

**Mandalay Generating Station**  
393 N. Harbor Blvd.  
Oxnard, CA 93035  
Tel: (805) 984-5291  
Fax: (805) 984-5295

November 8, 2013

Mr. Lyle Olson  
*Ventura County Air Pollution Control District*  
669 County Square Drive  
Ventura, CA 93003

**RE: 2012-2013 Annual Compliance Certification**  
**NRG California South LP. - Mandalay Generating Station – Permit No. 00013**

Dear Mr. Olson,

NRG California South LP. is submitting the 2012-13 annual compliance certification report for the Mandalay Generating Station (Federal Operating Permit No. 00013 issued October 28, 2008) located in Oxnard, CA.

Please find enclosed VCAPCD Signature Cover Form- Certification by Responsible Official, Source Test Summary Form, Deviation Summary Form, Permit Attachment Form and supporting documents. These documents serve as the annual certification for the period October 01, 2012 through September 30, 2013, and semi-annual deviation report for the period April 01, 2013 through September 30, 2013.

If you have any questions or require additional information, please don't hesitate to contact me at (909) 782-8834 or [apeetha.jain@nrgenergy.com](mailto:apeetha.jain@nrgenergy.com)

Sincerely,

Apeetha Jain  
Air Quality Engineer

Enclosures

cc: Mr. Gerardo Rios, Chief  
Permits Office (AIR-3)  
USEPA – Region IX  
Office of Air Division  
75 Hawthorne St  
San Francisco, CA 94105

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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:  Title: Plant Manager – Mandalay Generating Station	Date:  11-08-13
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Time Period Covered by Compliance Certification  10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)  NRG California South LP. – Mandalay Generating Station
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# ANNUAL COMPLIANCE CERTIFICATION

## SOURCE TEST SUMMARY FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

A. Emission Unit Description: Mandalay Unit 1			B. Pollutant: NOx
C. Measured Emission Rate: 0.006 lb/mmBtu (0.079 lb/NMWh)	D. Limited Emission Rate: 0.10 lb / NMWh	E. Specific Source Test or Monitoring Record Citation: Attachment 59N2, Condition 1	F. Test Date: 11/19/2012

A. Emission Unit Description: Mandalay Unit 1			B. Pollutant: NH3
C. Measured Emission Rate: 2.4 ppm	D. Limited Emission Rate: 10 ppm	E. Specific Source Test or Monitoring Record Citation: Attachment 59N2, Condition 3	F. Test Date: 07/19/2013

A. Emission Unit Description: Mandalay Unit 2			B. Pollutant: NOx
C. Measured Emission Rate: 0.007 lb/mmBtu (0.072 lb/NMWh)	D. Limited Emission Rate: 0.10 lb / NMWh	E. Specific Source Test or Monitoring Record Citation: Attachment 59N2, Condition 1	F. Test Date: 11/27/2012

A. Emission Unit Description: Mandalay Unit 2			B. Pollutant: NH3
C. Measured Emission Rate: 1.7 ppm	D. Limited Emission Rate: 10 ppm	E. Specific Source Test or Monitoring Record Citation: Attachment 59N2, Condition 3	F. Test Date: 08/01/2013

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:



# ANNUAL COMPLIANCE CERTIFICATION DEVIATION SUMMARY FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

<p>A. Attachment # or Permit Condition #: Attachment 103N1-13, Conditions # 2</p>	<p>B. Equipment description: Mandalay Unit 2 CEMS</p>	<p>C. Deviation Period: Date &amp; Time Begin: <u>10/2/2012 @ 16:00</u>  End: <u>10/2/1012 @ 16:28</u> When Discovered: Date &amp; Time <u>10/02/2012 @ 16:00</u></p>
<p>D. Parameters monitored: NOx</p>	<p>E. Limit: N/A</p>	<p>F. Actual: N/A</p>
<p>G. Probable Cause of Deviation: CEMS was out-of-control due to no valid startup calibration after first fires. The first startup calibration was not a valid on-line calibration as the unit tripped.</p>		<p>H. Corrective actions taken: A second start up calibration was initiated and successfully completed. A follow up report was submitted to VCAPCD on 10/04/2012.</p>

<p>A. Attachment # or Permit Condition #: Attachment 103N1-13, Conditions # 2</p>	<p>B. Equipment description: Mandalay Unit 1 CEMS</p>	<p>C. Deviation Period: Date &amp; Time Begin: <u>07/25/2013 @ 14:12</u>  End: <u>07/25/2013 @ 15:43</u> When Discovered: Date &amp; Time <u>07/25/2013 @ 14:30</u></p>
<p>D. Parameters monitored: NOx</p>	<p>E. Limit: N/A</p>	<p>F. Actual: N/A</p>
<p>G. Probable Cause of Deviation: CEMS was out-of-control due to calibration failure caused due to the calibration valve not opening because of a blown fuse.</p>		<p>H. Corrective actions taken: The fuse was replaced and another successful calibration was completed. A follow up report was submitted to VCAPCD on 07/25/2013.</p>

<p>A. Attachment # or Permit Condition #: Attachment 103N1-13, Conditions # 2</p>	<p>B. Equipment description: Mandalay Unit 2 CEMS</p>	<p>C. Deviation Period: Date &amp; Time Begin: <u>08/27/2013 @ 14:30</u>  End: <u>08/27/2013 @ 15:30</u> When Discovered: Date &amp; Time <u>08/27/2013 @ 15:00</u></p>
<p>D. Parameters monitored: NOx</p>	<p>E. Limit: N/A</p>	<p>F. Actual: N/A</p>
<p>G. Probable Cause of Deviation: Mandalay Unit 2 sample pump failed due to a degraded diaphragm.</p>		<p>H. Corrective actions taken: The degraded diaphragm was repaired and a successful calibration was completed. A follow up report was submitted to VCAPCD on 08/29/2013.</p>





# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 59N2, Condition #1</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: NOx Emission Limit Condition 1a – Certified CEMS data demonstrates that there have been no exceedances of the 0.10 lbs/NMW-hr limit. Condition 1b – NRG is prohibited from burning fuel oil in these units. None was burned during the compliance certification time period. Condition 1c – NRG is prohibited from burning mixed fuel oil/natural gas in these units. None was burned during the compliance certification time period.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: CEMs Records and Emission Calculations</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 59N2, Condition #2</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Oil Burned During Force Majeure Mandalay Generating Station is only permitted to burn natural gas in its boilers.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Fuel Usage Logs</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 59N2, Condition #3</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: NH3 Emissions The Annual Ammonia Slip Tests for Units 1 and 2 were conducted on 07/19/2013 and 08/01/2013, respectively. The ammonia slip limit is 10 ppm - Unit 1 tested at 2.4 ppm, Unit 2 tested at 1.7 ppm.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable BAAQMD method ST-1B dated 01/20/1982</p>
<p>C. Method of monitoring: Source Testing Reports</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



