

SUPPLEMENTAL STAFF ASSESSMENT AIR QUALITY

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INTRODUCTION

This second Supplemental Staff Assessment (SSA) for air quality presents changes to the Mojave Desert Air Quality Management District (District) Conditions of Certification (CoCs) based on changes contained in the District's Final Determination of Compliance (FDOC) for the Genesis Solar Energy Project, but does not impact the staff's findings as presented in the Revised Staff Assessment, and does not impact the final revisions to the recommended Staff CoCs provided in the first air quality Supplemental Staff Assessment. The revisions to the District conditions are shown below in underline/strikeout.

The District completed the FDOC for the project July, 2010, which has addressed consistency issues with the conditions for the HTF piping system among other issues (MDAQMD 2010b). These revisions do not change the District's or staff's findings regarding compliance with Laws, Ordinances, Regulations and Standards (LORS).

REVISED PROPOSED CONDITIONS OF CERTIFICATION

The District CoCs with proposed revisions or that require renumbering are shown in underline/strikeout. Since almost all of the District conditions are either revised or renumbered all District conditions are shown.

DISTRICT CONDITIONS

DISTRICT FINAL DETERMINATION OF COMPLIANCE CONDITIONS (MDAQMD 2010b)

Application No. 00010788 and 00010789 (Two - 30 MMBtu/hr Natural Gas Fired Auxiliary Boiler)

EQUIPMENT DESCRIPTION:

Two 30 MMBtu/hr natural gas boilers with low-NOx burner systems.

AQ-1 Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-2 This equipment shall be exclusively fueled with natural gas and shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-3

Emissions from this equipment shall not exceed the following hourly emission limits at any firing rate, verified by fuel use and annual compliance tests:

a. NO_x as NO₂:

~~1. 0.082 lb/hr operating at 25% load (based on 9.0 ppmvd corrected to 3% O₂ and averaged over one hour)~~

1. 0.330 lb/hr operating at 100% load (based on 9.0 ppmvd corrected to 3% O₂ and averaged over one hour)

b. CO:

~~1. 0.141 lb/hr operating at 25% load (based on 50 ppmvd corrected to 3% O₂ and averaged over one hour)~~

1. 0.563 lb/hr operating at 100% load (based on 50 ppmvd corrected to 3% O₂ and averaged over one hour)

c. VOC as CH₄:

~~1. 0.022 lb/hr operating at 25% load~~

1. 0.088 lb/hr operating at 100% load

d. SO_x as SO₂:

~~1. 0.002 lb/hr operating at 25% load~~

1. 0.008 lb/hr operating at 100% load

e. PM₁₀:

~~1. 0.038 lb/hr operating at 25% load~~

1. 0.150 lb/hr operating at 100% load

Verification: As part of the Annual Compliance Report, the project owner shall include information demonstrating compliance with boiler operating emission rates.

~~**AQ-4** The daily emission of the following pollutants CO, NO_x (as NO₂) and SO_x (as SO₂) as well as O₂ (a diluent gas) shall be monitored using a Continuous Emissions Monitoring System (CEMS). This system shall be operating at all times in accordance with the District approved monitoring plan.~~

~~The following are the acceptability testing requirements for the CEMS:~~

~~a. For SO₂ and NO_x CEMS - Performance Specification 2 of 40 CFR 60 Appendix B.~~

~~b. For O₂ CEMS - Performance Specification 3 of 40 CFR 60 Appendix B.~~

~~c. For CO CEMS - Performance Specification 4 of 40 CFR 60 Appendix B.~~

~~d. For quality assurance - Performance Specification 40 CFR 60 Appendix F.~~

Verification: ~~As part of the Annual Compliance Report, the project owner shall include CEMS information demonstrating compliance with boiler operating emission rates.~~

AQ-46 The project owner shall maintain an operations log for this equipment on-site and current for a minimum of five (5) years, and said log shall be provided to District personnel on request. The operations log shall include the following information at a minimum:

- a. Total operation time (hours-per-/day, hours-per-/month, and cumulative hours-per-/rolling twelve months-period);
- b. Fuel use (daily, monthly and cumulative hours/rolling twelve months);
- c. ~~b.~~ Maximum hourly, maximum daily, total quarterly, and total calendar year emissions of NO_x, CO, PM₁₀, VOC and SO_x (including calculation protocol); and,
- d. ~~e.~~ Any permanent changes made to the equipment that would affect air pollutant emissions, and indicate when changes were made.

