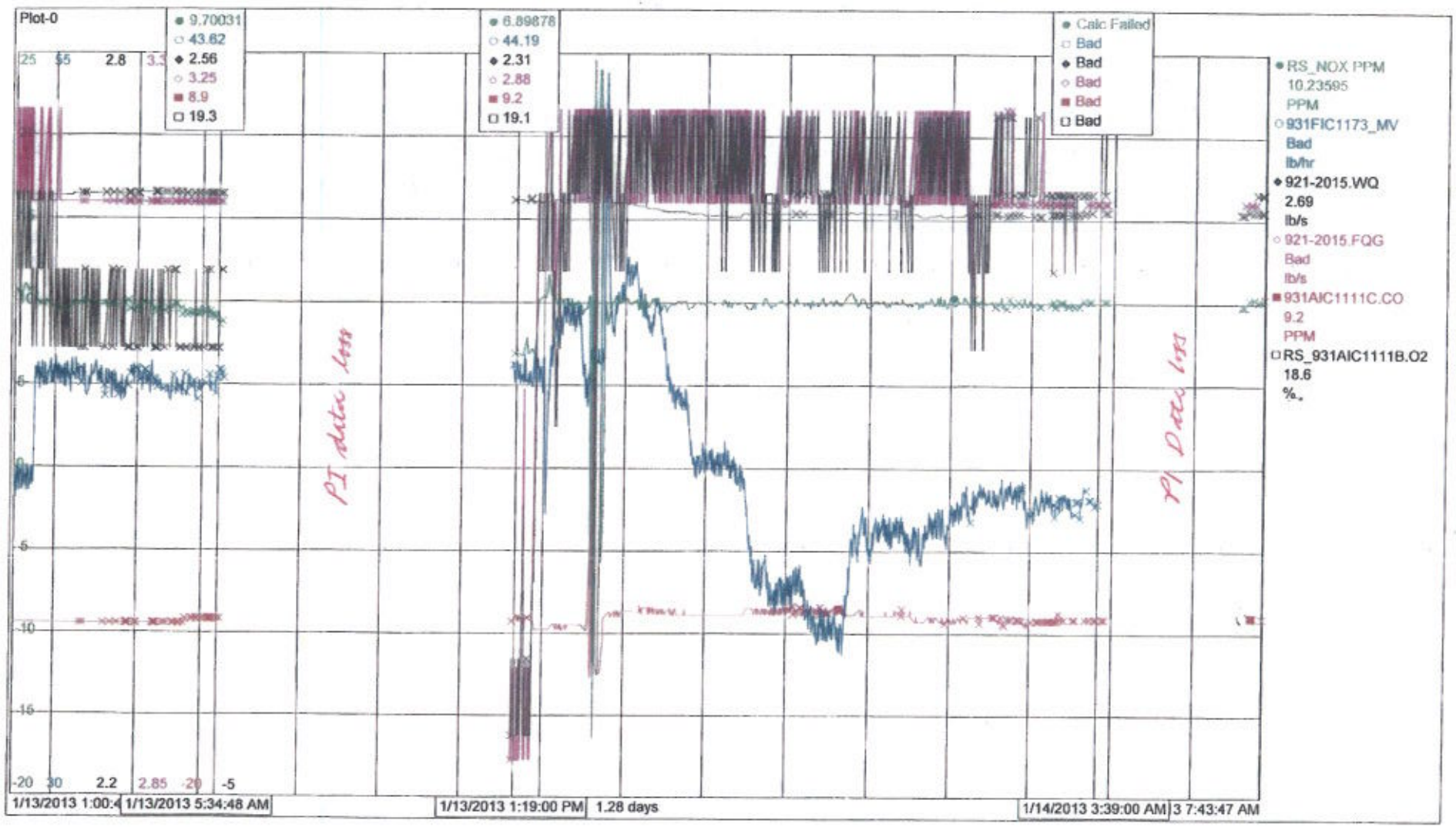
Stack NOx analyzer	
zero value	-0.22
zero drift %	-0.22
span value	84.06
span drift %	0.27

Stack CO Analyzer	
zero value	-0.66
zero drift %	-0.66
span value	90.09
span drift %	0.38

Stack O2 Analyzer	
zero value	21.13
zero drift%	0.98
span value	-0.03
span drift %	-0.13

Nebraska Gas	0

PRINT TIME: 1/14/20139:57 AM
NOTE: This document is valid for only ONE week after print time


Plot-0
9.70031
43.62
2.56
3.25
8.9
19.3
6.89878
44.19
2.31
2.88
9.2
19.1
Calc Failed
Bad
Bad
Bad
Bad
Bad
RS_NOX PPM
10.23595
PPM
931FIC1173_MV
Bad
lb/hr
921-2015.WQ
2.69
lb/s
921-2015.FQG
Bad
lb/s
931AIC1111C.CO
9.2
PPM
RS_931AIC1111B.O2
18.6
%
PI data loss
PI data loss
1/13/2013 1:00:4
1/13/2013 5:34:48 AM
1/13/2013 1:19:00 PM
1.28 days
1/14/2013 3:39:00 AM
3 7:43:47 AM


COGEN
2013-01-14 08:39
931LIC1221
SFNR BRINE TANK LVL
MV > H2
08:40:22
3601 (HM) MEDIUM
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
75
0.75
50
0.50
25
0.25
0
0.00
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 07:04 2013-01-13 65.69 71.80 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 07:04 2013-01-13 8.94 8.92 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 07:04 2013-01-13 19.40 19.70 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 07:04 2013-01-13 2.43 3.78 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 07:04 2013-01-13 0 0
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 07:04 2013-01-13 0 1
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

Hueneme Paper Mill

SAFETY IS ALWAYS NO. 1

DATE: 1-13-13

NIGHT SHIFT OPERATOR NAME: R.O.B.

DAY SHIFT OPERATOR NAME: MH

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H2O	CONCENTRATE H2O		HP	SCG LP
CURRENT	01078531	40003083	569082 74	200554	2053	1208010
PREVIOUS	01018933	39819154	56861869	203002	2061	1156220

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES (NO) % FULL: 64-40

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

GAS & ELECTRIC READING

	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	09339.50	689199	448777		1945.9
PREVIOUS	0574990	683018	439951		1583.5

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
TSR	%	52.4	52.6	52.5	52.3	52.5	57.4	54.3			53.6	52.1	52
Inlet Temp	°F	45	50	56	57	57	56	48			49	48	48
Humidity	%	20.3	14.3	8.3	14.3	14.3	17.5	35.6			8.7	10.9	10.9
Vibration (Max)	MILS	.19	.18	.20	.19	.19	.15	.19			.18	.19	.19
Steam Injection	#/SEC	2.63	2.65	2.65	2.73	2.74	2.77	2.75			2.75	2.64	2.67
Turbine L.O. Level	%	83	83	83	83	83	83	85			85	85	85
T48	°F	1403	1420	1434	1440	1440	1439	1421			1422	1411	1411

Day: BATTERIES 135 V; HP RECOUPE 154 FAL; AIR INLET DIFF 3.6 IN/H2O; HP RECOUPE 154 FAR; L.O. DIFFERENTIAL 4.5 PSI; HP RECOUPE 54 AFT

Night: BATTERIES 135 V; HP RECOUPE 153 FAL; AIR INLET DIFF 3.6 IN/H2O; HP RECOUPE 157 FAR; L.O. DIFFERENTIAL 5 PSI; HP RECOUPE 55 AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	153	154	157	157	157	157	157			155	154	154
L.O. Supply	°F	128	129	133	133	133	133	132			131	130	129
Gen. Vibration (Max)	IPS	.39	.41	.44	.44	.44	.42	41			41	40	40
Tie Line	MW	13.01	12.96	13.01	13.11	13.04	13.03	1308			12.9	13	12.9

Day: GEN. 1175 AMPS; GEN.VARS 5.98 MEGA VARS; FIELD 202 AMPS; FIELD VOLTS 181 V; COOLING TWR INLET 78 F; COOLING TWR INLET 73 F

Night: GEN. 1,200 AMPS; GEN.VARS 5.7 MEGA VARS; FIELD 205 AMPS; FIELD VOLTS 155 V; COOLING TWR INLET 71 F; COOLING TWR INLET 76 F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	710	709	710	710	709	710	710			712	710	710
HP Drum Level	IN	1	1	1.2	0.5	1.1	0.7	1.1			.9	1.1	1
LP Drum Level	IN	0.7	1	0.9	0.5	1.1	1.1	.9			-.3	1	1
HP Drum Pressure	PSI	482	482	482	488	488	488	481			481	489	489
LP Drum Pressure	PSI	151	151	151	150	150	150	150			146	150	150
CO	PPM	32.4	29.6	24.1	32.1	32.1	25.5	25.1			21.1	25.5	25.5
NOX	PPM	9.9	11.4	12.0	10.4	10.2	10.0	10			10.1	10.2	10.2
O2	%	19.27	19.21	19.09	18.55	18.55	18.65	18.5			18.5	18.6	18.6
Hot Well Level	%	163	157	150	154	143	136	141			137	138	139

Day: 1150 SET POINT 449; 1103 B SET POINT 444; SCANNER BLOWER (ON (Y)/N); DUCT BURNER 442 SP

Night: 1150 SET POINT; 1103 B SET POINT; SCANNER BLOWER ON Y/N; DUCT BURNER S.P.

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	227	227	229	235	237	231	229			233	225	225
Gas Receiver	PSI	426	425	425	425	425	425	426			425	425	425

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO CODUCTIVITY MHOS

BOILER FEED WATER PUMP OPERATION NO. 1 YES NO NO. 2 YES NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75– 9.5		8.64
Conductivity <5mmhos		7.56
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		7.5
CONDENSATE		
HP–pH 8.5 –9.5		8.74
Conductivity<20mmhos		8.69
LP–pH 8.5–9.5		8.69
Conductivity<20mmhos		12.85
HP		
pH 9.5 – 10.5		9.47
Conductivity 75–150		127
Phosphate 5–15 ppm		18.49
Silica < 5 ppm		
Iron ppm		
LP		
pH 9.5 – 10.5		8.84
Conductivity 75 – 150		110
Phosphate 5–15 ppm		15.10
Silica <5 ppm		
Iron ppm		
MIXED BED		
pH 6.0 – 7.5		8.31
Conductivity< 1mmhos		.7
Silica <10 ppb		9
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 – 10.5		
Conductivity 75 – 200		
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:

OFFICIAL DAILY COGENERATION LOG

ACADF 000-3011 - REV.1 WOX 1020

End Time 1/15/2013 7:00 Start Time 1/14/2013 7:00

DAILY ENVIRONMENTAL REPORT

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3:NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O2)
8:00	28.57	266.35	642.22	71.71	No Good Data For Ca	o Good Data For	2.69	0.82	11.13		24.12	16.21	10.12	10.12	25.01	3.61	
9:00	28.72	No Good Data For Ca	642.22	ood Data F	41.44	o Good Data For	ood Data F	Good Data Fo	Good Data Fo		24.52	ood Data F	Good Data Fo	10.12	24.95	3.19	
10:00	28.72	No Good Data For Ca	No Good Data For C	ood Data F	41.44	o Good Data For	ood Data F	Good Data Fo	Good Data Fo		24.52	ood Data F	Good Data Fo	10.12	Good Data Fo	Good Data Fo	
11:00	28.72	No Good Data For Ca	No Good Data For C	ood Data F	41.44	o Good Data For	ood Data F	Good Data Fo	Good Data Fo		24.52	ood Data F	Good Data Fo	#DIV/0!	Good Data Fo	Good Data Fo	
12:00	28.72	No Good Data For Ca	No Good Data For C	ood Data F	41.44	o Good Data For	ood Data F	Good Data Fo	Good Data Fo		24.52	ood Data F	Good Data Fo	#DIV/0!	Good Data Fo	Good Data Fo	
13:00	28.25	266.35	645.99	79.31	42.81	1.39	2.70	0.82	-3.34		117.73	105.12	-2.54	-2.54	24.61	0.78	
14:00	25.27	267.71	644.42	65.83	44.07	2.89	2.72	0.83	6.15		-117.16	-98.36	5.64	1.55	24.59	0.97	
15:00	18.85	267.03	637.83	52.69	45.35	5.48	2.72	0.83	12.27		7.35	7.89	12.23	5.11	24.48	-0.05	
16:00	18.23	267.91	635.19	68.06	38.70	4.45	2.72	0.83	12.44	15.35	18.32	11.41	11.31	9.73	24.41	-1.85	
17:00	18.96	269.24	634.75	71.51	36.47	1.28	2.72	0.83	10.50	14.98	21.68	13.50	9.86	11.13	24.41	-1.67	
18:00	22.64	271.13	638.88	69.76	38.48	1.29	2.73	0.83	10.53	14.88	21.24	13.50	9.71	10.29	24.43	-1.18	
19:00	22.02	267.90	636.80	68.85	37.44	1.37	2.72	0.83	11.17	14.92	22.00	14.45	10.38	9.98	24.42	-0.92	
20:00	20.92	273.49	636.77	71.06	38.09	1.34	2.82	0.84	11.00	14.95	22.29	14.77	10.09	10.06	24.45	-1.95	
21:00	21.28	275.60	636.83	70.82	40.05	1.38	2.85	0.85	10.72	14.93	22.42	15.07	9.76	10.07	24.48	-2.08	
22:00	18.01	275.40	634.14	70.88	37.85	1.32	2.84	0.85	11.12	14.99	23.01	15.20	10.24	10.03	24.53	-2.13	
23:00	19.84	274.68	634.21	70.67	43.35	1.52	2.83	0.84	10.86	15.01	22.69	14.94	9.96	9.98	24.58	-1.20	
0:00	21.38	274.04	636.43	70.84	39.19	1.38	2.83	0.84	10.86	14.99	22.41	14.98	9.94	10.05	24.65	-0.13	
1:00	20.02	273.86	636.85	71.42	40.25	1.39	2.83	0.84	10.92	14.97	22.13	14.56	10.04	9.98	24.72	0.67	
2:00	22.45	272.15	638.81	69.84	41.03	1.44	2.81	0.84	10.95	14.96	22.67	14.97	10.04	10.00	24.65	0.00	
3:00	21.78	272.14	635.69	69.22	42.02	1.51	2.79	0.84	10.85	14.99	23.29	15.48	9.98	10.02	24.58	-0.66	
4:00	22.09	271.14	635.40	68.84	40.98	1.48	2.78	0.83	10.79	14.98	23.36	15.36	9.94	9.98	24.55	-0.86	
5:00	22.93	271.47	636.64	68.37	39.85	1.45	2.78	0.84	10.91	14.97	23.44	15.49	10.00	9.97	24.49	-2.10	
6:00	24.62	271.97	637.69	67.81	39.05	1.42	2.79	0.84	10.95	14.95	23.44	15.52	9.98	9.97	24.49	-1.91	
7:00	23.94	272.85	638.62	68.19	39.73	1.44	2.80	0.84	11.04	14.96	23.43	15.67	10.04	10.01	24.49	-1.71	

Daily Av Cogen	Daily Av Cog+Neb
NOx	NOx
lb/h	lb/h
10.98	10.98

Daily Av Cogen	Daily Av Cog+Neb
CO	CO
lb/h	lb/h
14.73	14.73

Stack NOx analyzer	
zero value	0.03
zero drift %	0.03
span value	84.47
span drift %	0.75

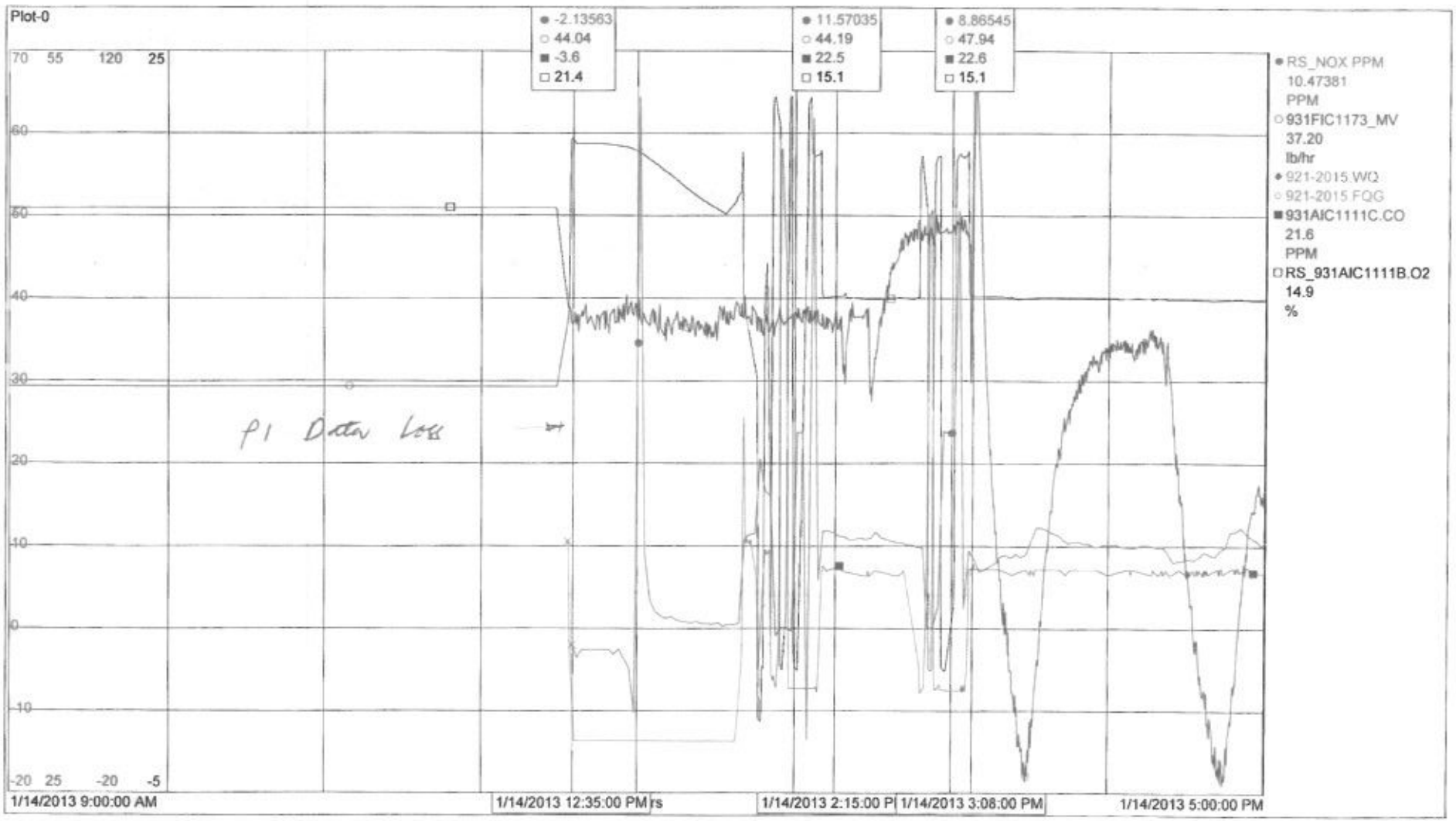
Stack CO Analyzer	
zero value	-1.06
zero drift %	-1.06
span value	90.06
span drift %	0.35

Stack O2 Analyzer	
zero value	20.95
zero drift%	0.16
span value	-0.05
span drift %	-0.22

Nebraska Gas	0

Comments : PI data integrity loss on 1/14/13 from 7:00 AM - 12:35 PM, total of 5.58 hrs. Network connection loss due to failure of multiple tap points @ process network.
CEMS Troubleshooting: found air leak due to broken fitting at the bottom of sample chiller. Manual cal completed at 3:08 PM. CEMS downtime from 7:00 AM - 3:08 PM, total of 8.13 hrs.

PRINT TIME: 1/15/201310:21 AM
NOTE: This document is valid for only ONE week after print time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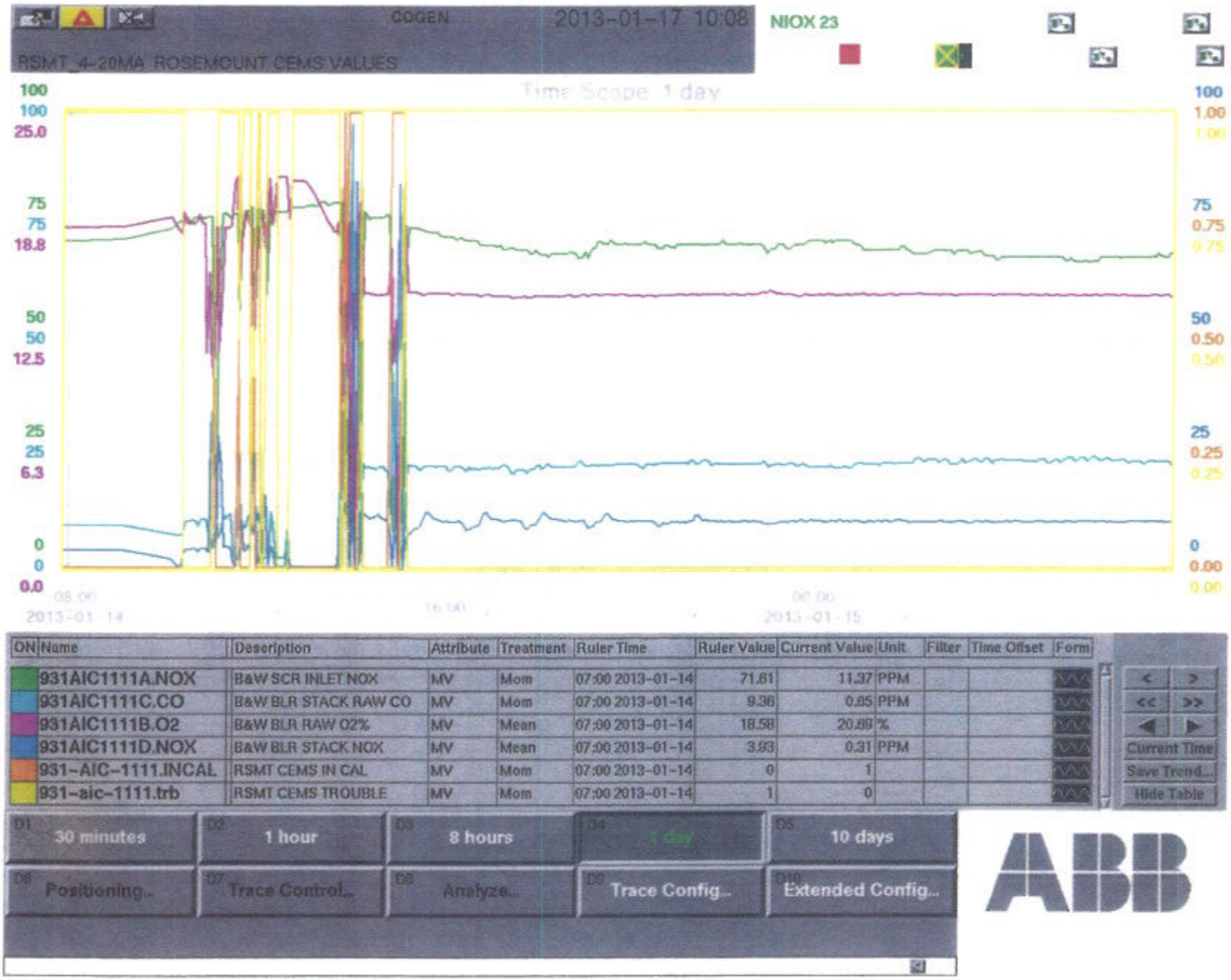
44.04
-3.6
21.4
11.57035
44.19
22.5
15.1
8.86545
47.94
22.6
15.1
70 55 120 25
60
50
40
30
20
10
0
-10
-20 25 -20 -5
PI Data Loss
RS_NOX PPM
10.47381
PPM
931FIC1173_MV
37.20
lb/hr
921-2015.WQ
921-2015.FQG
931AIC1111C.CO
21.6
PPM
RS_931AIC1111B.O2
14.9
%
1/14/2013 9:00:00 AM
1/14/2013 12:35:00 PM
1/14/2013 2:15:00 P
1/14/2013 3:08:00 PM
1/14/2013 5:00:00 PM


COGEN
2013-01-17 10:08
NIOX 23
RSMT_4-20MA_ROSEMOUNT CEMS VALUES
Time Scope: 1 day
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
75
0.75
50
0.50
25
0.25
0
0.00
2013-01-14
2013-01-15
ON Name Description Attribute Treatment Ruler Time Ruler Value Current Value Unit Filter Time Offset Form
931AIC1111A.NOX B&W SCR INLET NOX MV Mom 07:00 2013-01-14 71.61 11.37 PPM
931AIC1111C.CO B&W BLR STACK RAW CO MV Mom 07:00 2013-01-14 9.36 0.65 PPM
931AIC1111B.O2 B&W BLR RAW O2% MV Mean 07:00 2013-01-14 18.58 20.69 %
931AIC1111D.NOX B&W BLR STACK NOX MV Mean 07:00 2013-01-14 3.93 0.31 PPM
931-AIC-1111.INCAL RSMT CEMS IN CAL MV Mom 07:00 2013-01-14 0 1
931-aic-1111.trb RSMT CEMS TROUBLE MV Mom 07:00 2013-01-14 1 0
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

SAFETY IS ALWAYS NO. 1

DATE: 1-14-13

STEAM & WATER READINGS / GAS & ELECTRIC READING

	NEBRASKA	PERMEATE H2O	CONCENTRATE H2O	L	HP	SCG LP	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	01142586	40111760	56959901	203514	2191	1235920	1303280	690468	551843		20100
PREVIOUS	01078531	40003083	56908274	200554	2053	1208010	0933850	689199	449777		1945.9

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

NEW DEMIN TRAILER YES NO TIME:

AMMONIA DELIVERY YES (NO) % FULL: 55-30

NEBRASKA ONLINE TIME FROM: TO:

NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	52.3			52.6	51.9	52.8	55.7	60	56.4	58.1	59.7	56.1
Inlet Temp	°F	49			59	58	55	52	52	52	52	49	48
Humidity	%	8.9			1.1	9.9	21.4	11.2	7.2	7.2	7.2	8.2	10.2
Vibration (Max)	MILS	.19			.19	.19	.19	.19	.19	.19	.19	.18	.19
Steam Injection	#/SEC	2.70			2.74	2.70	2.75	2.75	2.81	2.81	2.81	2.81	2.75
Turbine L.O. Level	%	80			80	80	80	80	80	80	80	80	80
T48	°F	1411			1441	1438	1934	1425	1434	1430	1431	1427	1419

BATTERIES 125 V | HP RECOUPE 154 FAL | BATTERIES 135 V | HP RECOUPE 155 FAL

AIR INLET DIFF 3.2 IN/H2O | HP RECOUPE 154 FAR | AIR INLET DIFF 3.8 IN/H2O | HP RECOUPE 155 FAR

L.O. DIFFERENTIAL 4.2 PSI | HP RECOUPE 59 AFT | L.O. DIFFERENTIAL 4.5 PSI | HP RECOUPE 56 AFT

GENERATOR

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	153			154	155	158	158	158	157	157	157	155
L.O. Supply	°F	129			130	130	134	134	134	133	133	133	131
Gen. Vibration (Max)	IPS	.39			.45	.43	.41	.42	.41	.42	.42	.42	.40
Tie Line	MW	13.03			13.[illegible]	13.08	13.04	12.9	13.4	13.5	13.5	13.6	13.4

GEN. 1190 AMPS | GEN.VARS 6.16 MEGA VARS | GEN. 1,200 AMPS | GEN.VARS MEGA VARS

FIELD 207 AMPS | FIELD VOLTS 187 V | FIELD 205 AMPS | FIELD VOLTS 190 V

COOLING TWR INLET 78 F | COOLING TWR INLET 73 F | COOLING TWR INLET 85 F | COOLING TWR INLET 80 F

COGEN BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	710			711	710	710	710	709	709	709	710	710
HP Drum Level	IN	1			1.1	0.9	1.1	1.2	1.1	1	1	1	1.1
LP Drum Level	IN	1			0.9	1.1	0.5	1	.9	1	1	1	1.1
HP Drum Pressure	PSI	489			489	489	489	489	489	489	489	489	489
LP Drum Pressure	PSI	150			150	150	150	150	150	150	150	150	150
CO	PPM	24.5			CAL	22.6	22.2	22.4	23	22.1	22.1	23.8	23.4
NOX	PPM	10.4				7.5	9.8	9.8	10	10	10	10	9.9
O2	%	18.65				15.09	14.92	14.9	15	14.9	15	14.9	14.9
Hot Well Level	%	129			141	141	138	149	143	141	152	163	156

1150 SET POINT 449 | 1103 B SET POINT 444 | 1150 SET POINT 449 | 1103 B SET POINT 444

SCANNER BLOWER (ON (Y) N | DUCT BURNER 442 SP | SCANNER BLOWER ON (Y) N | DUCT BURNER S.P. 442

COMPRESSORS

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	221			229	231	231	227	227	231	231	233	229
Gas Receiver	PSI	425			425	424	425	424	425	425	425	424	424

NEBRASKA BOILER

		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN												
Drum Pressure	PSI												
Steam Flow	#/HR												
Steam Temp	°F												
NOX	PPM												
O2	%												
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO | CODUCTIVITY MHOS | BOILER FEED WATER PUMP OPERATION NO. 1 YES NO (NO. 2) (YES) NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75- 9.5		
Conductivity <5mmhos		
Silica < 20 ppb		
R.O.		
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		
CONDENSATE		
HP-pH 8.5 -9.5		
Conductivity<20mmhos		
LP-pH 8.5-9.5		
Conductivity<20mmhos		
HP		
pH 9.5 - 10.5	7.05 -(CW)	
Conductivity 75-150	[illegible]	
Phosphate 5-15 ppm		
Silica < 5 ppm		
Iron ppm		
LP		
pH 9.5 - 10.5	8.8 -(CW)	
Conductivity 75 - 150		
Phosphate 5-15 ppm		
Silica <5 ppm		
Iron ppm		
MIXED BED		
pH 6.0 - 7.5		
Conductivity< 1mmhos		
Silica <10 ppb		
HP Steam Test		
Silica <20 ppb		
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)		
NEBRASKA		
pH 9.5 - 10.5		
Conductivity 75 - 200		
Silica		
Phosphate 5-25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

Handwritten across Day Shift column: CO-GEN - TRAINING

Handwritten across Night Shift column: Forklift Comp / [illegible] / Turn table Belt

NOTES:

[illegible]

New Demin trailer

Permeate: 40040040

Concentrate: 56925033

Meter: 21922 [illegible]

NIGHT SHIFT OPERATOR NAME: Rob

DAY SHIFT OPERATOR NAME: [illegible]

OFFICIAL DAILY COGENERATION LOG

Hueneme Mill Environmental Incident Report

Shaded section to be completed by the EMR

Name of Incident Emission Data Loss	Incident 1/13/13 and 1/14/13
Exact Location Incident Cogen	

Reported By Rudy Rehbein & Robyn Lebrilla	Estimated Start and Stop Times of Incident: 1/13/13 5:35 AM – 1:20 PM 1/14/13 3:30 AM – 1:00 PM	Possible Cause: network connection loss

Incident Type: ☐ Spill Internal ☐ Improper Waste Disposal ☐ Spill External ☐ Near miss or below spill release guidelines X Air Emission ☐ Other_____	Released To ☐ Storm Water System ☐ Secondary Containment ☐ Process Sewer X Air ☐ Ground (External) ☐ Ground (Inside Mill Property) ☐ Near Miss ☐ Other_____

Detailed Description of Event

Data loss to PI was due to a partial failure of multiple tap points into the ABB MB300 Network (Process Network). These failures did not result in data loss for the ABB process network. Large volume of alarms on network from tap point faults caused the network to load up and PI not getting its data in a timely manner. Failure points where node 8 network 12 (AUI to RJ-45 transceiver F-MCC) and node 21 network 11 (AUI to Fiber transceiver old DCS Room). PI is receiving data as of 1:00 pm 1/14/13.

(if required use additional paper and attach)

Estimated Amount Released	pH	CONSISTENCY (%)	Estimated Monetary Loss
☐ _____ Gallons ☐ _____ Pounds ☐ Other_____			

List Any External Emergency Clean Up Personnel Contacted N/A	List Any External Agencies Contacted *(Agency, person and time of call.) APCD 1/13/13 @ 2:30 and 1/14/13 @ 9:08 AM*
List Hueneme Personnel Contacted *(Foreman, Mill Manager, etc.)* Victor Kumpera, Charlie Wilson, Sandy Robins, Tom Nicolai	Any Acute or Chronic Health Risks *(refer to MSDS)N/A*
Describe Any Emergency Response Actions Called IT support	

Suggestions to Prevent Reoccurrence 1. Project approved for 2013 to replace old thick net with fiber.	Estimated Completion Date 1. 12/31/2013
2.	2
3.	3.
4.	4.

Root Cause after investigation	Severity Level *(level 1 and 2 must be tracked through SHIMS)* ☐ 1 ☐ 2 ☐ 3 ☐ 4
Investigated By: Tom Nicolai	Investigated Date 1/14/13

Follow Up	By When	Completion Date	By Whom

Issued by	Reviewed by	Approved by
1/16/13 Department Manager	01/16/2013 Technical Superintendent	01/16/13 Mill Manager

Print Time: 1/16/2013 11:39:56 AM

Note: This document is valid for only ONE week after print time!

NEW INDY
CONTAINERBOARD

March 4, 2013

Lyle Olson
Ventura County Air Pollution Control District
669 County Square Drive, Second Floor
Ventura, CA 93003

Subject: CEMS stack NOx CLD overheated

Dear Mr. Olson:

This letter is a follow up on the call made to the VCAPCD Breakdown Center Hotline on February 28, 2013 at about 2:00 AM by Ed Centeno.

On February 28, 2013 at 1:17 AM, the CEMS stack NOx CLD failed due to overheating. During troubleshooting, it was found that one of the two air conditioning units in the MCC room had tripped. The stack NOx CLD alarm cleared as the MCC room ambient temperature was brought down. The CEMS was manually calibrated and back on line at about 4:00 AM. The emission data showed emission data loss for stack NOx from 1:17 am – 4:00 am, a total of 2.72 hours. To prevent recurrence of this incident, the mill will (1) monitor MCC room's AC units daily, and (2) install additional louvers to CEMS cabinet to allow air from sample handling fans to easily exhaust out of the cabinet.

The Daily Emission Sheets, PI trends, DCS trends, Cogen Reports and Environmental Incident Report have been provided for your review. If you have any questions or require any additional information, please call me at (805) 271-7284.

Sincerely,

Robyn Lebrilla
Environmental Engineer

NEW INDY OXNARD, LLC
5936 PERKINS ROAD • OXNARD, CALIFORNIA 93033 • WWW.NEWINDYCONTAINERBOARD.COM
PHONE (805) 986-3881 • FAX (805) 488-5186

Ventura County
Air Pollution

Control District

RESPONSIBLE OFFICIAL'S CERTIFICATION FORM

Ventura County APCD Rule 33.9 requires that "*any document, including reports, schedule of compliance progress reports and compliance certifications, required by a Part 70 permit shall be certified by a responsible official.*" Therefore, this form shall be signed by the company's Responsible Official and submitted with all such reports, including, but not limited to semi-annual reports, deviation and emergency reports and any periodic reports required by a Part 70 permit. However, when submitting your Annual Compliance Certifications, please use the form titled Annual Compliance Certification Signature Cover Form.