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Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 59N2, Condition #4</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Cold Start-up waiver for NOx and NH3 Emission Limits There were 126 Unit 1 start-ups during the compliance period. There were 167 Unit 2 start-ups during the compliance period. Plant records indicate that no cold start-up lasted more than 10 hours, nor have any excess NOx emissions lasted longer than a cold start-up procedure.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: CEMs Records and Operator Logs</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 59N2, Condition #5</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: NOx lbs/NMW-Hr Condition 5a - CEMs are used to monitor and calculate the NOx emission rate. Condition 5b - The megawatt metering calibration test occurs annually. Condition 5c - The hourly lb/NMW-hr NOx is measured according to the procedures in 40 CFR 75.10(d)(1). Condition 5d - The documents are retained at the plant and are available for District review.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: CEMs Records and Emission Calculations</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 59N2, Conditions #6 &amp; #7</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Hourly Recordkeeping The Station maintains operational records as detailed in Conditions 6 and 7. Such records are available to the District upon request.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: CEMs Records and Operator Logs</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 70N3-13, Conditions #1 - #2</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Phase 1 &amp; 2 Vapor Recovery System</p> <p>Condition 1 – The above ground gasoline tank is equipped with a pressure-vacuum relief valve set at no less than 2.5 inches. A vapor recovery system is used and good practices are used to minimize spills and leaks.</p> <p>Condition 2 – The Phase I vapor recovery equipment has a two-point VRS system and a permanently installed submerged fill pipe. The VRS equipment is maintained in good condition.</p>	<p>Periodic</p>
<p>C. Method of monitoring: Inspection, Maintenance, and Testing Records</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 70N3-13, Conditions #3 - #6</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Phase 1 &amp; 2 Vapor Recovery System</p> <p>Condition 3-4 - Phase II dispensing equipment is a VRS vapor balance system.</p> <p>Condition 5 – Required signs are posted and readily visible.</p> <p>Condition 6 – The site conducts static testing every year and a liquid removal test every four years.</p>	<p>Periodic</p>
<p>C. Method of monitoring: Inspection, Maintenance, and Testing Records</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 70N3-13, Conditions #7 - #8</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Phase 1 &amp; 2 Vapor Recovery System</p> <p>Condition 7 – Records of all tests and repairs are maintained at the site.</p> <p>Condition 8 – NRG agrees that if it seeks replacement or modification of the dispensing facility it will seek a permit to construct.</p>	<p>Periodic</p>
<p>C. Method of monitoring: Inspection, Maintenance, and Testing Records</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 74.9N7 , Conditions #1 - #4</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Stationary Internal Combustion Engines</p> <p>Condition 1 - Hourly operating records verify compliance with the 20 hour annual limit.</p> <p>Condition 2 - A non-resettable elapsed hour meter is operated on each unit.</p> <p>Condition 3 - The Perkins model 1006-GT emergency fire pump is located in the circ water pump pit; the Generac model 96A-00728-S emergency generator is located in the rear employee parking lot.</p> <p>Condition 4 - Calendar year hours of maintenance operation are reported by Feb 15.</p>	<p>Periodic</p>
<p>C. Method of monitoring: Maintenance and Operating Logs</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment ATCM Engine N1, Conditions #1 - #3</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Fuel Use and Operation Recordkeeping</p> <p>Condition 1 - Only CARB Diesel Fuel is used at the facility</p> <p>Condition 2 - Maintenance and testing operation of the emergency fire pump is logged monthly</p> <p>Condition 3 - Records of operation and fuel purchased (type and quantity) are maintained on site</p>	<p>Periodic</p>
<p>C. Method of monitoring: Purchase Records and Operation Log</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment ATCM Engine N2, Conditions #1 - #3</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Fuel Use and Operation Recordkeeping</p> <p>Condition 1 - Only CARB Diesel Fuel is used at the facility</p> <p>Condition 2 - Maintenance and testing operation of the emergency generator is limited to 20 hr/yr and is logged monthly</p> <p>Condition 3 - Records of operation and fuel purchased (type and quantity) are maintained on site</p>	<p>Periodic</p>
<p>C. Method of monitoring: Purchase Records and Operation Log</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 74.23N8, Conditions #1 - #3</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Stationary Gas Turbines</p> <p>Condition 1 - A totalizing operating hour meter is installed; monthly records of operating hours are maintained.</p> <p>Condition 2 - Unit 3 operated 154.8 hours in calendar year 2012 and 176.1 hours during the Oct 2012 - Sept 2013 compliance year.</p> <p>Condition 3 - Actual operating hours are maintained below 200 hours/year.</p>	<p>Continuous</p>
<p>C. Method of monitoring: Operating Logs</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable Non-resettable totalizing hour meter</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 103N1-13, Conditions #1 - #3</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Continuous Monitoring Systems</p> <p>Conditions 1, 2 – A CEMS system is operated and maintained at the station Units 1 and 2 which meets the requirements of Rule 103.A.1 and 103.C.1. Three events subject to 103N1-13 Condition 2 are reported on the attached Deviation forms.</p> <p>Condition 3 – Monitored violations are reported to the District within 96 hours.</p>	<p>Continuous</p>
<p>C. Method of monitoring: CEMs Inspection, Maintenance, Testing, and Reporting Records</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>Y</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 103N1-13, Conditions #4 - #6</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description: Continuous Monitoring Systems</p> <p>Condition 4 – Permanent CEMS records are maintained as required.</p> <p>Condition 5 – Data is reduced according to Appendix F of 40 CFR Part 75.</p> <p>Condition 6 - CEMS and excess emission reports are submitted to the District monthly.</p>	<p>Continuous</p>
<p>C. Method of monitoring: CEMs Inspection, Maintenance, Testing, and Reporting Records</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>





# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: PO00013PC1, Conditions #1 - #2</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: General Recordkeeping Requirements and Solvent Cleaning Additional Requirements</p> <p>Condition 1 - Monthly record-keeping of permitted throughput and consumption, including fuel consumption, are maintained on site. Unit 3 consumed 108.8 mmcf of natural gas during the Oct 2012 - Sept 2013 compliance year.</p> <p>Condition 2 - Mandalay only uses cleaning products in nonrefillable aerosol cans. Records are maintained onsite.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Rules 26 and 29 Fuel Throughput/Consumption and Rule 29 Solvent Usage Records</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: PO00013PC2, Conditions #1 - #2</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Rule 29 Natural Gas Combustion Only Requirements</p> <p>Condition 1, 2 – Only natural gas is fired in Units 1 and 2 and the Turbine Peaking Unit.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Fuel Usage Records</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 50, Conditions #1 – #4</p>	<p>D. Frequency of monitoring: Periodic</p>
<p>B. Description: Opacity Limitations</p> <p>Method 9 opacity readings were done on the following sources during the compliance period; records are attached verifying no visible emissions.</p> <p>Main Units (Unit 1 and Unit 2) and Unit 3 (Turbine Peaking Unit)</p> <p>Emergency Generator and Emergency Firewater Pump</p> <p>Bead Blaster</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable EPA Method 9</p>
<p>C. Method of monitoring: Routine Visual Surveillance and Certification Records</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u></p> <p>*If yes, attach Deviation Summary Form</p>