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-5 This equipment shall not be operated for more than 1,000 hours per rolling twelve month period and more than 14 hours per calendar day.

Verification: The project owner shall submit to the CPM the boiler hours of use records demonstrating compliance with this condition as part of the Annual Operation Report.

AQ-67 The project owner shall perform initial compliance tests on this equipment in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District within 180 days of initial start up:

- a. NO_x as NO₂ in ppmvd at 3% oxygen and lb/hr (measured per USEPA Reference Methods 19 and 20).
- b. VOC as CH₄ in ppmvd at 3% oxygen and lb/hr (measured per USEPA Reference Methods 25A and 18).
- c. SO_x as SO₂ in ppmvd at 3% oxygen and lb/hr.
- d. CO in ppmvd at 3% oxygen and lb/hr (measured per USEPA Reference Method 10).

- e. PM10 in mg/m³ at 3% oxygen and lb/hr (measured per USEPA Reference Methods 5 and 202 or CARB Method 5).
- f. Flue gas flow rate in dscf per minute.
- g. Opacity (measured per USEPA reference Method 9).

Verification: The project owner shall notify the District and the CPM within fifteen (15) working days before the execution of the compliance test required in this condition. The test results shall be submitted to the District and to the CPM within 180 days of initial start up.

AQ-78 The project owner shall perform annual compliance tests on this equipment in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District no later than six weeks prior to the expiration date of this permit. The following compliance tests are required:

- a. NOx as NO₂ in ppmvd at 3% oxygen and lb/hr (measured per USEPA Reference Methods 19 and 20).
- b. VOC as CH₄ in ppmvd at 3% oxygen and lb/hr (measured per USEPA Reference Methods 25A and 18).
- c. SOx as SO₂ in ppmvd at 3% oxygen and lb/hr.
- d. CO in ppmvd at 3% oxygen and lb/hr (measured per USEPA Reference Method 10).
- e. PM10 in mg/m³ at 3% oxygen and lb/hr (measured per USEPA Reference Methods 5 and 202 or CARB Method 5).
- f. Flue gas flow rate in dscf per minute.
- g. Opacity (measured per USEPA reference Method 9).

Verification: The project owner shall notify the District and the CPM within fifteen (15) working days before the execution of the compliance test required in this condition. The test results shall be submitted to the District and to the CPM within the timeframe required by this condition.

Application No. 00010842 and 00010843 (Two – HTF Ullage Expansion Tank)

EQUIPMENT DESCRIPTION:

Two HTF ullage/expansion tanks.

AQ-8 Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-9 This ~~tank system shall~~ stores only HTF, specifically the condensable fraction of the vapors vented from the ullage system.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-10 This system shall be operated at all times with the carbon adsorption system as follows:

- a. The carbon adsorption system shall provide 98% control efficiency of VOC emissions vented from the HTF ullage system.
- b. The project owner shall prepare and submit a monitoring and change-out plan for the carbon adsorptions system which ensures that the system is operating at optimal control efficiency at all times for District approval prior to start up.
- c. This equipment shall be properly maintained and kept in good operating condition at all times.
- d. This equipment must be in use and operating properly at all times the HTF ullage system is venting.
- e. Total emissions of VOC to the atmosphere shall not exceed 1.5 lbs/day and 540 lbs/year calculated based on the most recent monitoring results.
- f. Total emissions of benzene to the atmosphere shall not exceed 0.6 lbs/day and 220 lbs/year calculated based on the most recent monitoring results.
- g. During operation, the project owner shall monitor VOC measured at outlet from the carbon beds. Sampling is to be performed on a weekly basis. Samples shall be analyzed pursuant to U.S.EPA Test Method 25 – Gaseous Non-methane Organic Emissions. Initial test shall be submitted to the District within 180 days after startup.
- h. FID shall be considered invalid if not calibrated on the day of required use.
- i. The project owner shall maintain current and on-site for the duration of the project a log of the weekly test results, which shall be provided to District personnel upon request, with date and time the monitoring was conducted.
- j. Prior to January 31 of each new year, the project owner of this unit shall submit to the District a summary report of all VOC emissions (as hexane).

Verification: The project owner shall submit information demonstrating compliance with the substantive and recordkeeping provisions of this condition in the Annual Compliance Report.