Semi-annual reports, deviations and emergency reports and any periodic reports required by your Part 70 permit should be submitted to:

Lyle Olson
Air Quality Engineer
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, CA 93003

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document is true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Signature: Judy Gallen Title: Mill Manager	3/1/13

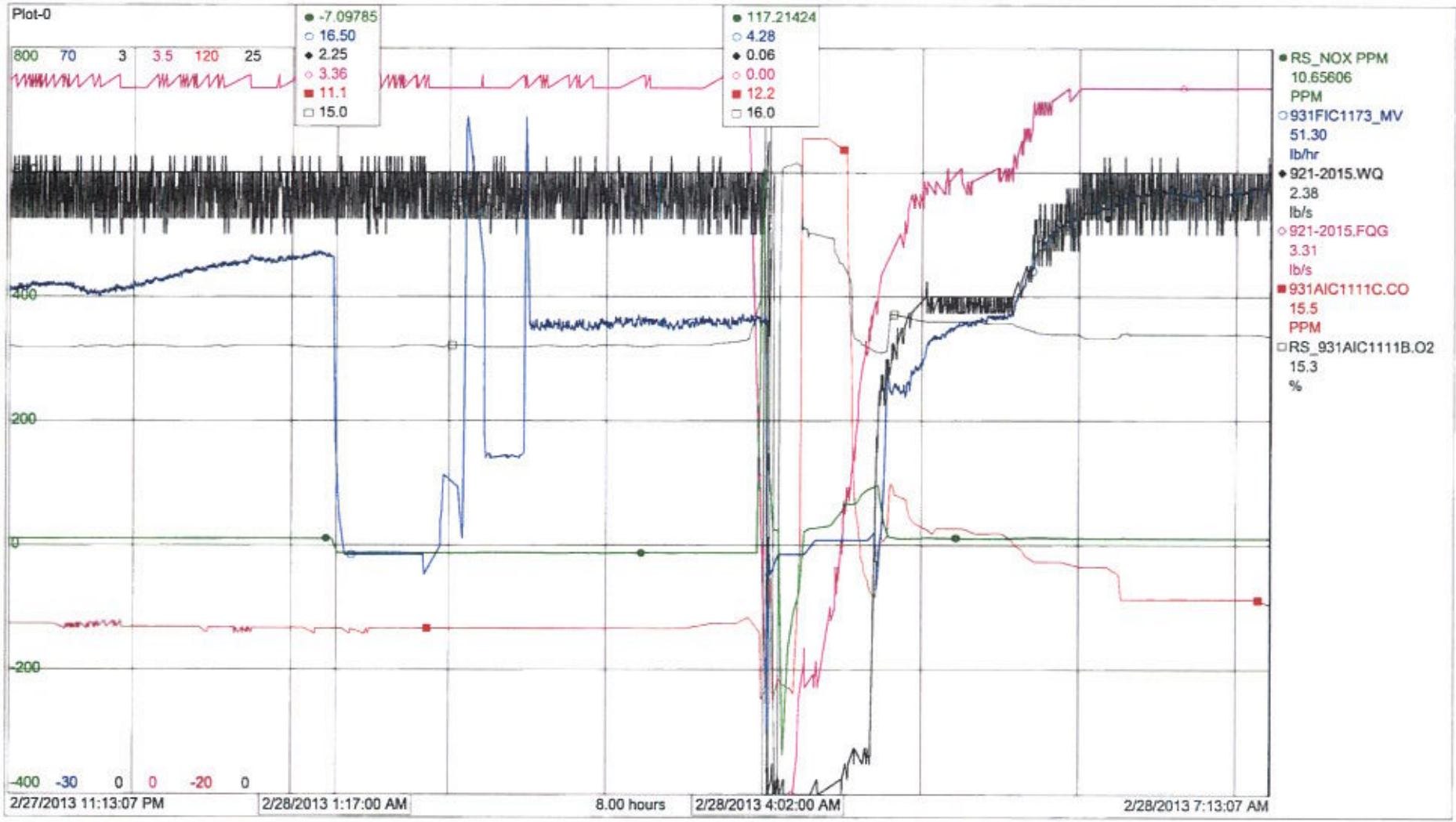
DAILY ENVIRONMENTAL REPORT

End Time: 2/28/2013 7:00 — Start Time: 2/27/2013 7:00

Time	Duct burner gas flow MSCFH	Turbine gas flow MSCFH	SCR Temperature °F	SCR inlet NOx ppm	Ammonia Usage lb/h	NH3 NOx mole ratio	Injection steam rate lb/s	Steam to fuel ratio lb/lb	NOx lb/h	Stack O2 %	Stack CO 15% O2 ppm	CO lb/h	Stack NOx 15% O2 ppm	3h Running Average NOx	Nebraska O2 %	Nebraska NOx %	Nebraska Corrected NOx (to 3% O_2)	Daily Av Cogen NOx lb/h 8.47	Daily Av Cog+Neb NOx lb/h 8.47
8:00	2.85	240.01	610.42	72.02	33.07	1.26	2.07	0.71	9.11	15.75	28.52	13.96	10.01	10.35	24.72	-1.70			
9:00	6.56	203.17	598.64	58.16	22.02	1.31	1.69	0.68	8.16	16.03	36.97	17.45	10.49	10.24	24.81	-1.84		Daily Av Cogen	Daily Av Cog+Neb
10:00	6.54	207.09	600.47	62.29	23.72	1.39	1.72	0.68	8.46	15.98	33.48	16.01	10.79	10.43	24.85	-2.11		CO	CO
11:00	6.58	254.83	623.98	98.13	48.12	1.39	2.15	0.69	10.83	15.30	17.72	10.91	10.78	10.69	24.82	-2.25		lb/h	lb/h
12:00	1.31	264.17	627.62	97.94	50.32	1.41	2.24	0.70	10.36	15.39	14.05	8.43	10.53	10.70	24.82	-2.57		9.19	9.19
13:00	4.03	263.06	627.91	96.63	49.65	1.41	2.23	0.70	10.28	15.22	15.84	9.48	10.41	10.58	24.52	-2.98		Stack NOx analyzer	
14:00	8.40	271.90	631.35	89.27	45.06	1.32	2.41	0.73	10.85	15.16	19.61	12.30	10.36	10.43	24.41	-2.90		zero value	-0.28
15:00	1.36	276.59	625.63	85.80	43.63	1.34	2.49	0.74	10.86	15.28	16.67	10.54	10.55	10.44	24.42	-3.37		zero drift %	-0.28
16:00	0.04	275.78	622.62	86.55	42.62	1.27	2.46	0.74	10.58	15.32	15.70	9.81	10.38	10.42	24.44	-3.20		span value	81.75
17:00	0.04	275.38	619.67	85.16	39.14	1.23	2.45	0.73	10.73	15.29	15.58	9.56	10.52	10.47	24.39	-2.05		span drift %	-0.30
18:00	0.04	272.84	619.34	84.51	38.65	1.22	2.43	0.73	10.53	15.24	14.82	9.05	10.43	10.44	24.47	-1.41			
19:00	0.04	272.66	619.00	85.57	39.11	1.22	2.44	0.73	10.63	15.20	14.18	8.72	10.52	10.49	24.53	-1.31		Stack CO Analyzer	
20:00	0.04	271.76	617.89	83.61	38.06	1.22	2.41	0.73	10.51	15.14	14.34	8.77	10.45	10.47	24.55	-0.96		zero value	-1.26
21:00	0.04	271.52	618.44	81.84	36.88	1.21	2.41	0.73	10.51	15.13	14.13	8.63	10.46	10.48	24.64	-0.13		zero drift %	-1.26
22:00	0.04	273.35	618.19	79.92	34.92	1.17	2.44	0.73	10.61	15.08	14.00	8.61	10.49	10.47	24.61	0.07		span value	90.03
23:00	0.04	271.81	616.52	81.37	35.49	1.17	2.42	0.73	10.62	15.05	13.25	8.32	10.55	10.50	24.53	0.08		span drift %	0.31
0:00	0.04	271.84	612.99	80.21	37.73	1.17	2.42	0.73	10.60	15.00	11.73	7.23	10.54	10.53	24.57	0.06			
1:00	0.04	271.81	581.23	90.58	40.38	1.21	2.42	0.73	10.67	15.02	11.24	6.89	10.60	10.56	24.55	-0.42		Stack O2 Analyzer	
2:00	0.04	272.15	543.94	93.36	13.78	0.41	2.42	0.73	-5.44	15.00	10.94	6.78	-5.17	4.99	24.69	-0.97		zero value	21.02
3:00	0.04	271.47	506.66	92.98	28.83	0.87	2.41	0.73	-12.57	15.00	10.98	6.71	-12.51	-2.69	24.72	-0.97		zero drift%	0.49
4:00	0.03	271.35	469.37	87.29	33.25	1.00	2.41	0.73	-11.97	15.25	10.37	5.72	2.62	-5.35	24.78	-0.97		span value	-0.02
5:00	13.05	110.39	550.17	35.64	8.84	8980.92	0.64	0.26	38.45	15.00	101.41	13.11	20.41	3.51	24.84	-1.03		span drift %	-0.06
6:00	6.55	245.92	611.38	71.28	36.98	1.58	2.07	0.69	10.31	15.67	30.70	17.25	11.05	11.36	24.82	-1.31			
7:00	1.60	271.42	620.92	82.88	49.81	1.61	2.40	0.73	10.71	15.37	19.30	11.95	10.59	14.02	24.86	-1.40		Nebraska Gas	0

Comment: CEMS failed due to high temp in the MCC room on 2/28/13 at 1:17 am - 4:00 am, a total 2.72 hrs. APCD notified at about 2:00 am. CEMS manually calibrated.
Cogen tripped on 2/28/13 from 4:00 AM - 4:15 AM, a total of 0.25 hr - false low level signal to MK Vipotential high temp issue.

PRINT TIME: 2/28/20132:34 PM
NOTE: This document is valid for only ONE week after print time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-7.09785
16.50
2.25
3.36
11.1
15.0
117.21424
4.28
0.06
0.00
12.2
16.0
800 70 3 3.5 120 25
400
200
0
-200
-400 -30 0 0 -20 0
RS_NOX PPM
10.65606
PPM
931FIC1173_MV
51.30
lb/hr
921-2015.WQ
2.38
lb/s
921-2015.FQG
3.31
lb/s
931AIC1111C.CO
15.5
PPM
RS_931AIC1111B.O2
15.3
%
2/27/2013 11:13:07 PM
2/28/2013 1:17:00 AM
8.00 hours
2/28/2013 4:02:00 AM
2/28/2013 7:13:07 AM


COGEN
2013-02-28 10:32
26 (SC) MEDIUM
L1
931AIC1111D.NOX
B&W BLR STACK NOX
Lim L1
10:30:54
RSMT_4-20MA ROSEMOUNT CEMS VALUES
100
100
25.0
75
75
18.8
50
50
12.5
25
25
6.3
0
0
0.0
100
1.00
1.00
75
0.75
0.75
50
0.50
0.50
25
0.25
0.25
0
0.00
0.00
ON Name
Description
Attribute
Treatment
Ruler Time
Ruler Value
Current Value
Unit
Filter
Time Offset
Form
931AIC1111A.NOX
B&W SCR INLET NOX
MV
Mom
01:20
93.34
75.34
PPM
931AIC1111C.CO
B&W BLR STACK RAW CO
MV
Mom
01:20
11.12
17.44
PPM
931AIC1111B.O2
B&W BLR RAW 02%
MV
Mean
01:20
14.98
15.49
%
931AIC1111D.NOX
B&W BLR STACK NOX
MV
Mean
01:20
4.94
PPM
931-AIC-1111.INCAL
RSMT CEMS IN CAL
MV
Mom
01:20
0
0
931-aic-1111.trb
RSMT CEMS TROUBLE
MV
Mom
01:20
1
0
<
>
<<
>>
Current Time
Save Trend...
Hide Table
D1 30 minutes
D2 1 hour
D3 8 hours
D4 1 day
D5 10 days
D6 Positioning...
D7 Trace Control...
D8 Analyze...
D9 Trace Config...
D10 Extended Config...
ABB

OFFICIAL DAILY COGENERATION LOG

SAFETY IS ALWAYS NO. 1

DATE: 2-27-13

NIGHT SHIFT OPERATOR — NAME: Van Zant
DAY SHIFT OPERATOR — NAME: [illegible]

CHEMICAL PUMPS	Level	Feed Rate ml/min
Steamate 3.9 ml/min		
Cortrol 5.3 ml/min		
Polymer 6.8 ml/min		
Caustic (as needed)		

STEAM & WATER READINGS

	NEBRASKA	PERMEATE H2O	CONCENTRATE H2O	LP	HP	SCG LP
CURRENT	0424745[illegible]	44509796	58913303	191502	1750	1456530
PREVIOUS	04169800	44391199	58861777	205598	1789	1453650

GAS & ELECTRIC READINGS

	TURBINE	MAXON	BURNER	NEBRASKA	MEGAWATTS
CURRENT	4454080	792882	57367		42746
PREVIOUS	4012500	792882	20195		42170

NEW DEMIN TRAILER YES NO TIME:
AMMONIA DELIVERY YES NO % FULL
NEBRASKA ONLINE TIME FROM: TO:
NEBRASKA WARM STORAGE CHECK YES NO

TURBINE

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
FSR	%	42.0	35.2	36.1	61.8	W	57.2	57.1	57.3	56.3	55.2		
Inlet Temp	°F	61	68	70	59	O	56	55	53	54	60		
Humidity	%	78	48	51	6	R	17	16.2	40.4	36.2	11.0		
Vibration (Max)	MILS	16	25	22	11	K	12	.11	.12	.11	.12		
Steam Injection	#/SEC	2.00	1.44	1.44	2.50		2.38	2.38	2.55	2.49	2.54		
Turbine L.O. Level	%	100	100	100	100		100	100	100	100	100		
T48	°F	1404	1309	1301	1484		1474	1467	1467	1476	1482		

BATTERIES ___ V | HP RECOUPE ___ FAL | BATTERIES 135 V | HP RECOUPE 160 FAL
AIR INLET DIFF ___ IN/H2O | HP RECOUPE ___ FAR | AIR INLET DIFF 4 IN/H2O | HP RECOUPE 160 FAR
L.O. DIFFERENTIAL ___ PSI | HP RECOUPE ___ AFT | L.O. DIFFERENTIAL 5 PSI | HP RECOUPE 54 AFT

GENERATOR

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Gen. Bearing Drain	°F	141	147	152	154		160	159	159	160	160		
L.O. Supply	°F	125	127	130	132	O	132	134	134	135	135		
Gen. Vibration (Max)	IPS	.38	.49	.49	.33	N	.34	.34	.34	.34	.34		
Tie Line	MW	13.33	13.41	13.44	13.44		13.45	13.57	13.46	13.52	13.50		

GEN. ___ AMPS | GEN.VARS 2.86 MEGA VARS | GEN. 1175 AMPS | GEN.VARS 5.11 MEGA VARS
FIELD ___ AMPS | FIELD VOLTS ___ V | FIELD 202 AMPS | FIELD VOLTS 180 V
COOLING TWR INLET ___ F | COOLING TWR INLET ___ F | COOLING TWR INLET 86 F | COOLING TWR INLET 76 F

COGEN BOILER

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
450 Header Temp	°F	708	714	711	710	B	709	709	709	710	710		
HP Drum Level	IN	.06	2.0	1.0	1.F	A	1.0	1.1	1.0	1.1	1.0		
LP Drum Level	IN	1.2	0.6	0.9	0.5	N	0.9	0.8	1.1	0.9	0.9		
HP Drum Pressure	PSI	482	475	482	482	D	482	482	482	482	482		
LP Drum Pressure	PSI	153	151	149	146	E	148	148	148	148	146		
CO	PPM	23.7	40.4	30.1	21.8	R	14.5	14.3	14.0	11.9	10.9		
NOX	PPM	7.1	10.7	10.5	9.9		10.6	10.4	10.3	10.6	12.5		
O2	%	15.80	16.41	15.27	15.R		15.16	15.09	15.07	15.03	14.98		
Hot Well Level	%	160	138	100	138		154	156	136	154	156		

1150 SET POINT ___ | 1103 B SET POINT ___ | 1150 SET POINT 449 | 1103 B SET POINT 444
SCANNER BLOWER (ON) Y/N ___ | DUCT BURNER ___ SP | SCANNER BLOWER ON (ON) | DUCT BURNER S.P. 442

COMPRESSORS

	Unit	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Filter Separator	PSI	233	241	255	235	Monthly	235	235	235	235	235		
Gas Receiver	PSI	420	420	420	420	Inspection	420	480	420	420	480		

NEBRASKA BOILER

	Unit	7:00	9:00	[redacted]	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Drum Level	IN	DA											
Drum Pressure	PSI	MAKE-UP											
Steam Flow	#/HR	PUMP											
Steam Temp	°F	COUPLING											
NOX	PPM	W.O #											
O2	%	410762 6407											
Blow Down Conductivity	MHOS												

ON LINE TURBINE WATER WASH YES NO | CODUCTIVITY MHOS | BOILER FEED WATER PUMP OPERATION NO. 1 YES NO | NO. 2 (YES) NO

BOILER TEST RESULTS

	DAY SHIFT	NIGHT SHIFT
BOILER FEEDWATER		
pH 8.75– 9.5		8.9
Conductivity <5mmhos	N	10.1
Silica < 20 ppb		7
R.O.	O	
Feed TDS<1000 ppm		
Permeate TDS<10 ppm		
ph (Feed 7.5)		7.0
CONDENSATE		
HP-pH 8.5 -9.5	T	8.7
Conductivity<20mmhos		10.5
LP-pH 8.5-9.5	E	8.6
Conductivity<20mmhos	S	88
HP	T	
pH 9.5 – 10.5		8.8
Conductivity 75–150		112
Phosphate 5–15 ppm		9.0
Silica < 5 ppm	PH	.12
Iron ppm		
LP		
pH 9.5 – 10.5	V	9.2
Conductivity 75 – 150		118.6
Phosphate 5–15 ppm		9.9
Silica <5 ppm	9	.214
Iron ppm		
MIXED BED		
pH 6.0 – 7.5	S	7.5
Conductivity< 1mmhos	H	.60
Silica <10 ppb	E	5
HP Steam Test	E	
Silica <20 ppb	T	4
SOFTNER		
Hardness < 1.0 ppm		
Running (1 or 2)	B	
NEBRASKA	R	
pH 9.5 – 10.5	K	
Conductivity 75 – 200	S	
Silica		
Phosphate 5–25 ppm		
STEAM TEST		
Silica <20 ppb		
PV NO.2		
Molybdate >200 ppm		

NOTES:
[illegible]
[illegible]
[illegible]
[illegible]

AIRx Testing

NEW INDY OXNARD
5936 Perkins Road,
Oxnard, CA 93033

Attn: Robyn Lebrilla

LM2500 – PK GENERAL ELECTRIC GAS TURBINE ANNUAL COMPLIANCE and RATA EMISSIONS TESTING

PTO #0157
March 20, 2013

Submitted to:
Ventura County Air Pollution Control District
669 County Square Drive
Ventura, California 93003

Attn: Lyle Olson

Prepared by:
AIRx Testing Services, Inc.
2472 Eastman Avenue #34
Ventura, CA 93003

Job No.: 23022

Lab No.: 213-031

Ken R. Kennepohl
Test Team Leader

Reviewed by:
Tom Porter

Submitted
April 11, 2013

AIRXTESTING

Table of Contents

AIR Testing

SUMMARY OF SOURCE TEST RESULTS

New Indy
Gas Turbine
Rosemount CEM
3/20/2013

CONSTITUENTS	Run 1	Run 2	Run 3	*Average*	*Allowable*
NOx, ppmv:	10.6	10.4	10.3	*10.4*	-
NOx ppmv @ 15 % O2:	10.7	10.9	10.8	*10.8*	*12*
NOx, lb/hr:	11.76	12.01	11.85	*11.88*	-
NOx, lb/MMBtu	0.0014	0.0014	0.0014	*0.0014*	-
CO, ppmv:	22.7	22.0	22.0	*22.2*	-
CO, ppmv @ 15% O2:	23.1	23.1	23.2	*23.1*	-
CO, lb/hr:	15.38	15.43	15.44	*15.42*	*59.15*
CO, lb/MMBtu	0.0018	0.0018	0.0018	*0.0018*	-
O2, %:	15.1	15.3	15.3	*15.2*	-
NH3, ppmv:	1.1	1.2	1.1	*1.1*	-
NH3, ppmv @ 15% O2:	1.1	1.2	1.1	*1.1*	-
Stack Flow:	155567	160807	161101	*159158*	-
Ammonia Injection Rate, lb/hr (avg):	23.3	24.2	23.9	*23.8*	-
Fuel Usage (Turbine & Duct), dscfm:	4724.1	4742.4	4713.2	*4726.6*	-
Turbine Load, KW (avg):	26.0	26.3	26.2	*26.2*	-

AIRx Testing

New Indy
Turbine
3/20/2013

CEMS RATA
Calculations

Run	AIRx Testing - Reference Method		
	NOx ppmv @ 15%	O2 Dry %	CO ppmv @ 15%
1	10.5	15.1	23.2
2	10.8	15.1	23.7
3	10.9	15.1	22.6
4	10.8	15.3	23.1
5	10.9	15.3	23.4
6	10.8	15.3	23.0
7	10.6	15.3	22.7
8	10.8	15.3	23.9
9	10.8	15.3	23.5

Run	New Indy CEMS		
	NOx ppmv @ 15%	O2 Dry %	CO ppmv @ 15%
1	10.5	15.2	25.2
2	10.5	15.3	25.7
3	10.5	15.0	24.5
4	10.5	15.4	25.2
5	10.5	15.4	25.5
6	10.5	15.4	25.0
7	10.5	15.5	24.9
8	10.5	15.5	26.0
9	10.6	15.5	25.6

Run	Reference Method - CEM, Difference		
	NOx ppmv @ 15%	O2 Dry %	CO ppmv @ 15%
1	0.0	-0.1	-2.0
2	0.3	-0.2	-2.0
3	0.4	0.1	-1.9
4	0.3	-0.1	-2.1
5	0.4	-0.1	-2.1
6	0.3	-0.2	-2.0
7	0.1	-0.2	-2.2
8	0.3	-0.2	-2.1
9	0.2	-0.2	-2.1

Arithmetic Mean, d	0.3	-0.1	-2.1
Standard Deviation, Sd	0.1	0.1	0.1
Confidence Coefficient, CC	0.1	0.1	0.1
Avg Reference Method, RM	10.8	15.2	23.2
Relative Accuracy, RA	**3.2**	**1.4**	**9.1**

NOTE: Calculations based on "Code of Federal Regulations 40", 1988, Part 60, Appendix B, Specification 2, p. 939.

AIR Testing

INTRODUCTION

AIRx Testing

1.0 INTRODUCTION

On March 20, 2013 AIRx Testing Services conducted the annual compliance/RATA source test on a natural gas fired General Electric LM2500-PK Gas Turbine. The unit is located at the New Indy Plant on Perkins Road, in Oxnard. The turbine is used for the generation of electrical power and process heat for the facility operations. The tests were required to satisfy requirements detailed in PTO #0157.

The objective of the testing was to determine NOx, CO and NH3 emissions from the unit at one (1) operating load of approximately 100% capacity. Additionally, data taken from the compliance tests was used to determine the relative accuracy (RATA) of the facility CEM (Rosemont) equipment. Operational data reported was turbine and duct burner fuel usage (dscfm). Ammonia injection rate (lb/hr) and turbine load (KW).

PROCESS DETAILS: The LM2500-PK is rated for 290 MMBtu/hr heat input and exhausts into an HRSG with a COEN duct burner. The duct burner is rated at 50.8 MMBtu/hr. Emissions are controlled with a Babcock-Hitachi Selective Catalytic Converter (SCR). The SCR uses ammonia injection for NOx reduction. The duct dimensions at the sample location are 54" x 125". There are eight (8) sample ports in the duct. However, an integrated sampling probe has been installed by the facility. All sampling was performed from the integrated sampling probe. The sample port locations are located zero diameters upstream and one (1) equivalent diameter downstream from a disturbance; consequently velocity traverses could not be accurately performed.

CEM DATA: CEM data was recorded by the Data Acquisition System (DAS) during the test program in the form of one (1) minute averages. The one (1) minute data averages were then printed out and averaged to obtain CEM data for comparison to the RM data. The CEM data was obtained by plant personnel during the test program and provided to the test team. The CEM data monitored NOx and CO concentrations corrected to 15% oxygen, oxygen concentrations.

CONTINUOUS MONITORS: NOx, CO, and O2 sampling utilized a stainless steel sampling probe connected with a Teflon sampling line to a sample conditioner. The dry gases were then transported through a Teflon line to the sample gas flow panel for distribution to the individual analyzers. Sampling for NOx, CO and O2 was performed in accordance with CARB Method 100 and EPA Method 20. NOx measurements were made utilizing an API 200EH chemiluminescent analyzer. CO concentrations were determined with an API 300EM NDIR w/GFC analyzer. Oxygen concentration was measured utilizing a Servomex Model 1400 paramagnetic analyzer. Initial three (3) point calibrations were performed at the analyzers. Subsequent calibrations were performed through the sample system probe tip (Bias checks). All initial bias checks correlated with the initial instrument calibrations to within 2% of analyzer range. Bias calibrations were performed before and after each test run and used to correct the emissions data for any analyzer drift. All monitor calibrations were performed with EPA Protocol 1 calibration gases.

During all tests, the NOx and O2 RM analyzers were operated on the 25 ppmv and 25% scales, respectively. The CO monitor was setup and calibrated for operation on the 100 ppmv scale.

There were no deviations from CARB Method 100 or EPA Method 20 methodology during the test.

All monitored data was continuously recorded on a 10" analog chart recorder. Chart speed was maintained at 10 cm/hr. Analyzer output was also recorded with a PC based Data Acquisition System (DAS) and imported into spreadsheets for determination of average run concentrations.

AIRx Testing

1.0 INTRODUCTION (cont)

FLOWRATE: Stack flow calculations were performed using fuel consumption data (turbine and after burner fuel usages added together) provided by plant personnel, fuel composition and stack oxygen data, in accordance with EPA Method 19.

AMMONIA: Triplicate exhaust duct ammonia samples were collected and analyzed in accordance with BAAQMD Method ST-1B. The sample train consists of four (4) iced impingers, the first two contained approximately 150 ml 0.1N HCl, the third is empty and the fourth contains silica gel. The sample was collected utilizing an EPA Method 5 sampling console. Each sample was collected for a 96 minute period. Three (3) samples were collected for compliance determination. Samples were collected utilizing stainless steel sampling probe. Analysis of the collected ammonia samples was performed by the in house AIRx Testing Services laboratory.

All reporting and calculations have been performed at VCAPCD standard conditions of 68°F and 29.92 inches of Hg. If you have any questions regarding this test program or report, please contact the undersigned at (805) 644-1099.

Respectfully Submitted
AIRx Testing Services, Inc.

Ken Kennepohl
Senior Engineer

Tom Porter
Vice President of Testing Services

AIR Testing

CALCULATIONS

CONTINUOUS EMISSIONS MONITORING - CARB METHOD 1-100

Client : New Indy
Site : Oxnard
Unit : Turbine

Date : 3/29/2011
Job# : 23022
Lab# : 211-028

FIELD DATA

Test Length 96 mins. Points 1 Minute

Standard Temperature: 68 ° *F*

Drift Corrected Emissions Data

Outlet								
NOx	10.6	ppm	10.4	ppm	10.3	ppm
O2	15.1	%	15.3	%	15.3	%
CO	22.7	ppm	22.0	ppm	22.0	ppm

Process Data

Exhaust Flow	155567	dscfm	160807	dscfm	161101	dscfm
F-Factor	8710	dscf/MMBtu	8710	dscf/MMBtu	8710	dscf/MMBtu

Equations used;
Tfact = (10^-6*(29.92/(21.85*(460+Tstd)))*60
lb/hr = [ppmv] * Q * MW * (Tfact)
lb/MM Btu = [lb/hr]/[MMBtu/hr]
ppmv @ 15% O2 = ppm * 5.9(20.9/(20.9-O2))
MW NOx = 46; CO = 28

CALCULATED EMISSIONS

NOx	10.7	ppm @ 15% O2	10.9	ppm @ 15% O2	10.8	ppm @ 15% O2
	11.76	lb/hr	12.01	lb/hr	11.85	lb/hr
	0.0014	lb/MMBtu	0.0014	lb/MMBtu	0.0014	lb/MMBtu
CO	23.1	ppm @ 15% O2	23.1	ppm @ 15% O2	23.2	ppm @ 15% O2
	15.38	lb/hr	15.43	lb/hr	15.44	lb/hr
	0.0018	lb/MMBtu	0.0018	lb/MMBtu	0.0018	lb/MMBtu

cility: International Paper
urce: Turbine
Date: 03/20/13

Bias Adjustment

Compliance Testing
Run No. 1

rameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
NOx	10.6	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**10.6**
O2	15.1	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.1**
CO	22.8	39.7	0.0	0.0	0.0	39.9	39.7	39.8	**22.7**

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
NOx	10.3	12.0	0.0	0.0	0.0	12.0	11.8	11.9	**10.4**
O2	15.3	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.3**
CO	22.1	39.7	0.0	0.0	0.0	39.7	40.0	39.9	**22.0**

Run No. 3

arameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
NOx	10.2	12.0	0.0	0.0	0.0	11.8	12.0	11.9	**10.3**
O2	15.3	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.3**
CO	22.1	39.7	0.0	0.0	0.0	40.0	39.9	40.0	**22.0**

Facility: New Indy
Source: Turbine
Date: 03/20/13

Bias Adjustment

Run No. 1

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.4	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**10.4**
O2	15.1	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.1**
CO	22.9	39.7	0.0	0.0	0.0	39.9	39.7	39.8	**22.9**

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.6	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**10.6**
O2	15.1	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.1**
CO	23.2	39.7	0.0	0.0	0.0	39.9	39.7	39.8	**23.1**

Run No. 3

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.7	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**10.7**
O2	15.1	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.1**
CO	22.2	39.7	0.0	0.0	0.0	39.9	39.7	39.8	**22.1**

Run No. 4

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.3	12.0	0.0	0.0	0.0	12.0	11.8	11.9	**10.4**
O2	15.3	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.3**
CO	22.0	39.7	0.0	0.0	0.0	39.7	40.0	39.9	**21.9**

Run No. 5

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.4	12.0	0.0	0.0	0.0	12.0	11.8	11.9	**10.5**
O2	15.3	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.3**
CO	22.4	39.7	0.0	0.0	0.0	39.7	40.0	39.9	**22.4**

Facility: New Indy
Source: Turbine
Date: 03/20/13

Bias Adjustment

Run No. 6

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.3	12.0	0.0	0.0	0.0	12.0	11.8	11.9	**10.4**
O2	15.3	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.3**
CO	21.9	39.7	0.0	0.0	0.0	39.7	40.0	39.9	**21.8**

Run No. 7

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.1	12.0	0.0	0.0	0.0	11.8	12.0	11.9	**10.1**
O2	15.3	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.3**
CO	21.5	39.7	0.0	0.0	0.0	40.0	39.9	40.0	**21.3**

Run No. 8

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.2	12.0	0.0	0.0	0.0	11.8	12.0	11.9	**10.3**
O2	15.3	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.3**
CO	22.6	39.7	0.0	0.0	0.0	40.0	39.9	40.0	**22.4**

Run No. 9

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm,%)	Initial Zero (ppm,%)	Final Zero (ppm,%)	Average Zero (ppm,%)	Initial Span (ppm,%)	Final Span (ppm,%)	Average Span (ppm,%)	Adjusted Conc. (ppm,%)
NOx	10.3	12.0	0.0	0.0	0.0	11.8	12.0	11.9	**10.4**
O2	15.3	12.0	0.0	0.0	0.0	12.0	12.0	12.0	**15.3**
CO	22.4	39.7	0.0	0.0	0.0	40.0	39.9	40.0	**22.3**

FIELD DATA & CALCULATIONS SUMMARY

Client: **International Paper**
Site: **Oxnard**
Unit: **Turbine**

Date: **3/20/2013**
Type: ***T std = 68 °F***
Run: **1-NH3**

Vm	Metered Sample Gas Volume	**73.948**	**dcf**		
Lp	Avg. Leak Rate	0.002	cf		
Vn	Leak Corrected Sample Gas Volume	73.948	dcf		
Y	Dry Gas Meter Calibration Factor	**0.9961**			
Pbar	Barometric Pressure	**30.06**	**in. Hg**		
del H	Dry Gas Meter Press. Differential, Average	**2.4**	**in. H2O**		
Tm	Dry Gas Meter Temperature, Average	66.0	°F	**526.0**	°R
Vm(std)	Sample Gas Volume	**74.7218**	**dscf**		
O2	Oxygen, Dry	**15.1**	%		
Theta	Sampling Time	**96**	**min.**		

CALCULATED EMISSION RESULTS

Client: **International Paper**
Site: **Oxnard**
Unit: **Turbine**

Date: **3/20/2013**
Type: ***T std = 68 °F***
Run: **1-NH3**

AMMONIA AS NH3

Ws	Ammonia Weight	**0.00161**	g
Cs	Ammonia Emissions	**0.00033**	grain/dscf
	Ammonia Concentration	**1.1**	ppmv
	Ammonia Concentration	**1.1**	ppmv @ 15% O2

FIELD DATA & CALCULATIONS SUMMARY

Client: **New Indy**
Site: **Oxnard**
Unit: **Turbine**

Date: **2/11/2008**
Type: ***T std = 68 °F***
Run: **2-NH3**

Vm	Metered Sample Gas Volume	**76.032**	**dcf**		
Lp	Avg. Leak Rate	0.002	cf		
Vn	Leak Corrected Sample Gas Volume	76.032	dcf		
Y	Dry Gas Meter Calibration Factor	**0.9961**			
Pbar	Barometric Pressure	**30.10**	**in. Hg**		
del H	Dry Gas Meter Press. Differential, Average	**2.4**	**in. H2O**		
Tm	Dry Gas Meter Temperature, Average	68.7	°F	528.7	°R
Vm(std)	Sample Gas Volume	**76.5424**	**dscf**		
O2	Oxygen, Dry	**15.3**	%		
Theta	Sampling Time	**96**	**min.**		

CALCULATED EMISSION RESULTS

Client: **New Indy**
Site: **Oxnard**
Unit: **Turbine**

Date: **2/11/2008**
Type: ***T std = 68 °F***
Run: **2-NH3**

AMMONIA AS NH3

Ws	Ammonia Weight	**0.00181**	g
Cs	Ammonia Emissions	**0.00036**	grain/dscf
	Ammonia Concentration	**1.2**	ppmv
	Ammonia Concentration	**1.2**	ppmv @ 15% O2

FIELD DATA & CALCULATIONS SUMMARY

Client: **New Indy**
Site: **Oxnard**
Unit: **Turbine**

Date: **3/29/2011**
Type: ***T std = 68 °F***
Run: **3-NH3**

Vm	Metered Sample Gas Volume	**74.598**	**dcf**		
Lp	Avg. Leak Rate	0.001	cf		
Vn	Leak Corrected Sample Gas Volume	74.598	dcf		
Y	Dry Gas Meter Calibration Factor	**0.9961**			
Pbar	Barometric Pressure	**30.06**	**in. Hg**		
del H	Dry Gas Meter Press. Differential, Average	**2.4**	**in. H2O**		
Tm	Dry Gas Meter Temperature, Average	72.7	°F	**532.7**	°R
Vm(std)	Sample Gas Volume	**74.4354**	**dscf**		
O2	Oxygen, Dry	**15.3**	%		
Theta	Sampling Time	**96**	**min.**		

CALCULATED EMISSION RESULTS

Client: **New Indy**
Site: **Oxnard**
Unit: **Turbine**

Date: **3/29/2011**
Type: ***T std = 68 °F***
Run: **3-NH3**

AMMONIA AS NH3

Ws	Ammonia Weight	**0.00164**	g
Cs	Ammonia Emissions	**0.00034**	grain/dscf
	Ammonia Concentration	**1.1**	ppmv
	Ammonia Concentration	**1.1**	ppmv @ 15% O2

"F" FACTOR EXHAUST GAS FLOWRATE CALCULATION

Client : New Indy
Site : Oxnard
Unit : Turbine

Date : 3/29/2011
Job# : 23022
Lab# : 213-031

"F" Factor, Q(std): 8710 dscf/MMBTU

Standard Temperature, T std: 68 deg. F

	Run 1	Run 2	Run 3
Oxygen, % (avg)	15.1	15.3	15.3
Fuel Usage, dscfm (avg)	4724.1	4742.4	4713.2
MMBTU/min	4.9603	4.9795	4.9489
Flowrate ("F" Factor), dscfm	155567	160807	161101

formulae:
MMBTU/min = (Fuel Usage * 1050 Btu/ft3)/10^6
Flowrate ("F" Factor) = "F" Factor * MMBTU/min * (20.0/(20.9-O2))

AIR Testing

LABORATORY ANALYSIS

AIRX TESTING SERVICES Inc.

AMMONIA ANALYSIS
BAAQMD Method ST-1B

Client: New Indy
Site: Oxnard
Unit: Turbine

Analysis Date: 3/20/2013
Lab: 213-031

	Sample Volume (ml)	Aliquot Volume (ml)	Reading ug/ml	Dilution
Run#: R1	527	49	3.2	1
	Total NH3 mg/sample		1.61	
Run#: R-2	470	49	4.0	1
	Total NH3 mg/sample		1.81	
Run#: R-3	395	49	4.3	1
	Total NH3 mg/sample		1.64	
Run #: R2 (Duplicate)	470	49	4.1	1
	Total NH3 mg/sample		1.86	
0.1 N HCL Blank	100	49	0.15	1
Run #: R-2	470	48	4.9	1
Spike (1 ug/ml)	Theoretical Value =		4.9	(ug/ml)
% Recovery			100.0	%

Analyst: Tom Porter

AIRX TESTING
A Division of Justice & Associates

BAAQMD METHOD ST-1B
AMMONIA

Client: New Indy
Site: Oxnard
Unit: Turbine

Date: 3/20/13
Lab: 213-03

	Sample Volume (ml)	Aliquot Volume (ml)	Reading ug/ml	Dilution	
Run#: 1	527	49	3.2	1	pH<1
Run#: 2	470	49	4.0	1	pH<1
Run#: 3	395	49	4.3	1	pH<1
Run #: 2 Duplicate	470	49	4.1	1	
0.1 N HCl Blank	49	49	0.15	1	
Run #: 2	870	48	4.9	1	

Spike (1 ug/ml) Theoretical = 4.9 (ug/ml)

Analyst: [illegible] Date: 3/21/13

AIRXTESTING

FIELD DATA & STRIP CHARTS

EMISSIONS TEST - CARB 100

Date: 3/20/2013

**** Test Information ****

Client: New Indy
County: Ventura
Site(s): Oxnard
Unit(s): Turbine

**** Personnel ****

AIRx: KK, BR
Client: RL
APCD: LO

Run Length:	96/32	Inlet ( )	Outlet (X)	Fuel ( )	HC ( )	
No. Points:	96/32	S.T. (X)	E.I. ( )	Data ( )	H2S ( )	NH3 ( )

	Time	Baro.	Temp.	Weather.
Arrive:	6:00 AM	30.06	53	Clear
Depart:	7:00 PM	28.84	86	Clear

**** Instrument Information ****

Instrument	"On"	Unit#	Make/Model		
O2:	1	9	Servomex		
CO:	1	1	API 300EM		
NOx:	1	1	API 200EH		
Recorder:			Soltech	10	cm/hr

**** Calibration Information ****

	Units	Zero	Span	Range	Gas Cyl.#	Gas Flow
O2:	%	0	12.0	25	SA18780	0.8
O2:	%	0	20.1	25	CC187330	0.8
CO:	ppmv	0	39.7	50	CC163751	1
CO:	ppmv	0	79.9	50	CC99455	1
N0x:	ppmv	0	12.0	10	CC80588	1
N0x:	ppmv	0	19.7	10	CC283473	1
NO2:	ppmv	0	19.4	10	CC320673	1

**** Recorder Information ****

		Chanl.	Pen Type	Color
O2:	%	3	Cont.	Green
CO:	ppmv	2	Cont.	Red
NOx:	ppmv	4	Cont.	Brown

CLIENT	New Indy	JOB#	213-031
PLANT	Oxnard	RUN#	Compliance R1
DATE	3/20/2013	RUN START	8:20:00 AM
ENGINEER	KK, BR		

NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
10.6	22.8	15.1	10.7	23.1	Averages
8.7	23.1	15.1	8.8	23.5	8:20:00
9.1	23.1	15.1	9.2	23.4	8:21:00
9.6	23.1	15.1	9.7	23.5	8:22:00
10.1	23.1	15.1	10.2	23.5	8:23:00
10.2	23.1	15.1	10.3	23.5	8:24:00
10.3	22.9	15.1	10.5	23.2	8:25:00
10.4	22.8	15.1	10.6	23.1	8:26:00
10.5	22.7	15.1	10.6	22.9	8:27:00
10.6	22.6	15.1	10.7	22.8	8:28:00
10.3	22.6	15.1	10.4	22.8	8:29:00
10.5	22.6	15.1	10.6	22.8	8:30:00
10.5	22.6	15.0	10.6	22.7	8:31:00
10.5	22.5	15.0	10.6	22.5	8:32:00
10.6	22.6	15.0	10.7	22.7	8:33:00
10.6	22.7	15.0	10.7	22.8	8:34:00
10.7	22.8	15.0	10.8	23.0	8:35:00
10.6	22.9	15.0	10.7	23.1	8:36:00
10.6	23.0	15.1	10.7	23.2	8:37:00
10.6	23.0	15.1	10.7	23.2	8:38:00
10.6	23.1	15.1	10.7	23.4	8:39:00
10.6	23.1	15.1	10.7	23.4	8:40:00
10.7	23.2	15.1	10.9	23.5	8:41:00
10.7	23.1	15.1	10.9	23.4	8:42:00
10.6	23.1	15.1	10.8	23.4	8:43:00
10.5	23.1	15.1	10.6	23.4	8:44:00
10.6	23.1	15.1	10.7	23.4	8:45:00
10.6	23.2	15.1	10.7	23.5	8:46:00
10.6	23.3	15.1	10.8	23.6	8:47:00
10.7	23.2	15.1	10.8	23.6	8:48:00
10.7	23.1	15.1	10.9	23.5	8:49:00
10.5	23.1	15.1	10.7	23.5	8:50:00
10.7	23.1	15.1	10.8	23.5	8:51:00
10.6	23.0	15.1	10.8	23.4	8:52:00
10.6	22.9	15.1	10.8	23.4	8:53:00
10.6	22.9	15.1	10.8	23.3	8:54:00
10.5	22.9	15.1	10.7	23.3	8:55:00
10.8	22.9	15.1	10.9	23.3	8:56:00
10.9	22.9	15.1	11.1	23.3	8:57:00
10.7	22.9	15.1	10.9	23.3	8:58:00
10.7	22.9	15.1	10.9	23.3	8:59:00
10.6	22.9	15.1	10.8	23.4	9:00:00
10.6	22.8	15.1	10.8	23.3	9:01:00
10.7	23.0	15.1	10.9	23.6	9:02:00
10.6	23.1	15.1	10.8	23.7	9:03:00
10.7	23.1	15.1	10.9	23.6	9:04:00
10.6	23.2	15.1	10.8	23.7	9:05:00
10.6	23.2	15.1	10.8	23.7	9:06:00
10.4	23.3	15.1	10.6	23.8	9:07:00
10.5	23.4	15.2	10.7	24.0	9:08:00
10.5	23.4	15.2	10.7	24.0	9:09:00
10.8	23.4	15.1	11.1	23.9	9:10:00
10.7	23.5	15.1	11.0	24.0	9:11:00
10.7	23.4	15.1	10.9	23.9	9:12:00
10.6	23.5	15.1	10.9	24.1	9:13:00
10.6	23.8	15.1	10.8	24.3	9:14:00
10.5	23.8	15.1	10.7	24.4	9:15:00
10.4	23.7	15.2	10.7	24.4	9:16:00
10.6	23.6	15.2	10.9	24.3	9:17:00
10.6	23.6	15.2	10.8	24.2	9:18:00
10.4	23.4	15.1	10.6	24.0	9:19:00
10.5	23.4	15.1	10.8	24.0	9:20:00
10.5	23.1	15.1	10.7	23.6	9:21:00
10.7	23.0	15.1	10.9	23.4	9:22:00
10.6	22.8	15.1	10.7	23.1	9:23:00
10.8	22.7	15.1	10.9	23.0	9:24:00
10.8	22.5	15.1	11.0	22.8	9:25:00
10.8	22.4	15.1	11.0	22.8	9:26:00
10.6	22.4	15.1	10.8	22.8	9:27:00
10.7	22.4	15.1	10.9	22.8	9:28:00
10.8	22.3	15.1	11.0	22.8	9:29:00
10.7	22.4	15.1	10.9	22.9	9:30:00
10.7	22.4	15.1	10.9	22.8	9:31:00
10.9	22.5	15.1	11.1	22.9	9:32:00
10.8	22.6	15.1	11.0	23.0	9:33:00
10.6	22.7	15.1	10.8	23.1	9:34:00
10.7	22.7	15.1	10.9	23.2	9:35:00
10.6	22.7	15.1	10.9	23.2	9:36:00
10.6	22.6	15.1	10.8	23.1	9:37:00
10.7	22.4	15.1	10.9	22.9	9:38:00
10.5	22.5	15.1	10.8	22.9	9:39:00
10.6	22.5	15.1	10.8	22.9	9:40:00
10.6	22.5	15.1	10.8	22.9	9:41:00
10.6	22.4	15.1	10.8	22.8	9:42:00
10.7	22.3	15.1	10.8	22.6	9:43:00
10.6	22.2	15.1	10.7	22.5	9:44:00
10.5	22.1	15.1	10.7	22.5	9:45:00
10.7	22.0	15.1	10.8	22.3	9:46:00
10.9	21.9	15.1	11.0	22.2	9:47:00
11.0	21.6	15.1	11.2	21.8	9:48:00
10.7	21.3	15.1	10.8	21.5	9:49:00
10.7	21.2	15.1	10.8	21.4	9:50:00
10.7	21.1	15.1	10.8	21.3	9:51:00
10.7	21.2	15.0	10.7	21.3	9:52:00
10.8	21.4	15.1	10.9	21.5	9:53:00
10.7	21.4	15.1	10.9	21.7	9:54:00
10.7	21.6	15.1	10.9	22.0	9:55:00
10.9	21.7	15.1	11.0	22.0	9:56:00