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Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 54.B.1, Conditions #1 - #3</p>	<p>D. Frequency of monitoring: Periodic</p>
<p>B. Description: Sulfur Compounds Compliance with Rule 64 ensures compliance with this rule based on District analysis. Compliance is assured because only PUC-regulated natural gas is combusted at the facility.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Fuel Sulfur Analyses</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 54.B.2, Conditions #1 - #3</p>	<p>D. Frequency of monitoring: Annually</p>
<p>B. Description: Sulfur Compounds Ground Level Units 1, 2, and the Turbine Peaking Unit burn PUC quality natural gas. A fuel sulfur sample analysis is verified annually and maintained on site. District analysis dated 05/23/96 confirms compliance for the diesel-fired generator and firewater pump.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Recordkeeping and Modeling Demonstration</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 55, Conditions #1 - #7</p>	<p>D. Frequency of monitoring: Periodic</p>
<p>B. Description: Fugitive Dust There are no operations, disturbed surface areas, or man-made conditions that are subject to Rule 55.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Onsite Operations Review - Permit Condition Not Currently Applicable</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 57.1, Conditions #1 - #2</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Particulate Emissions from Fuel Burning Equipment Periodic Monitoring not required. District analysis dated 09/03/98 confirms compliance. (The 12/03/97 analysis noted in the permit is for Rule 68 and does not apply to Attachment 57.1)</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Rule 57.B District Analysis</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 64.B.1, Conditions #1 - #4</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Sulfur Content of Gaseous Fuels Only PUC-regulated Natural Gas is combusted at this facility. Records are available on site.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Fuel Sulfur Analyses</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 64.B.2, Conditions #1 - #3</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Sulfur Content of Liquid Fuel The site uses CARB-approved diesel in the emergency generator and emergency firewater pump. Fuel purchase records are maintained onsite for District review; delivery record is attached confirming use of CARB Diesel.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: CARB Diesel Purchase Records</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 74.6, Conditions #1 - #15</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Surface Cleaning and Degreasing Mandalay only uses cleaning products in nonrefillable aerosol cans. Records are maintained onsite.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Routine surveillance of Solvent Usage, and Activity Records</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 74.11.1, Conditions #1 - #4</p>	<p>D. Frequency of monitoring: N/A</p>
<p>B. Description: Large Water Heaters and Small Boilers Only electric water heaters are used at the site and no small boilers exist at the facility, compliance with the requirements is not required.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Equipment Design Record Review - Permit Condition Not Currently Applicable</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 74.22, Conditions #1 - #3</p>	<p>D. Frequency of monitoring: N/A</p>
<p>B. Description: Natural gas Fired Fan-type Central Furnaces No natural gas-fired fan-type central furnaces to which the attachment applies exist at the facility, compliance with the requirements is not required.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Equipment Design Record Review - Permit Condition Not Currently Applicable</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 74.1, Conditions #1 - #7</p>	<p>D. Frequency of monitoring: Periodic</p>
<p>B. Description: Abrasive Blasting Bead blast records are available for review at the plant.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Operating Log Records; Routine Surveillance of Bead Blaster</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u>  G. Compliance Status? (C or I): <u>C</u>  H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u>  *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 74.2, Conditions #1 - #6</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Architectural Coatings Facility maintains records of paints used and VOC content for District review.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Routine Surveillance of Paint Usage, and Activity Records</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u>  G. Compliance Status? (C or I): <u>C</u>  H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u>  *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 74.29N3, Conditions #1 - #14</p>	<p>D. Frequency of monitoring: N/A</p>
<p>B. Description: Soil Decontamination Operations No soil remediation is taking place at the Mandalay Generating Station.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Onsite Operations Review - Permit Condition Not Currently Applicable</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u>  G. Compliance Status? (C or I): <u>C</u>  H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u>  *If yes, attach Deviation Summary Form</p>





# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 40CFR61.M, Conditions #1 - #2</p>	<p>D. Frequency of monitoring: Periodic</p>
<p>B. Description: Asbestos Standard Inspection, Notification, and Contractor Records are maintained onsite.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Inspection, Notification, and Contractor Records</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment Part 70 General, Conditions #1 - #3</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: General Part 70 Permit Conditions Condition 1 - Compliance status of each federally enforceable condition is reviewed. Condition 2 - Facility strives to comply with all applicable conditions. Condition 3 - Facility acknowledges deviations from Part 70 requirements are to be reported within 4 hours.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Title V Reports and Periodic Review of Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment Part 70 General, Conditions #4 - #7</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: General Part 70 Permit Conditions Condition 4 - Facility understands that the need to halt an activity to comply is not a defense against enforcement action Condition 5 - All required records, monitoring data, and support information are maintained for a period of 5 years. Condition 6 - Facility furnishes information to District when requested. Condition 7 - Facility provides District access to facilities.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Title V Reports and Periodic Review of Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment Part 70 General, Conditions #8 - #10</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: General Part 70 Permit Conditions</p> <p>Condition 8 - Facility understands that the permit may be modified, revoked, reopened, reissued, or terminated for cause</p> <p>Condition 9 - Facility understands that the permit may be reopened by the District under specific conditions.</p> <p>Condition 10 - Facility strives to pay all fees to maintain the permit active.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Title V Reports and Periodic Review of Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment Part 70 General, Conditions #11 - #13</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: General Part 70 Permit Conditions</p> <p>Condition 11 - Facility recognizes that the permit does not provide any specific property rights.</p> <p>Condition 12 - Facility recognizes that the permit provisions are severable.</p> <p>Condition 13 - Facility recognizes that an application for permit renewal is required no more than 18 months and no less than 6 months prior to the expiration date</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Title V Reports and Periodic Review of Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment Part 70 General, Conditions #14 - #15</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: General Part 70 Permit Conditions</p> <p>Condition 14 - Facility recognizes that any document submitted on behalf of this permit must be certified by a responsible official.</p> <p>Condition 15 - Facility submits a certification of compliance with all applicable requirements to the District and EPA on an annual basis.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Title V Reports and Periodic Review of Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u></p> <p>G. Compliance Status? (C or I): <u>C</u></p> <p>H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment PO General, Conditions #1 - #2</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: General Permit to Operate Conditions Condition 1 - Facility recognizes that petitions to review or revise conditions issued on a permit to operate must be submitted within 30 days of receipt of permit to operate. Condition 2 - Facility maintains copies of the permit reasonably close to the equipment and readily accessible for District review.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Periodic Review of Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment PO General, Conditions #3 - #4</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: General Permit to Operate Conditions Condition 3 - Facility recognizes that equipment that is not permitted as portable is not transferable from one location to another Condition 4 - Facility recognizes that the District may suspend the permit if District is denied access to requested information within a reasonable amount of time.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Periodic Review of Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: INTENTIONALLY LEFT BLANK</p>	<p>D. Frequency of monitoring:</p>
<p>B. Description:</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable</p>
<p>C. Method of monitoring:</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



## ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment SHIELD - D, Da, Db</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Permit Shield - New Source Performance Standards Facility periodically reviews applicability of identified NSPS subparts</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Periodic Review of Potentially Applicable Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment SHIELD - GG</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Permit Shield - New Source Performance Standards Facility periodically reviews applicability of identified NSPS subparts</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Periodic Review of Potentially Applicable Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment SHIELD - YYYY</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Permit Shield - National Emissions Standards for Hazardous Air Pollutants Facility periodically reviews applicability of identified NESHAP subparts</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Periodic Review of Potentially Applicable Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



# ANNUAL COMPLIANCE CERTIFICATION PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 10 / 01 / 2012 (MM/DD/YY) to 09 / 30 / 2013 (MM/DD/YY)

Mandalay Generating Station

<p>A. Attachment # or Permit Condition #: Attachment 40CFR68RMP-13</p>	<p>D. Frequency of monitoring: Annually</p>
<p>B. Description: Risk Management Plan The site has a current and complete Risk Management Plan.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Risk Management Plan Documentation and Review</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 40CFR72-78</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Acid Rain Program Facility maintains records to ensure compliance with monitoring, emission limits, recordkeeping, and reporting requirements.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Periodic Review of Requirements</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>

<p>A. Attachment # or Permit Condition #: Attachment 40CFR82</p>	<p>D. Frequency of monitoring: Continuous</p>
<p>B. Description: Protection of Stratospheric Ozone Certified contractors are used to conduct any air conditioning work in the plant.</p>	<p>E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A</p>
<p>C. Method of monitoring: Inspection, Notification, and Contractor Records</p>	<p>F. Currently in Compliance? (Y or N): <u>Y</u> G. Compliance Status? (C or I): <u>C</u> H. *Excursions, exceedances, or other non-compliance? (Y or N): <u>N</u> *If yes, attach Deviation Summary Form</p>



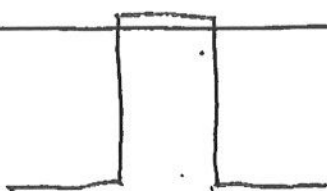


RECORD OF VISIBLE EMISSIONS

Client/Location MANDALAY UNIT 2 Date 3/1/13  
 Unit 2 Fuel NAT. GAS Test No. 1 Observer M. ESCARCEGA  
 Weather Conditions CLEAR 0-5 MPH WIND  
 Observer's Location SEE SKETCH BELOW

Hr	Time				Comments	Hr	Time				Comments	
	Min	Seconds					Min	Seconds				
		00	15	30	45			00	15	30	45	
	00						30					
	01						31					
	02						32					
	03						33					
07	04	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>		34					
	05	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>		35					
	06	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>		36					
	07	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>		37					
	08	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>		38					
	09	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>		39					
	10						40					
	11						41					
	12						42					
	13						43					
	14						44					
	15						45					
	16						46					
	17						47					
	18						48					
	19						49					
	20						50					
	21						51					
	22						52					
	23						53					
	24						54					
	25						55					
	26						56					
	27						57					
	28						58					
	29						59					

Comments/Notes: STACK HEIGHT = 200 FT.  
READINGS FROM 2 1/2 STK. HTS. AWAY ← WIND  
LOAD = 25 MW



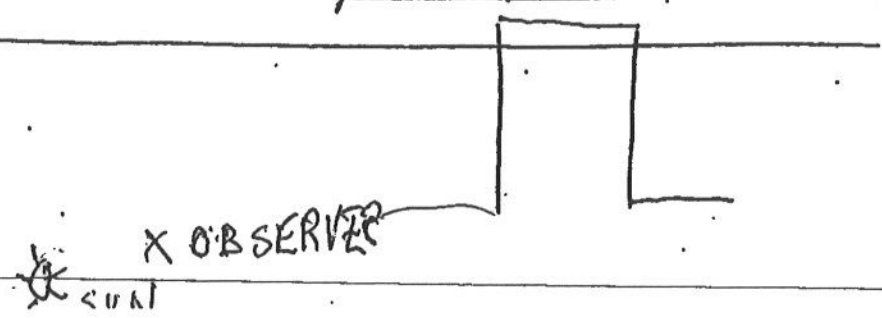
X OBSERVER  
 W 2111

RECORD OF VISIBLE EMISSIONS

Client/Location MANDALAY UNIT 3 Date 6/18/13  
 Unit 1 & 2 PAIR Fuel            Test No. 1 Observer M. ESCARCEG  
 Weather Conditions CLEAR - WIND 10-15 mph  
 Observer's Location SEE SKETCH BELOW

Time					Comments	Time					Comments	
Hr	Min	Seconds				Hr	Min	Seconds				
		00	15	30	45			00	15	30	45	
	00							30				
	01							31				
	02							32				
	03							33				
	04							34				
	05							35				
	06							36				
	07							37				
	08							38				
	09							39				
	10							40				
	11							41				
	12							42				
	13							43				
<u>08</u>	14	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			44				
	15	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			45				
	16	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			46				
	17	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			47				
	18	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			48				
	19	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			49				
	20	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			50				
	21							51				
	22							52				
	23							53				
	24							54				
	25							55				
	26							56				
	27							57				
	28							58				
	29							59				

Comments/Notes: STACK HEIGHT = 50 FT.  
READINGS FROM 3-STACK HTS. AWAY ← WIND



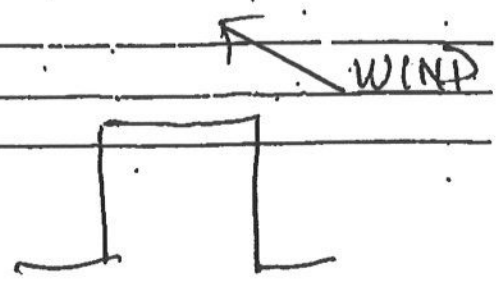
X OBSERVER  
 cural

RECORD OF VISIBLE EMISSIONS

Client/Location MANDALAY UNIT 3 Date 6/18/13  
 Unit 3 & 4 PAIRuel Test No. 1 Observer M. ESCARCEGA  
 Weather Conditions CLEAR WIND 10-15 MPH  
 Observer's Location SEE SKETCH BELOW

Time					Comments	Time					Comments	
Hr	Min	Seconds				Hr	Min	Seconds				
		00	15	30	45			00	15	30	45	
	00							30				
	01							31				
	02							32				
	03							33				
	04							34				
	05							35				
	06							36				
	07							37				
	08							38				
	09							39				
	10							40				
	11							41				
	12							42				
	13							43				
	14							44				
	15							45				
	16							46				
	17							47				
	18							48				
<del>08</del>	19	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			49				
	20	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			50				
	21	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			51				
	22	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			52				
	23	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			53				
	24	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			54				
	25	<del>0</del>	<del>0</del>	<del>0</del>	<del>0</del>			55				
	26							56				
	27							57				
	28							58				
	29							59				

Comments/Notes: STACK HEIGHT = 50 FT.  
READINGS FROM 3-STACK HTS. AWAY



X OBSERVER  
 SUN

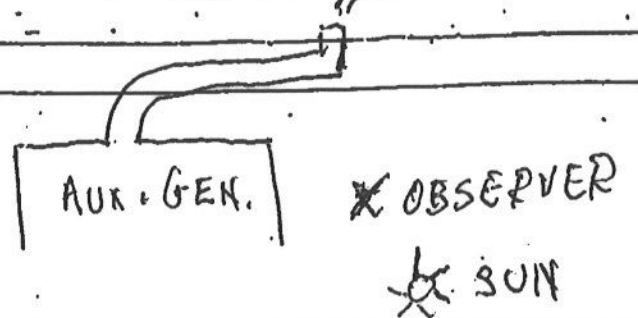


RECORD OF VISIBLE EMISSIONS

Client/Location MANDALAY DIESEL AUX. GEN. Date 6/18/13  
 Unit \_\_\_\_\_ Fuel DIESEL Test No. 1 Observer M. ESCARCEGA  
 Weather Conditions CLEAR WINDY 10-15 mph  
 Observer's Location SEE SKETCH BELOW

Time					Comments	Time					Comments	
Hr	Min	Seconds				Hr	Min	Seconds				
		00	15	30		45			00	15		30
	00											
	01							30				
	02							31				
	03							32				
	04							33				
	05							34				
	06							35				
	07							36				
	08							37				
	09							38				
	10							39				
	11							40				
	12							41				
	13						08	42	0	5	0	5
	14							43	0	0	0	5
	15							44	0	0	0	0
	16							45	0	0	5	0
	17							46	0	0	0	0
	18							47	5	5	0	0
	19							48	0	0	0	0
	20							49				
	21							50				
	22							51				
	23							52				
	24							53				
	25							54				
	26							55				
	27							56				
	28							57				
	29							58				
								59				