CLIENT	New Indy	JOB#	213-031
PLANT	Oxnard	RUN#	Compliance R2
DATE	3/20/2013	RUN START	11:07:00 AM
ENGINEER	KK, BR		

NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	
10.3	**22.1**	**15.3**	**10.8**	**23.1**	Averages
10.4	21.9	15.3	10.9	23.0	11:07:00
10.2	22.1	15.3	10.7	23.1	11:08:00
10.3	22.0	15.3	10.8	23.1	11:09:00
10.4	22.0	15.3	10.9	23.1	11:10:00
10.4	22.0	15.3	10.9	23.1	11:11:00
10.2	22.0	15.3	10.8	23.2	11:12:00
10.2	22.0	15.3	10.7	23.2	11:13:00
10.3	22.2	15.3	10.8	23.3	11:14:00
10.2	22.2	15.3	10.7	23.3	11:15:00
10.3	22.3	15.3	10.7	23.4	11:16:00
10.3	22.4	15.3	10.8	23.5	11:17:00
10.4	22.4	15.3	10.9	23.5	11:18:00
10.5	22.3	15.3	11.0	23.5	11:19:00
10.4	22.5	15.3	11.0	23.7	11:20:00
10.3	22.2	15.3	10.8	23.3	11:21:00
10.3	22.3	15.2	10.7	23.3	11:22:00
10.5	22.4	15.3	11.0	23.4	11:23:00
10.4	22.2	15.3	10.9	23.3	11:24:00
10.4	22.0	15.3	10.9	23.1	11:25:00
10.3	21.9	15.3	10.8	23.0	11:26:00
10.4	21.8	15.3	10.9	22.8	11:27:00
10.5	21.8	15.3	11.0	22.9	11:28:00
10.2	21.7	15.3	10.8	22.8	11:29:00
10.2	21.7	15.3	10.8	22.8	11:30:00
10.3	21.6	15.3	10.8	22.6	11:31:00
10.3	21.7	15.3	10.7	22.7	11:32:00
10.4	21.7	15.3	10.8	22.6	11:33:00
10.4	21.6	15.2	10.9	22.5	11:34:00
10.2	21.6	15.2	10.7	22.5	11:35:00
10.3	21.8	15.2	10.7	22.7	11:36:00
10.3	21.8	15.2	10.7	22.7	11:37:00
10.4	21.9	15.2	10.8	22.8	11:38:00
10.5	22.0	15.2	10.9	22.8	11:39:00
10.5	22.0	15.2	10.9	22.9	11:40:00
10.5	22.1	15.2	10.9	23.0	11:41:00
10.3	22.3	15.2	10.8	23.0	11:42:00
10.5	22.3	15.2	10.8	23.1	11:43:00
10.5	22.4	15.3	11.0	23.3	11:44:00
10.3	22.1	15.3	10.9	23.2	11:45:00
10.4	21.9	15.3	11.0	23.2	11:46:00
10.4	21.9	15.3	10.9	23.0	11:47:00
10.5	22.2	15.2	10.9	23.1	11:48:00
10.4	22.4	15.2	10.8	23.3	11:49:00
10.5	22.4	15.3	10.9	23.3	11:50:00
10.5	22.5	15.2	11.0	23.4	11:51:00
10.5	22.6	15.2	10.9	23.6	11:52:00
10.3	22.7	15.3	10.8	23.7	11:53:00
10.3	22.7	15.2	10.8	23.6	11:54:00
10.4	22.8	15.2	10.9	23.8	11:55:00
10.5	22.8	15.2	11.0	23.7	11:56:00
10.3	22.8	15.3	10.8	23.8	11:57:00
10.4	22.7	15.3	10.9	23.8	11:58:00
10.3	22.6	15.3	10.8	23.8	11:59:00
10.2	22.7	15.3	10.7	23.9	12:01:00
10.2	23.0	15.3	10.7	24.1	12:02:00
10.4	22.8	15.3	10.8	23.9	12:03:00
10.5	22.7	15.3	11.0	23.7	12:04:00
10.3	22.8	15.3	10.8	23.8	12:05:00
10.3	22.5	15.3	10.7	23.6	12:06:00
10.4	22.3	15.3	10.9	23.5	12:07:00
10.4	22.3	15.3	10.9	23.4	12:08:00
10.2	22.3	15.3	10.7	23.2	12:09:00
10.2	22.3	15.2	10.6	23.2	12:10:00
10.3	22.2	15.3	10.8	23.2	12:11:00
10.3	22.0	15.3	10.8	23.0	12:12:00
10.4	21.9	15.2	10.8	22.8	12:13:00
10.3	21.9	15.2	10.8	22.8	12:14:00
10.3	22.0	15.3	10.7	22.9	12:15:00
10.3	22.1	15.2	10.8	23.1	12:16:00
10.2	22.0	15.3	10.7	23.0	12:17:00
10.4	21.7	15.3	10.9	22.8	12:18:00
10.3	21.8	15.2	10.8	22.7	12:19:00
10.4	22.2	15.3	10.9	23.2	12:20:00
10.4	22.4	15.3	10.8	23.4	12:21:00
10.3	22.4	15.3	10.8	23.4	12:22:00
10.5	22.2	15.3	11.0	23.3	12:23:00
10.4	22.0	15.3	11.0	23.2	12:24:00
10.3	22.0	15.3	10.9	23.1	12:25:00
10.3	22.1	15.3	10.8	23.1	12:26:00
10.4	21.8	15.3	10.9	22.9	12:27:00
10.2	21.7	15.3	10.7	22.8	12:28:00
10.1	21.5	15.3	10.5	22.5	12:29:00
10.4	21.5	15.3	10.9	22.5	12:30:00
10.3	21.6	15.2	10.8	22.5	12:31:00
10.3	21.6	15.3	10.8	22.6	12:32:00
10.5	21.6	15.3	11.0	22.6	12:33:00
10.5	21.7	15.3	11.0	22.6	12:34:00
10.3	21.8	15.2	10.8	22.7	12:35:00
10.3	21.8	15.3	10.9	22.9	12:36:00
10.3	21.7	15.3	10.9	22.8	12:37:00
10.5	21.8	15.3	11.0	22.9	12:38:00
10.3	21.8	15.3	10.9	23.0	12:39:00
10.2	21.9	15.3	10.7	23.0	12:40:00
10.4	22.1	15.3	10.8	23.1	12:41:00
10.4	22.1	15.3	10.8	23.1	12:42:00
10.2	22.5	15.3	10.9	23.9	12:43:00

CLIENT:	New Indv	JOB#	213-031
PLANT:	Oxnard	RUN#	Compliance R3
DATE:	3/20/2013	RUN START	1 10 00 PM
ENGINEER:	KK, BR		

NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	
10.2	22.1	15.3	10.8	23.4	Averages
9.8	21.1	15.4	10.5	22.4	13:10:00
9.9	21.0	15.3	10.5	22.2	13:11:00
9.8	21.0	15.3	10.4	22.2	13:12:00
9.8	21.0	15.3	10.3	22.2	13:13:00
9.9	21.0	15.3	10.4	22.1	13:14:00
10.0	21.0	15.3	10.6	22.3	13:15:00
9.9	21.3	15.4	10.6	22.6	13:16:00
10.0	21.5	15.3	10.6	22.7	13:17:00
10.0	21.5	15.3	10.6	22.7	13:18:00
10.0	21.4	15.4	10.7	22.9	13:19:00
9.8	21.3	15.3	10.4	22.6	13:20:00
10.0	21.5	15.3	10.6	22.7	13:21:00
10.1	21.2	15.4	10.7	22.6	13:22:00
10.1	21.3	15.3	10.6	22.6	13:23:00
10.0	21.3	15.3	10.6	22.5	13:24:00
10.0	21.2	15.3	10.7	22.5	13:25:00
10.1	21.2	15.3	10.6	22.2	13:26:00
10.2	21.4	15.3	10.7	22.4	13:27:00
10.1	21.5	15.3	10.6	22.6	13:28:00
10.2	21.6	15.3	10.8	22.7	13:29:00
10.1	21.6	15.3	10.7	22.7	13:30:00
10.1	21.7	15.3	10.6	22.7	13:31:00
10.3	21.7	15.3	10.9	22.9	13:32:00
10.4	21.8	15.3	10.9	22.8	13:33:00
10.3	21.9	15.3	10.8	23.0	13:34:00
10.2	21.9	15.3	10.8	23.0	13:35:00
10.3	21.9	15.3	10.8	23.1	13:36:00
10.2	21.8	15.3	10.7	23.0	13:37:00
10.2	21.8	15.3	10.8	23.1	13:38:00
10.1	21.8	15.3	10.7	23.1	13:39:00
10.0	21.8	15.3	10.6	23.1	13:40:00
10.2	21.9	15.3	10.8	23.2	13:41:00
10.2	22.1	15.3	10.8	23.4	13:42:00
10.1	21.9	15.4	11.0	23.4	13:43:00
10.2	21.8	15.4	10.8	23.2	13:44:00
9.9	22.0	15.4	10.6	23.4	13:45:00
10.0	22.2	15.3	10.6	23.4	13:46:00
10.1	22.3	15.3	10.7	23.6	13:47:00
10.3	22.1	15.3	10.9	23.4	13:48:00
10.3	22.1	15.4	11.0	23.6	13:49:00
10.2	21.8	15.3	10.7	23.0	13:50:00
10.2	22.1	15.3	10.7	23.3	13:51:00
10.2	22.1	15.3	10.8	23.4	13:52:00
10.2	22.2	15.3	10.7	23.4	13:53:00
10.2	22.4	15.3	10.8	23.7	13:54:00
10.1	22.5	15.3	10.9	23.8	13:55:00
10.3	22.6	15.3	10.9	23.8	13:56:00
10.1	22.7	15.3	10.9	24.0	13:57:00
10.1	22.8	15.3	10.7	24.1	13:58:00
10.1	22.9	15.3	10.6	24.2	13:59:00
10.3	23.1	15.3	10.8	24.4	14:00:00
10.3	23.2	15.3	10.9	24.5	14:01:00
10.1	23.2	15.3	10.8	24.6	14:02:00
10.3	23.2	15.4	10.9	24.7	14:04:00
10.0	23.2	15.4	10.7	24.7	14:05:00
10.1	23.5	15.3	10.7	24.8	14:06:00
10.2	23.1	15.3	10.8	24.3	14:07:00
10.2	22.7	15.3	10.8	24.0	14:08:00
10.2	22.9	15.3	10.8	24.2	14:09:00
10.0	22.9	15.3	10.6	24.2	14:10:00
10.4	22.6	15.3	11.0	23.9	14:11:00
10.3	22.4	15.3	10.9	23.5	14:12:00
10.4	22.4	15.3	10.9	23.5	14:13:00
10.3	22.2	15.3	10.8	23.3	14:14:00
10.3	22.2	15.3	10.7	23.2	14:15:00
10.4	22.2	15.3	10.9	23.3	14:16:00
10.2	22.1	15.3	10.7	23.2	14:17:00
10.3	22.1	15.3	10.9	23.3	14:18:00
10.4	22.1	15.3	11.0	23.3	14:19:00
10.4	22.1	15.3	10.9	23.2	14:20:00
10.5	22.1	15.3	11.1	23.3	14:21:00
10.3	22.1	15.3	10.8	23.2	14:22:00
10.4	22.1	15.3	10.9	23.2	14:23:00
10.5	22.0	15.3	11.1	23.3	14:24:00
10.2	22.1	15.3	10.8	23.3	14:25:00
10.2	22.0	15.3	10.7	23.1	14:26:00
10.4	22.1	15.3	10.9	23.2	14:27:00
10.3	22.5	15.3	10.8	23.6	14:28:00
10.2	22.7	15.3	10.7	23.8	14:29:00
10.2	22.5	15.3	10.7	23.6	14:30:00
10.3	22.0	15.3	10.8	23.1	14:31:00
10.3	22.5	15.3	10.8	23.6	14:32:00
10.4	22.7	15.3	10.9	23.8	14:33:00
10.4	22.8	15.3	11.0	24.0	14:34:00
10.4	22.9	15.3	10.9	24.1	14:35:00
10.4	23.0	15.3	10.9	24.2	14:36:00
10.3	23.1	15.3	10.8	24.3	14:37:00
10.4	23.3	15.3	10.9	24.4	14:38:00
10.3	23.2	15.3	10.8	24.4	14:39:00
10.3	22.7	15.3	10.8	23.9	14:40:00
10.4	22.9	15.3	11.0	24.1	14:41:00
10.3	22.6	15.3	10.8	23.8	14:42:00
10.3	22.6	15.3	10.8	23.7	14:43:00
10.3	22.6	15.3	10.8	23.7	14:44:00
10.3	22.0	15.3	10.9	23.3	14:45:00
10.4	21.5	15.3	11.0	22.7	14:46:00

EMISSIONS TEST - SCAQMD Method 100.1

Date: 03/20/13

Job #: 213-031
Client #: 23021

**** Test Information ****

Client: New Indy
County: Ventura
Site(s): Oxnard, CA
Unit(s): Turbine

**** Personnel ****

AIRx: KK-BR
Client: RL
APCD: LO

Run Length:	60	Inlet ( )	Outlet(X)	Fuel ( )	HC's( )	
No. Points:	Single	S.T.(X)	E.I.( )	Data( )	H2S ( )	NH3 ( )

	Time	Baro.	Temp.	Weather.
Arrive:	6:00	30.06	53	Clear
Depart:	19:00	28.84	86	Clear

**** Instrument Information ****

Instrument	"On"	Unit#	Make/Model		
Outlet NOx:	1	1	API 200EH		
O2:	1	9	Servomex 1400		
CO:	1	1	API 300EM		
Recorders:			Soltec 6 pin	10	cm/hr

**** Calibration Information ****

	Units	Zero	Span	Range	Gas Cyl.#	Gas Flow
NOx:	ppmv	0.0	12.0	25	AL3056	1.0
NOx:	ppmv	0.0	19.7	25	AAL2398	1.0
NO2:	ppmv	0.0	19.4	25	AAL12591	1.0
O2:	%	0.0	12.0	25	ALM041403	0.6
O2:	%	0.0	20.1	25	ALM031868	0.6
CO:	ppmv	0.0	39.7	100	CC15628	1.0
CO:	ppmv	0.0	79.9	100	ALM044989	0.6

**** Recorder Information ****

		Chanl.	Pen Type	Color
Outlet NOx:	ppmv	4	Cont.	Brown
O2:	%	3	Cont.	Green

CLIENT:	New Indy	JOB#	213-031		
PLANT:	Oxnard, CA	RUN#	RATA 1		
DATE:	3/20/2013	UNIT ID:	Turbine		
ENGINEER:	KK-BR	RUN START:	8:20 AM		
NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
8.7	23.1	15.1	8.8	23.5	8:20:00
9.1	23.1	15.1	9.2	23.4	8:21:00
9.6	23.1	15.1	9.7	23.5	8:22:00
10.1	23.1	15.1	10.2	23.5	8:23:00
10.2	23.1	15.1	10.3	23.5	8:24:00
10.3	22.9	15.1	10.5	23.2	8:25:00
10.4	22.8	15.1	10.6	23.1	8:26:00
10.5	22.7	15.1	10.6	22.9	8:27:00
10.6	22.6	15.1	10.7	22.8	8:28:00
10.3	22.6	15.1	10.4	22.8	8:29:00
10.5	22.6	15.1	10.6	22.8	8:30:00
10.5	22.6	15.0	10.6	22.7	8:31:00
10.5	22.5	15.0	10.6	22.5	8:32:00
10.6	22.6	15.0	10.7	22.7	8:33:00
10.6	22.7	15.0	10.7	22.8	8:34:00
10.7	22.8	15.0	10.8	23.0	8:35:00
10.6	22.9	15.0	10.7	23.1	8:36:00
10.6	23.0	15.1	10.7	23.2	8:37:00
10.6	23.0	15.1	10.7	23.2	8:38:00
10.6	23.1	15.1	10.7	23.4	8:39:00
10.6	23.1	15.1	10.7	23.4	8:40:00
10.7	23.2	15.1	10.9	23.5	8:41:00
10.7	23.1	15.1	10.9	23.4	8:42:00
10.6	23.1	15.1	10.8	23.4	8:43:00
10.5	23.1	15.1	10.6	23.4	8:44:00
10.6	23.1	15.1	10.7	23.4	8:45:00
10.6	23.2	15.1	10.7	23.5	8:46:00
10.6	23.3	15.1	10.8	23.6	8:47:00
10.7	23.2	15.1	10.8	23.6	8:48:00
10.7	23.1	15.1	10.9	23.5	8:49:00
10.5	23.1	15.1	10.7	23.5	8:50:00
10.7	23.1	15.1	10.8	23.5	8:51:00
10.6	23.0	15.1	10.8	23.4	8:52:00
10.4	**22.9**	**15.1**	**10.5**	**23.2**	**Averages**

CLIENT:	New Indy	JOB#	213-031		
PLANT:	Oxnard, CA	RUN#	RATA 2		
DATE:	3/20/2013	UNIT ID:	Turbine		
ENGINEER:	KK-BR	RUN START:	8:52 AM		
NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
10.6	23.0	15.1	10.8	23.4	8:52:00
10.6	22.9	15.1	10.8	23.4	8:53:00
10.6	22.9	15.1	10.8	23.3	8:54:00
10.5	22.9	15.1	10.7	23.3	8:55:00
10.8	22.9	15.1	10.9	23.3	8:56:00
10.9	22.9	15.1	11.1	23.3	8:57:00
10.7	22.9	15.1	10.9	23.3	8:58:00
10.7	22.9	15.1	10.9	23.3	8:59:00
10.6	22.9	15.1	10.8	23.4	9:00:00
10.6	22.8	15.1	10.8	23.3	9:01:00
10.7	23.0	15.1	10.9	23.6	9:02:00
10.6	23.1	15.1	10.8	23.7	9:03:00
10.7	23.1	15.1	10.9	23.6	9:04:00
10.6	23.2	15.1	10.8	23.7	9:05:00
10.6	23.2	15.1	10.8	23.7	9:06:00
10.4	23.3	15.1	10.6	23.8	9:07:00
10.5	23.4	15.2	10.7	24.0	9:08:00
10.5	23.4	15.2	10.7	24.0	9:09:00
10.8	23.4	15.1	11.1	23.9	9:10:00
10.7	23.5	15.1	11.0	24.0	9:11:00
10.7	23.4	15.1	10.9	23.9	9:12:00
10.6	23.5	15.1	10.9	24.1	9:13:00
10.6	23.8	15.1	10.8	24.3	9:14:00
10.5	23.8	15.1	10.7	24.4	9:15:00
10.4	23.7	15.2	10.7	24.4	9:16:00
10.6	23.6	15.2	10.9	24.3	9:17:00
10.6	23.6	15.2	10.8	24.2	9:18:00
10.4	23.4	15.1	10.6	24.0	9:19:00
10.5	23.4	15.1	10.8	24.0	9:20:00
10.5	23.1	15.1	10.7	23.6	9:21:00
10.7	23.0	15.1	10.9	23.4	9:22:00
10.6	22.8	15.1	10.7	23.1	9:23:00
10.8	22.7	15.1	10.9	23.0	9:24:00
10.6	**23.2**	**15.1**	**10.8**	**23.7**	**Averages**

CLIENT:	New Indy	JOB#	213-031		
PLANT:	Oxnard, CA	RUN#	RATA 3		
DATE:	3/20/2013	UNIT ID:	Turbine		
ENGINEER:	KK-BR	RUN START:	9:24 AM		
NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	Time
10.8	22.7	15.1	10.9	23.0	9:24:00
10.8	22.5	15.1	11.0	22.8	9:25:00
10.8	22.4	15.1	11.0	22.8	9:26:00
10.8	22.4	15.1	11.0	22.8	9:27:00
10.6	22.4	15.1	10.8	22.8	9:28:00
10.7	22.4	15.1	10.9	22.8	9:29:00
10.8	22.3	15.1	11.0	22.8	9:30:00
10.7	22.4	15.1	10.9	22.9	9:31:00
10.7	22.4	15.1	10.9	22.8	9:32:00
10.9	22.5	15.1	11.1	22.9	9:33:00
10.8	22.6	15.1	11.0	23.0	9:34:00
10.6	22.7	15.1	10.8	23.1	9:35:00
10.7	22.7	15.1	10.9	23.2	9:36:00
10.6	22.7	15.1	10.9	23.2	9:37:00
10.6	22.6	15.1	10.8	23.1	9:38:00
10.7	22.4	15.1	10.9	22.9	9:39:00
10.5	22.5	15.1	10.8	22.9	9:40:00
10.6	22.5	15.1	10.8	22.9	9:41:00
10.6	22.5	15.1	10.8	22.9	9:42:00
10.6	22.4	15.1	10.8	22.8	9:43:00
10.7	22.3	15.1	10.8	22.6	9:44:00
10.6	22.2	15.1	10.7	22.5	9:45:00
10.5	22.1	15.1	10.7	22.5	9:46:00
10.7	22.0	15.1	10.8	22.3	9:47:00
10.9	21.9	15.1	11.0	22.2	9:48:00
11.0	21.6	15.1	11.2	21.8	9:49:00
10.7	21.3	15.1	10.8	21.5	9:50:00
10.7	21.2	15.1	10.8	21.4	9:51:00
10.7	21.1	15.1	10.8	21.3	9:52:00
10.7	21.2	15.0	10.7	21.3	9:53:00
10.8	21.4	15.1	10.9	21.5	9:54:00
10.7	21.4	15.1	10.9	21.7	9:55:00
10.7	21.6	15.1	10.9	22.0	9:56:00
10.7	**22.2**	**15.1**	**10.9**	**22.5**	**Averages**

CLIENT:	New Indy	JOB#	213-031
PLANT:	Oxnard, CA	RUN#	RATA 4
DATE:	3/20/2013	UNIT ID:	Turbine
ENGINEER:	KK-BR	RUN START:	11:07 AM

NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
10.4	21.9	15.3	10.9	23.0	11:07:00
10.2	22.1	15.3	10.7	23.1	11:08:00
10.3	22.0	15.3	10.8	23.1	11:09:00
10.4	22.0	15.3	10.9	23.1	11:10:00
10.4	22.0	15.3	10.9	23.1	11:11:00
10.2	22.0	15.3	10.8	23.2	11:12:00
10.2	22.0	15.3	10.7	23.2	11:13:00
10.3	22.2	15.3	10.8	23.3	11:14:00
10.2	22.2	15.3	10.7	23.3	11:15:00
10.3	22.3	15.3	10.7	23.4	11:16:00
10.3	22.4	15.3	10.8	23.5	11:17:00
10.4	22.4	15.3	10.9	23.5	11:18:00
10.5	22.3	15.3	11.0	23.5	11:19:00
10.4	22.5	15.3	11.0	23.7	11:20:00
10.3	22.2	15.3	10.8	23.3	11:21:00
10.3	22.3	15.2	10.7	23.3	11:22:00
10.5	22.4	15.3	11.0	23.4	11:23:00
10.4	22.2	15.3	10.9	23.3	11:24:00
10.4	22.0	15.3	10.9	23.1	11:25:00
10.3	21.9	15.3	10.8	23.0	11:26:00
10.4	21.8	15.3	10.9	22.8	11:27:00
10.5	21.8	15.3	11.0	22.9	11:28:00
10.2	21.7	15.3	10.8	22.8	11:29:00
10.2	21.7	15.3	10.8	22.8	11:30:00
10.3	21.6	15.3	10.8	22.6	11:31:00
10.3	21.7	15.3	10.7	22.7	11:32:00
10.4	21.7	15.3	10.8	22.6	11:33:00
10.4	21.6	15.2	10.9	22.5	11:34:00
10.2	21.6	15.2	10.7	22.5	11:35:00
10.3	21.8	15.2	10.7	22.7	11:36:00
10.3	21.8	15.2	10.7	22.7	11:37:00
10.4	21.9	15.2	10.8	22.8	11:38:00
10.5	22.0	15.2	10.9	22.8	11:39:00
10.3	**22.0**	**15.3**	**10.8**	**23.0**	**Averages**

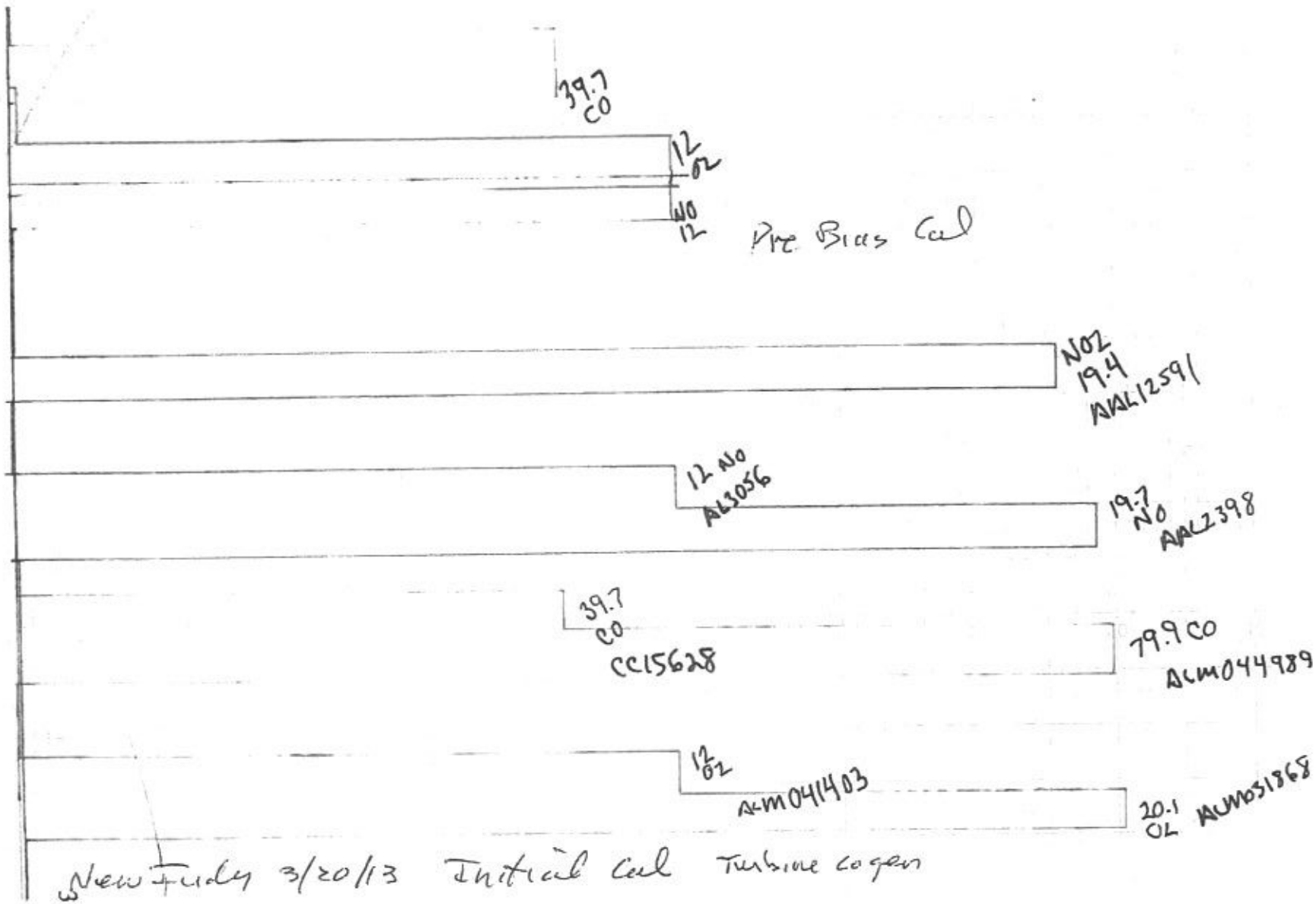
CLIENT:	New Indy	JOB#	213-031		
PLANT:	Oxnard, CA	RUN#	RATA 5		
DATE:	3/20/2013	UNIT ID:	Turbine		
ENGINEER:	KK-BR	RUN START:	11:39 AM		
NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
10.5	22.0	15.2	10.9	22.8	11:39:00
10.5	22.0	15.2	10.9	22.9	11:40:00
10.5	22.1	15.2	10.9	23.0	11:41:00
10.3	22.1	15.2	10.8	23.0	11:42:00
10.5	22.3	15.2	10.8	23.1	11:43:00
10.5	22.4	15.3	11.0	23.3	11:44:00
10.3	22.1	15.3	10.9	23.2	11:45:00
10.4	21.9	15.3	11.0	23.2	11:46:00
10.4	21.9	15.3	10.9	23.0	11:47:00
10.5	22.2	15.2	10.9	23.1	11:48:00
10.4	22.4	15.2	10.8	23.3	11:49:00
10.5	22.4	15.3	10.9	23.3	11:50:00
10.5	22.5	15.2	11.0	23.4	11:51:00
10.5	22.6	15.2	10.9	23.6	11:52:00
10.3	22.7	15.3	10.8	23.7	11:53:00
10.3	22.7	15.2	10.8	23.6	11:54:00
10.4	22.8	15.2	10.9	23.8	11:55:00
10.5	22.8	15.2	11.0	23.7	11:56:00
10.3	22.8	15.3	10.8	23.8	11:57:00
10.4	22.7	15.3	10.9	23.8	11:58:00
10.3	22.6	15.3	10.8	23.8	11:59:00
10.2	22.7	15.3	10.7	23.9	12:00:00
10.2	22.7	15.3	10.7	23.9	12:01:00
10.2	23.0	15.3	10.7	24.1	12:02:00
10.4	22.8	15.3	10.8	23.9	12:03:00
10.5	22.7	15.3	11.0	23.7	12:04:00
10.3	22.8	15.3	10.8	23.8	12:05:00
10.3	22.5	15.3	10.7	23.6	12:06:00
10.4	22.3	15.3	10.9	23.5	12:07:00
10.4	22.3	15.3	10.9	23.4	12:08:00
10.2	22.3	15.3	10.7	23.2	12:09:00
10.2	22.3	15.2	10.6	23.2	12:10:00
10.3	22.2	15.3	10.8	23.2	12:11:00
10.4	**22.4**	**15.3**	**10.8**	**23.4**	**Averages**

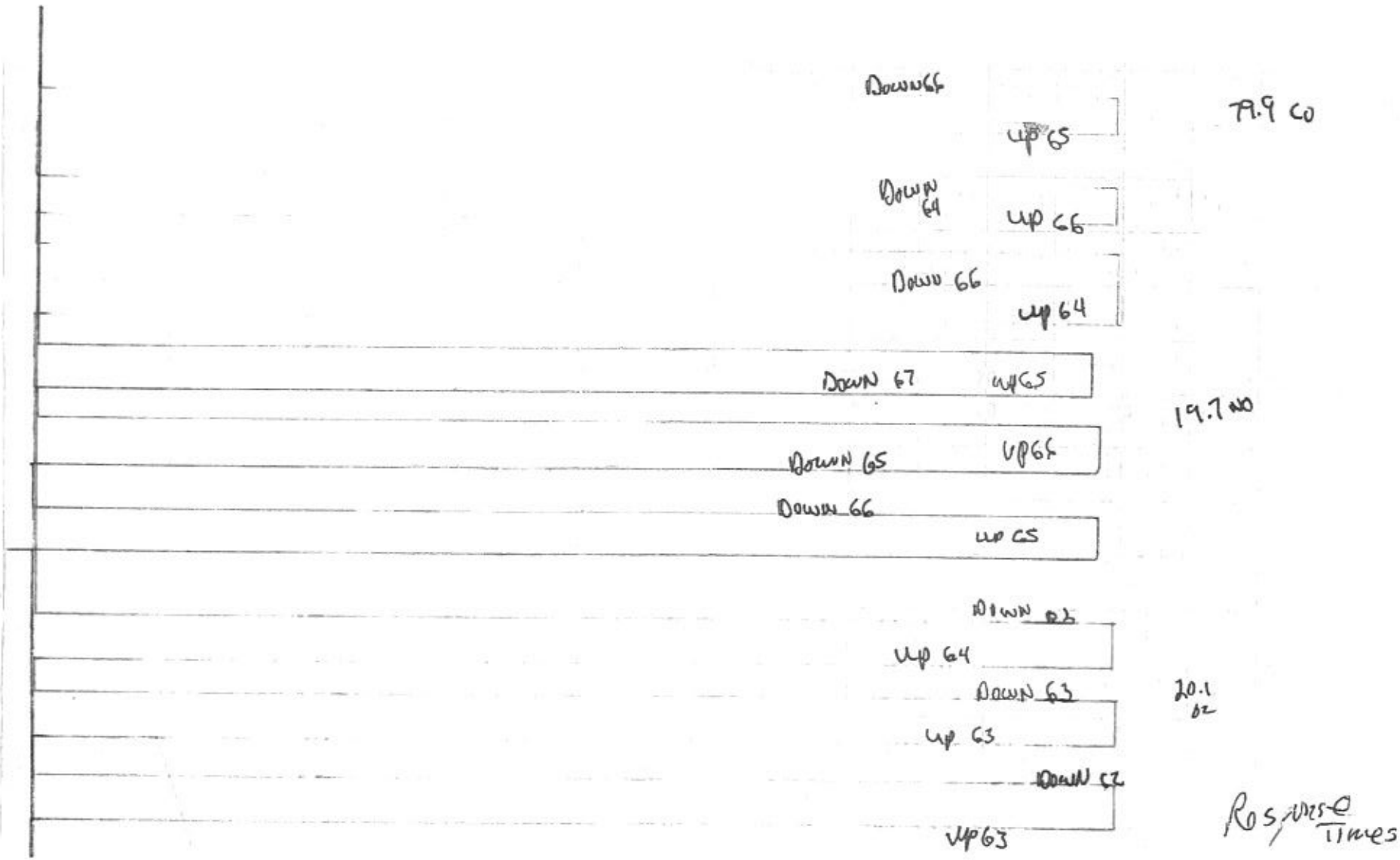
CLIENT:	New Indy	JOB#	213-031		
PLANT:	Oxnard, CA	RUN#	RATA 6		
DATE:	3/20/2013	UNIT ID:	Turbine		
ENGINEER:	KK-BR	RUN START:	12:13 PM		
NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
10.3	22.2	15.3	10.8	23.2	12:11:00
10.3	22.0	15.3	10.8	23.0	12:12:00
10.4	21.9	15.2	10.8	22.8	12:13:00
10.3	21.9	15.2	10.8	22.8	12:14:00
10.3	22.0	15.3	10.7	22.9	12:15:00
10.3	22.1	15.2	10.8	23.1	12:16:00
10.2	22.0	15.3	10.7	23.0	12:17:00
10.4	21.7	15.3	10.9	22.8	12:18:00
10.3	21.8	15.2	10.8	22.7	12:19:00
10.4	22.2	15.3	10.9	23.2	12:20:00
10.4	22.4	15.3	10.8	23.4	12:21:00
10.3	22.4	15.3	10.8	23.4	12:22:00
10.5	22.2	15.3	11.0	23.3	12:23:00
10.4	22.0	15.3	11.0	23.2	12:24:00
10.3	22.0	15.3	10.9	23.1	12:25:00
10.3	22.1	15.3	10.8	23.1	12:26:00
10.4	21.8	15.3	10.9	22.9	12:27:00
10.2	21.7	15.3	10.7	22.8	12:28:00
10.1	21.5	15.3	10.5	22.5	12:29:00
10.4	21.5	15.3	10.9	22.5	12:30:00
10.3	21.6	15.2	10.8	22.5	12:31:00
10.3	21.6	15.3	10.8	22.6	12:32:00
10.5	21.6	15.3	11.0	22.6	12:33:00
10.5	21.7	15.3	11.0	22.6	12:34:00
10.3	21.8	15.2	10.8	22.7	12:35:00
10.3	21.8	15.3	10.9	22.9	12:36:00
10.3	21.7	15.3	10.9	22.8	12:37:00
10.5	21.8	15.3	11.0	22.9	12:38:00
10.3	21.8	15.3	10.9	23.0	12:39:00
10.2	21.9	15.3	10.7	23.0	12:40:00
10.4	22.1	15.3	10.8	23.1	12:41:00
10.4	22.1	15.3	10.8	23.1	12:42:00
10.2	22.5	15.3	10.9	23.9	12:43:00
10.3	**21.9**	**15.3**	**10.8**	**22.9**	**Averages**

CLIENT:	New Indy	JOB#	213-031		
PLANT:	Oxnard, CA	RUN#	RATA 7		
DATE:	3/20/2013	UNIT ID:	Turbine		
ENGINEER:	KK-BR	RUN START:	1:10 PM		
NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
9.8	21.1	15.4	10.5	22.4	13:10:00
9.9	21.0	15.3	10.5	22.2	13:11:00
9.8	21.0	15.3	10.4	22.2	13:12:00
9.8	21.0	15.3	10.3	22.2	13:13:00
9.9	21.0	15.3	10.4	22.1	13:14:00
10.0	21.0	15.3	10.6	22.3	13:15:00
9.9	21.3	15.4	10.6	22.6	13:16:00
10.0	21.5	15.3	10.6	22.7	13:17:00
10.0	21.5	15.3	10.6	22.7	13:18:00
10.0	21.4	15.4	10.7	22.9	13:19:00
9.8	21.3	15.3	10.4	22.6	13:20:00
10.0	21.5	15.3	10.6	22.7	13:21:00
10.1	21.2	15.4	10.7	22.6	13:22:00
10.1	21.3	15.3	10.6	22.6	13:23:00
10.0	21.3	15.3	10.6	22.5	13:24:00
10.0	21.2	15.3	10.7	22.5	13:25:00
10.1	21.2	15.3	10.6	22.2	13:26:00
10.2	21.4	15.3	10.7	22.4	13:27:00
10.1	21.5	15.3	10.6	22.6	13:28:00
10.2	21.6	15.3	10.8	22.7	13:29:00
10.1	21.6	15.3	10.7	22.7	13:30:00
10.1	21.7	15.3	10.6	22.7	13:31:00
10.3	21.7	15.3	10.9	22.9	13:32:00
10.4	21.8	15.3	10.9	22.8	13:33:00
10.3	21.9	15.3	10.8	23.0	13:34:00
10.2	21.9	15.3	10.8	23.0	13:35:00
10.3	21.9	15.3	10.8	23.1	13:36:00
10.2	21.8	15.3	10.7	23.0	13:37:00
10.2	21.8	15.3	10.8	23.1	13:38:00
10.1	21.8	15.3	10.7	23.1	13:39:00
10.0	21.8	15.3	10.6	23.1	13:40:00
10.2	21.9	15.3	10.8	23.2	13:41:00
10.2	22.1	15.3	10.8	23.4	13:42:00
10.1	**21.5**	**15.3**	**10.6**	**22.7**	**Averages**

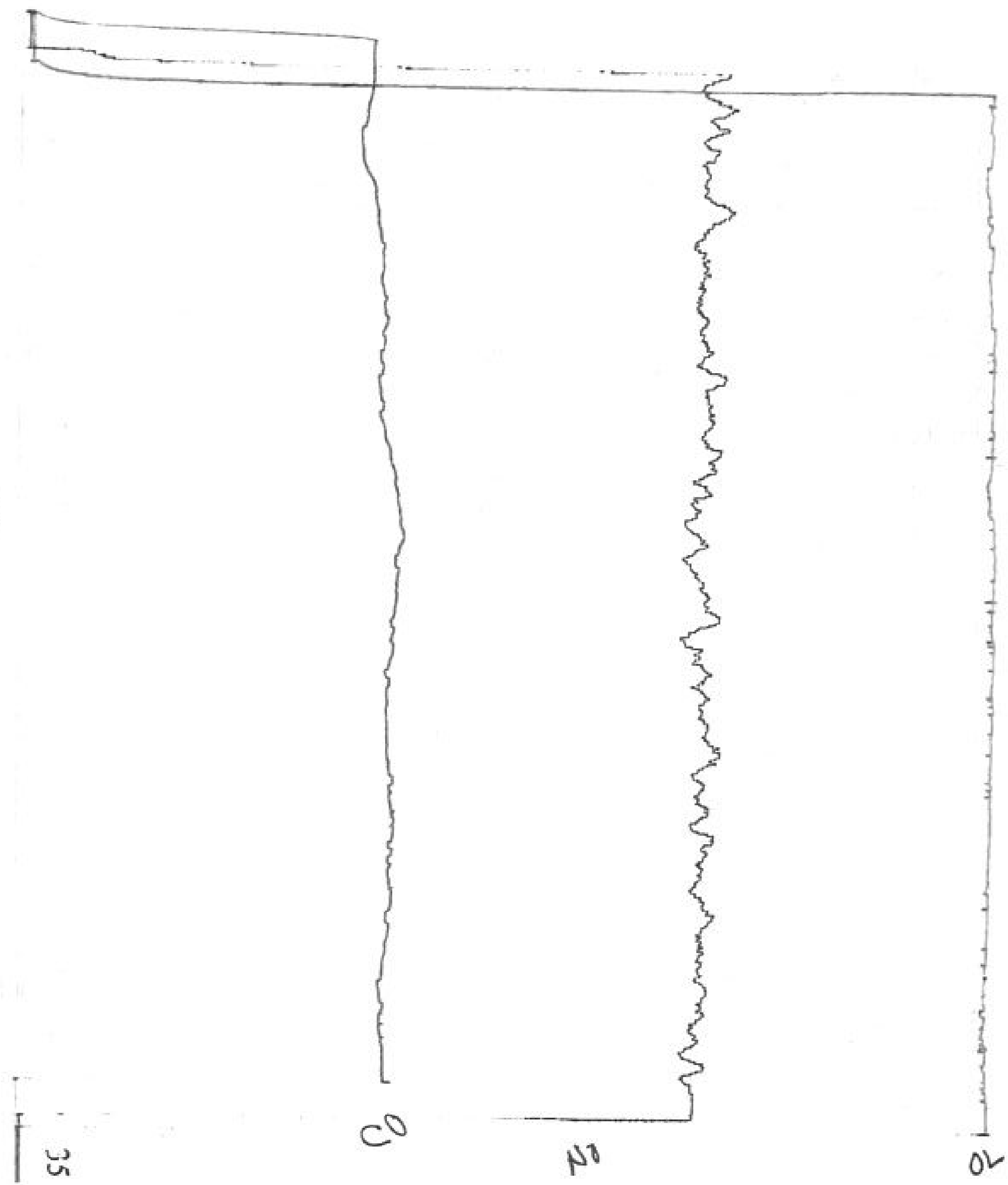
CLIENT:	New Indy	JOB#	213-031		
PLANT:	Oxnard, CA	RUN#	RATA 8		
DATE:	3/20/2013	UNIT ID:	Turbine		
ENGINEER:	KK-BR	RUN START:	1:43 PM		
NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
10.2	22.1	15.3	10.8	23.4	13:42:00
10.3	21.9	15.4	11.0	23.4	13:43:00
10.2	21.8	15.4	10.8	23.2	13:44:00
9.9	22.0	15.4	10.6	23.4	13:45:00
10.0	22.2	15.3	10.6	23.4	13:46:00
10.1	22.3	15.3	10.7	23.6	13:47:00
10.3	22.1	15.3	10.9	23.4	13:48:00
10.3	22.1	15.4	11.0	23.6	13:49:00
10.2	21.8	15.3	10.7	23.0	13:50:00
10.2	22.1	15.3	10.7	23.3	13:51:00
10.2	22.1	15.3	10.8	23.4	13:52:00
10.2	22.2	15.3	10.7	23.4	13:53:00
10.2	22.4	15.3	10.8	23.7	13:54:00
10.3	22.5	15.3	10.9	23.8	13:55:00
10.3	22.6	15.3	10.9	23.8	13:56:00
10.3	22.7	15.3	10.9	24.0	13:57:00
10.1	22.8	15.3	10.7	24.1	13:58:00
10.1	22.9	15.3	10.6	24.2	13:59:00
10.3	23.1	15.3	10.8	24.4	14:00:00
10.3	23.2	15.3	10.9	24.5	14:01:00
10.1	23.2	15.3	10.8	24.6	14:02:00
10.3	23.2	15.4	10.9	24.7	14:03:00
10.3	23.2	15.4	10.9	24.7	14:04:00
10.0	23.2	15.4	10.7	24.7	14:05:00
10.1	23.5	15.3	10.7	24.8	14:06:00
10.2	23.1	15.3	10.8	24.3	14:07:00
10.2	22.7	15.3	10.8	24.0	14:08:00
10.2	22.9	15.3	10.8	24.2	14:09:00
10.0	22.9	15.3	10.6	24.2	14:10:00
10.4	22.6	15.3	11.0	23.9	14:11:00
10.3	22.4	15.3	10.9	23.5	14:12:00
10.4	22.4	15.3	10.9	23.5	14:13:00
10.3	22.2	15.3	10.8	23.3	14:14:00
10.2	**22.6**	**15.3**	**10.8**	**23.9**	**Averages**

CLIENT:	New Indy	JOB#	213-031		
PLANT:	Oxnard, CA	RUN#	RATA 9		
DATE:	3/20/2013	UNIT ID:	Turbine		
ENGINEER:	KK-BR	RUN START:	2:16 PM		
NOx, ppm	CO, ppm	O2, %	NOx, ppm @ 15% O2	CO, ppm @ 15% O2	TIME
10.3	22.2	15.3	10.8	23.3	14:14:00
10.3	22.2	15.3	10.7	23.2	14:15:00
10.4	22.2	15.3	10.9	23.3	14:16:00
10.2	22.1	15.3	10.7	23.2	14:17:00
10.3	22.1	15.3	10.9	23.3	14:18:00
10.4	22.1	15.3	11.0	23.3	14:19:00
10.4	22.1	15.3	10.9	23.2	14:20:00
10.5	22.1	15.3	11.1	23.3	14:21:00
10.3	22.1	15.3	10.8	23.2	14:22:00
10.4	22.1	15.3	10.9	23.2	14:23:00
10.5	22.0	15.3	11.1	23.3	14:24:00
10.2	22.1	15.3	10.8	23.3	14:25:00
10.2	22.0	15.3	10.7	23.1	14:26:00
10.4	22.1	15.3	10.9	23.2	14:27:00
10.3	22.5	15.3	10.8	23.6	14:28:00
10.2	22.7	15.3	10.7	23.8	14:29:00
10.2	22.5	15.3	10.7	23.6	14:30:00
10.3	22.0	15.3	10.8	23.1	14:31:00
10.3	22.5	15.3	10.8	23.6	14:32:00
10.4	22.7	15.3	10.9	23.8	14:33:00
10.4	22.8	15.3	11.0	24.0	14:34:00
10.4	22.9	15.3	10.9	24.1	14:35:00
10.4	23.0	15.3	10.9	24.2	14:36:00
10.3	23.1	15.3	10.8	24.3	14:37:00
10.4	23.3	15.3	10.9	24.4	14:38:00
10.3	23.2	15.3	10.8	24.4	14:39:00
10.3	22.7	15.3	10.8	23.9	14:40:00
10.4	22.9	15.3	11.0	24.1	14:41:00
10.3	22.6	15.3	10.8	23.8	14:42:00
10.3	22.6	15.3	10.8	23.7	14:43:00
10.3	22.6	15.3	10.8	23.7	14:44:00
10.3	22.0	15.3	10.9	23.3	14:45:00
10.4	21.5	15.3	11.0	22.7	14:46:00
10.3	**22.4**	**15.3**	**10.9**	**23.6**	**Averages**


39.7
CO
12
02
NO
12
Pre Bias Cal
NO2
19.4
AAL1259
12 NO
AL3056
19.7
NO
AAL2398
39.7
CO
CC15628
79.9 CO
ACM044989
12
02
ACM041403
20.1
OL
ACM031868
New Fuel 3/20/13 Initial Cal Turbine cogen
33

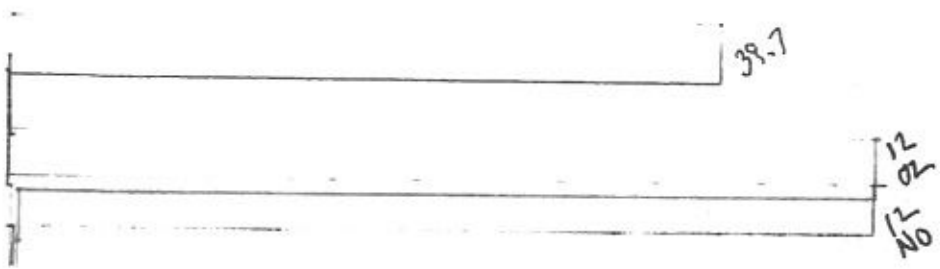

Down 66
Up 65
79.9 CO
Down 64
Up 66
Down 66
Up 64
Down 67
Up 65
19.7 NO
Down 65
Up 66
Down 66
Up 65
Down 64
Up 64
Down 63
20.1
02
Up 63
Down 62
Up 63
Response Times

End 9:58

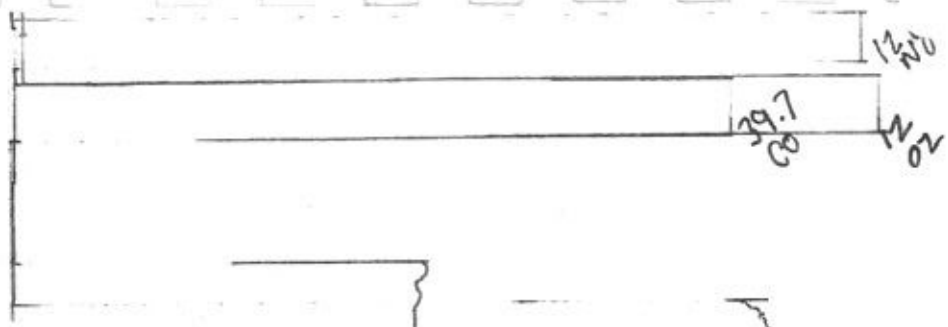


RATA (1,2&3)
Rerun#)

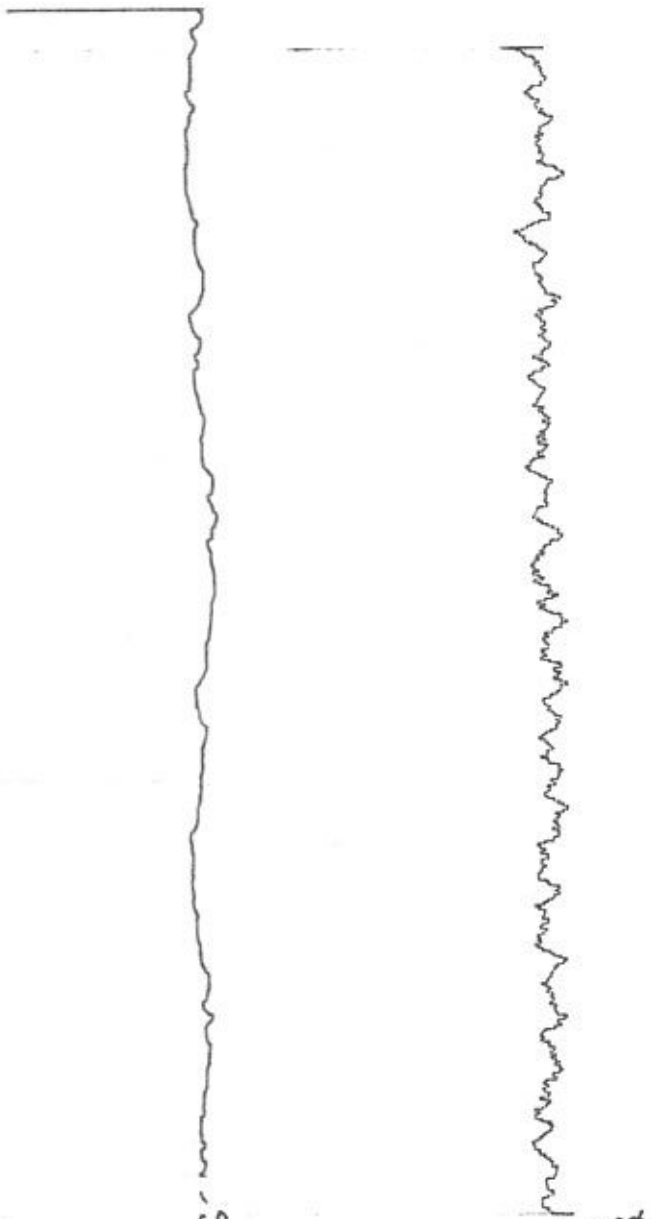
START
8:20



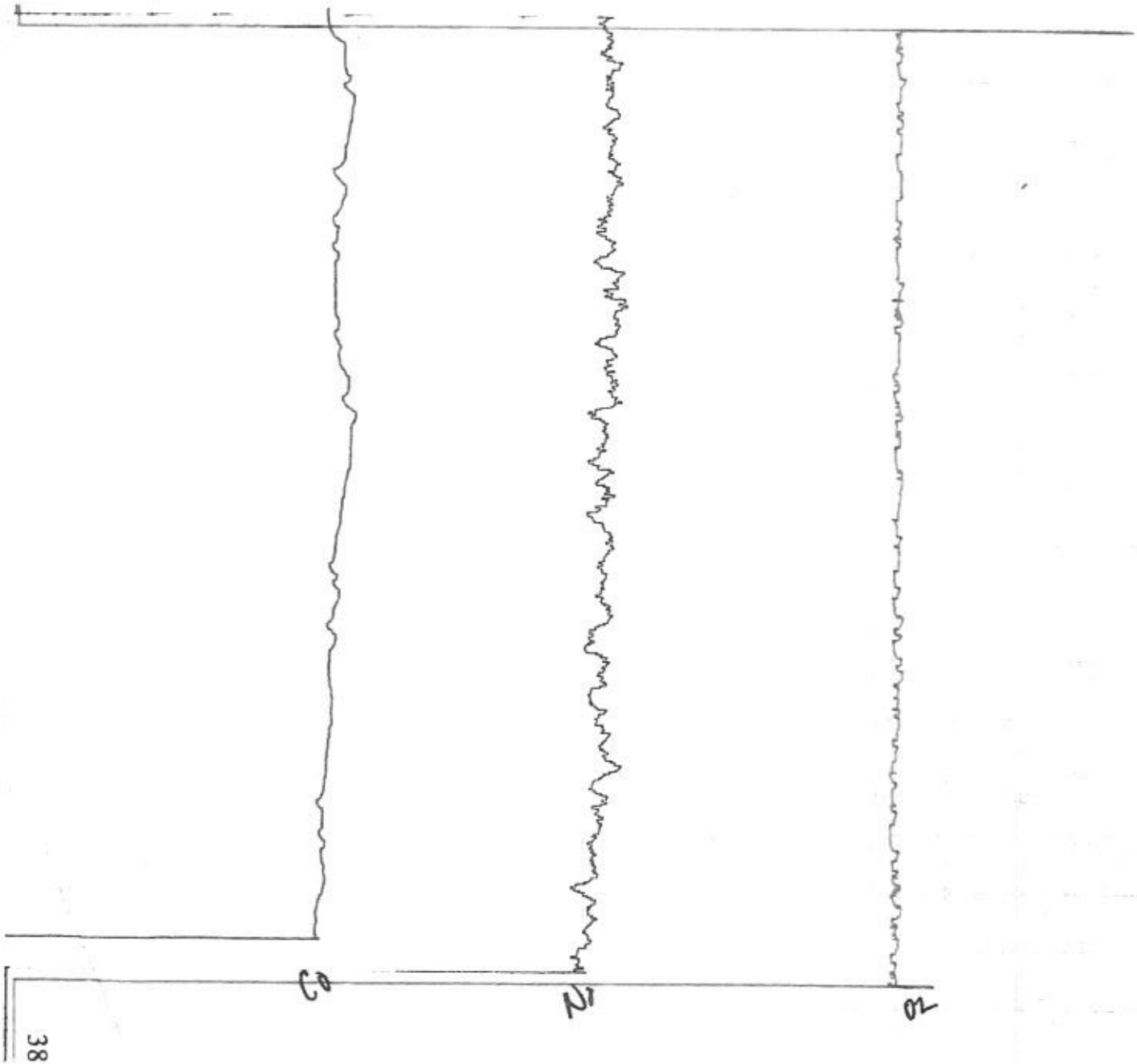
R1
Post Bias cool



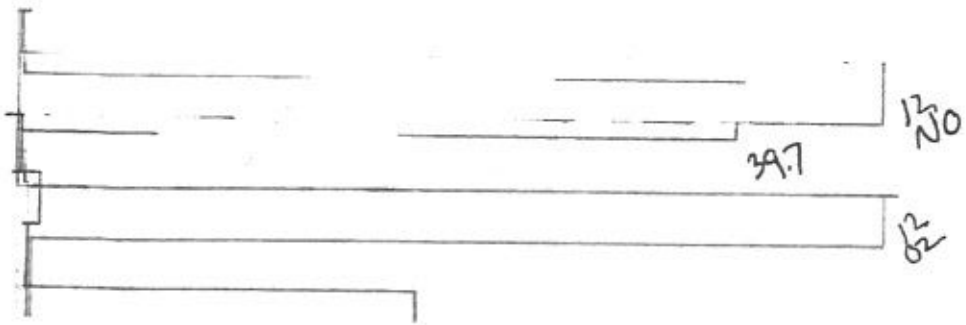
R2
POST Bias cal



Run #2 (RAMA 4,566)
58 30.10 START 11:04



38



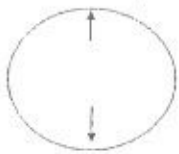
C3
Post Bias Coal

X X TESTING

Plant :	Nucor Indy	Amb. Temp :	53	Nozzle :	3/8
Location :	Arnold	Pbar :	30.06	Prob Heat :	/
Unit :	Turbine	Pitot :	/	Wind Vel :	/
Date :	3/20/13	Pyro :	/	Static Press :	/
Run # :	1	Mag Δ P :	MAG	O2 :	
Cold Box :	1	Mag Δ H :	MAG	CO2 :	
Meter # :	6	% H2O	/	Engineer :	KK
Meter Factor :	.9967	Box Heat :	/	Technician :	KK

Stack Dia. :
"A" :
"B" :
Port Size :
Offset :
M / F :

Stack Sample Port Location



Imp.	Gross	Tare	Total
1			
2			
3			
4			

Filter 1 :

START TIME: 8:20 END TIME: "K" FACTOR: Filter 2 :

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Cyl. Flow
		0				580.490	2.4	59	54		7		
		5				583.7	2.4	64	58		9		
		10				587.7	2.4	66	59		9		
		15				592.0	2.4	67	59		9		
		20				595.9	2.4	68	60		9		
		25				599.8	2.4	69	60		9		
		30				603.7	2.4	69	61		9		
		35				607.7	2.4	71	63		9		
		40				611.8	2.4	72	65		9		
		45				615.8	2.4	73	65		9		
		50				619.0	2.4	70	65		9		
		55				622.7	2.4	69	65		9		
		60				626.5	2.4	69	65		9		
		65				630.3	2.4	70	66		9		
		70				634.2	2.4	71	66		9		
		75				638.0	2.4	71	67		9		
		80				641.9	2.4	71	66		9		
		85				645.8	2.4	71	66		11		
		90				649.7	2.4	71	67		11		
		96				654.438	—	—	—		—		
Average:		96				73.948	2.4	66.0			9.2		

Leak Checks : Pitots Sample Train Leak Check

Pre	Top	Bottom
ΔP		

Post	Top	Bottom
ΔP		

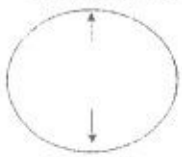
CFM :	.001	In. HG :	16		
CFM :	.000	In. HG :	23		

X TESTING

Plant :	New Indy	Amb. Temp :	58	Nozzle :	3/8
Location :	OX Natchez	Pbar :	30.10	Prob Heat :	
Unit :	Turbine	Pilot :		Wind Vel. :	
Date :	3/20/19	Pyro :		Static Press. :	
Run # :	2	Mag Δ P :		O2 :	
Cold Box :	G	Mag Δ H :		CO2 :	
Meter # :	G	% H2O :		Engineer :	KK
Meter Factor :	.9961	Box Heat :		Technician :	KK

Stack Dia. :
"A" :
"B" :
Port Size :
Offset :
M / F :

Stack Sample Port Location



Imp.	Gross	Tare	Total
1			
2			
3			
4			

Filter 1 :

START TIME: 11:06 END TIME: "K" FACTOR:

Filter 2 :

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp °F	Cyl. Flow
		0				657.100	2.4	65	66		9		
		5				661.1	2.4	65	66		9		
		10				665.1	2.4	66	65		9		
		15				669.1	2.4	67	65		9		
		20				673.0	2.4	68	66		9		
		25				677.0	2.4	69	66		9		
		30				680.9	2.4	69	66		9		
		35				684.9	2.4	70	66		9		
		40				688.9	2.4	70	68		9		
		45				692.8	2.4	71	67		9		
		50				696.7	2.4	71	67		9		
		55				700.7	2.4	71	68		9		
		60				704.6	2.4	72	69		9		
		65				708.6	2.4	72	69		9		
		70				712.5	2.4	71	68		9		
		75				716.5	2.4	74	71		9		
		80				720.4	2.4	72	69		9		
		85				724.4	2.4	72	71		9		
		90				728.3	2.4	72	71		9		
		96				733.132	—	—	—		—		
		9											
Average:		96				76.032	2.4	68.7			9.5		

Leak Checks : Pilots

Pre	Top	Bottom
ΔP		

Post	Top	Bottom
ΔP		

Sample Train Leak Check

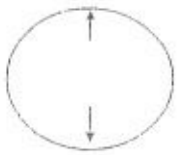
CFM :	.008	In. HG :	24	
CFM :	.008	In. HG :	23	

X TESTING

Plant :	NCW Energy	Amb. Temp :	60	Nozzel :	318
Location :	OAKLAND	Pbar :	30.0x	Prob Heat :	/
Unit :	TURBINE	Pitot :	/	Wind Vel. :	/
Date :	3/20/13	Pyro :	/	Static Press :	/
Run # :	3	Mag Δ P :	MANUAL	O2 :	/
Cold Box :	1	Mag Δ H :	MANUAL	CO2 :	/
Meter # :	G	% H2O :	/	Engineer :	KR
Meter Factor :	.9961	Box Heat :	/	Technician :	KR

Stack Dia. :
"A" :
"B" :
Port Size :
Offset :
M / F :

Stack Sample Port Location



Imp.	Gross	Tare	Total
1			
2			
3			
4			

Filter 1 :

START TIME: 13:10 END TIME: 14:46 "K" FACTOR:

Filter 2 :

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Cyl. Flow
		0				733.758	2.4	71	71		10		
		5				737.8	2.4	71	70		10		
		10				741.6	2.4	72	70		10		
		15				745.8	2.4	74	71		10		
		20				749.7	2.4	74	72		10		
		25				753.7	2.4	75	72		10		
		30				757.5	2.4	74	71		10		
		35				761.8	2.4	73	71		10		
		40				765.3	2.4	74	72		10		
		45				769.5	2.4	73	74		10		
		50				773.2	2.4	75	73		10		
		55				776.8	2.4	74	72		10		
		60				780.8	2.4	74	72		10		
		70				784.4	2.4	74	72		10		
		75				788.6	2.4	74	71		10		
		80				796.7	2.4	74	72		10		
		85				799.7	2.4	74	72		10		
		90				804.3	2.4	74	72		10		
		96				808.563							
Average:		76				774.598	2.4	72.7			10		

Leak Checks : Pitots

Pre	Top	Bottom
ΔP		

Post	Top	Bottom
ΔP		

Sample Train Leak Check

CFM :	.001	In. HG :	23
CFM :	.032	In. HG :	23

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST 3/20/2013 8:20 3/20/2013 8:52
March 20, 2013

Run 1

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
RS_NOX PPM		RS_831AIC1111C.CCD		RS_831AIC1111B.02		DBGASFLOW_A		G1GASFLOW		921-2015.WQ		831FIC1173_MV		921-2015.DWATT	
20-Mar-13 08:20:00	9.80	20-Mar-13 08:20:00	25.20	41353.35	15.24	20-Mar-13 08:20:00	13.48	20-Mar-13 08:20:00	266.35	20-Mar-13 08:20:00	2.60	20-Mar-13 08:20:00	22.88	20-Mar-13 08:25:00	25.88
20-Mar-13 08:21:00	10.32	20-Mar-13 08:21:00	25.20	20-Mar-13 08:21:00	15.24	20-Mar-13 08:21:00	13.12	20-Mar-13 08:21:00	268.71	20-Mar-13 08:21:00	2.58	20-Mar-13 08:21:00	22.58	20-Mar-13 08:21:00	25.73
20-Mar-13 08:22:00	10.43	20-Mar-13 08:22:00	25.03	20-Mar-13 08:22:00	15.24	20-Mar-13 08:22:00	14.03	20-Mar-13 08:22:00	268.95	20-Mar-13 08:22:00	2.59	20-Mar-13 08:22:00	22.72	20-Mar-13 08:22:00	25.81
20-Mar-13 08:23:00	10.48	20-Mar-13 08:23:00	25.03	20-Mar-13 08:23:00	15.24	20-Mar-13 08:23:00	14.96	20-Mar-13 08:23:00	271.18	20-Mar-13 08:23:00	2.60	20-Mar-13 08:23:00	22.45	20-Mar-13 08:23:00	25.86
20-Mar-13 08:24:00	10.48	20-Mar-13 08:24:00	25.03	20-Mar-13 08:24:00	15.24	20-Mar-13 08:24:00	15.02	20-Mar-13 08:24:00	271.43	20-Mar-13 08:24:00	2.59	20-Mar-13 08:24:00	22.78	20-Mar-13 08:24:00	25.74
20-Mar-13 08:25:00	10.46	20-Mar-13 08:25:00	25.03	20-Mar-13 08:25:00	15.23	20-Mar-13 08:25:00	15.17	20-Mar-13 08:25:00	271.43	20-Mar-13 08:25:00	2.59	20-Mar-13 08:25:00	22.98	20-Mar-13 08:25:00	25.88
20-Mar-13 08:26:00	10.48	20-Mar-13 08:26:00	25.03	20-Mar-13 08:26:00	15.22	20-Mar-13 08:26:00	16.39	20-Mar-13 08:26:00	271.43	20-Mar-13 08:26:00	2.59	20-Mar-13 08:26:00	22.51	20-Mar-13 08:26:00	25.80
20-Mar-13 08:27:00	10.48	20-Mar-13 08:27:00	25.03	20-Mar-13 08:27:00	15.21	20-Mar-13 08:27:00	17.47	20-Mar-13 08:27:00	271.13	20-Mar-13 08:27:00	2.60	20-Mar-13 08:27:00	22.84	20-Mar-13 08:27:00	25.71
20-Mar-13 08:28:00	10.44	20-Mar-13 08:28:00	25.03	20-Mar-13 08:28:00	15.20	20-Mar-13 08:28:00	17.00	20-Mar-13 08:28:00	268.82	20-Mar-13 08:28:00	2.59	20-Mar-13 08:28:00	22.83	20-Mar-13 08:28:00	25.77
20-Mar-13 08:29:00	10.41	20-Mar-13 08:29:00	25.03	20-Mar-13 08:29:00	15.19	20-Mar-13 08:29:00	16.44	20-Mar-13 08:29:00	266.63	20-Mar-13 08:29:00	2.60	20-Mar-13 08:29:00	22.86	20-Mar-13 08:29:00	25.88
20-Mar-13 08:30:00	10.43	20-Mar-13 08:30:00	25.03	20-Mar-13 08:30:00	15.18	20-Mar-13 08:30:00	16.58	20-Mar-13 08:30:00	266.35	20-Mar-13 08:30:00	2.60	20-Mar-13 08:30:00	22.87	20-Mar-13 08:30:00	25.88
20-Mar-13 08:31:00	10.47	20-Mar-13 08:31:00	24.87	20-Mar-13 08:31:00	15.18	20-Mar-13 08:31:00	16.72	20-Mar-13 08:31:00	266.35	20-Mar-13 08:31:00	2.59	20-Mar-13 08:31:00	22.81	20-Mar-13 08:31:00	25.81
20-Mar-13 08:32:00	10.56	20-Mar-13 08:32:00	24.93	20-Mar-13 08:32:00	15.22	20-Mar-13 08:32:00	16.52	20-Mar-13 08:32:00	268.35	20-Mar-13 08:32:00	2.59	20-Mar-13 08:32:00	22.87	20-Mar-13 08:32:00	25.85
20-Mar-13 08:33:00	10.64	20-Mar-13 08:33:00	25.03	20-Mar-13 08:33:00	15.24	20-Mar-13 08:33:00	16.23	20-Mar-13 08:33:00	268.35	20-Mar-13 08:33:00	2.59	20-Mar-13 08:33:00	22.84	20-Mar-13 08:33:00	25.95
20-Mar-13 08:34:00	10.59	20-Mar-13 08:34:00	25.03	20-Mar-13 08:34:00	15.24	20-Mar-13 08:34:00	15.71	20-Mar-13 08:34:00	268.35	20-Mar-13 08:34:00	2.60	20-Mar-13 08:34:00	22.87	20-Mar-13 08:34:00	26.00
20-Mar-13 08:35:00	10.53	20-Mar-13 08:35:00	25.03	20-Mar-13 08:35:00	15.24	20-Mar-13 08:35:00	15.23	20-Mar-13 08:35:00	266.71	20-Mar-13 08:35:00	2.59	20-Mar-13 08:35:00	23.09	20-Mar-13 08:35:00	25.98
20-Mar-13 08:36:00	10.48	20-Mar-13 08:36:00	25.03	20-Mar-13 08:36:00	15.24	20-Mar-13 08:36:00	15.17	20-Mar-13 08:36:00	266.90	20-Mar-13 08:36:00	2.59	20-Mar-13 08:36:00	23.17	20-Mar-13 08:36:00	25.97
20-Mar-13 08:37:00	10.43	20-Mar-13 08:37:00	25.03	20-Mar-13 08:37:00	15.24	20-Mar-13 08:37:00	15.14	20-Mar-13 08:37:00	271.18	20-Mar-13 08:37:00	2.61	20-Mar-13 08:37:00	23.15	20-Mar-13 08:37:00	25.94
20-Mar-13 08:38:00	10.41	20-Mar-13 08:38:00	25.03	20-Mar-13 08:38:00	15.24	20-Mar-13 08:38:00	14.80	20-Mar-13 08:38:00	271.47	20-Mar-13 08:38:00	2.59	20-Mar-13 08:38:00	23.15	20-Mar-13 08:38:00	25.91
20-Mar-13 08:39:00	10.40	20-Mar-13 08:39:00	25.03	20-Mar-13 08:39:00	15.24	20-Mar-13 08:39:00	14.58	20-Mar-13 08:39:00	271.47	20-Mar-13 08:39:00	2.60	20-Mar-13 08:39:00	22.92	20-Mar-13 08:39:00	25.94
20-Mar-13 08:40:00	10.43	20-Mar-13 08:40:00	25.03	20-Mar-13 08:40:00	15.24	20-Mar-13 08:40:00	13.65	20-Mar-13 08:40:00	271.47	20-Mar-13 08:40:00	2.58	20-Mar-13 08:40:00	22.78	20-Mar-13 08:40:00	25.94
20-Mar-13 08:41:00	10.48	20-Mar-13 08:41:00	25.03	20-Mar-13 08:41:00	15.24	20-Mar-13 08:41:00	13.50	20-Mar-13 08:41:00	271.47	20-Mar-13 08:41:00	2.62	20-Mar-13 08:41:00	23.22	20-Mar-13 08:41:00	25.97
20-Mar-13 08:42:00	10.48	20-Mar-13 08:42:00	25.03	20-Mar-13 08:42:00	15.24	20-Mar-13 08:42:00	14.33	20-Mar-13 08:42:00	271.47	20-Mar-13 08:42:00	2.60	20-Mar-13 08:42:00	22.85	20-Mar-13 08:42:00	25.93
20-Mar-13 08:43:00	10.50	20-Mar-13 08:43:00	25.46	20-Mar-13 08:43:00	15.25	20-Mar-13 08:43:00	15.01	20-Mar-13 08:43:00	271.47	20-Mar-13 08:43:00	2.58	20-Mar-13 08:43:00	22.87	20-Mar-13 08:43:00	25.94
20-Mar-13 08:44:00	10.53	20-Mar-13 08:44:00	25.56	20-Mar-13 08:44:00	15.25	20-Mar-13 08:44:00	14.11	20-Mar-13 08:44:00	271.47	20-Mar-13 08:44:00	2.60	20-Mar-13 08:44:00	23.02	20-Mar-13 08:44:00	25.97
20-Mar-13 08:45:00	10.55	20-Mar-13 08:45:00	25.63	20-Mar-13 08:45:00	15.26	20-Mar-13 08:45:00	13.14	20-Mar-13 08:45:00	271.47	20-Mar-13 08:45:00	2.59	20-Mar-13 08:45:00	23.08	20-Mar-13 08:45:00	25.77
20-Mar-13 08:46:00	10.49	20-Mar-13 08:46:00	25.62	20-Mar-13 08:46:00	15.27	20-Mar-13 08:46:00	12.99	20-Mar-13 08:46:00	271.47	20-Mar-13 08:46:00	2.60	20-Mar-13 08:46:00	23.14	20-Mar-13 08:46:00	25.90
20-Mar-13 08:47:00	10.44	20-Mar-13 08:47:00	25.47	20-Mar-13 08:47:00	15.28	20-Mar-13 08:47:00	13.05	20-Mar-13 08:47:00	271.47	20-Mar-13 08:47:00	2.65	20-Mar-13 08:47:00	23.00	20-Mar-13 08:47:00	25.93
20-Mar-13 08:48:00	10.44	20-Mar-13 08:48:00	25.60	20-Mar-13 08:48:00	15.28	20-Mar-13 08:48:00	13.53	20-Mar-13 08:48:00	271.47	20-Mar-13 08:48:00	2.65	20-Mar-13 08:48:00	23.26	20-Mar-13 08:48:00	25.92
20-Mar-13 08:49:00	10.46	20-Mar-13 08:49:00	25.52	20-Mar-13 08:49:00	15.29	20-Mar-13 08:49:00	13.69	20-Mar-13 08:49:00	271.13	20-Mar-13 08:49:00	2.60	20-Mar-13 08:49:00	22.89	20-Mar-13 08:49:00	25.93
20-Mar-13 08:50:00	10.50	20-Mar-13 08:50:00	25.77	20-Mar-13 08:50:00	15.30	20-Mar-13 08:50:00	13.27	20-Mar-13 08:50:00	268.82	20-Mar-13 08:50:00	2.60	20-Mar-13 08:50:00	23.11	20-Mar-13 08:50:00	25.99
20-Mar-13 08:51:00	10.53	20-Mar-13 08:51:00	25.69	20-Mar-13 08:51:00	15.30	20-Mar-13 08:51:00	12.81	20-Mar-13 08:51:00	266.99	20-Mar-13 08:51:00	2.59	20-Mar-13 08:51:00	22.93	20-Mar-13 08:51:00	25.78

Average Stack NOx, ppm (15% O2)	10.46	Average Stack CO, ppm (15% O2)	25.23	Average Stack O2 (%)	15.24	Average Duct Burner Gas Flow (MSCFH)	14.79	Average Turbine Gas Flow (MSCFH)	269.56	Ave. Steam Injection Rate (lb/s)	2.60	Ave. Ammonia Injection (lb/hr)	22.89	Ave. Turbine Load (MWh)	25.89