Comments/Notes: STACK HEIGHT = 10 FT  
READINGS FROM 30 FT AWAY EXHAUST

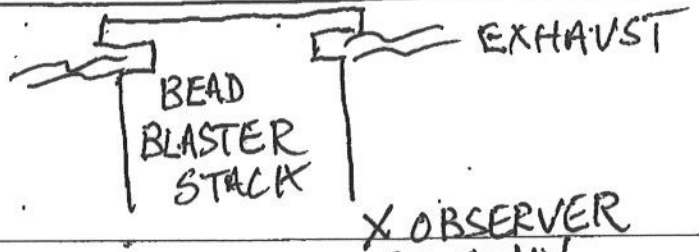


RECORD OF VISIBLE EMISSIONS

Client/Location MANDALAY BEAD BLASTER Date 6/18/13  
 Unit \_\_\_\_\_ Fuel ELEC. Test No. 1 Observer M. ESCARCEGA  
 Weather Conditions CLEAR ~~BLIND WIND~~ 10-15 mph  
 Observer's Location SEE SKETCH BELOW

Time					Comments	Time					Comments	
Hr	Min	Seconds				Hr	Min	Seconds				
		00	15	30	45			00	15	30	45	
	00											
	01							30				
	02							31				
	03							32				
	04							33				
	05							34				
	06							35				
	07							36				
	08							37				
	09							38				
	10							39				
	11							40				
	12							41				
	13							42				
	14							43				
	15							44				
	16							45				
	17							46				
	18							47				
	19							48				
	20							49				
	21							50				
	22						08	51				
	23							52				
	24							53				
	25							54				
	26							55				
	27							56				
	28							57				
	29							58				
								59				

Comments/Notes: STACK HEIGHT = 8 FT  
READINGS FROM 20' FT. AWAY. → WIND



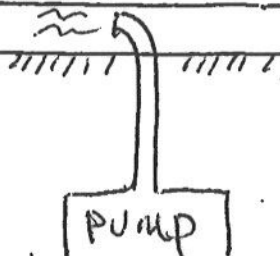


RECORD OF VISIBLE EMISSIONS

Client/Location MANDALAY SALT FIREWATER PUMP Date 9/16/13  
 Unit \_\_\_\_\_ Fuel DIESEL Test No. 1 Observer M. ESCARCEG  
 Weather Conditions CLEAR/SUNNY WIND ≈ 0-10 MPH  
 Observer's Location SEE SKETCH BELOW

		Time				Comments			Time				Comments
Hr	Min	Seconds					Hr	Min	Seconds				
		00	15	30	45				00	15	30	45	
	00												
	01							30					
	02							31					
	03							32					
	04							33					
	05							34					
	06							35					
	07							36					
	08							37					
	09							38					
	10							39					
	11							40					
	12							41					
	13							42					
	14							43					
	15							44					
	16							45					
	17							46					
	18							47					
	19							48					
	20							49					
	21							50					
	22							51					
	23							52					
	24						10	53	5	0	0	5	
	25							54	0	0	5	5	
	26							55	0	0	0	0	
	27							56	5	5	0	0	
	28							57	0	0	5	0	
	29							58	0	3	0	0	
								59	0	0	0	5	

Comments/Notes: STACK HEIGHT = 5 FT





Silvas Oil Company, Inc.  
Independent Petroleum Distributor

CORPORATE OFFICE  
2121 So. Third St.  
P.O. Box 1048 · Fresno, CA 93714  
(559) 233-5171 · www.silvasoil.com

ExxonMobil ConocoPhillips



PLEASE RETURN REMITTANCE TO  
ADDRESS ABOVE

ACCOUNT NUMBER: 2478

4501456820

INVOICE

NUMBER: 189235

DATE: 05-08-13

SOLD TO: NRG ENERGY - MANDALAY

SHIP TO: NRG ENERGY - MANDALAY

MANDALAY GENERATING STATION  
393 N. HARBOR BLVD.  
OXNARD, CA 93035

MANDALAY GENERATING STATION  
393 N. HARBOR BLVD.  
OXNARD, CA 93035

STATEMENTS ON THE REVERSE SIDE ARE MADE A PART HEREOF.					PURCH. ORDER NUMBER 4600016493				
DELIVERED BY (SIGNATURE IN FULL)			RECEIVED IN GOOD ORDER		This invoice amount due on: 05-23-13				
X			X		NET 15				
NO. OF PKG'S	BULK OR PKG. SIZE	PRODUCT DELIVERED	ORDERED	DELIVERED	TAXES			PRICE	AMOUNT
					FED	STATE	SALES		
		GASOLINE - 3, UN1203, PG II 87 UNLEADED CARB/RFG 10% ETH FEDERAL GASOLINE EXCISE TAX CA GAS EXCISE FEDERAL LUST TAX	500	500 500 500 500	T	T	T	3.53500 0.18300 0.36000 0.00100	1,767.50 91.50 180.00 0.50
		DIESEL FUEL - 3, NA1993, PG III CARB (RED) ULS DIESEL #2 DYED DIESEL FUEL, NONTAXABLE USE ONLY, PENALTY FOR TAXABLE USE. FEDERAL LUST TAX	400	400 400			T	3.28900 0.00100	1,315.60 0.40
FOR EMERGENCY RESPONSE CALL 1-559-994-5200									
CG AR 78005744									
***> SALES TAX: 2.750% 56.09; 8.000% 105.28									
UNLEADED - REFORMULATED NON VOC CONTROLLED, NON-OPRG, CERTIFIED UNDER SIMPLE MODEL STANDARDS, RVP 7.8 MAX., OXYGEN WT. %1.5 TO 2.7 (14.9 VOL. MTBE MAX) BENZENE VOL. 1.3 MAX., DETERGENT-ADDITIZED ORONITE OGA 477 PL.									
SALESMAN - 20			PLACARD YES <input type="checkbox"/> NO <input type="checkbox"/>		SALES TAX MULTI			161.37	
DRUMS DELIVERED ▶			DRUMS RETURNED ▶		DRUMS NET ▶				
ERRORS IN PRICE, EXTENSION AND ADDITION SUBJECT TO CORRECTION.								TOTAL ▶ 3,516.87	
BAKERSFIELD 661.589.5620 • FRESNO 559.233.5171 • HANFORD 559.582.0221 • KINGSBURG 559.897.5117 • OXNARD 805.486.4581 • PORTERVILLE 559.784.3017 • SANTA MARIA 805.925.7676									