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST
March 20, 2013

3/20/2013 8:52 3/20/2013 9:24 1 m

Run 2

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
RS_NOX PPM		RS_931AIC1111C.CCO		RS_931AIC1111D.O2		DBGASFLOW_A		GTGASFLOW		921-2015.WQ		931FIC1173_MV		921-2015.DWATT	
20-Mar-13 08:52:00	10.47	20-Mar-13 08:52:00	25.31	41353.37	15.28	20-Mar-13 08:52:00	12.42	20-Mar-13 08:52:00	268.99	20-Mar-13 08:52:00	2.59	20-Mar-13 08:52:00	23.19	20-Mar-13 08:52:00	25.94
20-Mar-13 08:53:00	10.42	20-Mar-13 08:53:00	25.58	20-Mar-13 08:53:00	15.25	20-Mar-13 08:53:00	12.27	20-Mar-13 08:53:00	271.16	20-Mar-13 08:53:00	2.59	20-Mar-13 08:53:00	23.05	20-Mar-13 08:53:00	26.05
20-Mar-13 08:54:00	10.53	20-Mar-13 08:54:00	25.86	20-Mar-13 08:54:00	15.28	20-Mar-13 08:54:00	11.75	20-Mar-13 08:54:00	271.47	20-Mar-13 08:54:00	2.59	20-Mar-13 08:54:00	23.06	20-Mar-13 08:54:00	25.83
20-Mar-13 08:55:00	10.63	20-Mar-13 08:55:00	25.23	20-Mar-13 08:55:00	15.28	20-Mar-13 08:55:00	11.34	20-Mar-13 08:55:00	271.47	20-Mar-13 08:55:00	2.65	20-Mar-13 08:55:00	23.44	20-Mar-13 08:55:00	26.05
20-Mar-13 08:56:00	10.55	20-Mar-13 08:56:00	25.25	20-Mar-13 08:56:00	15.29	20-Mar-13 08:56:00	11.75	20-Mar-13 08:56:00	271.47	20-Mar-13 08:56:00	2.65	20-Mar-13 08:56:00	23.18	20-Mar-13 08:56:00	25.87
20-Mar-13 08:57:00	10.45	20-Mar-13 08:57:00	25.33	20-Mar-13 08:57:00	15.28	20-Mar-13 08:57:00	12.21	20-Mar-13 08:57:00	271.11	20-Mar-13 08:57:00	2.66	20-Mar-13 08:57:00	23.17	20-Mar-13 08:57:00	26.02
20-Mar-13 08:58:00	10.39	20-Mar-13 08:58:00	25.23	20-Mar-13 08:58:00	15.26	20-Mar-13 08:58:00	12.37	20-Mar-13 08:58:00	268.82	20-Mar-13 08:58:00	2.60	20-Mar-13 08:58:00	23.28	20-Mar-13 08:58:00	25.98
20-Mar-13 08:59:00	10.35	20-Mar-13 08:59:00	25.27	20-Mar-13 08:59:00	15.29	20-Mar-13 08:59:00	12.44	20-Mar-13 08:59:00	268.99	20-Mar-13 08:59:00	2.59	20-Mar-13 08:59:00	23.41	20-Mar-13 08:59:00	25.99
20-Mar-13 09:00:00	10.42	20-Mar-13 09:00:00	25.44	20-Mar-13 09:00:00	15.30	20-Mar-13 09:00:00	12.29	20-Mar-13 09:00:00	268.99	20-Mar-13 09:00:00	2.58	20-Mar-13 09:00:00	23.40	20-Mar-13 09:00:00	25.98
20-Mar-13 09:01:00	10.51	20-Mar-13 09:01:00	25.46	20-Mar-13 09:01:00	15.29	20-Mar-13 09:01:00	12.08	20-Mar-13 09:01:00	271.19	20-Mar-13 09:01:00	2.64	20-Mar-13 09:01:00	23.60	20-Mar-13 09:01:00	25.96
20-Mar-13 09:02:00	10.56	20-Mar-13 09:02:00	25.47	20-Mar-13 09:02:00	15.29	20-Mar-13 09:02:00	11.87	20-Mar-13 09:02:00	271.43	20-Mar-13 09:02:00	2.67	20-Mar-13 09:02:00	23.33	20-Mar-13 09:02:00	25.87
20-Mar-13 09:03:00	10.62	20-Mar-13 09:03:00	25.66	20-Mar-13 09:03:00	15.28	20-Mar-13 09:03:00	11.27	20-Mar-13 09:03:00	271.47	20-Mar-13 09:03:00	2.61	20-Mar-13 09:03:00	23.40	20-Mar-13 09:03:00	25.90
20-Mar-13 09:04:00	10.54	20-Mar-13 09:04:00	26.07	20-Mar-13 09:04:00	15.27	20-Mar-13 09:04:00	11.05	20-Mar-13 09:04:00	271.47	20-Mar-13 09:04:00	2.63	20-Mar-13 09:04:00	23.29	20-Mar-13 09:04:00	25.92
20-Mar-13 09:05:00	10.45	20-Mar-13 09:05:00	26.28	20-Mar-13 09:05:00	15.27	20-Mar-13 09:05:00	10.84	20-Mar-13 09:05:00	271.19	20-Mar-13 09:05:00	2.59	20-Mar-13 09:05:00	23.45	20-Mar-13 09:05:00	25.87
20-Mar-13 09:06:00	10.43	20-Mar-13 09:06:00	26.07	20-Mar-13 09:06:00	15.26	20-Mar-13 09:06:00	10.62	20-Mar-13 09:06:00	268.82	20-Mar-13 09:06:00	2.65	20-Mar-13 09:06:00	23.02	20-Mar-13 09:06:00	25.68
20-Mar-13 09:07:00	10.42	20-Mar-13 09:07:00	25.72	20-Mar-13 09:07:00	15.25	20-Mar-13 09:07:00	10.42	20-Mar-13 09:07:00	268.99	20-Mar-13 09:07:00	2.65	20-Mar-13 09:07:00	23.15	20-Mar-13 09:07:00	25.65
20-Mar-13 09:08:00	10.48	20-Mar-13 09:08:00	26.12	20-Mar-13 09:08:00	15.25	20-Mar-13 09:08:00	10.31	20-Mar-13 09:08:00	268.99	20-Mar-13 09:08:00	2.67	20-Mar-13 09:08:00	23.57	20-Mar-13 09:08:00	25.99
20-Mar-13 09:09:00	10.51	20-Mar-13 09:09:00	26.24	20-Mar-13 09:09:00	15.30	20-Mar-13 09:09:00	10.23	20-Mar-13 09:09:00	271.19	20-Mar-13 09:09:00	2.60	20-Mar-13 09:09:00	23.46	20-Mar-13 09:09:00	25.91
20-Mar-13 09:10:00	10.55	20-Mar-13 09:10:00	26.08	20-Mar-13 09:10:00	15.30	20-Mar-13 09:10:00	10.26	20-Mar-13 09:10:00	271.47	20-Mar-13 09:10:00	2.60	20-Mar-13 09:10:00	23.24	20-Mar-13 09:10:00	25.93
20-Mar-13 09:11:00	10.56	20-Mar-13 09:11:00	26.11	20-Mar-13 09:11:00	15.30	20-Mar-13 09:11:00	10.15	20-Mar-13 09:11:00	271.47	20-Mar-13 09:11:00	2.59	20-Mar-13 09:11:00	23.33	20-Mar-13 09:11:00	25.88
20-Mar-13 09:12:00	10.48	20-Mar-13 09:12:00	26.50	20-Mar-13 09:12:00	15.30	20-Mar-13 09:12:00	9.92	20-Mar-13 09:12:00	271.47	20-Mar-13 09:12:00	2.60	20-Mar-13 09:12:00	23.17	20-Mar-13 09:12:00	26.00
20-Mar-13 09:13:00	10.41	20-Mar-13 09:13:00	26.33	20-Mar-13 09:13:00	15.30	20-Mar-13 09:13:00	9.73	20-Mar-13 09:13:00	271.47	20-Mar-13 09:13:00	2.60	20-Mar-13 09:13:00	23.28	20-Mar-13 09:13:00	25.84
20-Mar-13 09:14:00	10.55	20-Mar-13 09:14:00	26.16	20-Mar-13 09:14:00	15.30	20-Mar-13 09:14:00	9.83	20-Mar-13 09:14:00	271.47	20-Mar-13 09:14:00	2.60	20-Mar-13 09:14:00	23.43	20-Mar-13 09:14:00	26.01
20-Mar-13 09:15:00	10.67	20-Mar-13 09:15:00	26.00	20-Mar-13 09:15:00	15.30	20-Mar-13 09:15:00	9.68	20-Mar-13 09:15:00	271.47	20-Mar-13 09:15:00	2.60	20-Mar-13 09:15:00	23.61	20-Mar-13 09:15:00	25.81
20-Mar-13 09:16:00	10.54	20-Mar-13 09:16:00	25.83	20-Mar-13 09:16:00	15.30	20-Mar-13 09:16:00	10.03	20-Mar-13 09:16:00	271.47	20-Mar-13 09:16:00	2.60	20-Mar-13 09:16:00	23.49	20-Mar-13 09:16:00	25.85
20-Mar-13 09:17:00	10.41	20-Mar-13 09:17:00	25.68	20-Mar-13 09:17:00	15.30	20-Mar-13 09:17:00	10.18	20-Mar-13 09:17:00	271.47	20-Mar-13 09:17:00	2.61	20-Mar-13 09:17:00	23.50	20-Mar-13 09:17:00	25.90
20-Mar-13 09:18:00	10.44	20-Mar-13 09:18:00	25.68	20-Mar-13 09:18:00	15.30	20-Mar-13 09:18:00	10.62	20-Mar-13 09:18:00	271.47	20-Mar-13 09:18:00	2.58	20-Mar-13 09:18:00	23.26	20-Mar-13 09:18:00	25.84
20-Mar-13 09:19:00	10.48	20-Mar-13 09:19:00	25.50	20-Mar-13 09:19:00	15.28	20-Mar-13 09:19:00	11.19	20-Mar-13 09:19:00	271.47	20-Mar-13 09:19:00	2.58	20-Mar-13 09:19:00	23.34	20-Mar-13 09:19:00	25.94
20-Mar-13 09:20:00	10.48	20-Mar-13 09:20:00	25.49	20-Mar-13 09:20:00	15.25	20-Mar-13 09:20:00	12.04	20-Mar-13 09:20:00	271.47	20-Mar-13 09:20:00	2.58	20-Mar-13 09:20:00	23.29	20-Mar-13 09:20:00	26.02
20-Mar-13 09:21:00	10.45	20-Mar-13 09:21:00	25.44	20-Mar-13 09:21:00	15.24	20-Mar-13 09:21:00	12.78	20-Mar-13 09:21:00	271.47	20-Mar-13 09:21:00	2.61	20-Mar-13 09:21:00	23.07	20-Mar-13 09:21:00	25.91
20-Mar-13 09:22:00	10.55	20-Mar-13 09:22:00	24.92	20-Mar-13 09:22:00	15.24	20-Mar-13 09:22:00	12.78	20-Mar-13 09:22:00	271.47	20-Mar-13 09:22:00	2.66	20-Mar-13 09:22:00	23.55	20-Mar-13 09:22:00	25.98
20-Mar-13 09:23:00	10.63	20-Mar-13 09:23:00	24.71	20-Mar-13 09:23:00	15.24	20-Mar-13 09:23:00	12.59	20-Mar-13 09:23:00	271.47	20-Mar-13 09:23:00	2.65	20-Mar-13 09:23:00	23.67	20-Mar-13 09:23:00	26.10

Average Stack NOx, ppm (15% O2)	10.50	Average Stack CO, ppm (15% O2)	25.69	Average Stack O2 (%)	15.28	Average Duct Burner Gas Flow (MSCFH)	11.23	Average Turbine Gas Flow (MSCFH)	270.74	Ave. Steam Injection Rate (lb/s)	2.62	Ave. Ammonia Injection (lb/hr)	23.34	Ave. Turbine Load (MWh)	25.94

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST 3/20/2013 9:24 3/20/2013 9:56 1 m Run 3
March 20, 2013

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
RS_NOX PPM		RS_931AC1111C.CCO		RS_931AC1111B.O2		DBGASFLOW_A		GTGASFLOW		921-2015.WO		931FIC1173_MV		921-2015.DWATT	
20-Mar-13 09:24:00	10.57	20-Mar-13 09:24:00	24.48	#1253.39	15.24	20-Mar-13 09:24:00	12.33	20-Mar-13 09:24:00	271.47	20-Mar-13 09:24:00	2.66	20-Mar-13 09:24:00	23.37	20-Mar-13 09:24:00	26.11
20-Mar-13 09:25:00	10.52	20-Mar-13 09:25:00	24.25	20-Mar-13 09:25:00	15.24	20-Mar-13 09:25:00	12.07	20-Mar-13 09:25:00	271.47	20-Mar-13 09:25:00	2.64	20-Mar-13 09:25:00	23.46	20-Mar-13 09:25:00	25.99
20-Mar-13 09:26:00	10.61	20-Mar-13 09:26:00	24.16	20-Mar-13 09:26:00	15.24	20-Mar-13 09:26:00	11.86	20-Mar-13 09:26:00	271.47	20-Mar-13 09:26:00	2.63	20-Mar-13 09:26:00	23.50	20-Mar-13 09:26:00	25.99
20-Mar-13 09:27:00	10.70	20-Mar-13 09:27:00	24.67	20-Mar-13 09:27:00	15.24	20-Mar-13 09:27:00	11.85	20-Mar-13 09:27:00	271.47	20-Mar-13 09:27:00	2.66	20-Mar-13 09:27:00	23.54	20-Mar-13 09:27:00	26.00
20-Mar-13 09:28:00	10.69	20-Mar-13 09:28:00	25.10	20-Mar-13 09:28:00	15.24	20-Mar-13 09:28:00	11.36	20-Mar-13 09:28:00	271.47	20-Mar-13 09:28:00	2.66	20-Mar-13 09:28:00	23.64	20-Mar-13 09:28:00	26.10
20-Mar-13 09:29:00	10.65	20-Mar-13 09:29:00	25.35	20-Mar-13 09:29:00	15.24	20-Mar-13 09:29:00	11.95	20-Mar-13 09:29:00	271.47	20-Mar-13 09:29:00	2.66	20-Mar-13 09:29:00	23.56	20-Mar-13 09:29:00	26.06
20-Mar-13 09:30:00	10.61	20-Mar-13 09:30:00	25.50	20-Mar-13 09:30:00	15.25	20-Mar-13 09:30:00	11.41	20-Mar-13 09:30:00	271.47	20-Mar-13 09:30:00	2.65	20-Mar-13 09:30:00	23.64	20-Mar-13 09:30:00	26.22
20-Mar-13 09:31:00	10.56	20-Mar-13 09:31:00	25.68	20-Mar-13 09:31:00	15.28	20-Mar-13 09:31:00	11.79	20-Mar-13 09:31:00	271.47	20-Mar-13 09:31:00	2.66	20-Mar-13 09:31:00	23.69	20-Mar-13 09:31:00	26.24
20-Mar-13 09:32:00	10.58	20-Mar-13 09:32:00	25.82	20-Mar-13 09:32:00	15.28	20-Mar-13 09:32:00	11.99	20-Mar-13 09:32:00	271.47	20-Mar-13 09:32:00	2.65	20-Mar-13 09:32:00	23.80	20-Mar-13 09:32:00	26.07
20-Mar-13 09:33:00	10.56	20-Mar-13 09:33:00	25.95	20-Mar-13 09:33:00	15.29	20-Mar-13 09:33:00	11.83	20-Mar-13 09:33:00	271.47	20-Mar-13 09:33:00	2.58	20-Mar-13 09:33:00	23.91	20-Mar-13 09:33:00	25.83
20-Mar-13 09:34:00	10.60	20-Mar-13 09:34:00	25.93	20-Mar-13 09:34:00	15.29	20-Mar-13 09:34:00	11.74	20-Mar-13 09:34:00	271.47	20-Mar-13 09:34:00	2.60	20-Mar-13 09:34:00	23.55	20-Mar-13 09:34:00	25.84
20-Mar-13 09:35:00	10.62	20-Mar-13 09:35:00	25.99	20-Mar-13 09:35:00	15.26	20-Mar-13 09:35:00	11.71	20-Mar-13 09:35:00	271.47	20-Mar-13 09:35:00	2.65	20-Mar-13 09:35:00	23.77	20-Mar-13 09:35:00	26.07
20-Mar-13 09:36:00	10.54	20-Mar-13 09:36:00	25.21	20-Mar-13 09:36:00	15.26	20-Mar-13 09:36:00	12.04	20-Mar-13 09:36:00	271.47	20-Mar-13 09:36:00	2.66	20-Mar-13 09:36:00	23.86	20-Mar-13 09:36:00	26.09
20-Mar-13 09:37:00	10.48	20-Mar-13 09:37:00	24.89	20-Mar-13 09:37:00	15.26	20-Mar-13 09:37:00	12.33	20-Mar-13 09:37:00	271.47	20-Mar-13 09:37:00	2.65	20-Mar-13 09:37:00	23.70	20-Mar-13 09:37:00	26.07
20-Mar-13 09:38:00	10.44	20-Mar-13 09:38:00	24.74	20-Mar-13 09:38:00	15.24	20-Mar-13 09:38:00	12.18	20-Mar-13 09:38:00	271.47	20-Mar-13 09:38:00	2.65	20-Mar-13 09:38:00	23.70	20-Mar-13 09:38:00	26.15
20-Mar-13 09:39:00	10.43	20-Mar-13 09:39:00	24.56	20-Mar-13 09:39:00	15.23	20-Mar-13 09:39:00	11.97	20-Mar-13 09:39:00	271.47	20-Mar-13 09:39:00	2.65	20-Mar-13 09:39:00	23.70	20-Mar-13 09:39:00	26.04
20-Mar-13 09:40:00	10.41	20-Mar-13 09:40:00	24.44	20-Mar-13 09:40:00	15.23	20-Mar-13 09:40:00	11.90	20-Mar-13 09:40:00	271.47	20-Mar-13 09:40:00	2.67	20-Mar-13 09:40:00	23.88	20-Mar-13 09:40:00	25.98
20-Mar-13 09:41:00	10.40	20-Mar-13 09:41:00	24.29	20-Mar-13 09:41:00	15.22	20-Mar-13 09:41:00	12.05	20-Mar-13 09:41:00	271.47	20-Mar-13 09:41:00	2.65	20-Mar-13 09:41:00	23.65	20-Mar-13 09:41:00	25.98
20-Mar-13 09:42:00	10.41	20-Mar-13 09:42:00	24.14	20-Mar-13 09:42:00	15.21	20-Mar-13 09:42:00	12.07	20-Mar-13 09:42:00	271.47	20-Mar-13 09:42:00	2.66	20-Mar-13 09:42:00	23.86	20-Mar-13 09:42:00	26.05
20-Mar-13 09:43:00	10.44	20-Mar-13 09:43:00	23.99	20-Mar-13 09:43:00	15.21	20-Mar-13 09:43:00	12.19	20-Mar-13 09:43:00	271.47	20-Mar-13 09:43:00	2.64	20-Mar-13 09:43:00	23.70	20-Mar-13 09:43:00	26.11
20-Mar-13 09:44:00	10.50	20-Mar-13 09:44:00	23.84	20-Mar-13 09:44:00	15.20	20-Mar-13 09:44:00	12.84	20-Mar-13 09:44:00	271.47	20-Mar-13 09:44:00	2.66	20-Mar-13 09:44:00	23.81	20-Mar-13 09:44:00	26.15
20-Mar-13 09:45:00	10.55	20-Mar-13 09:45:00	24.08	20-Mar-13 09:45:00	15.19	20-Mar-13 09:45:00	13.55	20-Mar-13 09:45:00	271.47	20-Mar-13 09:45:00	2.67	20-Mar-13 09:45:00	23.81	20-Mar-13 09:45:00	26.08
20-Mar-13 09:46:00	10.54	20-Mar-13 09:46:00	24.04	20-Mar-13 09:46:00	15.19	20-Mar-13 09:46:00	14.22	20-Mar-13 09:46:00	271.47	20-Mar-13 09:46:00	2.66	20-Mar-13 09:46:00	24.03	20-Mar-13 09:46:00	26.15
20-Mar-13 09:47:00	10.52	20-Mar-13 09:47:00	23.89	20-Mar-13 09:47:00	15.19	20-Mar-13 09:47:00	14.86	20-Mar-13 09:47:00	271.47	20-Mar-13 09:47:00	2.66	20-Mar-13 09:47:00	24.05	20-Mar-13 09:47:00	26.10
20-Mar-13 09:48:00	10.46	20-Mar-13 09:48:00	23.52	20-Mar-13 09:48:00	15.22	20-Mar-13 09:48:00	15.42	20-Mar-13 09:48:00	271.47	20-Mar-13 09:48:00	2.65	20-Mar-13 09:48:00	24.20	20-Mar-13 09:48:00	26.15
20-Mar-13 09:49:00	10.43	20-Mar-13 09:49:00	23.38	20-Mar-13 09:49:00	15.19	20-Mar-13 09:49:00	15.62	20-Mar-13 09:49:00	271.47	20-Mar-13 09:49:00	2.66	20-Mar-13 09:49:00	23.71	20-Mar-13 09:49:00	25.99
20-Mar-13 09:50:00	10.57	20-Mar-13 09:50:00	23.40	20-Mar-13 09:50:00	15.29	20-Mar-13 09:50:00	15.67	20-Mar-13 09:50:00	271.47	20-Mar-13 09:50:00	2.65	20-Mar-13 09:50:00	23.80	20-Mar-13 09:50:00	26.08
20-Mar-13 09:51:00	10.70	20-Mar-13 09:51:00	23.48	20-Mar-13 09:51:00	15.21	20-Mar-13 09:51:00	14.91	20-Mar-13 09:51:00	271.11	20-Mar-13 09:51:00	2.66	20-Mar-13 09:51:00	23.84	20-Mar-13 09:51:00	26.07
20-Mar-13 09:52:00	10.64	20-Mar-13 09:52:00	23.55	20-Mar-13 09:52:00	15.23	20-Mar-13 09:52:00	14.48	20-Mar-13 09:52:00	268.82	20-Mar-13 09:52:00	2.65	20-Mar-13 09:52:00	23.75	20-Mar-13 09:52:00	26.09
20-Mar-13 09:53:00	10.57	20-Mar-13 09:53:00	24.05	20-Mar-13 09:53:00	14.42	20-Mar-13 09:53:00	14.14	20-Mar-13 09:53:00	268.99	20-Mar-13 09:53:00	2.59	20-Mar-13 09:53:00	23.72	20-Mar-13 09:53:00	26.03
20-Mar-13 09:54:00	10.54	20-Mar-13 09:54:00	24.50	20-Mar-13 09:54:00	12.74	20-Mar-13 09:54:00	14.28	20-Mar-13 09:54:00	268.99	20-Mar-13 09:54:00	2.65	20-Mar-13 09:54:00	23.86	20-Mar-13 09:54:00	25.99
20-Mar-13 09:55:00	10.53	20-Mar-13 09:55:00	24.67	20-Mar-13 09:55:00	11.06	20-Mar-13 09:55:00	14.30	20-Mar-13 09:55:00	271.19	20-Mar-13 09:55:00	2.66	20-Mar-13 09:55:00	23.98	20-Mar-13 09:55:00	26.07

Average Stack NOx, ppm (15% O2)	10.54	Average Stack CO, ppm (15% O2)	24.49	Average Stack O2 (%)	15.00	Average Duct Burner Gas Flow (MSCFH)	12.86	Average Turbine Gas Flow (MSCFH)	271.15	Ave. Steam Injection Rate (lb/s)	2.65	Ave. Ammonia Injection (lb/hr)	23.78	Ave. Turbine Load (MWh)	26.06

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST
March 20, 2013

3/20/2013 11:06 3/20/2013 11:36 1 m

Run 4

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
R3_NOX.PPM		R3_931AIC1111C.CGO		R3_931AIC1111B.G2		DBGASFLOW_A		GTGASFLOW		921-2015.WQ		931FIC1173_MV		921-2015.DWATT	
20-Mar-13 11:06:00	10.42	20-Mar-13 11:06:00	25.50	41253.46	15.45	20-Mar-13 11:06:00	10.83	20-Mar-13 11:06:00	271.47	20-Mar-13 11:06:00	2.65	20-Mar-13 11:06:00	23.81	20-Mar-13 11:06:00	26.06
20-Mar-13 11:07:00	10.45	20-Mar-13 11:07:00	25.61	20-Mar-13 11:07:00	15.44	20-Mar-13 11:07:00	10.81	20-Mar-13 11:07:00	271.47	20-Mar-13 11:07:00	2.69	20-Mar-13 11:07:00	23.90	20-Mar-13 11:07:00	26.26
20-Mar-13 11:08:00	10.45	20-Mar-13 11:08:00	25.64	20-Mar-13 11:08:00	15.45	20-Mar-13 11:08:00	10.84	20-Mar-13 11:08:00	271.47	20-Mar-13 11:08:00	2.66	20-Mar-13 11:08:00	23.56	20-Mar-13 11:08:00	26.27
20-Mar-13 11:09:00	10.46	20-Mar-13 11:09:00	25.60	20-Mar-13 11:09:00	15.44	20-Mar-13 11:09:00	11.06	20-Mar-13 11:09:00	271.47	20-Mar-13 11:09:00	2.65	20-Mar-13 11:09:00	24.05	20-Mar-13 11:09:00	26.22
20-Mar-13 11:10:00	10.48	20-Mar-13 11:10:00	25.52	20-Mar-13 11:10:00	15.50	20-Mar-13 11:10:00	11.08	20-Mar-13 11:10:00	271.47	20-Mar-13 11:10:00	2.67	20-Mar-13 11:10:00	23.93	20-Mar-13 11:10:00	26.23
20-Mar-13 11:11:00	10.48	20-Mar-13 11:11:00	25.17	20-Mar-13 11:11:00	15.51	20-Mar-13 11:11:00	11.09	20-Mar-13 11:11:00	271.47	20-Mar-13 11:11:00	2.65	20-Mar-13 11:11:00	24.06	20-Mar-13 11:11:00	26.21
20-Mar-13 11:12:00	10.44	20-Mar-13 11:12:00	25.70	20-Mar-13 11:12:00	15.48	20-Mar-13 11:12:00	11.16	20-Mar-13 11:12:00	271.47	20-Mar-13 11:12:00	2.65	20-Mar-13 11:12:00	23.90	20-Mar-13 11:12:00	26.08
20-Mar-13 11:13:00	10.40	20-Mar-13 11:13:00	25.81	20-Mar-13 11:13:00	15.45	20-Mar-13 11:13:00	11.27	20-Mar-13 11:13:00	271.83	20-Mar-13 11:13:00	2.65	20-Mar-13 11:13:00	23.70	20-Mar-13 11:13:00	26.15
20-Mar-13 11:14:00	10.43	20-Mar-13 11:14:00	25.53	20-Mar-13 11:14:00	15.43	20-Mar-13 11:14:00	11.29	20-Mar-13 11:14:00	274.12	20-Mar-13 11:14:00	2.67	20-Mar-13 11:14:00	23.91	20-Mar-13 11:14:00	26.13
20-Mar-13 11:15:00	10.49	20-Mar-13 11:15:00	25.63	20-Mar-13 11:15:00	15.45	20-Mar-13 11:15:00	11.21	20-Mar-13 11:15:00	275.95	20-Mar-13 11:15:00	2.66	20-Mar-13 11:15:00	23.86	20-Mar-13 11:15:00	26.26
20-Mar-13 11:16:00	10.67	20-Mar-13 11:16:00	25.73	20-Mar-13 11:16:00	15.48	20-Mar-13 11:16:00	11.02	20-Mar-13 11:16:00	273.94	20-Mar-13 11:16:00	2.65	20-Mar-13 11:16:00	23.87	20-Mar-13 11:16:00	26.29
20-Mar-13 11:17:00	10.83	20-Mar-13 11:17:00	25.58	20-Mar-13 11:17:00	15.45	20-Mar-13 11:17:00	10.88	20-Mar-13 11:17:00	271.75	20-Mar-13 11:17:00	2.67	20-Mar-13 11:17:00	24.06	20-Mar-13 11:17:00	26.24
20-Mar-13 11:18:00	10.79	20-Mar-13 11:18:00	25.28	20-Mar-13 11:18:00	15.48	20-Mar-13 11:18:00	10.82	20-Mar-13 11:18:00	271.47	20-Mar-13 11:18:00	2.67	20-Mar-13 11:18:00	23.86	20-Mar-13 11:18:00	26.18
20-Mar-13 11:19:00	10.71	20-Mar-13 11:19:00	25.00	20-Mar-13 11:19:00	15.48	20-Mar-13 11:19:00	11.02	20-Mar-13 11:19:00	271.83	20-Mar-13 11:19:00	2.65	20-Mar-13 11:19:00	24.13	20-Mar-13 11:19:00	26.13
20-Mar-13 11:20:00	10.59	20-Mar-13 11:20:00	25.62	20-Mar-13 11:20:00	15.45	20-Mar-13 11:20:00	11.15	20-Mar-13 11:20:00	274.12	20-Mar-13 11:20:00	2.63	20-Mar-13 11:20:00	23.81	20-Mar-13 11:20:00	26.13
20-Mar-13 11:21:00	10.48	20-Mar-13 11:21:00	25.35	20-Mar-13 11:21:00	15.39	20-Mar-13 11:21:00	11.29	20-Mar-13 11:21:00	275.95	20-Mar-13 11:21:00	2.66	20-Mar-13 11:21:00	23.84	20-Mar-13 11:21:00	26.29
20-Mar-13 11:22:00	10.49	20-Mar-13 11:22:00	25.35	20-Mar-13 11:22:00	15.44	20-Mar-13 11:22:00	11.43	20-Mar-13 11:22:00	273.94	20-Mar-13 11:22:00	2.66	20-Mar-13 11:22:00	24.15	20-Mar-13 11:22:00	26.38
20-Mar-13 11:23:00	10.51	20-Mar-13 11:23:00	24.73	20-Mar-13 11:23:00	15.47	20-Mar-13 11:23:00	11.50	20-Mar-13 11:23:00	271.75	20-Mar-13 11:23:00	2.66	20-Mar-13 11:23:00	24.15	20-Mar-13 11:23:00	26.28
20-Mar-13 11:24:00	10.51	20-Mar-13 11:24:00	25.00	20-Mar-13 11:24:00	15.44	20-Mar-13 11:24:00	11.23	20-Mar-13 11:24:00	271.47	20-Mar-13 11:24:00	2.65	20-Mar-13 11:24:00	23.97	20-Mar-13 11:24:00	26.20
20-Mar-13 11:25:00	10.49	20-Mar-13 11:25:00	25.14	20-Mar-13 11:25:00	15.47	20-Mar-13 11:25:00	10.97	20-Mar-13 11:25:00	271.83	20-Mar-13 11:25:00	2.65	20-Mar-13 11:25:00	23.87	20-Mar-13 11:25:00	26.24
20-Mar-13 11:26:00	10.45	20-Mar-13 11:26:00	24.84	20-Mar-13 11:26:00	15.45	20-Mar-13 11:26:00	11.09	20-Mar-13 11:26:00	274.12	20-Mar-13 11:26:00	2.66	20-Mar-13 11:26:00	24.12	20-Mar-13 11:26:00	26.29
20-Mar-13 11:27:00	10.47	20-Mar-13 11:27:00	25.11	20-Mar-13 11:27:00	15.50	20-Mar-13 11:27:00	11.06	20-Mar-13 11:27:00	275.95	20-Mar-13 11:27:00	2.66	20-Mar-13 11:27:00	24.25	20-Mar-13 11:27:00	26.20
20-Mar-13 11:28:00	10.50	20-Mar-13 11:28:00	24.63	20-Mar-13 11:28:00	15.49	20-Mar-13 11:28:00	11.07	20-Mar-13 11:28:00	273.94	20-Mar-13 11:28:00	2.67	20-Mar-13 11:28:00	24.02	20-Mar-13 11:28:00	26.35
20-Mar-13 11:29:00	10.58	20-Mar-13 11:29:00	24.50	20-Mar-13 11:29:00	15.45	20-Mar-13 11:29:00	11.08	20-Mar-13 11:29:00	271.75	20-Mar-13 11:29:00	2.71	20-Mar-13 11:29:00	24.16	20-Mar-13 11:29:00	26.36
20-Mar-13 11:30:00	10.51	20-Mar-13 11:30:00	24.51	20-Mar-13 11:30:00	15.42	20-Mar-13 11:30:00	11.10	20-Mar-13 11:30:00	271.47	20-Mar-13 11:30:00	2.67	20-Mar-13 11:30:00	24.11	20-Mar-13 11:30:00	26.22
20-Mar-13 11:31:00	10.43	20-Mar-13 11:31:00	24.75	20-Mar-13 11:31:00	15.41	20-Mar-13 11:31:00	11.10	20-Mar-13 11:31:00	271.83	20-Mar-13 11:31:00	2.66	20-Mar-13 11:31:00	23.90	20-Mar-13 11:31:00	26.18
20-Mar-13 11:32:00	10.47	20-Mar-13 11:32:00	25.00	20-Mar-13 11:32:00	15.40	20-Mar-13 11:32:00	11.05	20-Mar-13 11:32:00	274.12	20-Mar-13 11:32:00	2.64	20-Mar-13 11:32:00	24.00	20-Mar-13 11:32:00	26.25
20-Mar-13 11:33:00	10.50	20-Mar-13 11:33:00	25.25	20-Mar-13 11:33:00	15.39	20-Mar-13 11:33:00	10.97	20-Mar-13 11:33:00	275.95	20-Mar-13 11:33:00	2.66	20-Mar-13 11:33:00	23.95	20-Mar-13 11:33:00	26.25
20-Mar-13 11:34:00	10.44	20-Mar-13 11:34:00	25.50	20-Mar-13 11:34:00	15.36	20-Mar-13 11:34:00	10.81	20-Mar-13 11:34:00	273.94	20-Mar-13 11:34:00	2.66	20-Mar-13 11:34:00	24.27	20-Mar-13 11:34:00	26.45
20-Mar-13 11:35:00	10.37	20-Mar-13 11:35:00	24.82	20-Mar-13 11:35:00	15.40	20-Mar-13 11:35:00	10.65	20-Mar-13 11:35:00	272.11	20-Mar-13 11:35:00	2.68	20-Mar-13 11:35:00	24.00	20-Mar-13 11:35:00	26.41
20-Mar-13 11:36:00	10.33	20-Mar-13 11:36:00	24.81	20-Mar-13 11:36:00	15.38	20-Mar-13 11:36:00	10.92	20-Mar-13 11:36:00	274.12	20-Mar-13 11:36:00	2.68	20-Mar-13 11:36:00	24.13	20-Mar-13 11:36:00	26.37
20-Mar-13 11:37:00	10.32	20-Mar-13 11:37:00	24.74	20-Mar-13 11:37:00	15.39	20-Mar-13 11:37:00	10.83	20-Mar-13 11:37:00	275.95	20-Mar-13 11:37:00	2.65	20-Mar-13 11:37:00	24.06	20-Mar-13 11:37:00	26.49

Average Stack NOx, ppm (15% O2)	10.50	Average Stack CO, ppm (15% O2)	25.20	Average Stack O2 (%)	15.44	Average Duct Burner Gas Flow (MSCFH)	11.02	Average Turbine Gas Flow (MSCFH)	272.98	Ave. Steam Injection Rate (lb/s)	2.66	Ave. Ammonia Injection (lb/hr)	23.99	Ave. Turbine Load (MWh)	26.25

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST 3/20/2013 11:38 3/20/2013 12:10 1 m Run 5
March 20, 2013

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
RS_NOX.PPM		RS_931ANC1111C.CCO		RS_931ANC1111B.O2		DBGASFLOW_A		GTGASFLOW		921-2015.WQ		931FIC1173_MV		921-2015.DWATT	
20-Mar-13 11:38:00	10.43	20-Mar-13 11:38:00	24.78	41253.48	15.41	20-Mar-13 11:38:00	10.74	20-Mar-13 11:38:00	273.84	20-Mar-13 11:38:00	2.64	20-Mar-13 11:38:00	24.14	20-Mar-13 11:38:00	26.49
20-Mar-13 11:39:00	10.55	20-Mar-13 11:39:00	24.90	20-Mar-13 11:39:00	15.26	20-Mar-13 11:39:00	10.79	20-Mar-13 11:39:00	272.19	20-Mar-13 11:39:00	2.64	20-Mar-13 11:39:00	24.15	20-Mar-13 11:39:00	26.22
20-Mar-13 11:40:00	10.58	20-Mar-13 11:40:00	25.43	20-Mar-13 11:40:00	15.40	20-Mar-13 11:40:00	10.44	20-Mar-13 11:40:00	274.12	20-Mar-13 11:40:00	2.70	20-Mar-13 11:40:00	24.35	20-Mar-13 11:40:00	26.30
20-Mar-13 11:41:00	10.60	20-Mar-13 11:41:00	25.54	20-Mar-13 11:41:00	15.40	20-Mar-13 11:41:00	10.13	20-Mar-13 11:41:00	276.31	20-Mar-13 11:41:00	2.75	20-Mar-13 11:41:00	24.42	20-Mar-13 11:41:00	26.27
20-Mar-13 11:42:00	10.50	20-Mar-13 11:42:00	25.46	20-Mar-13 11:42:00	15.38	20-Mar-13 11:42:00	10.38	20-Mar-13 11:42:00	276.59	20-Mar-13 11:42:00	2.73	20-Mar-13 11:42:00	24.60	20-Mar-13 11:42:00	26.29
20-Mar-13 11:43:00	10.41	20-Mar-13 11:43:00	25.48	20-Mar-13 11:43:00	15.47	20-Mar-13 11:43:00	10.58	20-Mar-13 11:43:00	276.23	20-Mar-13 11:43:00	2.74	20-Mar-13 11:43:00	24.48	20-Mar-13 11:43:00	26.46
20-Mar-13 11:44:00	10.40	20-Mar-13 11:44:00	25.51	20-Mar-13 11:44:00	15.47	20-Mar-13 11:44:00	10.23	20-Mar-13 11:44:00	273.84	20-Mar-13 11:44:00	2.72	20-Mar-13 11:44:00	24.57	20-Mar-13 11:44:00	26.62
20-Mar-13 11:45:00	10.42	20-Mar-13 11:45:00	24.93	20-Mar-13 11:45:00	15.52	20-Mar-13 11:45:00	10.23	20-Mar-13 11:45:00	271.75	20-Mar-13 11:45:00	2.71	20-Mar-13 11:45:00	24.37	20-Mar-13 11:45:00	26.54
20-Mar-13 11:46:00	10.55	20-Mar-13 11:46:00	24.94	20-Mar-13 11:46:00	15.49	20-Mar-13 11:46:00	10.10	20-Mar-13 11:46:00	271.47	20-Mar-13 11:46:00	2.73	20-Mar-13 11:46:00	24.48	20-Mar-13 11:46:00	26.38
20-Mar-13 11:47:00	10.68	20-Mar-13 11:47:00	25.44	20-Mar-13 11:47:00	15.38	20-Mar-13 11:47:00	9.95	20-Mar-13 11:47:00	271.83	20-Mar-13 11:47:00	2.70	20-Mar-13 11:47:00	24.36	20-Mar-13 11:47:00	26.35
20-Mar-13 11:48:00	10.75	20-Mar-13 11:48:00	25.26	20-Mar-13 11:48:00	15.43	20-Mar-13 11:48:00	9.83	20-Mar-13 11:48:00	274.12	20-Mar-13 11:48:00	2.72	20-Mar-13 11:48:00	24.32	20-Mar-13 11:48:00	26.44
20-Mar-13 11:49:00	10.77	20-Mar-13 11:49:00	25.55	20-Mar-13 11:49:00	15.39	20-Mar-13 11:49:00	9.31	20-Mar-13 11:49:00	276.31	20-Mar-13 11:49:00	2.74	20-Mar-13 11:49:00	24.38	20-Mar-13 11:49:00	26.34
20-Mar-13 11:50:00	10.58	20-Mar-13 11:50:00	25.38	20-Mar-13 11:50:00	15.37	20-Mar-13 11:50:00	9.19	20-Mar-13 11:50:00	276.59	20-Mar-13 11:50:00	2.74	20-Mar-13 11:50:00	24.50	20-Mar-13 11:50:00	26.49
20-Mar-13 11:51:00	10.40	20-Mar-13 11:51:00	25.75	20-Mar-13 11:51:00	15.43	20-Mar-13 11:51:00	9.12	20-Mar-13 11:51:00	276.59	20-Mar-13 11:51:00	2.74	20-Mar-13 11:51:00	24.53	20-Mar-13 11:51:00	26.50
20-Mar-13 11:52:00	10.39	20-Mar-13 11:52:00	25.53	20-Mar-13 11:52:00	15.42	20-Mar-13 11:52:00	9.08	20-Mar-13 11:52:00	276.59	20-Mar-13 11:52:00	2.72	20-Mar-13 11:52:00	24.60	20-Mar-13 11:52:00	26.50
20-Mar-13 11:53:00	10.42	20-Mar-13 11:53:00	25.82	20-Mar-13 11:53:00	15.43	20-Mar-13 11:53:00	9.03	20-Mar-13 11:53:00	276.23	20-Mar-13 11:53:00	2.70	20-Mar-13 11:53:00	24.52	20-Mar-13 11:53:00	26.40
20-Mar-13 11:54:00	10.44	20-Mar-13 11:54:00	26.03	20-Mar-13 11:54:00	15.44	20-Mar-13 11:54:00	9.02	20-Mar-13 11:54:00	273.84	20-Mar-13 11:54:00	2.73	20-Mar-13 11:54:00	24.47	20-Mar-13 11:54:00	26.50
20-Mar-13 11:55:00	10.46	20-Mar-13 11:55:00	26.02	20-Mar-13 11:55:00	15.45	20-Mar-13 11:55:00	9.01	20-Mar-13 11:55:00	272.11	20-Mar-13 11:55:00	2.71	20-Mar-13 11:55:00	24.41	20-Mar-13 11:55:00	26.44
20-Mar-13 11:56:00	10.57	20-Mar-13 11:56:00	25.84	20-Mar-13 11:56:00	15.48	20-Mar-13 11:56:00	8.98	20-Mar-13 11:56:00	274.12	20-Mar-13 11:56:00	2.73	20-Mar-13 11:56:00	24.37	20-Mar-13 11:56:00	26.42
20-Mar-13 11:57:00	10.58	20-Mar-13 11:57:00	25.83	20-Mar-13 11:57:00	15.47	20-Mar-13 11:57:00	8.96	20-Mar-13 11:57:00	276.31	20-Mar-13 11:57:00	2.71	20-Mar-13 11:57:00	24.63	20-Mar-13 11:57:00	26.43
20-Mar-13 11:58:00	10.58	20-Mar-13 11:58:00	25.51	20-Mar-13 11:58:00	15.45	20-Mar-13 11:58:00	9.05	20-Mar-13 11:58:00	276.59	20-Mar-13 11:58:00	2.71	20-Mar-13 11:58:00	24.72	20-Mar-13 11:58:00	26.47
20-Mar-13 11:59:00	10.58	20-Mar-13 11:59:00	25.93	20-Mar-13 11:59:00	15.45	20-Mar-13 11:59:00	9.18	20-Mar-13 11:59:00	276.59	20-Mar-13 11:59:00	2.74	20-Mar-13 11:59:00	24.72	20-Mar-13 11:59:00	26.55
20-Mar-13 12:00:00	10.58	20-Mar-13 12:00:00	25.73	20-Mar-13 12:00:00	15.44	20-Mar-13 12:00:00	9.26	20-Mar-13 12:00:00	276.59	20-Mar-13 12:00:00	2.70	20-Mar-13 12:00:00	24.55	20-Mar-13 12:00:00	26.43
20-Mar-13 12:01:00	10.58	20-Mar-13 12:01:00	25.37	20-Mar-13 12:01:00	15.48	20-Mar-13 12:01:00	9.35	20-Mar-13 12:01:00	276.59	20-Mar-13 12:01:00	2.73	20-Mar-13 12:01:00	24.57	20-Mar-13 12:01:00	26.48
20-Mar-13 12:02:00	10.53	20-Mar-13 12:02:00	25.80	20-Mar-13 12:02:00	15.43	20-Mar-13 12:02:00	9.44	20-Mar-13 12:02:00	276.59	20-Mar-13 12:02:00	2.73	20-Mar-13 12:02:00	24.47	20-Mar-13 12:02:00	26.43
20-Mar-13 12:03:00	10.47	20-Mar-13 12:03:00	25.84	20-Mar-13 12:03:00	15.45	20-Mar-13 12:03:00	9.54	20-Mar-13 12:03:00	276.59	20-Mar-13 12:03:00	2.71	20-Mar-13 12:03:00	24.43	20-Mar-13 12:03:00	26.45
20-Mar-13 12:04:00	10.47	20-Mar-13 12:04:00	24.80	20-Mar-13 12:04:00	15.47	20-Mar-13 12:04:00	9.75	20-Mar-13 12:04:00	276.59	20-Mar-13 12:04:00	2.71	20-Mar-13 12:04:00	24.45	20-Mar-13 12:04:00	26.44
20-Mar-13 12:05:00	10.48	20-Mar-13 12:05:00	25.37	20-Mar-13 12:05:00	15.48	20-Mar-13 12:05:00	9.96	20-Mar-13 12:05:00	276.59	20-Mar-13 12:05:00	2.73	20-Mar-13 12:05:00	24.54	20-Mar-13 12:05:00	26.49
20-Mar-13 12:06:00	10.44	20-Mar-13 12:06:00	25.84	20-Mar-13 12:06:00	15.46	20-Mar-13 12:06:00	10.07	20-Mar-13 12:06:00	276.59	20-Mar-13 12:06:00	2.73	20-Mar-13 12:06:00	24.36	20-Mar-13 12:06:00	26.54
20-Mar-13 12:07:00	10.42	20-Mar-13 12:07:00	25.48	20-Mar-13 12:07:00	15.43	20-Mar-13 12:07:00	10.25	20-Mar-13 12:07:00	276.59	20-Mar-13 12:07:00	2.72	20-Mar-13 12:07:00	24.10	20-Mar-13 12:07:00	26.62
20-Mar-13 12:08:00	10.44	20-Mar-13 12:08:00	25.44	20-Mar-13 12:08:00	15.42	20-Mar-13 12:08:00	10.65	20-Mar-13 12:08:00	276.59	20-Mar-13 12:08:00	2.71	20-Mar-13 12:08:00	24.11	20-Mar-13 12:08:00	26.51
20-Mar-13 12:09:00	10.48	20-Mar-13 12:09:00	25.44	20-Mar-13 12:09:00	15.42	20-Mar-13 12:09:00	11.38	20-Mar-13 12:09:00	276.59	20-Mar-13 12:09:00	2.69	20-Mar-13 12:09:00	24.53	20-Mar-13 12:09:00	26.38