PAID 5/10/13



**Silvas Oil Company, Inc.**  
Independent Petroleum Distributor

**CORPORATE OFFICE**  
2121 So. Third St.  
P.O. Box 1048 · Fresno, CA 93714  
(559) 233-5171 · www.silvasoil.com



PLEASE RETURN REMITTANCE TO  
ADDRESS ABOVE

ACCOUNT NUMBER: 2478

INVOICE NUMBER: 186293  
DATE: 02-20-13

SOLD TO: NRG ENERGY - MANDALAY  
MANDALAY GENERATING STATION  
393 N. HARBOR BLVD.  
OXNARD, CA 93035

SHIP TO: NRG ENERGY - MANDALAY  
MANDALAY GENERATING STATION  
393 N. HARBOR BLVD.  
OXNARD, CA 93035

STATEMENTS ON THE REVERSE SIDE ARE MADE A PART HEREOF.					PURCH. ORDER NUMBER					
DELIVERED BY (SIGNATURE IN FULL)		RECEIVED IN GOOD ORDER			This Invoice amount due on:					
X		X			NET 15 03-07-13					
NO. OF PKG'S	BULK OR PKG. SIZE	PRODUCT DELIVERED	ORDERED	DELIVERED	TAXES			PRICE	AMOUNT	
					FED	STATE	SALES			
		GASOLINE - 3 UN1203, PG II 87 UNLEADED CARB/RFG 10% ETH FEDERAL GASOLINE EXCISE TAX CA GAS EXCISE FEDERAL LUST TAX	375	375 375 375 375	T	T	T	3.76500 0.18300 0.36000 0.00100	1,411.87 68.63 135.00 0.38	
FOR EMERGENCY RESPONSE CALL 1-559-994-5200 SG AR 78005744 P.O. 4501446184 UNLEADED - REFORMULATED NON VOC CONTROLLED, NON-OPRG, CERTIFIED UNDER SIMPLE MODEL STANDARDS, RVP 7.8 MAX., OXYGEN WT %1.5 TO 2.7 (14.9 VOL. MTBE MAX) BENZENE VOL. 1.3 MAX., DETERGENT-ADDITIZED ORONITE OGA 477 PL.										
SALESMAN - 20				PLACARD		YES <input type="checkbox"/> NO <input type="checkbox"/>		SALES TAX ▶ 2.750		44.44
DRUMS DELIVERED ▶		DRUMS RETURNED ▶		DRUMS NET ▶						
ERRORS IN PRICE, EXTENSION AND ADDITION SUBJECT TO CORRECTION.								TOTAL ▶		1,660.32
BAKERSFIELD 881.589.5020		FRESNO 559.233.5171		HANFORD 559.582.0221		KINGSBURG 559.897.5117		OXNARD 805.486.4581		PORTERVILLE 559.784.3017
SANTA MARIA 805.925.7876										

2/22/13



**Silvas Oil Company, Inc.**  
Independent Petroleum Distributor

**CORPORATE OFFICE**  
2121 So. Third St.  
P.O. Box 1048 · Fresno, CA 93714  
(559) 233-5171 · www.silvasoil.com



PLEASE RETURN REMITTANCE TO  
ADDRESS ABOVE

ACCOUNT NUMBER: 2478

INVOICE NUMBER: 180588  
DATE: 09-07-12

SOLD TO: GEN-ON ENERGY, INC.

SHIP TO: GEN-ON ENERGY, INC.

MANDALAY GENERATING STATION  
393 N. HARBOR BLVD.  
OXNARD, CA 93035

MANDALAY GENERATING STATION  
393 N. HARBOR BLVD.  
OXNARD, CA 93035

STATEMENTS ON THE REVERSE SIDE ARE MADE A PART HEREOF.					PURCH. ORDER NUMBER 4600016493				
DELIVERED BY (SIGNATURE IN FULL)		RECEIVED IN GOOD ORDER			This invoice amount due on: 09-22-12				
X		X			NET 15				
NO. OF PKG'S	BULK OR PKG. SIZE	PRODUCT DELIVERED	ORDERED	DELIVERED	TAXES			PRICE	AMOUNT
					FED	STATE	SALES		
		GASOLINE - 3, UN1203, PG II 87 UNLEADED CARB/RFG 10% ETH FEDERAL GASOLINE EXCISE TAX CA GAS EXCISE FEDERAL LUST TAX	500	500 500 500 500	T	T	T	3.56800 0.18300 0.36000 0.00100	1,784.00 91.50 180.00 0.50
FOR EMERGENCY RESPONSE CALL 1-559-994-5200									
SG AR 78005744									
PG. 4501422642									
UNLEADED + REFORMULATED NON VOC CONTROLLED, NON-OPRG, CERTIFIED UNDER SIMPLE MODEL STANDARDS, RVP 7.8 MAX., OXYGEN WT. %1.5 TO 2.7 (14.9 VOL. MTBE MAX) BENZENE VOL. 1.3 MAX., DETERGENT-ADDITIZED ORONITE OGA 477 PL.									
SALESMAN - 20			PLACARD		YES <input type="checkbox"/>	NO <input type="checkbox"/>	SALES TAX ▶ 2.750		56.54
DRUMS DELIVERED ▶		DRUMS RETURNED ▶		DRUMS NET ▶					
ERRORS IN PRICE, EXTENSION AND ADDITION SUBJECT TO CORRECTION.								TOTAL ▶	2,112.54
BAKERSFIELD 661.589.5620                    FRESNO 559.233.5171                    HANFORD 559.582.0221                    KINGSBURG 559.897.5117                    OXNARD 805.486.4581                    PORTERVILLE 559.784.3017                    SANTA MARIA 805.925.7678									

# FORM 1

## Summary of Source Test Data

SOURCE INFORMATION		FACILITY PARAMETERS	
GDF Name and Address <i>RELIANT ENERGY</i> <i>3933 N HARBOUR RD</i> <i>OX</i>	GDF Representative and Title <i>SCOTT W</i>	PHASE II SYSTEM TYPE (Check One)	
Permit Conditions	GDF Phone No.	Balance	<u>X</u>
	Source: GDF Vapor Recovery System	Hirt	_____
	GDF # _____	Red Jacket	_____
A/C # _____		Hasstech	_____
		Healy	_____
		Other	_____
		Manifolded	Y or <u>N</u>
Operating Parameters Number of Nozzles Served by Tank #1 _____      Number of Nozzles Served by Tank #3 _____ Number of Nozzles Served by Tank #2 _____      Number of Nozzles Served by Tank #4 _____			
Applicable Regulations:		VN Recommended:	
Source Test Results and Comments			
TANK #:		1	2
		3	4
1. Product Grade		<i>B7unl</i>	
2. Actual Tank Capacity, gallons		<i>1000</i>	
3. Gasoline Volume		<i>632</i>	
4. Ullage, gallons (#2, #3)		<i>368</i>	
5. Initial Pressure, inches H <sub>2</sub> O		<i>2.0</i>	
6. Pressure After 1 Minute, inches H <sub>2</sub> O		<i>1.94</i>	
7. Pressure After 2 Minutes, inches H <sub>2</sub> O		<i>1.88</i>	
8. Pressure After 3 Minutes, inches H <sub>2</sub> O		<i>1.82</i>	
9. Pressure After 4 Minutes, pressure H <sub>2</sub> O		<i>1.77</i>	
10. Final Pressure After 5 Minutes, H <sub>2</sub> O		<i>1.71</i>	
11. Allowable Final Pressure		<i>0.22</i>	<i>0.23</i>
Test Conducted by:	Test Company:	Date of Test:	
<i>Smokey Robles</i>	<i>PSR</i>	<i>3-18-13</i>	

APCD Inspector on Site *YES*

APCD INSPECTOR RECEIVED ONE COPY OF TEST DATA

*LO*





Environmental and Analytical Services-Since 1994  
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: GenOn West, LP/~~Ormond Beach~~ *Mandalay*  
~~6635 S. Edison Drive~~ *393 N. Harbor Blvd.*  
Oxnard, CA ~~93033~~ *93035*  
Attn: Mike Escarcega

Report Date: April 5, 2013  
Laboratory Number: 131105  
Project Name: Annual Natural Gas Sample  
Sampled by: Client

On April 3, 2013, Capco Analytical Services, Inc. (CAS), received one(1) sample to be analyzed. The sample was identified and assigned the laboratory ID number listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
U.2 MAIN GAS HDR	131105-01

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.  
Director - Analytical Operations

If you have any further questions or concerns, please contact me at your convenience. This report consists of 3 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.