Average Stack NOx, ppm (15% O2)	10.51	Average Stack CO, ppm (15% O2)	25.48	Average Stack O2 (%)	15.43	Average Duct Burner Gas Flow (MSCFH)	9.78	Average Turbine Gas Flow (MSCFH)	275.32	Ave. Steam Injection Rate (lb/s)	2.71	Ave. Ammonia Injection (lb/hr)	24.45	Ave. Turbine Load (MWh)	26.43

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST
March 20, 2013

3/20/2013 12:10 3/20/2013 12:42 1 m

Run 6

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
RS_NOX PPM		RS 931AIC1111C.CCO		RS_931AIC1111B.D2		DBGASFLOW_A		GTGASFLOW		921-2015.WQ		931FIC1173_MV		921-2015.DWATT	
20-Mar-13 12:10:00	10.47	20-Mar-13 12:10:00	24.48	41353.51	15.38	20-Mar-13 12:10:00	11.38	20-Mar-13 12:10:00	273.94	20-Mar-13 12:10:00	2.73	20-Mar-13 12:10:00	24.33	20-Mar-13 12:10:00	26.39
20-Mar-13 12:11:00	10.47	20-Mar-13 12:11:00	25.07	20-Mar-13 12:11:00	15.37	20-Mar-13 12:11:00	11.26	20-Mar-13 12:11:00	275.75	20-Mar-13 12:11:00	2.67	20-Mar-13 12:11:00	24.06	20-Mar-13 12:11:00	26.21
20-Mar-13 12:12:00	10.48	20-Mar-13 12:12:00	24.88	20-Mar-13 12:12:00	15.36	20-Mar-13 12:12:00	11.10	20-Mar-13 12:12:00	276.47	20-Mar-13 12:12:00	2.64	20-Mar-13 12:12:00	23.94	20-Mar-13 12:12:00	26.29
20-Mar-13 12:13:00	10.48	20-Mar-13 12:13:00	24.90	20-Mar-13 12:13:00	15.40	20-Mar-13 12:13:00	10.94	20-Mar-13 12:13:00	276.83	20-Mar-13 12:13:00	2.68	20-Mar-13 12:13:00	24.13	20-Mar-13 12:13:00	26.31
20-Mar-13 12:14:00	10.35	20-Mar-13 12:14:00	25.31	20-Mar-13 12:14:00	15.39	20-Mar-13 12:14:00	10.89	20-Mar-13 12:14:00	274.12	20-Mar-13 12:14:00	2.65	20-Mar-13 12:14:00	24.00	20-Mar-13 12:14:00	26.05
20-Mar-13 12:15:00	10.54	20-Mar-13 12:15:00	25.07	20-Mar-13 12:15:00	15.44	20-Mar-13 12:15:00	10.86	20-Mar-13 12:15:00	276.31	20-Mar-13 12:15:00	2.66	20-Mar-13 12:15:00	23.95	20-Mar-13 12:15:00	26.21
20-Mar-13 12:16:00	10.26	20-Mar-13 12:16:00	24.88	20-Mar-13 12:16:00	15.47	20-Mar-13 12:16:00	10.45	20-Mar-13 12:16:00	276.59	20-Mar-13 12:16:00	2.69	20-Mar-13 12:16:00	24.18	20-Mar-13 12:16:00	26.18
20-Mar-13 12:17:00	10.32	20-Mar-13 12:17:00	25.09	20-Mar-13 12:17:00	15.43	20-Mar-13 12:17:00	10.23	20-Mar-13 12:17:00	276.23	20-Mar-13 12:17:00	2.72	20-Mar-13 12:17:00	24.10	20-Mar-13 12:17:00	26.39
20-Mar-13 12:18:00	10.37	20-Mar-13 12:18:00	25.35	20-Mar-13 12:18:00	15.43	20-Mar-13 12:18:00	10.06	20-Mar-13 12:18:00	273.94	20-Mar-13 12:18:00	2.71	20-Mar-13 12:18:00	24.25	20-Mar-13 12:18:00	26.36
20-Mar-13 12:19:00	10.42	20-Mar-13 12:19:00	25.36	20-Mar-13 12:19:00	15.43	20-Mar-13 12:19:00	9.89	20-Mar-13 12:19:00	271.75	20-Mar-13 12:19:00	2.67	20-Mar-13 12:19:00	23.98	20-Mar-13 12:19:00	26.26
20-Mar-13 12:20:00	10.46	20-Mar-13 12:20:00	25.37	20-Mar-13 12:20:00	15.44	20-Mar-13 12:20:00	9.78	20-Mar-13 12:20:00	271.47	20-Mar-13 12:20:00	2.68	20-Mar-13 12:20:00	24.02	20-Mar-13 12:20:00	26.30
20-Mar-13 12:21:00	10.55	20-Mar-13 12:21:00	25.41	20-Mar-13 12:21:00	15.44	20-Mar-13 12:21:00	9.67	20-Mar-13 12:21:00	271.47	20-Mar-13 12:21:00	2.64	20-Mar-13 12:21:00	24.03	20-Mar-13 12:21:00	26.18
20-Mar-13 12:22:00	10.57	20-Mar-13 12:22:00	25.41	20-Mar-13 12:22:00	15.49	20-Mar-13 12:22:00	9.53	20-Mar-13 12:22:00	271.47	20-Mar-13 12:22:00	2.69	20-Mar-13 12:22:00	24.14	20-Mar-13 12:22:00	26.23
20-Mar-13 12:23:00	10.59	20-Mar-13 12:23:00	25.08	20-Mar-13 12:23:00	15.47	20-Mar-13 12:23:00	9.45	20-Mar-13 12:23:00	271.83	20-Mar-13 12:23:00	2.71	20-Mar-13 12:23:00	24.47	20-Mar-13 12:23:00	26.35
20-Mar-13 12:24:00	10.58	20-Mar-13 12:24:00	25.36	20-Mar-13 12:24:00	15.45	20-Mar-13 12:24:00	9.75	20-Mar-13 12:24:00	274.12	20-Mar-13 12:24:00	2.73	20-Mar-13 12:24:00	24.50	20-Mar-13 12:24:00	26.50
20-Mar-13 12:25:00	10.57	20-Mar-13 12:25:00	24.84	20-Mar-13 12:25:00	15.42	20-Mar-13 12:25:00	10.09	20-Mar-13 12:25:00	276.31	20-Mar-13 12:25:00	2.70	20-Mar-13 12:25:00	24.50	20-Mar-13 12:25:00	26.53
20-Mar-13 12:26:00	10.52	20-Mar-13 12:26:00	24.60	20-Mar-13 12:26:00	15.39	20-Mar-13 12:26:00	10.39	20-Mar-13 12:26:00	278.56	20-Mar-13 12:26:00	2.71	20-Mar-13 12:26:00	23.88	20-Mar-13 12:26:00	26.43
20-Mar-13 12:27:00	10.47	20-Mar-13 12:27:00	24.49	20-Mar-13 12:27:00	15.47	20-Mar-13 12:27:00	10.69	20-Mar-13 12:27:00	279.23	20-Mar-13 12:27:00	2.72	20-Mar-13 12:27:00	24.10	20-Mar-13 12:27:00	26.42
20-Mar-13 12:28:00	10.51	20-Mar-13 12:28:00	24.53	20-Mar-13 12:28:00	15.43	20-Mar-13 12:28:00	11.03	20-Mar-13 12:28:00	278.94	20-Mar-13 12:28:00	2.71	20-Mar-13 12:28:00	24.27	20-Mar-13 12:28:00	26.45
20-Mar-13 12:29:00	10.55	20-Mar-13 12:29:00	24.39	20-Mar-13 12:29:00	15.42	20-Mar-13 12:29:00	11.36	20-Mar-13 12:29:00	277.75	20-Mar-13 12:29:00	2.74	20-Mar-13 12:29:00	24.26	20-Mar-13 12:29:00	26.45
20-Mar-13 12:30:00	10.56	20-Mar-13 12:30:00	25.04	20-Mar-13 12:30:00	15.43	20-Mar-13 12:30:00	11.58	20-Mar-13 12:30:00	277.47	20-Mar-13 12:30:00	2.71	20-Mar-13 12:30:00	24.13	20-Mar-13 12:30:00	26.41
20-Mar-13 12:31:00	10.54	20-Mar-13 12:31:00	24.68	20-Mar-13 12:31:00	15.43	20-Mar-13 12:31:00	11.78	20-Mar-13 12:31:00	277.83	20-Mar-13 12:31:00	2.73	20-Mar-13 12:31:00	23.99	20-Mar-13 12:31:00	26.37
20-Mar-13 12:32:00	10.44	20-Mar-13 12:32:00	24.82	20-Mar-13 12:32:00	15.43	20-Mar-13 12:32:00	11.81	20-Mar-13 12:32:00	278.12	20-Mar-13 12:32:00	2.71	20-Mar-13 12:32:00	24.21	20-Mar-13 12:32:00	26.37
20-Mar-13 12:33:00	10.35	20-Mar-13 12:33:00	25.17	20-Mar-13 12:33:00	15.42	20-Mar-13 12:33:00	11.88	20-Mar-13 12:33:00	278.31	20-Mar-13 12:33:00	2.72	20-Mar-13 12:33:00	23.93	20-Mar-13 12:33:00	26.42
20-Mar-13 12:34:00	10.42	20-Mar-13 12:34:00	25.10	20-Mar-13 12:34:00	15.41	20-Mar-13 12:34:00	11.71	20-Mar-13 12:34:00	278.59	20-Mar-13 12:34:00	2.72	20-Mar-13 12:34:00	24.26	20-Mar-13 12:34:00	26.52
20-Mar-13 12:35:00	10.49	20-Mar-13 12:35:00	25.00	20-Mar-13 12:35:00	15.52	20-Mar-13 12:35:00	11.49	20-Mar-13 12:35:00	278.59	20-Mar-13 12:35:00	2.72	20-Mar-13 12:35:00	24.03	20-Mar-13 12:35:00	26.55
20-Mar-13 12:36:00	10.48	20-Mar-13 12:36:00	25.16	20-Mar-13 12:36:00	15.47	20-Mar-13 12:36:00	11.11	20-Mar-13 12:36:00	278.59	20-Mar-13 12:36:00	2.73	20-Mar-13 12:36:00	24.17	20-Mar-13 12:36:00	26.38
20-Mar-13 12:37:00	10.48	20-Mar-13 12:37:00	24.88	20-Mar-13 12:37:00	15.48	20-Mar-13 12:37:00	10.76	20-Mar-13 12:37:00	278.23	20-Mar-13 12:37:00	2.71	20-Mar-13 12:37:00	24.05	20-Mar-13 12:37:00	26.82
20-Mar-13 12:38:00	10.55	20-Mar-13 12:38:00	25.09	20-Mar-13 12:38:00	15.48	20-Mar-13 12:38:00	10.66	20-Mar-13 12:38:00	277.94	20-Mar-13 12:38:00	2.73	20-Mar-13 12:38:00	24.17	20-Mar-13 12:38:00	26.41
20-Mar-13 12:39:00	10.56	20-Mar-13 12:39:00	25.24	20-Mar-13 12:39:00	15.48	20-Mar-13 12:39:00	10.62	20-Mar-13 12:39:00	277.75	20-Mar-13 12:39:00	2.69	20-Mar-13 12:39:00	24.27	20-Mar-13 12:39:00	26.34
20-Mar-13 12:40:00	10.49	20-Mar-13 12:40:00	24.83	20-Mar-13 12:40:00	15.51	20-Mar-13 12:40:00	10.68	20-Mar-13 12:40:00	277.47	20-Mar-13 12:40:00	2.65	20-Mar-13 12:40:00	24.20	20-Mar-13 12:40:00	26.18
20-Mar-13 12:41:00	10.36	20-Mar-13 12:41:00	25.03	20-Mar-13 12:41:00	15.55	20-Mar-13 12:41:00	10.74	20-Mar-13 12:41:00	277.47	20-Mar-13 12:41:00	2.65	20-Mar-13 12:41:00	24.00	20-Mar-13 12:41:00	26.10

Average Stack NOx, ppm (15% O2)	10.47	Average Stack CO, ppm (15% O2)	25.03	Average Stack O2 (%)	15.44	Average Duct Burner Gas Flow (MSCFH)	10.73	Average Turbine Gas Flow (MSCFH)	273.80	Ave. Steam Injection Rate (lb/s)	2.70	Ave. Ammonia Injection (lb/hr)	24.15	Ave. Turbine Load (MWh)	26.35

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST 3/20/2013 13:10 3/20/2013 13:42 1 m Run 7
March 20, 2013

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
RS_NOX PPM		RS_931AIC1111C.CCD		RS_931AIC1111B.O2		DBGASFLOW_A		GTGASFLOW		921-3015.WQ		931FIC1173_MV		921-2015.DWATT	
20-Mar-13 13:10:00	10.46	20-Mar-13 13:10:00	23.83	41353.55	15.51	20-Mar-13 13:10:00	12.18	20-Mar-13 13:10:00	274.12	20-Mar-13 13:10:00	2.67	20-Mar-13 13:10:00	24.38	20-Mar-13 13:10:00	26.38
20-Mar-13 13:11:00	10.39	20-Mar-13 13:11:00	24.07	20-Mar-13 13:11:00	15.53	20-Mar-13 13:11:00	11.98	20-Mar-13 13:11:00	276.31	20-Mar-13 13:11:00	2.64	20-Mar-13 13:11:00	24.26	20-Mar-13 13:11:00	26.35
20-Mar-13 13:12:00	10.38	20-Mar-13 13:12:00	24.26	20-Mar-13 13:12:00	15.51	20-Mar-13 13:12:00	11.75	20-Mar-13 13:12:00	276.59	20-Mar-13 13:12:00	2.66	20-Mar-13 13:12:00	24.27	20-Mar-13 13:12:00	26.29
20-Mar-13 13:13:00	10.38	20-Mar-13 13:13:00	24.21	20-Mar-13 13:13:00	15.51	20-Mar-13 13:13:00	11.53	20-Mar-13 13:13:00	276.23	20-Mar-13 13:13:00	2.65	20-Mar-13 13:13:00	24.11	20-Mar-13 13:13:00	26.11
20-Mar-13 13:14:00	10.45	20-Mar-13 13:14:00	24.98	20-Mar-13 13:14:00	15.53	20-Mar-13 13:14:00	11.37	20-Mar-13 13:14:00	273.91	20-Mar-13 13:14:00	2.68	20-Mar-13 13:14:00	24.66	20-Mar-13 13:14:00	26.15
20-Mar-13 13:15:00	10.50	20-Mar-13 13:15:00	24.98	20-Mar-13 13:15:00	15.53	20-Mar-13 13:15:00	11.24	20-Mar-13 13:15:00	272.16	20-Mar-13 13:15:00	2.65	20-Mar-13 13:15:00	23.96	20-Mar-13 13:15:00	26.12
20-Mar-13 13:16:00	10.48	20-Mar-13 13:16:00	24.88	20-Mar-13 13:16:00	15.51	20-Mar-13 13:16:00	11.21	20-Mar-13 13:16:00	274.12	20-Mar-13 13:16:00	2.66	20-Mar-13 13:16:00	23.90	20-Mar-13 13:16:00	26.15
20-Mar-13 13:17:00	10.41	20-Mar-13 13:17:00	25.01	20-Mar-13 13:17:00	15.53	20-Mar-13 13:17:00	11.26	20-Mar-13 13:17:00	275.95	20-Mar-13 13:17:00	2.66	20-Mar-13 13:17:00	24.12	20-Mar-13 13:17:00	26.14
20-Mar-13 13:18:00	10.38	20-Mar-13 13:18:00	25.48	20-Mar-13 13:18:00	15.53	20-Mar-13 13:18:00	11.53	20-Mar-13 13:18:00	273.94	20-Mar-13 13:18:00	2.68	20-Mar-13 13:18:00	23.98	20-Mar-13 13:18:00	26.27
20-Mar-13 13:19:00	10.38	20-Mar-13 13:19:00	24.83	20-Mar-13 13:19:00	15.54	20-Mar-13 13:19:00	12.07	20-Mar-13 13:19:00	271.75	20-Mar-13 13:19:00	2.68	20-Mar-13 13:19:00	23.75	20-Mar-13 13:19:00	26.16
20-Mar-13 13:20:00	10.42	20-Mar-13 13:20:00	24.67	20-Mar-13 13:20:00	15.53	20-Mar-13 13:20:00	12.06	20-Mar-13 13:20:00	271.47	20-Mar-13 13:20:00	2.65	20-Mar-13 13:20:00	24.00	20-Mar-13 13:20:00	26.13
20-Mar-13 13:21:00	10.48	20-Mar-13 13:21:00	24.48	20-Mar-13 13:21:00	15.56	20-Mar-13 13:21:00	13.15	20-Mar-13 13:21:00	271.47	20-Mar-13 13:21:00	2.66	20-Mar-13 13:21:00	23.73	20-Mar-13 13:21:00	26.19
20-Mar-13 13:22:00	10.53	20-Mar-13 13:22:00	24.75	20-Mar-13 13:22:00	15.53	20-Mar-13 13:22:00	12.62	20-Mar-13 13:22:00	271.47	20-Mar-13 13:22:00	2.65	20-Mar-13 13:22:00	23.80	20-Mar-13 13:22:00	26.21
20-Mar-13 13:23:00	10.58	20-Mar-13 13:23:00	24.83	20-Mar-13 13:23:00	15.49	20-Mar-13 13:23:00	12.60	20-Mar-13 13:23:00	271.47	20-Mar-13 13:23:00	2.70	20-Mar-13 13:23:00	23.99	20-Mar-13 13:23:00	26.38
20-Mar-13 13:24:00	10.53	20-Mar-13 13:24:00	24.38	20-Mar-13 13:24:00	15.55	20-Mar-13 13:24:00	12.38	20-Mar-13 13:24:00	271.47	20-Mar-13 13:24:00	2.69	20-Mar-13 13:24:00	23.78	20-Mar-13 13:24:00	26.18
20-Mar-13 13:25:00	10.49	20-Mar-13 13:25:00	24.63	20-Mar-13 13:25:00	15.46	20-Mar-13 13:25:00	12.23	20-Mar-13 13:25:00	271.47	20-Mar-13 13:25:00	2.68	20-Mar-13 13:25:00	23.84	20-Mar-13 13:25:00	26.21
20-Mar-13 13:26:00	10.50	20-Mar-13 13:26:00	24.73	20-Mar-13 13:26:00	15.47	20-Mar-13 13:26:00	12.29	20-Mar-13 13:26:00	271.47	20-Mar-13 13:26:00	2.65	20-Mar-13 13:26:00	23.73	20-Mar-13 13:26:00	26.33
20-Mar-13 13:27:00	10.51	20-Mar-13 13:27:00	24.83	20-Mar-13 13:27:00	15.49	20-Mar-13 13:27:00	12.46	20-Mar-13 13:27:00	271.47	20-Mar-13 13:27:00	2.64	20-Mar-13 13:27:00	23.65	20-Mar-13 13:27:00	26.14
20-Mar-13 13:28:00	10.52	20-Mar-13 13:28:00	24.85	20-Mar-13 13:28:00	15.50	20-Mar-13 13:28:00	12.58	20-Mar-13 13:28:00	271.47	20-Mar-13 13:28:00	2.65	20-Mar-13 13:28:00	23.72	20-Mar-13 13:28:00	26.12
20-Mar-13 13:29:00	10.54	20-Mar-13 13:29:00	24.84	20-Mar-13 13:29:00	15.47	20-Mar-13 13:29:00	12.73	20-Mar-13 13:29:00	271.83	20-Mar-13 13:29:00	2.66	20-Mar-13 13:29:00	23.80	20-Mar-13 13:29:00	26.10
20-Mar-13 13:30:00	10.59	20-Mar-13 13:30:00	24.91	20-Mar-13 13:30:00	15.48	20-Mar-13 13:30:00	12.52	20-Mar-13 13:30:00	274.12	20-Mar-13 13:30:00	2.68	20-Mar-13 13:30:00	23.79	20-Mar-13 13:30:00	26.26
20-Mar-13 13:31:00	10.61	20-Mar-13 13:31:00	25.48	20-Mar-13 13:31:00	15.49	20-Mar-13 13:31:00	12.24	20-Mar-13 13:31:00	275.95	20-Mar-13 13:31:00	2.65	20-Mar-13 13:31:00	23.72	20-Mar-13 13:31:00	26.32
20-Mar-13 13:32:00	10.43	20-Mar-13 13:32:00	25.18	20-Mar-13 13:32:00	15.47	20-Mar-13 13:32:00	11.84	20-Mar-13 13:32:00	273.94	20-Mar-13 13:32:00	2.68	20-Mar-13 13:32:00	24.14	20-Mar-13 13:32:00	26.19
20-Mar-13 13:33:00	10.27	20-Mar-13 13:33:00	25.21	20-Mar-13 13:33:00	15.48	20-Mar-13 13:33:00	11.83	20-Mar-13 13:33:00	276.75	20-Mar-13 13:33:00	2.68	20-Mar-13 13:33:00	23.83	20-Mar-13 13:33:00	26.20
20-Mar-13 13:34:00	10.37	20-Mar-13 13:34:00	25.29	20-Mar-13 13:34:00	15.50	20-Mar-13 13:34:00	11.29	20-Mar-13 13:34:00	276.47	20-Mar-13 13:34:00	2.65	20-Mar-13 13:34:00	24.09	20-Mar-13 13:34:00	26.29
20-Mar-13 13:35:00	10.48	20-Mar-13 13:35:00	25.27	20-Mar-13 13:35:00	15.55	20-Mar-13 13:35:00	11.17	20-Mar-13 13:35:00	276.47	20-Mar-13 13:35:00	2.67	20-Mar-13 13:35:00	23.78	20-Mar-13 13:35:00	26.17
20-Mar-13 13:36:00	10.50	20-Mar-13 13:36:00	25.15	20-Mar-13 13:36:00	15.53	20-Mar-13 13:36:00	11.05	20-Mar-13 13:36:00	276.47	20-Mar-13 13:36:00	2.65	20-Mar-13 13:36:00	23.74	20-Mar-13 13:36:00	26.08
20-Mar-13 13:37:00	10.50	20-Mar-13 13:37:00	25.21	20-Mar-13 13:37:00	15.56	20-Mar-13 13:37:00	10.93	20-Mar-13 13:37:00	276.47	20-Mar-13 13:37:00	2.66	20-Mar-13 13:37:00	23.82	20-Mar-13 13:37:00	26.13
20-Mar-13 13:38:00	10.54	20-Mar-13 13:38:00	25.23	20-Mar-13 13:38:00	15.54	20-Mar-13 13:38:00	10.78	20-Mar-13 13:38:00	276.47	20-Mar-13 13:38:00	2.65	20-Mar-13 13:38:00	23.59	20-Mar-13 13:38:00	26.08
20-Mar-13 13:39:00	10.57	20-Mar-13 13:39:00	25.41	20-Mar-13 13:39:00	15.58	20-Mar-13 13:39:00	10.60	20-Mar-13 13:39:00	276.47	20-Mar-13 13:39:00	2.67	20-Mar-13 13:39:00	23.68	20-Mar-13 13:39:00	26.34
20-Mar-13 13:40:00	10.52	20-Mar-13 13:40:00	25.10	20-Mar-13 13:40:00	15.51	20-Mar-13 13:40:00	10.35	20-Mar-13 13:40:00	276.47	20-Mar-13 13:40:00	2.65	20-Mar-13 13:40:00	23.68	20-Mar-13 13:40:00	26.20
20-Mar-13 13:41:00	10.47	20-Mar-13 13:41:00	25.84	20-Mar-13 13:41:00	15.53	20-Mar-13 13:41:00	10.17	20-Mar-13 13:41:00	276.47	20-Mar-13 13:41:00	2.65	20-Mar-13 13:41:00	23.68	20-Mar-13 13:41:00	26.25

Average Stack NOx, ppm (15% O2)	10.47	Average Stack CO, ppm (15% O2)	24.91	Average Stack O2 (%)	15.52	Average Duct Burner Gas Flow (MSCFH)	11.78	Average Turbine Gas Flow (MSCFH)	272.74	Ave. Steam Injection Rate (lb/s)	2.66	Ave. Ammonia Injection (lb/hr)	23.88	Ave. Turbine Load (MWh)	26.21

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST
March 20, 2013

3/20/2013 13:42 3/20/2013 14:14 1 m

Run 8

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
RS_NOX PPM		RS_931AIC1111C.CGO		RS_931AIC1111O.O2		DBGASFLOW_A		GTGASFLOW		921-2012.WQ		931FIC1173_MV		921-2015.DWATT	
20-Mar-13 13:42:00	10.48	20-Mar-13 13:42:00	25.13	41353.57	15.54	20-Mar-13 13:42:00	10.48	20-Mar-13 13:42:00	271.47	20-Mar-13 13:42:00	2.65	20-Mar-13 13:42:00	23.61	20-Mar-13 13:42:00	26.15
20-Mar-13 13:43:00	10.49	20-Mar-13 13:43:00	25.67	20-Mar-13 13:43:00	15.62	20-Mar-13 13:43:00	10.01	20-Mar-13 13:43:00	271.47	20-Mar-13 13:43:00	2.65	20-Mar-13 13:43:00	23.68	20-Mar-13 13:43:00	26.03
20-Mar-13 13:44:00	10.48	20-Mar-13 13:44:00	25.48	20-Mar-13 13:44:00	15.60	20-Mar-13 13:44:00	10.02	20-Mar-13 13:44:00	271.47	20-Mar-13 13:44:00	2.66	20-Mar-13 13:44:00	23.57	20-Mar-13 13:44:00	26.13
20-Mar-13 13:45:00	10.50	20-Mar-13 13:45:00	26.03	20-Mar-13 13:45:00	15.50	20-Mar-13 13:45:00	12.23	20-Mar-13 13:45:00	271.47	20-Mar-13 13:45:00	2.66	20-Mar-13 13:45:00	23.71	20-Mar-13 13:45:00	26.22
20-Mar-13 13:46:00	10.63	20-Mar-13 13:46:00	26.14	20-Mar-13 13:46:00	15.50	20-Mar-13 13:46:00	12.16	20-Mar-13 13:46:00	271.47	20-Mar-13 13:46:00	2.67	20-Mar-13 13:46:00	23.54	20-Mar-13 13:46:00	26.40
20-Mar-13 13:47:00	10.74	20-Mar-13 13:47:00	25.47	20-Mar-13 13:47:00	15.56	20-Mar-13 13:47:00	11.99	20-Mar-13 13:47:00	271.47	20-Mar-13 13:47:00	2.64	20-Mar-13 13:47:00	23.67	20-Mar-13 13:47:00	26.26
20-Mar-13 13:48:00	10.64	20-Mar-13 13:48:00	25.60	20-Mar-13 13:48:00	15.57	20-Mar-13 13:48:00	11.84	20-Mar-13 13:48:00	271.47	20-Mar-13 13:48:00	2.71	20-Mar-13 13:48:00	23.99	20-Mar-13 13:48:00	26.29
20-Mar-13 13:49:00	10.53	20-Mar-13 13:49:00	25.29	20-Mar-13 13:49:00	15.52	20-Mar-13 13:49:00	11.67	20-Mar-13 13:49:00	271.47	20-Mar-13 13:49:00	2.68	20-Mar-13 13:49:00	23.78	20-Mar-13 13:49:00	26.28
20-Mar-13 13:50:00	10.52	20-Mar-13 13:50:00	25.45	20-Mar-13 13:50:00	15.50	20-Mar-13 13:50:00	11.41	20-Mar-13 13:50:00	271.47	20-Mar-13 13:50:00	2.68	20-Mar-13 13:50:00	23.81	20-Mar-13 13:50:00	26.31
20-Mar-13 13:51:00	10.52	20-Mar-13 13:51:00	25.66	20-Mar-13 13:51:00	15.53	20-Mar-13 13:51:00	11.17	20-Mar-13 13:51:00	271.47	20-Mar-13 13:51:00	2.64	20-Mar-13 13:51:00	23.67	20-Mar-13 13:51:00	26.23
20-Mar-13 13:52:00	10.52	20-Mar-13 13:52:00	25.82	20-Mar-13 13:52:00	15.50	20-Mar-13 13:52:00	11.13	20-Mar-13 13:52:00	271.47	20-Mar-13 13:52:00	2.69	20-Mar-13 13:52:00	23.67	20-Mar-13 13:52:00	26.30
20-Mar-13 13:53:00	10.53	20-Mar-13 13:53:00	26.19	20-Mar-13 13:53:00	15.52	20-Mar-13 13:53:00	11.06	20-Mar-13 13:53:00	271.47	20-Mar-13 13:53:00	2.67	20-Mar-13 13:53:00	23.72	20-Mar-13 13:53:00	26.29
20-Mar-13 13:54:00	10.58	20-Mar-13 13:54:00	26.30	20-Mar-13 13:54:00	15.52	20-Mar-13 13:54:00	10.70	20-Mar-13 13:54:00	271.47	20-Mar-13 13:54:00	2.66	20-Mar-13 13:54:00	23.82	20-Mar-13 13:54:00	26.22
20-Mar-13 13:55:00	10.63	20-Mar-13 13:55:00	26.48	20-Mar-13 13:55:00	15.50	20-Mar-13 13:55:00	10.35	20-Mar-13 13:55:00	271.47	20-Mar-13 13:55:00	2.64	20-Mar-13 13:55:00	23.91	20-Mar-13 13:55:00	26.26
20-Mar-13 13:56:00	10.51	20-Mar-13 13:56:00	26.33	20-Mar-13 13:56:00	15.54	20-Mar-13 13:56:00	10.34	20-Mar-13 13:56:00	271.47	20-Mar-13 13:56:00	2.65	20-Mar-13 13:56:00	23.77	20-Mar-13 13:56:00	26.34
20-Mar-13 13:57:00	10.42	20-Mar-13 13:57:00	26.25	20-Mar-13 13:57:00	15.52	20-Mar-13 13:57:00	10.34	20-Mar-13 13:57:00	271.47	20-Mar-13 13:57:00	2.66	20-Mar-13 13:57:00	23.64	20-Mar-13 13:57:00	26.29
20-Mar-13 13:58:00	10.53	20-Mar-13 13:58:00	26.37	20-Mar-13 13:58:00	15.56	20-Mar-13 13:58:00	10.16	20-Mar-13 13:58:00	271.47	20-Mar-13 13:58:00	2.65	20-Mar-13 13:58:00	23.46	20-Mar-13 13:58:00	26.29
20-Mar-13 13:59:00	10.64	20-Mar-13 13:59:00	26.70	20-Mar-13 13:59:00	15.53	20-Mar-13 13:59:00	10.06	20-Mar-13 13:59:00	271.47	20-Mar-13 13:59:00	2.66	20-Mar-13 13:59:00	23.60	20-Mar-13 13:59:00	26.18
20-Mar-13 14:00:00	10.52	20-Mar-13 14:00:00	27.04	20-Mar-13 14:00:00	15.54	20-Mar-13 14:00:00	10.58	20-Mar-13 14:00:00	271.47	20-Mar-13 14:00:00	2.66	20-Mar-13 14:00:00	23.48	20-Mar-13 14:00:00	26.06
20-Mar-13 14:01:00	10.45	20-Mar-13 14:01:00	26.50	20-Mar-13 14:01:00	15.54	20-Mar-13 14:01:00	10.53	20-Mar-13 14:01:00	271.47	20-Mar-13 14:01:00	2.65	20-Mar-13 14:01:00	23.36	20-Mar-13 14:01:00	26.16
20-Mar-13 14:02:00	10.49	20-Mar-13 14:02:00	26.21	20-Mar-13 14:02:00	15.53	20-Mar-13 14:02:00	10.23	20-Mar-13 14:02:00	271.47	20-Mar-13 14:02:00	2.67	20-Mar-13 14:02:00	23.35	20-Mar-13 14:02:00	26.20
20-Mar-13 14:03:00	10.57	20-Mar-13 14:03:00	26.32	20-Mar-13 14:03:00	15.52	20-Mar-13 14:03:00	9.42	20-Mar-13 14:03:00	271.47	20-Mar-13 14:03:00	2.66	20-Mar-13 14:03:00	23.51	20-Mar-13 14:03:00	26.17
20-Mar-13 14:04:00	10.55	20-Mar-13 14:04:00	27.27	20-Mar-13 14:04:00	15.49	20-Mar-13 14:04:00	8.89	20-Mar-13 14:04:00	271.47	20-Mar-13 14:04:00	2.65	20-Mar-13 14:04:00	23.25	20-Mar-13 14:04:00	26.16
20-Mar-13 14:05:00	10.51	20-Mar-13 14:05:00	26.83	20-Mar-13 14:05:00	15.48	20-Mar-13 14:05:00	8.51	20-Mar-13 14:05:00	271.47	20-Mar-13 14:05:00	2.66	20-Mar-13 14:05:00	23.55	20-Mar-13 14:05:00	26.29
20-Mar-13 14:06:00	10.42	20-Mar-13 14:06:00	25.45	20-Mar-13 14:06:00	15.45	20-Mar-13 14:06:00	8.72	20-Mar-13 14:06:00	271.47	20-Mar-13 14:06:00	2.66	20-Mar-13 14:06:00	23.65	20-Mar-13 14:06:00	25.99
20-Mar-13 14:07:00	10.36	20-Mar-13 14:07:00	26.28	20-Mar-13 14:07:00	15.47	20-Mar-13 14:07:00	9.01	20-Mar-13 14:07:00	271.47	20-Mar-13 14:07:00	2.66	20-Mar-13 14:07:00	23.36	20-Mar-13 14:07:00	26.31
20-Mar-13 14:08:00	10.47	20-Mar-13 14:08:00	26.21	20-Mar-13 14:08:00	15.48	20-Mar-13 14:08:00	9.23	20-Mar-13 14:08:00	271.47	20-Mar-13 14:08:00	2.65	20-Mar-13 14:08:00	23.05	20-Mar-13 14:08:00	26.28
20-Mar-13 14:09:00	10.58	20-Mar-13 14:09:00	25.70	20-Mar-13 14:09:00	15.54	20-Mar-13 14:09:00	9.68	20-Mar-13 14:09:00	271.47	20-Mar-13 14:09:00	2.69	20-Mar-13 14:09:00	23.01	20-Mar-13 14:09:00	26.17
20-Mar-13 14:10:00	10.58	20-Mar-13 14:10:00	25.14	20-Mar-13 14:10:00	15.48	20-Mar-13 14:10:00	10.02	20-Mar-13 14:10:00	271.47	20-Mar-13 14:10:00	2.72	20-Mar-13 14:10:00	23.73	20-Mar-13 14:10:00	26.38
20-Mar-13 14:11:00	10.53	20-Mar-13 14:11:00	25.41	20-Mar-13 14:11:00	15.46	20-Mar-13 14:11:00	10.43	20-Mar-13 14:11:00	271.47	20-Mar-13 14:11:00	2.73	20-Mar-13 14:11:00	23.67	20-Mar-13 14:11:00	26.22
20-Mar-13 14:12:00	10.55	20-Mar-13 14:12:00	25.17	20-Mar-13 14:12:00	15.48	20-Mar-13 14:12:00	10.08	20-Mar-13 14:12:00	271.47	20-Mar-13 14:12:00	2.68	20-Mar-13 14:12:00	23.76	20-Mar-13 14:12:00	26.26
20-Mar-13 14:13:00	10.58	20-Mar-13 14:13:00	25.16	20-Mar-13 14:13:00	15.48	20-Mar-13 14:13:00	11.67	20-Mar-13 14:13:00	271.47	20-Mar-13 14:13:00	2.65	20-Mar-13 14:13:00	23.46	20-Mar-13 14:13:00	26.04