Client:	GENON WEST, LP	Time Sampled:	11:55 AM
Sample ID:	U-2 MAIN GAS HDR	Date Sampled:	4/3/13
CAS Lab No.	131105-01	Date Received:	4/3/13
Sample Matrix:	Gas	Date Analyzed:	4/3/13
Sample Temp °F:	68	Analyst:	KC

**NATURAL GAS ANALYSIS**  
**ASTM D1945 / D3588**

Constituent	% Mole	% Weight	ppm(v/v)	Gals/Mft <sup>3</sup>
Oxygen	BQL	BQL	<1000	
Nitrogen	0.52	0.87		
Carbon Dioxide	0.94	2.47		
Methane	96.02	91.80		
Ethane	2.23	3.99		
Propane	0.21	0.54		0.057
Iso-Butane	0.02	0.08		0.008
n-Butane	0.03	0.11		0.010
Neo-Pentane	BQL	BQL		BQL
Iso-Pentane	BQL	0.04		0.003
n-Pentane	BQL	0.03		0.003
Hexane plus	0.012	0.06		BQL
<b>Total</b>	<b>100.00</b>	<b>100.00</b>		<b>0.080</b>
Specific Gravity	0.5790			
BTU hhv	1017			
BTU lhv	917			
F-Factor (scf/MM)	8500			
Compressibility	0.9979			
ROC/TOC	0.01			

BQL: Below Practical Quantitation Limit

<b>Client:</b>	GENON WEST, LP	<b>Date Sampled:</b>	4/3/13
<b>CAS Lab No.:</b>	131105-01	<b>Date Received:</b>	4/3/13
<b>Sample ID:</b>	U-2 MAIN GAS HDR	<b>Date Analyzed:</b>	4/3/13
<b>Sample Matrix:</b>	Gas	<b>Analyst:</b>	KC

**TOTAL REDUCED SULFUR**

METHOD GC/PPPD


Constituents	Results Gr/100 SCF	DF	MDL Gr/100 SCF
Hydrogen Sulfide	ND	1	0.05
Carbonyl Sulfide	ND	1	0.05
Methyl Mercaptan	ND	1	0.05
Ethyl Mercaptan	ND	1	0.05
Carbon Disulfide	ND	1	0.05
Dimethyl Sulfide	ND	1	0.05
<b>Total Reduced Sulfur</b>	ND		0.05

**DF:** DILUTION FACTOR  
**MDL:** METHOD DETECTION LIMIT  
**ND:** NOT DETECTED

## Certificate of Analysis

### Notes:

The Chain of Custody document is part of the analytical report.  
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.  
All results are expressed on wet weight basis unless otherwise specified.

  
\_\_\_\_\_  
Authorized Signature  
(QA/QC Supervisor)

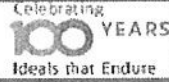
The results in this report apply to the samples analyzed in accordance with the chain of custody document. Capco Analytical certifies that the test results meet all requirements of ELAP unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

### Legend for Abbreviations:

PQL	Practical Quantitation Limit
BQL	Below Practical Quantitation Limit
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
MDL	Method Detection Limit
MRL	Method Reporting Limit
MDA	Minimum Detectable Activity
MCL	Maximum Contamination Level







# MANDALAY GENERATING STA

**Meter Model Information:**

Make: Scientific Columbus  
 Model: 6620  
 Units: MWh  
 Nominal Analog Output: 1mA

**Comments:**

- Tested by Colin Green December 14, 2012, Eaton San Diego office
- Doble F6150 test set used for testing purposes, date of calibration January 31, 2012, SSL ID 0249
- Test procedures from 2011 repeated for this series of tests

**Meter ID: Unit 1 Generator Gross**

Meter Serial Number: 21228  
 Current Transformer Ratio: 8000:5  
 Potential Transformer Ratio: 120:1  
 As Fount Watt Hour Display: 710833  
 As Left Watt Hour Display: 710843

Secondary Volts	Primary Votlage Equiv.	Secondary Amps	Primary Amps Equiv.	Power Factor	Analog Output	Meter Display
120	14400	5.000	8000	1	N/T	230.730
120	14400	4.164	6662	1	N/T	192.210
120	14400	2.500	4000	1	N/T	115.450
120	14400	2.083	3333	1	N/T	96.180
120	14400	1.042	1667	1	N/T	48.110
120	14400	0.500	800	1	N/T	23.070
120	14400	0.000	0	1	N/T	0

**Meter ID: Unit 2 Generator Gross**

Meter Serial Number: 21224  
 Current Transformer Ratio: 8000:5  
 Potential Transformer Ratio: 120:1  
 As Fount Watt Hour Display: 911854  
 As Left Watt Hour Display: 911875

Secondary Volts	Primary Votlage Equiv.	Secondary Amps	Primary Amps Equiv.	Power Factor	Analog Output	Meter Display
120	14400	5.000	8000	1	N/T	231.540
120	14400	4.164	6662	1	N/T	192.920
120	14400	2.500	4000	1	N/T	115.870
120	14400	2.083	3333	1	N/T	96.510
120	14400	1.042	1667	1	N/T	48.290
120	14400	0.500	800	1	N/T	23.180
120	14400	0.000	0	1	N/T	0.010

# ION HIGH REVENUE MWh METER TESTING DEC 14, 2012

HMI Display	Calculated MW	Meter % Error	HMI % Error	Comments:
233.700	230.400	0.143%	1.432%	- PT configuration is open delta - CT configuration is two element - VA=120V @ 0, VC=120V @60 - IA angle @ 0, IC angle @ 60
194.600	191.877	0.173%	1.419%	
116.800	115.200	0.217%	1.389%	
97.300	95.985	0.204%	1.370%	
48.700	48.015	0.197%	1.426%	
23.300	23.040	0.130%	1.128%	
0	0	#DIV/0!	#DIV/0!	

HMI Display	Calculated MW	Meter % Error	HMI % Error	Comments:
228.000	230.400	0.495%	-1.042%	- PT configuration is open delta - CT configuration is two element - VA=120V @ 0, VC=120V @60 - IA angle @ 0, IC angle @ 60
189.700	191.877	0.544%	-1.135%	
113.800	115.200	0.582%	-1.215%	
94.800	95.985	0.547%	-1.234%	
47.200	48.015	0.572%	-1.698%	
22.400	23.040	0.608%	-2.778%	
0	0	#DIV/0!	#DIV/0!	