Average Stack NOx, ppm (15% O2)	10.53	Average Stack CO, ppm (15% O2)	25.95	Average Stack O2 (%)	15.51	Average Duct Burner Gas Flow (MSCFH)	10.56	Average Turbine Gas Flow (MSCFH)	271.47	Ave. Steam Injection Rate (lb/s)	2.66	Ave. Ammonia Injection (lb/hr)	23.65	Ave. Turbine Load (MWh)	26.22

New-Indy Oxnard, LLC
ROSEMOUNT CEMS SOURCE TEST 3/20/2013 14:14 3/20/2013 14:46 1 m Run 9
March 20, 2013

Stack NOx		Stack CO		Stack O2		Duct Burner Gas Flow		Turbine Gas Flow		Steam Injection		Ammonia Injection		Turbine Load	
RS_NOX PPM		RS_931AC1111C.CCD		RS_931AC1111B.O2		DBGASFLOW_A		GTGASFLOW		921-2015.WQ		931FIC1171_MV		921-2015.DWATT	
20-Mar-13 14:14:00	10.56	20-Mar-13 14:14:00	25.29	41353.50	15.45	20-Mar-13 14:14:00	11.55	20-Mar-13 14:14:00	271.47	20-Mar-13 14:14:00	2.66	20-Mar-13 14:14:00	23.64	20-Mar-13 14:14:00	25.98
20-Mar-13 14:15:00	10.61	20-Mar-13 14:15:00	25.22	20-Mar-13 14:15:00	15.47	20-Mar-13 14:15:00	11.36	20-Mar-13 14:15:00	271.47	20-Mar-13 14:15:00	2.65	20-Mar-13 14:15:00	23.50	20-Mar-13 14:15:00	25.96
20-Mar-13 14:16:00	10.65	20-Mar-13 14:16:00	25.24	20-Mar-13 14:16:00	15.47	20-Mar-13 14:16:00	11.23	20-Mar-13 14:16:00	271.47	20-Mar-13 14:16:00	2.65	20-Mar-13 14:16:00	23.63	20-Mar-13 14:16:00	25.81
20-Mar-13 14:17:00	10.71	20-Mar-13 14:17:00	25.41	20-Mar-13 14:17:00	15.51	20-Mar-13 14:17:00	11.28	20-Mar-13 14:17:00	271.47	20-Mar-13 14:17:00	2.66	20-Mar-13 14:17:00	23.95	20-Mar-13 14:17:00	25.87
20-Mar-13 14:18:00	10.80	20-Mar-13 14:18:00	25.58	20-Mar-13 14:18:00	15.54	20-Mar-13 14:18:00	11.18	20-Mar-13 14:18:00	271.47	20-Mar-13 14:18:00	2.66	20-Mar-13 14:18:00	23.94	20-Mar-13 14:18:00	26.06
20-Mar-13 14:19:00	10.67	20-Mar-13 14:19:00	25.79	20-Mar-13 14:19:00	15.53	20-Mar-13 14:19:00	11.07	20-Mar-13 14:19:00	271.47	20-Mar-13 14:19:00	2.66	20-Mar-13 14:19:00	24.01	20-Mar-13 14:19:00	25.95
20-Mar-13 14:20:00	10.75	20-Mar-13 14:20:00	25.06	20-Mar-13 14:20:00	15.48	20-Mar-13 14:20:00	10.98	20-Mar-13 14:20:00	271.47	20-Mar-13 14:20:00	2.66	20-Mar-13 14:20:00	23.85	20-Mar-13 14:20:00	26.15
20-Mar-13 14:21:00	10.61	20-Mar-13 14:21:00	24.53	20-Mar-13 14:21:00	15.48	20-Mar-13 14:21:00	10.84	20-Mar-13 14:21:00	271.47	20-Mar-13 14:21:00	2.65	20-Mar-13 14:21:00	23.96	20-Mar-13 14:21:00	26.15
20-Mar-13 14:22:00	10.50	20-Mar-13 14:22:00	24.95	20-Mar-13 14:22:00	15.51	20-Mar-13 14:22:00	10.68	20-Mar-13 14:22:00	271.47	20-Mar-13 14:22:00	2.64	20-Mar-13 14:22:00	24.37	20-Mar-13 14:22:00	26.10
20-Mar-13 14:23:00	10.64	20-Mar-13 14:23:00	25.72	20-Mar-13 14:23:00	15.51	20-Mar-13 14:23:00	10.46	20-Mar-13 14:23:00	271.47	20-Mar-13 14:23:00	2.66	20-Mar-13 14:23:00	23.95	20-Mar-13 14:23:00	26.05
20-Mar-13 14:24:00	10.61	20-Mar-13 14:24:00	25.41	20-Mar-13 14:24:00	15.45	20-Mar-13 14:24:00	10.19	20-Mar-13 14:24:00	271.47	20-Mar-13 14:24:00	2.67	20-Mar-13 14:24:00	23.86	20-Mar-13 14:24:00	26.01
20-Mar-13 14:25:00	10.76	20-Mar-13 14:25:00	24.91	20-Mar-13 14:25:00	15.44	20-Mar-13 14:25:00	9.94	20-Mar-13 14:25:00	271.47	20-Mar-13 14:25:00	2.66	20-Mar-13 14:25:00	24.00	20-Mar-13 14:25:00	26.06
20-Mar-13 14:26:00	10.71	20-Mar-13 14:26:00	26.21	20-Mar-13 14:26:00	15.43	20-Mar-13 14:26:00	9.87	20-Mar-13 14:26:00	271.47	20-Mar-13 14:26:00	2.65	20-Mar-13 14:26:00	23.94	20-Mar-13 14:26:00	25.96
20-Mar-13 14:27:00	10.63	20-Mar-13 14:27:00	26.11	20-Mar-13 14:27:00	15.42	20-Mar-13 14:27:00	9.80	20-Mar-13 14:27:00	271.47	20-Mar-13 14:27:00	2.65	20-Mar-13 14:27:00	23.98	20-Mar-13 14:27:00	26.20
20-Mar-13 14:28:00	10.58	20-Mar-13 14:28:00	25.45	20-Mar-13 14:28:00	15.41	20-Mar-13 14:28:00	9.82	20-Mar-13 14:28:00	271.47	20-Mar-13 14:28:00	2.68	20-Mar-13 14:28:00	24.32	20-Mar-13 14:28:00	26.38
20-Mar-13 14:29:00	10.53	20-Mar-13 14:29:00	24.94	20-Mar-13 14:29:00	15.41	20-Mar-13 14:29:00	9.40	20-Mar-13 14:29:00	271.47	20-Mar-13 14:29:00	2.63	20-Mar-13 14:29:00	24.08	20-Mar-13 14:29:00	26.31
20-Mar-13 14:30:00	10.48	20-Mar-13 14:30:00	25.38	20-Mar-13 14:30:00	15.47	20-Mar-13 14:30:00	9.18	20-Mar-13 14:30:00	271.47	20-Mar-13 14:30:00	2.66	20-Mar-13 14:30:00	24.32	20-Mar-13 14:30:00	26.29
20-Mar-13 14:31:00	10.45	20-Mar-13 14:31:00	25.25	20-Mar-13 14:31:00	15.47	20-Mar-13 14:31:00	8.89	20-Mar-13 14:31:00	271.47	20-Mar-13 14:31:00	2.64	20-Mar-13 14:31:00	24.23	20-Mar-13 14:31:00	26.36
20-Mar-13 14:32:00	10.47	20-Mar-13 14:32:00	25.87	20-Mar-13 14:32:00	15.50	20-Mar-13 14:32:00	8.54	20-Mar-13 14:32:00	271.47	20-Mar-13 14:32:00	2.66	20-Mar-13 14:32:00	24.22	20-Mar-13 14:32:00	26.14
20-Mar-13 14:33:00	10.50	20-Mar-13 14:33:00	26.14	20-Mar-13 14:33:00	15.47	20-Mar-13 14:33:00	8.22	20-Mar-13 14:33:00	271.83	20-Mar-13 14:33:00	2.66	20-Mar-13 14:33:00	24.19	20-Mar-13 14:33:00	26.24
20-Mar-13 14:34:00	10.54	20-Mar-13 14:34:00	26.20	20-Mar-13 14:34:00	15.48	20-Mar-13 14:34:00	8.16	20-Mar-13 14:34:00	274.12	20-Mar-13 14:34:00	2.66	20-Mar-13 14:34:00	24.43	20-Mar-13 14:34:00	26.41
20-Mar-13 14:35:00	10.56	20-Mar-13 14:35:00	26.39	20-Mar-13 14:35:00	15.45	20-Mar-13 14:35:00	8.14	20-Mar-13 14:35:00	275.95	20-Mar-13 14:35:00	2.66	20-Mar-13 14:35:00	24.25	20-Mar-13 14:35:00	26.32
20-Mar-13 14:36:00	10.44	20-Mar-13 14:36:00	26.97	20-Mar-13 14:36:00	15.47	20-Mar-13 14:36:00	8.16	20-Mar-13 14:36:00	273.84	20-Mar-13 14:36:00	2.64	20-Mar-13 14:36:00	24.18	20-Mar-13 14:36:00	26.20
20-Mar-13 14:37:00	10.34	20-Mar-13 14:37:00	27.04	20-Mar-13 14:37:00	15.50	20-Mar-13 14:37:00	8.23	20-Mar-13 14:37:00	272.11	20-Mar-13 14:37:00	2.66	20-Mar-13 14:37:00	24.41	20-Mar-13 14:37:00	26.27
20-Mar-13 14:38:00	10.43	20-Mar-13 14:38:00	26.21	20-Mar-13 14:38:00	15.47	20-Mar-13 14:38:00	8.29	20-Mar-13 14:38:00	274.12	20-Mar-13 14:38:00	2.65	20-Mar-13 14:38:00	24.37	20-Mar-13 14:38:00	26.19
20-Mar-13 14:39:00	10.53	20-Mar-13 14:39:00	25.48	20-Mar-13 14:39:00	15.49	20-Mar-13 14:39:00	8.33	20-Mar-13 14:39:00	276.31	20-Mar-13 14:39:00	2.66	20-Mar-13 14:39:00	24.53	20-Mar-13 14:39:00	26.30
20-Mar-13 14:40:00	10.51	20-Mar-13 14:40:00	26.02	20-Mar-13 14:40:00	15.48	20-Mar-13 14:40:00	8.30	20-Mar-13 14:40:00	276.50	20-Mar-13 14:40:00	2.66	20-Mar-13 14:40:00	24.75	20-Mar-13 14:40:00	26.30
20-Mar-13 14:41:00	10.48	20-Mar-13 14:41:00	25.97	20-Mar-13 14:41:00	15.45	20-Mar-13 14:41:00	8.20	20-Mar-13 14:41:00	276.23	20-Mar-13 14:41:00	2.73	20-Mar-13 14:41:00	24.80	20-Mar-13 14:41:00	26.35
20-Mar-13 14:42:00	10.53	20-Mar-13 14:42:00	25.37	20-Mar-13 14:42:00	15.40	20-Mar-13 14:42:00	7.80	20-Mar-13 14:42:00	273.84	20-Mar-13 14:42:00	2.68	20-Mar-13 14:42:00	24.80	20-Mar-13 14:42:00	26.36
20-Mar-13 14:43:00	10.57	20-Mar-13 14:43:00	25.18	20-Mar-13 14:43:00	15.46	20-Mar-13 14:43:00	7.41	20-Mar-13 14:43:00	271.75	20-Mar-13 14:43:00	2.73	20-Mar-13 14:43:00	24.84	20-Mar-13 14:43:00	26.36
20-Mar-13 14:44:00	10.52	20-Mar-13 14:44:00	24.81	20-Mar-13 14:44:00	15.51	20-Mar-13 14:44:00	7.35	20-Mar-13 14:44:00	271.47	20-Mar-13 14:44:00	2.66	20-Mar-13 14:44:00	24.97	20-Mar-13 14:44:00	26.37
20-Mar-13 14:45:00	10.48	20-Mar-13 14:45:00	24.73	20-Mar-13 14:45:00	15.45	20-Mar-13 14:45:00	7.34	20-Mar-13 14:45:00	271.47	20-Mar-13 14:45:00	2.64	20-Mar-13 14:45:00	25.10	20-Mar-13 14:45:00	26.24

Average Stack NOx, ppm (15% O2)	10.57	Average Stack CO, ppm (15% O2)	25.61	Average Stack O2 (%)	15.47	Average Duct Burner Gas Flow (MSCFH)	9.38	Average Turbine Gas Flow (MSCFH)	272.43	Ave. Steam Injection Rate (lb/s)	2.66	Ave. Ammonia Injection (lb/hr)	24.24	Ave. Turbine Load (MWh)	26.18

EPA METHOD 20: MEASUREMENT SYSTEM PERFORMANCE TESTS

RESPONSE TIME

DATE OF TEST: 2/20/13 PROBE LOCATION: multi point

ANALYZER TYPE & Serial No., NO_x: API 300EH

CO: API 300 EM

O_2: Servomex 1400

Span Gas Concentration/Analyzer Full Scale Setting:

NO_x; Gas, ppmv: 19.2 Span setting, ppmv: 0-25

CO: Gas, ppmv: 79.9 Span setting, ppmv: 0-100

O_2: Gas, %: 20.2 Span setting, %: 0-25

UPSCALE TIME - Analyzer + Sampling System:

Trial #	NO_x	CO	O_2	
1	65	64	63	seconds.
2	66	66	69	seconds.
3	65	65	64	seconds.
Average Response:	65	65	63	seconds.

DOWNSCALE - Analyzer + Sampling System:

Trial #	NO_x	CO	O_2	
1	64	66	62	seconds.
2	65	64	63	seconds.
3	67	66	62	seconds.
Average Response:	66	65	62	seconds.

Average System Response:	.....	.....	.....	seconds.
Slower Average:	.....	.....	.....	seconds.

AIR Testing

INSTRUMENT INFORMATION

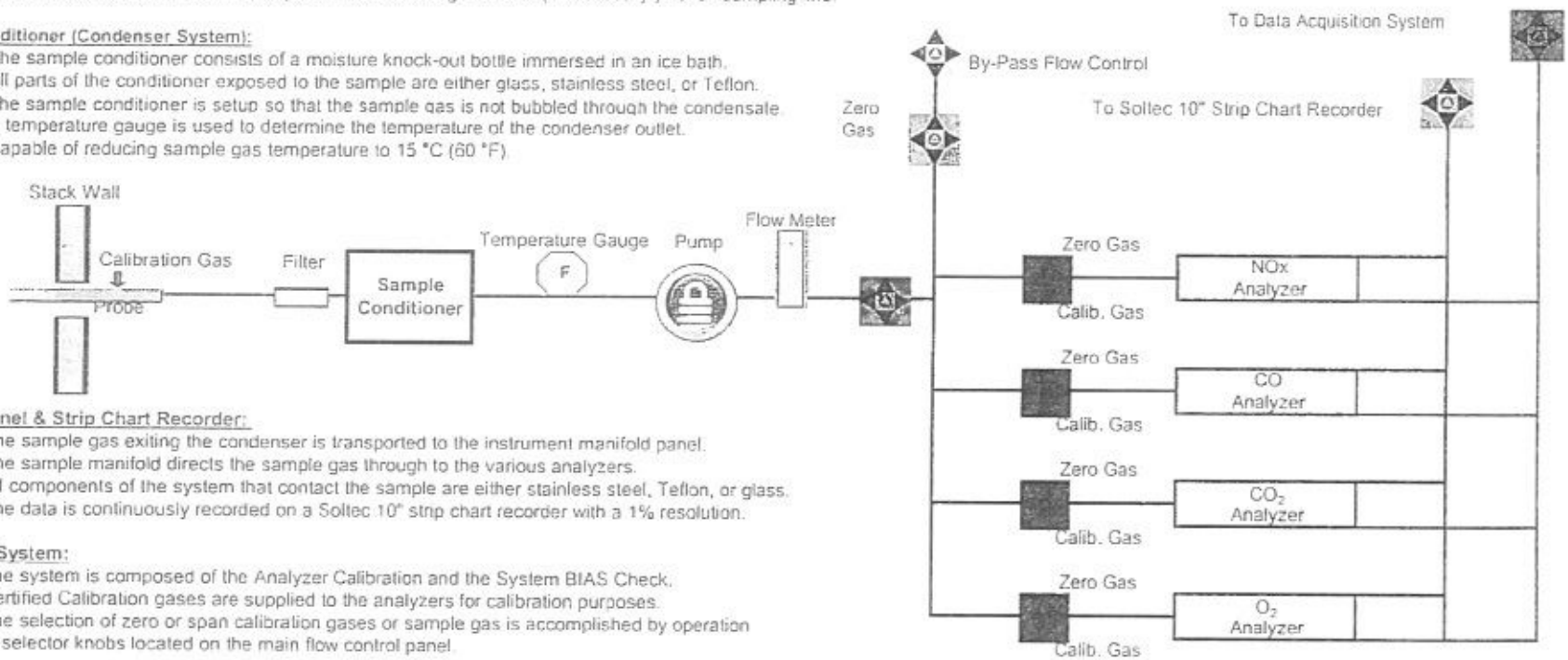
CARB Method 100 – Sample Train Assembly

Probe:

1. AIRx Testing Services, Inc. uses a stainless steel sampling probe.
2. The probe is connected to the sample conditioner using a heated (if necessary) Teflon sampling line.

Sample Conditioner (Condenser System):

1. The sample conditioner consists of a moisture knock-out bottle immersed in an ice bath.
2. All parts of the conditioner exposed to the sample are either glass, stainless steel, or Teflon.
3. The sample conditioner is setup so that the sample gas is not bubbled through the condensate.
4. A temperature gauge is used to determine the temperature of the condenser outlet.
5. Capable of reducing sample gas temperature to 15 °C (60 °F).



Manifold Panel & Strip Chart Recorder:

1. The sample gas exiting the condenser is transported to the instrument manifold panel.
2. The sample manifold directs the sample gas through to the various analyzers.
3. All components of the system that contact the sample are either stainless steel, Teflon, or glass.
4. The data is continuously recorded on a Soltec 10" strip chart recorder with a 1% resolution.

Calibration System:

1. The system is composed of the Analyzer Calibration and the System BIAS Check.
2. Certified Calibration gases are supplied to the analyzers for calibration purposes.
3. The selection of zero or span calibration gases or sample gas is accomplished by operation of selector knobs located on the main flow control panel.

Nitrogen Oxides – Chemiluminescent Analyzer: Based on the chemiluminescent reaction of NO and ozone to form NO_2 in an excited state. Light emission is monitored through an optical filter by a high sensitivity photomultiplier tube, the output of which is electronically processed so it is linearly proportional to the NO concentration. The output is in units of ppmv.

Carbon Monoxide – Non-Dispersive Infrared (NDIR) Analyzer: Radiation from an infrared source is passed through a narrow band-pass filter and a multiple optical pass sample cell where absorption by the sample gas occurs. The infrared radiation exits the sample cell and falls on a solid state infrared detector. The output is in units of ppmv.

Oxygen – Electrochemical Analyzer: Oxygen in the flue gas sample diffuses through a Teflon membrane and is reduced on the surface of the cathode. A corresponding oxidation occurs at the anode and an electric current proportional to the concentration of oxygen is produced. The output is in units of percent O_2 by volume.

Carbon Dioxide – Non Dispersive Infrared (NDIR) Analyzer: The instrument measures the differential in infrared energy absorbed from energy beams passed through a reference cell (containing a gas selected to have minimal absorption of infrared energy in the wavelength absorbed by CO_2) and a sample cell through which the sample gas flows continuously. The output is in units of percent CO_2 by volume.

SOURCE EMISSION INSTRUMENTATION LIST
2/16/2011

OXIDES OF NITROGEN

Unit No. - 1:	
Manufacturer:	API
Model No.:	200 EH
Serial No.:	233
Method:	Chemiluminescence
Range (ppmv)	0-5000
Unit No. - 2:	
Manufacturer:	API
Model No.:	200 EH
Serial No.:	234
Method:	Chemiluminescence
Range (ppmv)	0-5000
Unit No. - 3:	
Manufacturer:	API
Model No.:	200 EH
Serial No.:	109
Method:	Chemiluminescence
Range (ppmv)	0-5000
Unit No. - 4:	
Manufacturer:	Thermo Environmental (TECO)
Model No.:	10
Serial No.:	24697-216
Method:	Chemiluminescence
Range (ppmv)	0-2.5, 10, 25, 100, 250, 1000, 2500, 10000
Unit No. - 5:	
Manufacturer:	Thermo Environmental (TECO)
Model No.:	10AR
Serial No.:	26840-227
Method:	Chemiluminescence
Range (ppmv)	0-2.5, 10, 25, 100, 250, 1000, 2500, 10000
Unit No. - 6:	
Manufacturer:	Thermo Environmental (TECO)
Model No.:	10AR
Serial No.:	26886-227
Method:	Chemiluminescence
Range (ppmv)	0-2.5, 10, 25, 100, 250, 1000, 2500, 10000
Unit No. - 7:	
Manufacturer:	Thermo Environmental (TECO)
Model No.:	10AR
Serial No.:	25559-221
Method:	Chemiluminescence
Range (ppmv)	0-2.5, 10, 25, 100, 250, 1000, 2500, 10000
Unit No. - 8:	
Manufacturer:	Thermo Environmental (TECO)
Model No.:	10AR
Serial No.:	38586-258
Method:	Chemiluminescence
Range (ppmv)	0-2.5, 10, 25, 100, 250, 1000, 2500, 10000

X X TESTING

SOURCE EMISSION INSTRUMENTATION LIST
2/16/2011

OXIDES OF NITROGEN (cont)

Unit No. - 4:	
Manufacturer:	API
Model No.:	200 EH
Serial No.:	442
Method:	Chemiluminescence
Range (ppmv)	0-5000
Unit No. - 5:	
Manufacturer:	API
Model No.:	200 EH
Serial No.:	441
Method:	Chemiluminescence
Range (ppmv)	0-5000
Unit No. - 6:	
Manufacturer:	API
Model No.:	200 A
Serial No.:	1013
Method:	Chemiluminescence
Range (ppmv)	0-50

SOURCE EMISSION INSTRUMENTATION LIST
2/16/2011

CARBON MONOXIDE

Unit No. - 1: Manufacturer: Model No.: Serial No.: Method: Range (ppmv	API 300 EM 239 NDIR/GFC 0-5, 10, 25, 50, 100, 250, 500, 1000, 2500, 5000	**Unit No. - 2:** Manufacturer: Model No.: Serial No.: Method: Range (ppmv	API 300 EM 240 NDIR/GFC 0-5, 10, 25, 50, 100, 250, 500, 1000, 2500, 5000
Unit No. - 3: Manufacturer: Model No.: Serial No.: Method: Range (ppmv	API 300 EM 241 NDIR/GFC 0-5, 10, 25, 50, 100, 250, 500, 1000, 2500, 5000	**Unit No - 5:** Manufacturer: Model No.: Serial No.: Method: Range (ppmv)	Thermo Environmental (TECO) 48H 25184-219 NDIR/GFC 0-50, 100, 200, 500, 1000, 2000, 5000, 10000, 20000, 50000
Unit No. - 6: Manufacturer: Model No.: Serial No.: Method: Range (ppmv)	Thermo Environmental (TECO) 48H 29031-233 NDIR/GFC 0-50, 100, 200, 500, 1000, 2000, 5000, 10000, 20000, 50000	**Unit No. - 7:** Manufacturer: Model No.: Serial No.: Method: Range (ppmv)	Siemens Ultramat 21p AO4-254 NDIR 0-300
Unit No. - 10: Manufacturer: Model No.: Serial No.: Method: Range (ppmv)	Thermo Environmental (TECO) 48H 38391-257 NDIR/GFC 0-50, 100, 200, 500, 1000, 2000, 5000, 10000, 20000, 50000	**Unit No. - 11:** Manufacturer: Model No.: Serial No.: Method: Range (ppmv)	Thermo Environmental (TECO) 48H 35226-249 NDIR/GFC 0-50, 100, 200, 500, 1000, 2000, 5000, 10000, 20000, 50000
Unit No - 13: Manufacturer: Model No.: Serial No.: Method: Range (ppmv)	Thermo Environmental (TECO) 48 48-15970-159 NDIR/GFC 0-1, 2, 5, 10, 20, 50, 100, 200, 500, 1000	**Unit No - 14:** Manufacturer: Model No.: Serial No.: Method: Range (ppmv)	Thermo Environmental (TECO) 48 48-23925-213 NDIR/GFC 0-1, 2, 5, 10, 20, 50, 100, 200, 500, 1000

X X TESTING

SOURCE EMISSION INSTRUMENTATION LIST
2/16/2011

OXYGEN

Unit No. - 5:	
Manufacturer:	Teledyne
Model No.:	320-AX
Serial No.:	108743
Method:	Electrochemical
Range (%)	0-5, 10, 25
Unit No. - 7:	
Manufacturer:	Teledyne
Model No.:	320-AX
Serial No.:	108742
Method:	Electrochemical
Range (%)	0-5, 10, 25
Unit No. - 9:	
Manufacturer:	Servomex
Model No.:	1400
Serial No.:	01420/B701/730
Method:	Paramagnetic
Range (%)	0-25, 100
Unit No. - 10:	
Manufacturer:	Servomex
Model No.:	1400
Serial No.:	01420/B701/747
Method:	Paramagnetic
Range (%)	0-25, 100
Unit No. - 11:	
Manufacturer:	Teledyne
Model No.:	320-A
Serial No.:	111211
Method:	Electrochemical
Range (%)	0-5, 10, 25

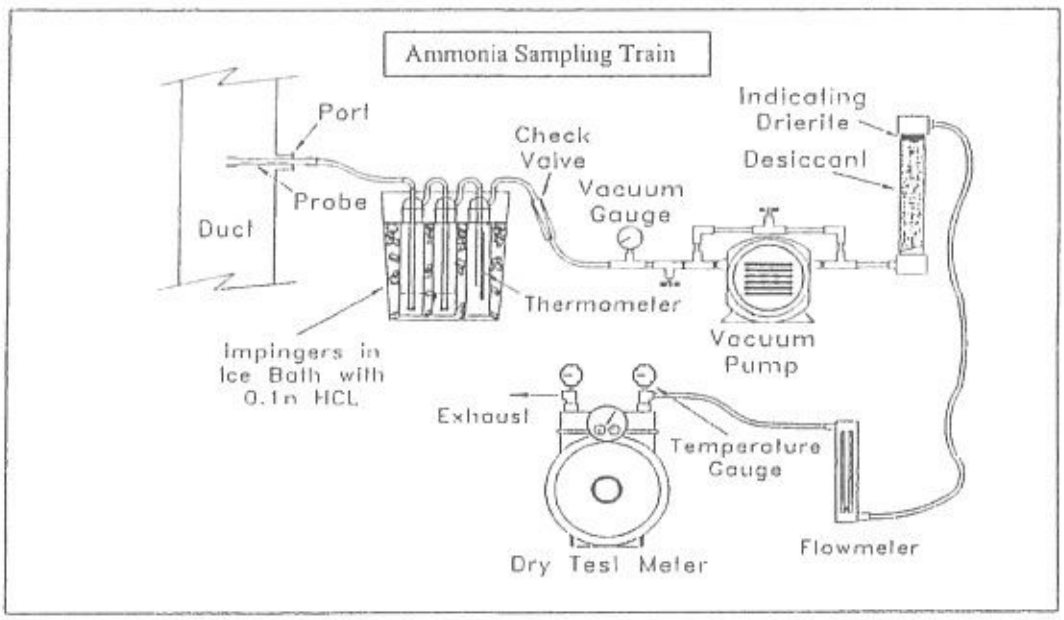
X TESTING X

BAAQMD Method ST-1B / Ammonia Integrated Sampling

Principle: A gas sample is drawn through a solution of 0.1N hydrochloric acid which absorbs the ammonia.

Pre-Test Procedures:

- Add 100 ml of 0.1N to each of two impingers; retain 100 ml of the HCl to analyze as a blank
- Leak-test sampling train by starting the pump, plugging the probe, and adjusting the pump inlet vacuum to 10 inches Hg. The leak rate must not exceed 0.6 liter/min (0.02 CFM). Release plug, stop pump.
- Record initial "dry test meter" reading and barometric pressure.
- In the absence of stratification, sample at single point, otherwise select sampling traverse points.



Sampling Procedure:

- Each test run shall be of ***30 minute*** duration or 90% of the batch time, whichever is less
- Position probe at the sampling point and start the pump
- Sample at constant rate of ***14.3 liter/min (0.5 CFM),*** using rotameter to establish initial rate only
- Record "dry test meter" volume and temperature and "impinger outlet" temperature at 5-min intervals
- Maintain impinger temperature at 7°C (45°F) or less by adding ice as necessary
- At the conclusion of each run, stop pump, remove probe from stack and record final reading
- Point probe upward and purge sample train with ambient air

Analysis: Individually analyze the hydrochloric acid solutions and the blank for total ammonia content.

Calculations:

Standard sample volume	*Ammonia Concentration*
$Vo = (17.71)V_m P_b / T_m$	$C = 5.02 \times 10^4 \, W / V_o$
Where: Vo = Corrected sample volume to std conditions; T_m = Average run meter temperature (°R); V_m = Uncorrected meter volume (ft^3); P_b = Barometric pressure (inches Hg); 17.71 = Constant correcting to 70°F & 29.92 in.Hg.	Where: C = Ammonia concentration, ppmv on a dry basis; W = Total weight of ammonia in the impinger catch, for each run, (g); 5.02×10^4 = Constant derived from the MW and correcting to standard conditions.

QUALITY ASSURANCE

AIR LIQUIDE | Air Liquide America Specialty Gases LLC | Intertek

RATA CLASS

Dual-Analyzed Calibration Standard

8832 DICE ROAD, SANTA FE SPRINGS, CA 90670-2516 Phone: 800-323-2212 Fax: 562-464-5262

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A52012

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670 2516

P.O. No.: VEN-8/14/12-RY
Document # : 47423468-001

Customer
AIRX TESTING SERVICES, INC.

RYAN YANAGIHARA
2472 EASTMAN AVE.
UNIT # 34
VENTURA CA 93003
US

ANALYTICAL INFORMATION Gas Type : NO

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: AL3056
Cylinder Pressure***: 2000 PSIG
Certification Date: 18Jul2012
Exp. Date: 18Jul2014
Batch No: SB00057746

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
NITRIC OXIDE	12.0	PPM	+/- 1%	Direct NIST and VSL
NITROGEN - OXYGEN FREE		BALANCE		
TOTAL OXIDES OF NITROGEN	12.1	PPM		Reference Value Only

*** Do not use when cylinder pressure is below 150 psig

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 2628	05Jan2016	KAL004091	10.12 PPM	NITRIC OXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
[illegible]OPHYSICS/CLD 84 M/84M040S	12Jul2012	CHEMILUMINESCENCE

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

NITRIC OXIDE

Date: 09Jul2012 Response Unit: PPM

Z1 = 0.00000	R1 = 9.62900	T1 = 11.45000
R2 = 9.65000	Z2 = 0.00000	T2 = 11.44000
Z3 = 0.00000	T3 = 11.46000	R3 = 9.64400

Avg. Concentration: 12.01 PPM

Second Triad Analysis

Date: 18Jul2012 Response Unit: PPM

Z1 = 0.00000	R1 = 9.64600	T1 = 11.48000
R2 = 9.63900	Z2 = 0.00000	T2 = 11.46000
Z3 = 0.00000	T3 = 11.47000	R3 = 9.65900

Avg. Concentration: 12.03 PPM

Calibration Curve

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r = 0.9999937

Constants:	A = 0.020399
B = 1.051608	C = 0
D = 0	E = 0

APPROVED BY: MT

61

AIR LIQUIDE Air Liquide America Specialty Gases LLC

Intertek

RATA CLASS

Dual-Analyzed Calibration Standard

8832 DICE ROAD, SANTA FE SPRINGS, CA 90670-2516 Phone: 800-323-2212 Fax: 562-464-5262

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A52013

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: VN-2/21/13-RY
Document # : 49737747-001

Customer
AIRX TESTING SERVICES, INC.

RYAN YANAGIHARA
2472 EASTMAN AVE.
UNIT # 34
VENTURA CA 93003
US

ANALYTICAL INFORMATION Gas Type : NO,BALN

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: AAL2398
Cylinder Pressure***: 2000 PSIG
Certification Date: 25Feb2013
Exp. Date: 26Feb2016
Batch No: SB00065383

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
NITRIC OXIDE	19.7	PPM	+/- 1%	Direct NIST and VSL
NITROGEN - OXYGEN FREE		BALANCE		
TOTAL OXIDES OF NITROGEN	19.8	PPM		Reference Value Only

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 2629	31May2016	KAL004237	20.34 PPM	NITRIC OXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
ECOPHYSICS/CLD 84 M/84M0405	22Feb2013	CHEMILUMINESCENCE

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

NITRIC OXIDE

Date: 18Feb2013 Response Unit: PPM

Z1 = 0.00000	R1 = 20.35000	T1 = 19.60000
R2 = 20.32000	Z2 = 0.00000	T2 = 19.48000
Z3 = 0.00000	T3 = 19.56000	R3 = 20.34000

Avg. Concentration: 19.58 PPM

Second Triad Analysis

Date: 25Feb2013 Response Unit: PPM

Z1 = 0.00000	R1 = 19.84000	T1 = 19.20000
R2 = 19.80000	Z2 = 0.00000	T2 = 19.21000
Z3 = 0.00000	T3 = 19.25000	R3 = 19.76000

Avg. Concentration: 19.76 PPM

Calibration Curve

Concentration = A + Bx + Cx2 + Dx3 + Ex4

r = 0.9999851

Constants:	A = 0.413429
B = 1.023930	C = 0
D = 0	E = 0

APPROVED BY: MT

62

Air Liquide America Specialty Gases LLC

Scott

COMPLIANCE CLASS

Dual-Analyzed Calibration Standard

500 WEAVER PARK RD, LONGMONT, CO 80501 Phone: 888-253-1635 Fax: 303-772-7673

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A42012

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
500 WEAVER PARK RD
LONGMONT, CO 80501

P.O. No.: STOCK
Document # : 47729683-001

Customer
ALA-CYL-SANTA FE SPRINGS (LOC 84306)

8832 DICE ROAD
TRANSFER ACCOUNT
SANTA FE SPRINGS CA 90670
US

ANALYTICAL INFORMATION **Gas Type : NO2**

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: AAL12591
Cylinder Pressure*:** 2000 PSIG
Certification Date: 21Sep2012
Exp. Date: 22Mar2013
Batch No: LGM0066846

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
NITROGEN DIOXIDE	19.4 PPM	+/- 2%	GMIS
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.
** Analytical accuracy is based on the requirements of EPA Protocol procedures , September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NO2/AIR GMIS	16Nov2012	ALM032519	48.30 PPM	NITROGEN DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
NONOX/CLA-220/41528750062	06Sep2012	CHEMILUMINESCENT

Special Notes: 08-09299

APPROVED BY: JW
JON WITZAK

AIR LIQUIDE Air Liquide America Specialty Gases LLC

Intertek

RATA CLASS

Dual-Analyzed Calibration Standard

8832 DICE ROAD, SANTA FE SPRINGS, CA 90670-2516 Phone: 800.323.2212 Fax: 562.464.5262

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A52012

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: VEN-1/31/13-RY
Document # : 49613418-001

Customer
AIRX TESTING SERVICES, INC.

RYAN YANAGIHARA
2472 EASTMAN AVE.
UNIT # 34
VENTURA CA 93003
US

ANALYTICAL INFORMATION Gas Type : CO2,O2,BALN

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1, September, 1997.

Cylinder Number: ALM041403
Cylinder Pressure***: 2000 PSIG
Certification Date: 22Oct2012
Exp. Date: 23Oct2020
Batch No: SB00064617

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
CARBON DIOXIDE	4.06 %	+/- 1%	Direct NIST and VSL
OXYGEN	12.0 %	+/- 1%	Direct NIST and VSL
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.
** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 2000	01Jun2013	K026535	5.006 %	CARBON DIOXIDE
NTRM 2350	04Jan2018	K021316	23.20 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
VARIAN 8/3400/2806	24Sep2012	FID & TCD
VARIAN 8/3400/2806	22Oct2012	FID & TCD

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis | Second Triad Analysis | Calibration Curve

CARBON DIOXIDE

Date: 22Oct2012 Response Unit: AREA
Z1 = 0.00000 R1 = 2964393. T1 = 2399876.
R2 = 2960125. Z2 = 0.00000 T2 = 2402360.
Z3 = 0.00000 T3 = 2399669. R3 = 2960405.
Avg. Concentration: 4.060 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 0.9999965
Constants: A = 0.01567055
B = 1.67774E C = 0
D = 0 E = 0

OXYGEN

Date: 22Oct2012 Response Unit: AREA
Z1 = 0.00000 R1 = 11630494 T1 = 6020757.
R2 = 11633270 Z2 = 0.00000 T2 = 6033110.
Z3 = 0.00000 T3 = 6030022. R3 = 11646974
Avg. Concentration: 12.00 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 0.9999975
Constants: A = 0.00239242
B = 1.99651E-06 C = 0
D = 0 E = 0

Special Notes: NOT A DUPLICATE AIR X HAS TWO STOCKING LOCATIONS ONE HERE IN SFS AND ONE IN FRESNO.

APPROVED BY: JMU

64

AIR LIQUIDE Air Liquide America Specialty Gases LLC | Scott

RATA CLASS

Dual-Analyzed Calibration Standard

9932 DICE ROAD, SANTA FE SPRINGS, CA 90670-2516 Phone: 800-323-2212 Fax: 562-464-5262

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A52011

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
9932 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: RYAN
Document # : 42943061.002

Customer
AIRX TESTING SERVICES, INC.

RYAN YANAGIHARA
2472 EASTMAN AVE
UNIT # 34
VENTURA CA 93003
US

ANALYTICAL INFORMATION Gas Type : OC2

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G1, September, 1997.

Cylinder Number: ALM031868
Cylinder Pressure***: 2000 PSIG
Certification Date: 22Aug2011
Exp. Date: 21Aug2014
Batch No: SB00041801

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
CARBON DIOXIDE	8.17	%	+/- 1%	Direct NIST and VSL
OXYGEN	20.1	%	+/- 1%	Direct NIST and VSL
NITROGEN		BALANCE		

*Do not use when cylinder pressure is below 150 psig.
**Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1674	03Feb2016	ID003095	7.016 %	CARBON DIOXIDE
PRM 2658	01Feb2016	K037603	10.03 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
ERIAN 8.34s0.2806	15Aug2011	FID & TCD
[illegible]	05Aug2011	FID & TCD

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis	Second Triad Analysis	Calibration Curve

CARBON DIOXIDE

Date: 22Aug2011 Response Unit: AREA

[illegible]	R1 = 4158775	T1 = 4833557	Concentration = A + Bx + Cx2 + Dx3 + Ex4	
[illegible]	R2 = 4158775	T2 = 4843914	r = 0.999998	1674
[illegible]	T3 = 4848185	R3 = 4156705	Constants:	A = 0.01961814
Avg. Concentration:	8.166 %		B = 0.0000016825	C =
			D =	E =

OXYGEN

Date: 22Aug2011 Response Unit: AREA

[illegible]	R1 = 5011122	T1 = 10024091	Concentration = A + Bx + Cx2 + Dx3 + Ex4	
[illegible]	R2 = 5403.000	T2 = 10042443	r = 0.999999	3658
[illegible]	T3 = 10076053	R3 = 5014758	Constants	A = 0.00376584
Avg. Concentration:	20.09 %		B = 0.0000020036	C =
			D =	E =

APPROVED BY: DC

65

AIR LIQUIDE | Air Liquide America Specialty Gases LLC | Intertek

RATA CLASS

Dual-Analyzed Calibration Standard

8832 DICE ROAD, SANTA FE SPRINGS, CA 90670-2516 Phone: 800-323-2212 Fax: 562-464-5262

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A52012

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: VEN-1/31/13-RY
Document # : 49501915-001

Customer
AIRX TESTING SERVICES, INC.

RYAN YANAGIHARA
2472 EASTMAN AVE.
UNIT # 34
VENTURA CA 93003
US

ANALYTICAL INFORMATION Gas Type : NONE

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: CC15628
Cylinder Pressure***: 2000 PSIG
Certification Date: 24Jan2012
Exp. Date: 25Jan2020
Batch No: SB00064442

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
CARBON MONOXIDE	39.7 PPM	+/- 1%	Direct NIST and VSL
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.
** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1678	01Nov2013	ALM045121	51.13 PPM	CARBON MONOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
LOW CO ANALY/APMA-360CE/42898860031	13Jan2012	NDIR

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

CARBON MONOXIDE

Date: 16Jan2012 Response Unit: PPM

Z1 = 0.00000	R1 = 49.93000	T1 = 38.84000
R2 = 49.88000	Z2 = 0.00000	T2 = 38.85000
Z3 = 0.00000	T3 = 38.86000	R3 = 49.99000

Avg. Concentration: 39.73 PPM

Second Triad Analysis

Date: 24Jan2012 Response Unit: PPM

Z1 = 0.00000	R1 = 49.96000	T1 = 38.86000
R2 = 49.95000	Z2 = 0.00000	T2 = 38.85000
Z3 = 0.00000	T3 = 38.86000	R3 = 49.97000

Avg. Concentration: 39.72 PPM

Calibration Curve

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 0.9999638

Constants:	A = -0.217003
B = 1.023442	C = 0
D = 0	E = 0

APPROVED BY: _____
THUAN TRAN

AIR LIQUIDE | Air Liquide America Specialty Gases LLC | Intertek

RATA CLASS

Dual-Analyzed Calibration Standard

8832 DICE ROAD, SANTA FE SPRINGS, CA 90670-2516 Phone: 800-323-2212 Fax: 562-464-5262

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A52012

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: VEN-6/28/12-RY
Document # : 46816399-001

Customer
AIRX TESTING SERVICES, INC.

RYAN YANAGIHARA
2472 EASTMAN AVE.
UNIT # 34
VENTURA CA 93003
US

ANALYTICAL INFORMATION Gas Type : NONE

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards, Procedure G-1; September, 1997.

Cylinder Number: ALM044989 Certification Date: 06Jul2012 Exp. Date: 06Jul2015
Cylinder Pressure***: 2015 PSIG Batch No: SB00056681

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
CARBON MONOXIDE	79.9 PPM	+/- 1%	Direct NIST and VSL
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig
** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1679	10Apr2013	KAL004929	98.48 PPM	CARBON MONOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
TIR//001785245	14Jun2012	FTIR

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

CARBON MONOXIDE

Date: 29Jun2012 Response Unit: PPM
Z1 = 0.00207 R1 = 98.44597 T1 = 79.85805
R2 = 98.45640 Z2 = 0.02804 T2 = 79.88738
Z3 = 0.06614 T3 = 79.89572 R3 = 98.50617
Avg. Concentration: 79.88 PPM

Second Triad Analysis

Date: 06Jul2012 Response Unit: PPM
Z1 = 0.01962 R1 = 98.39407 T1 = 79.91394
R2 = 98.46576 Z2 = 0.02217 T2 = 79.96556
Z3 = 0.04159 T3 = 80.00110 R3 = 98.47984
Avg. Concentration: 79.98 PPM

Calibration Curve

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99999E-1
Constants: A = 0.00000E+0
B = 7.01042E-1 C = 3.46000E-4
D = 0.00000E+0 E = 0.00000E+0

APPROVED BY: Thuan Tran

67

DRY GAS METER CALIBRATION

Unit Number: G
Date: 9/11/2012

Standard Pressure	29.92	in. hg.
Standard Temperature	60	F
Ambient pressure	29.86	in. hg.
Ambient temperature	74	F

	WET GAS		DRY GAS	Temperature					
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
			976.031		80.0	74.0			
0.75	14.52	6.000	982.128	74.0	86.0	76.0	79.0	0.9915	2.4825
			982.128		86.0	76.0			
0.75	12.12	5.000	987.221	74.0	87.0	77.0	81.5	0.9937	2.4792
			987.221		87.0	77.0			
0.75	12.13	5.000	992.330	74.0	88.0	78.0	82.5	0.9924	2.4787
			992.430		88.0	78.0			
1.50	8.57	5.000	997.543	74.0	91.0	79.0	84.0	0.9925	2.4677
			997.543		91.0	79.0			
1.50	8.55	5.000	1002.660	74.0	92.0	80.0	85.5	0.9945	2.4495
			2.660		92.0	80.0			
1.50	8.55	5.000	7.773	74.0	93.0	81.0	86.5	0.9971	2.4450
			7.773		84.0	83.0			
2.25	8.29	6.000	13.876	74.0	86.0	83.0	84.0	0.9960	2.4053
			13.876		86.0	83.0			
2.25	9.72	7.000	20.995	74.0	90.0	83.0	85.5	0.9989	2.4227
			20.995		90.0	83.0			
2.25	6.95	5.000	26.095	74.0	92.0	84.0	87.3	0.9992	2.4200
			26.095		92.0	84.0			
3.00	6.00	5.000	31.214	74.0	93.0	84.0	88.3	0.9955	2.4004
			31.214		93.0	84.0			
3.00	6.05	5.000	36.319	74.0	93.0	85.0	88.8	0.9991	2.4384
			36.319		93.0	85.0			
3.00	6.02	5.000	41.448	74.0	93.0	85.0	88.8	0.9944	2.4143
			41.448		93.0	85.0			
3.75	6.45	6.000	47.568	74.0	94.0	85.0	89.3	0.9992	2.4036
			47.568		94.0	85.0			
3.75	8.63	8.000	55.737	74.0	95.0	86.0	90.0	0.9994	2.4171
			55.737		95.0	86.0			
3.75	5.38	5.000	60.851	74.0	95.0	86.0	90.5	0.9987	2.4026
							AVERAGE	0.9961	2.4395

Meter Factor: 0.9961

ΔH@: 2.4395

Validity checks:

* Y(max - min) ≤.02 ? √
† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ? √

Calibration by: KK

Reviewed by: RY

EQUATIONS USED:

Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))

ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

AIRx Testing Inc

CHAIN OF CUSTODY

INVOICE TO: Jame

ATTN:

REPORT TO: PO#

AIRx Testing Inc.
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact:

LAB #213-031 PROJECT Name: B/EW Indy

Samplers: (Signature)

Rush: 24hr Normal: 10 Day

Sample Method:

Return or Dispose

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) (ml)	Fuel (ng) (oil)	ANALYSIS: A413	REMARKS
1	3/20/13		X		Run 1	527		X	
2	↓		X		Run 2	470		X	
3	↓		X		Run 3	395		X	

Relinquished by:	Received by:	Relinquished by:	Received by:
Date: 3/20/13 Time: 16:05	Date: 3/21/13 Time: 6:15A	Date: Time:	Date: Time

Attachment to 6.a. 74.15N3-0157

Condition No.	Response
1	Pursuant to Rule 74.15.C.3 , the Rule 74.15.B.1 requirement does not apply when the unit operated during breakdowns which were reported under Rule 32. In addition, B.1 does not apply because the unit burned less than 9,000,000,000 Btu/yr.
2	When combined with emissions from the Cogen unit(s), emissions do not exceed 50 tons of NOx per year and 97.66 tons of CO per year (see table below).
3	Pursuant to Rule 74.14.B.2.c, the unit was not tuned during this compliance period because it did not operate during this compliance period.
4	Rule 74.15.D.2 requires tune-up reports to be submitted to the District. No tune-ups were conducted during this period, so no tune-up reports were provided to the District.
5	Records of hours of operation and resulting emissions are presented in the table below.

Month-Year	Monthly		Rolling 12-Months			Emissions							
	Natrual Gas (scf)	Uptime (hours)	Natrual Gas (scf)	Uptime (hours)	Capacity Factor (%)	Nebraska Emissions NOx (tons)	Nebraska Emissions CO (tons)	Cogen Emissions NOx (tons)	Cogen Emissions CO(tons)	Total Emissions NOx (tons)	Total Emissions CO (tons)	Rolling 12 Months NOx (tons)	Rolling 12 Months CO (tons)
April-11	0	0	4,172,854	86	0.453%	0	0	3.68	4.07	3.68	4.07	42.12	47.75
May-11	0	0	4,172,854	86	0.453%	0	0	3.77	4.45	3.77	4.45	41.98	47.00
June-11	0	0	4,157,518	85	0.451%	0	0	3.76	4.08	3.76	4.08	41.90	47.13
July-11	0	0	4,157,518	85	0.451%	0	0	3.23	3.83	3.23	3.83	41.34	46.42
August-11	0	0	4,157,518	85	0.451%	0	0	3.75	4.18	3.75	4.18	41.11	45.63
September-11	0	0	4,157,518	85	0.451%	0	0	2.99	3.27	2.99	3.27	40.27	45.51
October-11	0	0	3,568,616	67	0.387%	0	0	3.11	3.34	3.11	3.34	40.19	45.94
November-11	0	0	3,568,616	67	0.387%	0	0	2.86	3.44	2.86	3.44	39.80	45.77
December-11	0	0	3,568,616	67	0.387%	0	0	1.54	1.60	1.54	1.60	38.69	44.17
January-12	0	0	0	0	0.000%	0	0	3.86	4.27	3.86	4.27	38.49	44.38
February-12	0	0	0	0	0.000%	0	0	3.72	4.82	3.72	4.82	39.38	45.59
March-12	0	0	0	0	0.000%	0	0	3.34	4.29	3.34	4.29	39.61	45.64
April-12	0	0	0	0	0.000%	0	0	3.65	7.03	3.65	7.03	39.58	48.60
May-12	3,918	1.9	3,918	2	0.000%	0	0.00114	3.91	9.00	3.92	9.00	39.73	53.15
June-12	0	0	3,918	2	0.000%	0	0	3.82	5.46	3.82	5.46	39.79	54.53
July-12	0	0	3,918	2	0.000%	0	0	4.02	3.99	4.02	3.99	40.58	54.69
August-12	0	0	3,918	2	0.000%	0	0	4.00	4.29	4.00	4.29	40.83	54.80
September-12	0	0	3,918	2	0.000%	0	0	3.97	4.40	3.97	4.40	41.81	55.93
October-12	104,676	2.2	108,594	4	0.012%	0	0.00132	3.92	4.24	3.93	4.24	42.63	56.83
November-12	4,280,571	73	4,389,165	77	0.476%	0.350	0.0438	3.75	3.69	4.10	3.73	43.87	57.13
December-12	786,206	14	5,175,372	91	0.562%	0.067	0.0084	3.90	5.91	3.97	5.92	46.30	61.44
January-13	0	0	5,175,372	91	0.562%	0	0	3.86	5.26	3.86	5.26	46.30	62.43
February-13	0	0	5,175,372	91	0.562%	0	0	2.75	3.69	2.75	3.69	45.33	61.30
March-13	0	0	5,175,372	91	0.562%	0	0	4.02	5.13	4.02	5.13	46.01	62.14
Maximums:	**4,280,571**	**73.00**	**5,175,372**	**91.10**	**0.562%**	**0**	**0**	**4.02**	**9.00**	**4.10**	**9.00**	**46.30**	**62.43**

Sample Calculation:
Capacity Factor = Annual Fuel Usage * HHV natural gas /(Equipment rating * Hours/year)
Capacity Factor = (10 MMcf/yr) * (1,030 BTU/cf) / ((108 MMBtu/hr) * (8,760 hr/yr))
Capacity Factor = 1.09%

Tune-up: October 18, 2012

Attachment to 7.b. PO0157PC1

Material Name:	CRC14005-Natural Degreaser		Power Back		3M Stainless Steel Polish		Electron LVC Aerosol		Sprayon All-Purpose Silicone Lube		TKX All Purpose Penetrant, Lubricant, Protectant		WD-40 Aerosol		Brakleen Brake Parts Cleaner-aerosol	
Container size (gal):	0.125		1		1		0.141		0.125		0.125		0.086		0.109	
VOC content (lb/gal):	6.94		0.14		2.8		0.818		5.1		4.9		2.6		5.5	
HHC content (lb/gal):	0		0		0		0		0		0		0		0	
	(containers /mo)	(gal/yr)	(containers /mo)	(gal/yr)	(containers /mo)	(gal/yr)	(containers /mo)	(gal/yr)	(containers /mo)	(gal/yr)	(containers /mo)	(gal/yr)	(containers/mo)	(gal/yr)	(containers/ mo)	(gal/yr)
Apr-11	-	0	-	64	-	1	-	1.41	-	1.75	3	3.88	3	5.93		
May-11	-	0	-	59	-	1	-	1.41	-	1.75	-	3.88	3	5.67		
Jun-11	-	0	6	60	-	1	-	1.13	-	1.75	6	4.63	6	5.67		
Jul-11	-	0	8	56	-	1	-	1.13	-	1.75	-	4.63	4	5.50		
Aug-11	-	0	5	53	-	0	-	1.13	-	1.75	4	5.13	-	4.98		
Sep-11	-	0	7	53	-	0	-	0.70	-	1.50	6	5.88	4	4.81		
Oct-11	-	0	-	49	-	0	10	2.11	-	1.25	6	6.13	12	5.33		
Nov-11	-	0	-	44	2	2	3	1.83	-	1.00	-	5.38	-	4.81		
Dec-11	-	0	-	44	-	2	-	1.83	6	1.50	6	6.13	-	4.30		
Jan-12	-	0	6	44	-	2	3	2.25	-	1.25	6	6.13	-	3.78		
Feb-12	-	0	-	38	-	2	-	2.25	-	1.00	-	5.38	-	3.27		
Mar-12	-	0	6	38	-	2	1	2.39	-	0.75	6	5.38	-	2.75		
Apr-12	-	0	-	38	-	2	-	2.39	-	0.75	-	5.00	-	2.49	0.50	0.05
May-12	-	0	-	38	-	2	-	2.39	6.00	1.50	-	5.00	-	2.23	0.50	0.11
Jun-12	-	0	6.00	38	-	2	-	2.39	-	1.50	-	4.25	-	1.72	0.50	0.16
Jul-12	-	0	7.00	37	2.00	4	-	2.39	6.00	2.25	-	4.25	12.00	2.41	0.50	0.22
Aug-12	-	0	-	32	-	4	1.00	2.53	-	2.25	-	3.75	12.00	3.44	0.50	0.27
Sep-12	-	0	8.00	33	-	4	-	2.53	-	2.25	-	3.00	6.00	3.61	0.50	0.33
Oct-12	-	0	-	33	-	4	-	1.13	-	2.25	-	2.25	6.00	3.09	0.50	0.38
Nov-12	-	0	-	33	-	2	-	0.70	6.00	3.00	-	2.25	6.00	3.61	0.50	0.44
Dec-12	-	0	5.00	38	-	2	-	0.70	-	2.25	-	1.50	6.00	4.13	0.50	0.49
Jan-13	-	0	-	32	-	2	2.00	0.56	-	2.25	-	0.75	4.00	4.47	0.50	0.55
Feb-13	-	0	5.00	37	-	2	2.00	0.84	-	2.25	6.00	1.50	4.00	4.81	0.50	0.60
Mar-13	-	0	-	31	-	2	-	0.70	-	2.25	6.00	1.50	4.00	5.16	0.50	0.66
Rolling 12-Month Max.:	0	0	8	38	2	4	2	3	6	3	6	5	12	5	0.5	0.66
VOC Emissions (tons/yr):	0.000		0.0027		0.0055		0.0010		0.0077		0.012		0.0066		0.0018	
HHC Emissions (tons/yr):	0		0		0		0		0		0		0		0	

* lb/gal VOC and HHC contents are calculated on a less water and exempt compounds basis.

CRC MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: **Brakleen® Brake Parts Cleaner – Non-chlorinated** (aerosol)

Product Number (s): **05088, 75088**

Product Use: Brake parts cleaner

Manufacturer / Supplier Contact Information:

In United States:
CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com
1-215-674-4300 (General)
(800) 521-3168 (Technical)
(800) 272-4620 (Customer Service)

In Canada:
CRC Canada Co.
2-1246 Lorimar Drive
Mississauga, Ontario L5S 1R2
www.crc-canada.ca
1-905-670-2291

In Mexico:
CRC Industries Mexico
Av. Benito Juárez 4055 G
Colonia Orquídea
San Luís Potosí, SLP CP 78394
www.crc-mexico.com
52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

Section 2: Hazards Identification

Emergency Overview

DANGER: Extremely Flammable. Harmful or Fatal if Swallowed. May Cause Blindness if Swallowed. Vapor Harmful. Eye and Skin Irritant. Contents Under Pressure.

Appearance & Odor: Clear liquid; solvent odor

Potential Health Effects:

ACUTE EFFECTS:

EYE: Moderate eye irritant. Exposure can cause irritation including stinging, tearing, redness, blurred vision, and swelling of the eyes.

SKIN: Moderate skin irritant. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of the skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

INHALATION: Breathing large amounts of this material may be harmful. Symptoms include irritation of the nose and throat and central nervous system excitation (giddiness), followed by CNS depression (dizziness, drowsiness, weakness, headache, nausea, unconsciousness).

INGESTION: Swallowing small amounts is not likely to cause harmful effects. May cause stomach or intestinal upset. Swallowing larger amounts may be harmful as this material may be aspirated into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

CHRONIC EFFECTS: Overexposure to methanol may lead to visual impairment.

TARGET ORGANS: liver, kidneys, blood, central nervous system, eyes

Medical Conditions Aggravated by Exposure: skin sensitivities, lung conditions, central nervous system conditions

See Section 11 for toxicology and carcinogenicity information on product ingredients.

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Methanol	67-56-1	40 – 50
Toluene	108-88-3	15 – 25
Heptane	142-82-5 / 64742-49-0	15 – 25
Acetone	67-64-1	5 – 15
Carbon dioxide	124-38-9	5 – 10

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: Seek medical attention. Do NOT induce vomiting unless instructed by medical personnel. Have victim drink a glass of water if conscious.

Note to Physicians: This material is an aspiration hazard. This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion. Inhalation of high concentrations of this material may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This product contains methanol. The metabolites of methanol can cause metabolic acidosis, visual disturbances and blindness.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions. (See 16 CFR 1500.3(c)(6)).

Flash Point: 0°F / -18°C (TCC) Upper Explosive Limit: ND
Autoignition Temperature: 725°F / 385°C Lower Explosive Limit: ND

Fire and Explosion Data:

Suitable Extinguishing Media: Dry chemical, carbon dioxide, alcohol-resistant foam, Class B extinguishers

Products of Combustion: Oxides of carbon

Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and explode. Vapors may accumulate in a confined space and create a flammable atmosphere.

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

Methods for Containment & Clean-up: Eliminate all sources of ignition. Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Do not use near potential sources of ignition. Do not use on energized equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid inhaling vapors. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120°F / 49°C to prevent cans from rupturing.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

	OSHA		ACGIH		OTHER		
COMPONENT	TWA	STEL	TWA	STEL	TWA	SOURCE	UNIT
Methanol	200	NE	200	250 (s)	NE		ppm
Toluene	200	300 (c)	20	NE	NE		ppm
Heptane	500	NE	400	500	NE		ppm
Acetone	1000	NE	500	750	NE		ppm
Carbon dioxide	5000	30000(v)	5000	30000	NE		ppm
N.E. – Not Established		(c) – ceiling		(s) – skin	(v) – vacated		

Controls and Protection:

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as nitrile, PVA, or neoprene. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: liquid
Color: clear
Odor: solvent
Odor Threshold: ND
Specific Gravity: 0.782
Initial Boiling Point: 132°F / 56°C
Freezing Point: ND
Vapor Pressure: ND
Vapor Density: > 1 (air = 1)
Evaporation Rate: fast
Solubility: slightly soluble in water
Coefficient of water/oil distribution: ND
pH: NA
Volatile Organic Compounds: wt %: 84.0 g/L: 657.2 lbs./gal: 5.5

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: Sources of ignition; temperature extremes

Incompatible Materials: Acids, alkalis, reducing agents, strong oxidizing agents, hypochlorites, peroxides, reactive metals such as aluminum and magnesium, sodium, zinc

Hazardous Decomposition Products: Oxides of carbon, various hydrocarbons

Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

Acute Toxicity:

Component	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 (rat)
Methanol	5600 mg/kg	15,800 mg/kg	81,000 mg/m^3/14H
Toluene	636 mg/kg	14,100 µL/kg	49 g/m^3/4H
Heptane	No data	No data	103 g/m^3/4H
Acetone	5800 mg/kg	No data	50,100 mg/m^3/8H
Carbon dioxide	No data	No data	470,000 ppm/30M

Chronic Toxicity:

Component	OSHA Carcinogen	IARC Carcinogen	NTP Carcinogen	Irritant	Sensitizer
Methanol	No	No	No	E & S (moderate)	Unknown
Toluene	No	No	No	E, S, R (mild)	Unknown
Heptane isomers	No	No	No	E & R (mild) / S (moderate)	Unknown
Acetone	No	No	No	E & S (moderate) / R (mild)	Yes
Carbon dioxide	No	No	No	No	No

E – Eye S – Skin R - Respiratory

Reproductive Toxicity: No information available
Teratogenicity: No information available
Mutagenicity: No information available
Synergistic Effects: No information available

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: Acetone – 48H LC50 Daphnia: 10 mg/l
Persistence / Degradability: No information available
Bioaccumulation / Accumulation: No information available
Mobility in Environment: No information available

Section 13: Disposal Considerations

Waste Classification: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with the following potential waste code(s): D001, F005. (See 40 CFR Part 261.20 – 261.33) Aerosol containers should be fully emptied and depressurized before disposal. Empty aerosol containers may be recycled.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

Section 14: Transport Information

US DOT (ground): Consumer Commodity, ORM-D

ICAO/IATA (air): Consumer Commodity, ID8000, 9

IMO/IMDG (water): Aerosols, UN1950, 2.1, Limited Quantity

Special Provisions: None

Section 15: Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA):
All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):
Reportable Quantities (RQ's) exist for the following ingredients: Acetone (5000 lbs), Toluene (1000 lbs), Methanol (5000 lbs)

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:
Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:

Fire Hazard	Yes
Reactive Hazard	No
Release of Pressure	Yes
Acute Health Hazard	Yes
Chronic Health Hazard	No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Toluene (< 20%), Methanol (< 46%)

Clean Air Act:
Section 112 Hazardous Air Pollutants (HAPs): Toluene, Methanol

Occupational Safety and Health Administration:
This product is regulated by the Hazard Communications Standard.

U.S. State Regulations:

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):
This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: Toluene

Consumer Products VOC Regulations: This product does not comply with Consumer Products VOC regulations and cannot be used in California, Connecticut, Delaware, The District of Columbia, Illinois, Indiana, Maine, Maryland, Massachusetts, Michigan, New Jersey, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, and parts of Virginia.

State Right to Know:

New Jersey:	67-64-1, 108-88-3, 67-56-1, 124-38-9, 142-82-5
Pennsylvania:	67-64-1, 108-88-3, 67-56-1, 124-38-9, 142-82-5
Massachusetts:	67-64-1, 108-88-3, 67-56-1, 124-38-9, 142-82-5
Rhode Island :	67-64-1, 108-88-3, 67-56-1, 124-38-9 142-82-5

Canadian Regulations:

Controlled Products Regulations:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Hazard Class: A, B5, D1A, D2A, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

European Union Regulations:

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

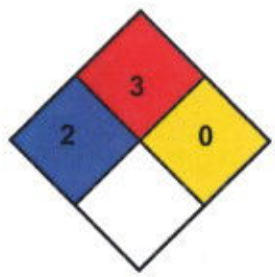
Additional Regulatory Information: None

Section 16: Other Information

HMIS® (II)	
Health:	2
Flammability:	3
Reactivity:	0
PPE:	B

Ratings range from 0 (no hazard) to 4 (severe hazard)

NFPA



Prepared By: Michelle Rudnick
CRC #: 483A
Revision Date: 10/06/2011

Changes since last revision: formula change

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL: Domestic Substance List
g/L: grams per Liter
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization
lbs./gal: pounds per gallon
LC: Lethal Concentration
LD: Lethal Dose
NA: Not Applicable
ND: Not Determined
NIOSH: National Institute of Occupational Safety & Health
NFPA: National Fire Protection Association
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PMCC: Pensky-Martens Closed Cup
PPE: Personal Protection Equipment
ppm: Parts per Million
RoHS: Restriction of Hazardous Substances
STEL: Short Term Exposure Limit
TCC: Tag Closed Cup
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Information System

Attachment to 7.c. PO00157PC2

GAS USE AND EMISSIONS BY MONTH

DATE	GAS TURBINE				COEN DUCT BURNER			MAXON BURNER					CEMS			
	Monthly (therms)	HHV	Monthly (scf)	Rolling 12-month (MMcf)	Monthly (therms)	Monthly (scf)	Rolling 12-month (MMcf)	Monthly (therms)	Monthly (scf)	Rolling 12-month (MMcf)	NOx (tons)	Rolling 12-month	Monthly CO (tons)	Monthly NOx (tons)	Rolling 12-Months CO (tons)	Rolling 12-Months NOx (tons)
Apr-11	1,922,511	1,008	190,725,298	1,890	28,998	2,876,786	35	333	32,440	15.4	0.001	0.71	4.07	3.68	47.7	41.7
May-11	1,980,516	1,021	193,978,061	1,894	35,544	3,481,293	35	7,242	705,504	13.6	0.033	0.63	4.45	3.77	47.0	41.6
Jun-11	1,962,695	1,025	191,482,439	1,901	29,554	2,883,317	37	2,355	229,420	11.0	0.011	0.51	4.08	3.76	47.1	41.5
Jul-11	1,659,908	1,024	162,100,391	1,872	41,565	4,059,082	39	2,057	200,390	8.8	0.009	0.41	3.83	3.23	46.4	40.9
Aug-11	1,923,688	1,019	188,781,943	1,866	43,504	4,269,284	41	4,756	463,322	7.5	0.021	0.35	4.18	3.75	45.6	40.7
Sep-11	1,510,534	1,032	146,369,574	1,824	41,790	4,049,419	44	2,742	267,121	7.0	0.012	0.32	3.27	2.99	45.5	39.9
Oct-11	1,557,708	1,030	151,233,786	1,836	45,426	4,410,291	45	3,269	318,461	6.3	0.015	0.29	3.34	3.11	45.9	39.9
Nov-11	1,423,597	1,026	138,752,144	1,812	55,616	5,420,663	48	7,392	720,117	6.5	0.033	0.30	3.44	2.86	45.7	39.5
Dec-11	706,716	1,017	69,490,265	1,750	36,603	3,599,115	50	12,627	1,230,102	7.1	0.057	0.33	1.60	1.54	44.1	38.4
Jan-12	1,758,230	1,014	173,395,464	1,761	75,944	7,489,546	52	13,514	1,316,512	6.6	0.061	0.31	4.27	3.86	44.4	38.5
Feb-12	1,850,635	1,023	180,902,737	1,803	99,095	9,686,706	58	4,781	465,757	6.0	0.022	0.28	4.82	3.72	45.6	39.4
Mar-12	1,679,570	1,034	162,434,236	1,950	68,612	6,635,590	59	11,819	1,151,388	7.1	0.053	0.33	4.29	3.34	45.6	39.6
Apr-12	1,799,071	1,017	176,899,803	1,936	46,597	4,581,809	61	14,337	1,396,688	8.5	0.065	0.39	7.03	3.65	48.6	39.6
May-12	2,000,575	1,015	197,100,985	1,939	59,041	5,816,847	63	2,542	247,638	8.0	0.011	0.37	9.00	3.91	53.2	39.7
Jun-12	1,973,691	1,025	192,555,220	1,940	29,147	2,843,610	63	18,368	1,789,381	9.6	0.083	0.44	5.46	3.82	54.5	39.8
Jul-12	2,089,220	1,031	202,640,155	1,981	22,319	2,164,791	61	8,639	841,598	10.2	0.039	0.47	3.99	4.02	54.7	40.6
Aug-12	2,048,680	1,021	200,654,261	1,992	26,782	2,623,115	59	6,566	639,649	10.4	0.030	0.48	4.29	4.00	54.8	40.8
Sep-12	1,983,602	1,013	195,814,610	2,042	24,738	2,442,053	58	4,804	467,998	10.6	0.022	0.49	4.40	3.97	55.9	41.8
Oct-12	1,993,708	1,035	192,628,792	2,083	26,366	2,547,440	56	5,588	544,374	10.8	0.025	0.50	4.24	3.92	56.8	42.6
Nov-12	1,757,585	1,027	171,137,780	2,116	23,749	2,312,463	53	5,553	540,964	10.6	0.025	0.49	3.69	3.75	57.1	43.5
Dec-12	1,893,663	1,034	183,139,555	2,229	76,973	7,444,197	57	8,056	784,803	10.2	0.036	0.47	5.91	3.90	61.4	45.9
Jan-13	1,934,972	1,032	187,497,287	2,243	53,526	5,186,628	54	419	40,818	8.9	0.002	0.41	5.26	3.86	62.4	45.9
Feb-13	1,371,871	1,031	133,062,173	2,196	22,905	2,221,629	47	110	10,716	8.5	0.000	0.39	3.69	2.75	61.3	44.9
Mar-13	2,005,639	1,037	193,407,811	2,227	35,600	3,432,980	44	695	67,706	7.4	0.003	0.34	5.13	4.02	62.1	45.6
Max. Rolling 12 Months				2,243	-	-	63	-	-	10.8	-	0.50	-	-	62.38	45.86
Permit Limit				2,847	-	-	854	-	-	36.5	-	1.90	-	-	97.66	50.0
Exceeds Permit Limit?				NO	-	-	NO	-	-	NO	-	NO	-	-	NO	NO
Excess Emissions (Max. Rolling 12 Months)				-604	-	-	-791	-	-	-25.7	-	-1.40	-	-	-35.28	-4.14
Excess Emissions (Compliance Year)				-897	-	-	-795	-	-	-29.4	-	-1.57	-	-	-52.02	-10.39

*CEMS data columns calculate monthly emissions by summing the pounds per hour emissions for every hour during the month that the turbine was operating, including start-ups, shut-downs, and upsets. The CEMS uses the following methodology to estimate emissions as presented in this condition of the permit.

lb/hr = X * (hourly ppmv@15% O2) * (hourly fuel throughput)
ton/yr = Sum of hourly emissions for each month and evaluate annual limits based on rolling 12-month average. 2000 lb/ton.

where *X = (8,740 dscf/MMBtu) * ([NOx or CO] lb/lb-mole) * (20.9/[20.9-15]) * (lb-mole/387 scf) * 1E-6 * HHV*

HHV =	1,027	btu/cf	(average HHV of fuel analyses over compliance year)
NOx =	46	lb/lb-mole	
CO =	28	lb/lb-mole	

Stack Opacity Observation Protocol

Object:	Cogen Stack
Date of Observation:	02/28/13
Time of Observation:	1:00 PM
Fuel burned:	Natural Gas
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Object:	Nebraska Boiler
Date of Observation:	n/a
Time of Observation:	n/a
Fuel burned:	n/a
Name of the observing person:	n/a
Signature	n/a
Was Visible Emission Other Than Steam Present ?	n/a

Object:	Paper Forming/Paper Drying
Date of Observation:	02/28/13
Time of Observation:	1:00 PM
Fuel burned:	N/A
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Object:	Maxon Burner
Date of Observation:	02/28/13
Time of Observation:	1:00 PM
Fuel burned:	Natural Gas
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Stack Opacity Observation Protocol

Object:	Cogen Stack
Date of Observation:	11/05/12
Time of Observation:	10:40 AM
Fuel burned:	Natural Gas
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Object:	Nebraska Boiler
Date of Observation:	n/a
Time of Observation:	n/a
Fuel burned:	n/a
Name of the observing person:	n/a
Signature	n/a
Was Visible Emission Other Than Steam Present ?	n/a

Object:	Paper Forming
Date of Observation:	11/05/12
Time of Observation:	10:40 AM
Fuel burned:	N/A
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Object:	Paper Drying; Maxon Burner
Date of Observation:	11/05/12
Time of Observation:	10:40 AM
Fuel burned:	N/A
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Stack Opacity Observation Protocol

Object:	Cogen Stack
Date of Observation:	08/14/12
Time of Observation:	9:30 AM
Fuel burned:	Natural Gas
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Object:	Nebraska Boiler
Date of Observation:	n/a
Time of Observation:	n/a
Fuel burned:	n/a
Name of the observing person:	n/a
Signature	n/a
Was Visible Emission Other Than Steam Present ?	n/a

Object:	Paper Forming
Date of Observation:	08/14/12
Time of Observation:	9:30 AM
Fuel burned:	N/A
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	No

Object:	Paper Drying; Maxon Burner
Date of Observation:	08/14/12
Time of Observation:	9:30 AM
Fuel burned:	N/A
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Stack Opacity Observation Protocol

Object:	Cogen Stack
Date of Observation:	05/15/12
Time of Observation:	8:00 AM
Fuel burned:	Natural Gas
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Object:	Nebraska Boiler
Date of Observation:	n/a
Time of Observation:	n/a
Fuel burned:	n/a
Name of the observing person:	n/a
Signature	n/a
Was Visible Emission Other Than Steam Present ?	n/a

Object:	Paper Forming
Date of Observation:	05/15/12
Time of Observation:	8:00 AM
Fuel burned:	N/A
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

Object:	Paper Drying; Maxon Burner
Date of Observation:	05/15/12
Time of Observation:	8:00 AM
Fuel burned:	N/A
Name of the observing person:	R. Lebrilla
Signature	
Was Visible Emission Other Than Steam Present ?	NO

VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT
Memorandum

TO: Karl Krause DATE: May 23, 1996

FROM: Terri Thomas

SUBJECT: Rule 54.B.2 Compliance

Per your request, I ran some screening level dispersion modeling tests to determine equipment parameters that would comply with Rule 54.B.2. Rule 54.B.2 limits ground level property line SO_2 concentrations to 0.25 ppm_v for 1 hour and 0.04 ppm_v for 24 hours.

I assume that the most common SO_2 emission source is diesel combustion in IC engines. Therefore, that was the focus of my analysis.

To determine appropriate stack parameters, I reviewed 4 source test reports for diesel ICEs prepared for AB 2588. For screening purposes, the most conservative value was chosen from the test data for each stack parameter. The following summarizes stack data from these reports:

Parameter	# tests reporting parameter value	range of values	screening value
Stack velocity	3	1,812-11,343 ft/min	1,812 ft/min 9.2 m/s
Stack diameter	3	2-6 inches	2 inches 0.05 meters
Stack temperature	4	192-785°F	192°F 362 K
Stack height	0	NA	2 meters

SO_2 emissions were based on 300 ppm_v in the stack, which is the limit in Rule 54.B.1.a. This limit cannot be exceed if the diesel fuel meets the 0.5% sulfur limit in Rule 64.B.2.

Other assumptions used in modeling were that the stack was vertical and has no raincap, and the property line was at least 100 meters from the stack.

Using the parameters and assumptions listed above, screening modeling showed that the limits in Rule 54.B.2 would not be exceeded.

Use of the minimum stack diameter, and thus, the minimum flow rate and emission rate is not the most conservative case. In order to determine the maximum emission rate that could be shown to meet the Rule under the conditions described above, modeling was performed by increasing the emissions and flow rate (to maintain the 300 ppm_v SO_2 stack concentration), but increasing the stack diameter to maintain the minimum velocity. Modeling results are summarized below.

Emission rate (g/s)	Emission rate (lb/hr) and (lb/day)	1 hour max concentration (ppm_v) (limit=0.25)	24 hour max concentration (ppm_v) (limit=0.04)
0.0145	0.12 2.76	0.04	0.01
0.029	0.23 5.52	0.06	0.03
0.058	0.46 11.04	0.11	0.04
0.116	0.92 22.08	0.17	0.07
0.232	1.84 44.15	0.23	0.05

From the above, if SO_2 emissions do not exceed 1.84 lb/hr, the 1-hour limit of Rule 54.B.2 will be met. This is equivalent to burning 26 gallons of diesel at 0.5% sulfur per hour.

If SO_2 emissions do not exceed 11.04 lb/day, the 24-hour limit of Rule 54.B.2 will be met. This is equivalent to burning 155 gallons of diesel at 0.5% sulfur per day.

If the sulfur content of the fuel is lower than 0.5%, the allowable amount of fuel would, of course, be greater.

Let me know if the above information meets your needs. If so, another scenario that is probably common is a nonvertical stack (or stack with raincap). I can develop similar information for this case if you want.

VENTURA COUNTY
AIR POLLUTION CONTROL DISTRICT
Memorandum

TO: Interested Parties DATE: December 3, 1997

FROM: John Harader

SUBJECT: Rule 57.B / AP-42 Emission Factor Comparison

Section B of District Rule 57, "Combustion Contaminants - Specific", limits the combustion contaminant emission concentration from any fuel burning equipment. Combustion contaminants are defined in District Rule 2 as particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state. The emission concentration limit is 0.1 grain per cubic foot of gas calculated to 12 percent of carbon dioxide at standard conditions (0.1 gr/scf @ 12% CO_2). This limit can be converted to a lb/MMBTU emission factor by the following equation from 40 CFR Part 60, Appendix A, Method 19:

$$E = C F_c (100/\%CO_2)(lb/7000gr)$$

E = lb/MMBTU emission factor
C = Pollutant concentration (lb/DSCF)
F_c = CO_2 F-factor
= 1430 dscf CO_2/MMBTU for liquid fuels
= 1040 dscf CO_2/MMBTU for natural gas

The pollutant concentration, C, and the $\%CO_2$ values can be wet or dry as long as they are consistent. The $\%CO_2$ of 12 may be used in the equation if the pollutant concentration has been corrected to 12% CO_2:

$$C_{@12\%CO2} = C(12/\%CO_2)$$

The Rule 57.B emission limit is a limit at 12% CO_2; therefore the emission rate equation can be written:

$$E = (0.1\ gr/scf)\ F_c\ (100/12)(lb/7000gr)$$

For Natural Gas: E = 0.12 lb PM/MMBTU
For Liquid Fuels: E = 0.17 lb PM/MMBTU

Based on EPA AP-42 emission factors and source test data, all natural gas fired or fuel oil fired boilers, process heaters, and turbines; and natural gas fired or diesel fired engines

operate below this emission factor or emission limit The particulate matter emission factors for these units are:

Natural Gas Fired Units	Rule 57.B Factor = 0.12 lb PM / MMBTU	
Boiler > 100 MMBTU/Hr	3 lb/mmcf	0 00286 lb / MMBTU
Boiler 10 - 100 MMBTU/Hr	13.7 lb/mmcf	0 0131 lb / MMBTU
Boiler < 10 MMBTU/Hr	12 lb/mmcf	0 0114 lb / MMBTU
Turbine		0 0419 lb / MMBTU
Lean Burn Engine		0 046 lb / MMBTU
Rich Burn Engine		0 0007 lb / MMBTU

Fuel Oil or Diesel Fired Units	Rule 57.B Factor = 0 17 lb PM / MMBTU	
Fuel Oil Fired Boiler	2 lb / Mgal	0.014 lb / MMBTU
Fuel Oil Fired Turbine		0 061 lb/ MMBTU
Diesel Engine > 600 HP		0 062 lb/ MMBTU

Compliance with the emission limit for diesel engines < 600 HP has been shown through the conducting of a source test on an engine within Ventura County. This source test was conducted for the purpose of generating an emission factor to be used for Air Toxic "Hot Spots" emission estimations. The measured particulate concentration for this engine was 0.1 gr/dscf at 12 percent CO_2. The engine source test was a Cummins NTA engine rated at 335 horsepower at 2100 rpm The source test was conducted July 29, 1992

m:\titlev\rule57 Bcomp