**Meter ID: Unit 1 Auxilliary**

Meter Serial Number: 21223  
 Current Transformer Ratio: 3000:5  
 Potential Transformer Ratio: 35:1  
 As Fount Watt Hour Display: 701160  
 As Left Watt Hour Display: 701160

Secondary Volts	Primary Votlage Equiv.	Secondary Amps	Primary Amps Equiv.	Power Factor	Analog Output	Meter Display
120	4200	5.000	3000	1	N/T	-25.000
120	4200	4.164	2498	1	N/T	-20.900
120	4200	2.500	1500	1	N/T	-12.500
120	4200	2.083	1250	1	N/T	-10.400
120	4200	1.042	625	1	N/T	-5.200
120	4200	0.500	300	1	N/T	-2.500
120	4200	0.000	0	1	N/T	0

**Meter ID: Unit 2 Auxilliary**

Meter Serial Number: 21225  
 Current Transformer Ratio: 3000:5  
 Potential Transformer Ratio: 35:1  
 As Fount Watt Hour Display: 678991  
 As Left Watt Hour Display: 678991

Secondary Volts	Primary Votlage Equiv.	Secondary Amps	Primary Amps Equiv.	Power Factor	Analog Output	Meter Display
120	4200	5.000	3000	1	N/T	25.201
120	4200	4.164	2498	1	N/T	20.996
120	4200	2.500	1500	1	N/T	12.610
120	4200	2.083	1250	1	N/T	10.507
120	4200	1.042	625	1	N/T	5.255
120	4200	0.500	300	1	N/T	2.529
120	4200	0.000	0	1	N/T	0

**Meter ID: Reserve Auxilliary 1&2**

Meter Serial Number: 21221  
 Current Transformer Ratio: 5000:5  
 Potential Transformer Ratio: 120:1  
 As Fount Watt Hour Display: 174265  
 As Left Watt Hour Display: 174265

Secondary Volts	Primary Votlage Equiv.	Secondary Amps	Primary Amps Equiv.	Power Factor	Analog Output	Meter Display
120	4200	5.000	5000	1	N/T	-41.971
120	4200	4.164	4164	1	N/T	-35.034
120	4200	2.500	2500	1	N/T	-21.036
120	4200	2.083	2083	1	N/T	-17.522
120	4200	1.042	1042	1	N/T	-8.762
120	4200	0.500	500	1	N/T	-4.204
120	4200	0.000	0	1	N/T	-0.003

MI Display	Calculated MW	Meter % Error	HMI % Error	Comments:
-26.000	-25.200	-0.794%	3.175%	- PT configuration is open delta - CT configuration is two element - VA=120V @ 0, VC=120V @60 - IA angle @ 0, IC angle @ 60 - HMI display does not work because result is a difference - HMI display column shows results taken from PLC terminal - this DCS system is different from Unit 2 which is why the reading is not the same
-18.850	-20.987	-0.412%	-10.181%	
-15.600	-12.600	-0.794%	23.810%	
-13.000	-10.498	-0.937%	23.829%	
-6.500	-5.252	-0.984%	23.770%	
-3.100	-2.520	-0.794%	23.016%	
0	0	#DIV/0!	N/A	

MI Display	Calculated MW	Meter % Error	HMI % Error	Comments:
-4759	25.200	0.004%	-18984.921%	- PT configuration is open delta - CT configuration is two element - VA=120V @ 0, VC=120V @60 - IA angle @ 0, IC angle @ 60 - HMI display does not work because result is a difference - HMI display column shows results taken from PLC terminal
-3986	20.987	0.045%	-19093.108%	
-2392	12.600	0.079%	-19084.127%	
-1990	10.498	0.083%	-19055.414%	
-992	5.252	0.063%	-18989.193%	
-475	2.520	0.357%	-18949.206%	
0	0	#DIV/0!	N/A	

MI Display	Calculated MW	Meter % Error	HMI % Error	Comments:
N/A	-42.000	-0.069%	N/A	- PT configuration is open delta - CT configuration is two element - VA=120V @ 0, VC=120V @60 - IA angle @ 0, IC angle @ 60
N/A	-34.978	0.161%	N/A	
N/A	-21.000	0.171%	N/A	
N/A	-17.497	0.142%	N/A	
N/A	-8.753	0.105%	N/A	
N/A	-4.200	0.095%	N/A	
N/A	0	#DIV/0!	N/A	

**NRG California South LP.**  
**MANDALAY GENERATING STATION**  
**UNIT COLD START-UP TRACKING**  
**OCTOBER 2012 TO      SEP. 2013**

Month	Unit #1	Unit #2
October, 2012	15	13
November, 2012	17	12
December, 2012	10	6
January, 2013	26	19
February, 2013	0	2
March, 2013	0	27
April, 2013	0	17
May, 2013	15	20
June, 2013	9	18
July, 2013	23	16
August, 2013	6	10
September, 2013	5	7
REPORTING YTD	126	167



# NRG California South LP. Mandalay Generating Station

## Monthly and Rolling 12-Month Emissions Totals

### 2012-2013

Natural Gas Fuel Throughput					
Month	Gas (HCF)		Rolling 12 Month Total (MMCF)*	Gas (MCF)	Rolling 12 Month Total (MMCF)**
	Unit 1	Unit 2		Unit 3	
2012 Oct	1067175.3	1011761.1	2,019	13661.9	83.7
2012 Nov	1437232.8	891285	2,216	9780	90.8
2012 Dec	617056.1	421082.3	2,306	18722.5	109.6
2013 Jan	1435930.0	1043995.8	2,505	8549.7	118.0
2013 Feb	5836.0	146079.2	2,498	5537.7	123.2
2013 Mar	0.0	2015833.1	2,699	4703.5	127.9
2013 Apr	0.0	1414760.7	2,824	134.1	115.5
2013 May	1270357.0	1780627.3	2,939	4059.4	112.5
2013 Jun	1253553.9	1518555.7	3,092	198.1	103.3
2013 Jul	1227199.4	975717.0	3,070	2233.0	98.3
2013 Aug	468439.4	671487.8	2,416	21408.0	113.9
2013 Sep	715009.5	861145.3	2,225	19811.1	108.8

\* Limitation 33,204.6 MMCF/yr Natural Gas Throughput

\*\* Limitation 197.58 MMCF/yr Natural Gas Throughput

# NRG California South LP. Mandalay Generating Station

## Monthly and Rolling 12-Month Diesel Engine Operation Totals

### 2012-2013

Month	154 HP Perkins engine (fire pump)		Rolling 12 Month Total (hours)*	201 HP Generac engine (emergency generator)		Rolling 12 Month Total (hours)*
	1st of Month Meter Reading	Hours		1st of Month Meter Reading	Hours	
2012 Oct	213.8	0.1	1.0	87.5	0.1	1.1
2012 Nov	213.9	0.0	0.9	87.6	0.0	1.0
2012 Dec	213.9	0.1	0.9	87.6	0.1	1.0
2013 Jan	214.0	0.0	0.8	87.7	0.2	1.1
2013 Feb	214.0	0.0	0.7	87.9	0.1	1.2
2013 Mar	214.0	0.0	0.5	88.0	0.1	1.2
2013 Apr	214.0	0.0	0.5	88.1	0.2	1.3
2013 May	214.0	0.0	0.5	88.3	0.0	1.2
2013 Jun	214.0	0.0	0.3	88.3	0.2	1.2
2013 Jul	214.0	0.0	0.3	88.5	0.2	1.3
2013 Aug	214.0	0.0	0.3	88.7	0.1	1.3
2013 Sep	214.0	0.2	0.4	88.8	0.1	1.4

\* Limitation 20 hours/yr Usage

# NRG California South LP. Mandalay Generating Station Monthly and Rolling 12-Month Gasoline Usage Totals 2012-2013

Month	1,000 Gallon AST		Rolling 12 Month Total (gallons)*
	1st of Month Meter Reading	Usage Volume (gallons)	
2012 Oct	14138.3	71.7	1,100
2012 Nov	14210.0	80.4	1,129
2012 Dec	14290.4	14.1	1,047
2013 Jan	14304.5	73.2	994
2013 Feb	14377.7	108.6	989
2013 Mar	14486.3	152.8	990
2013 Apr	14639.1	128.7	947
2013 May	14767.8	94.2	951
2013 Jun	14862.0	16.5	910
2013 Jul	14878.5	0.0	818
2013 Aug	14878.5	0.0	768
2013 Sep	14878.5	0.0	740

\* Limitation 6,000 gallons/yr Usage