~~AQ-10~~ This tank must be properly maintained at all times.

~~**Verification:** The project owner shall make the site available for inspection of HTF piping Inspection and Maintenance Program records (AQ-13) and HTF system equipment by representatives of the District, ARB, and the Energy Commission.~~

~~AQ-11~~ Vent release shall be monitored in accordance with a District approved Inspection, Monitoring and Maintenance plan.

~~**Verification:** The inspection, monitoring, and maintenance plan for the vent release shall be submitted to the CPM for review at least 30 days before taking delivery of the HTF.~~

~~AQ-11~~ This tank shall be operated at all times under a nitrogen blanket.

~~**Verification:** The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.~~

~~AQ-12~~ The ullage vent system shall be vented to control system with at least 99% control efficiency for VOC and toxic substances.

~~**Verification:** The project owner shall provide the District and CPM ullage vent control system manufacturer guarantee data showing compliance with this condition at least 30 days prior to the installation of the ullage vent system control system.~~

~~AQ-123~~ The project owner shall establish an inspection and maintenance program to determine repair, and log leaks in HTF piping network and expansion tanks. Inspection and maintenance program and documentation shall be available to District staff upon request. Inspect the tanks and distribution system (valves, flanges, pump seals, etc.) for the presence of leaks daily and repair or shutdown as soon as possible.

- a. All pumps, compressors and pressure relief devices (pressure relief valves or rupture disks) shall be electronically, audio, or visually inspected once every operating day.
- b. All accessible valves, fittings, pressure relief devices (PRDs), hatches, pumps, compressors, etc. shall be inspected quarterly using a leak detection device such as a Foxboro OVA 108 calibrated for methane.
- c. Inspection frequency for accessible components, except pumps, compressors and pressure relief valves, may be changed from quarterly to annual when two percent or less of the components within a component type are found to leak during an inspection for five consecutive quarters.
- d. Inspection frequency for accessible components, except pumps, compressors and pressure relief valves, shall be increased to quarterly when more than two percent of the components within a component type are found to leak during any inspection or report.

- e. If any evidence of a potential leak is found the indication of the potential leak shall be eliminated within 7 calendar days of detection.
- f. VOC leaks greater than 10,000-ppmv shall be repaired within 24-hours of detection.
- g. After a repair, the component shall be re-inspected for leaks as soon as practicable, but no later than 30 days after the date on which the component is repaired and placed in service.
- h. The project owner shall maintain a log of all VOC leaks exceeding 10,000-ppmv, including location, component type, date of leak detection, emission level (ppmv), method of leak detection, date of and repair, date and emission level of reinspection after leak is repaired.
- i. The project owner shall maintain records of the total number of components inspected, and the total number and percentage of leaking components found, by component types made.
- j. The project owner shall maintain record of the amount of HTF replaced on a monthly basis for a period of 5 years.

Verification: The inspection and maintenance plan shall be submitted to the CPM for review and approval at least 30 days before taking delivery of the HTF. As part of the Annual Compliance Report, the project owner shall provide the quantity of used HTF fluid removed from the system and the amount of new HTF fluid added to the system each year. The project owner shall make the site available for inspection of HTF piping Inspection and Maintenance Program records and HTF system equipment by representatives of the District, ARB, and the Energy Commission. The project owner shall establish an inspection and maintenance program that that at a minimum includes the following:

- A. ~~All pumps, compressors and pressure relief devices (pressure relief valves or rupture disks) shall be electronically, audio, or visually inspected once every operating period.~~
- B. ~~All accessible valves, fittings, pressure relief devices (PRDs), hatches, pumps, compressors, etc. shall be inspected quarterly using a leak detection device such as a Foxboro OVA 108 calibrated for methane.~~
- C. ~~VOC leaks greater than 100-ppmv shall be tagged (with date and concentration) and repaired within seven calendar days of detection.~~
- D. ~~VOC leaks greater than 10,000-ppmv shall be tagged and repaired within 24-hours of detection.~~
- E. ~~The project owner shall maintain a log of all VOC leaks exceeding 10,000-ppmv, including location, component type, and repair made.~~

~~F. The project owner shall maintain record of the amount of HTF replaced on a monthly basis for a period of five years.~~

~~G. Any detected leak exceeding 100 ppmv and not repaired in 7 days and 10,000 ppmv not repaired within 24 hours shall constitute a violation of the District's Authority to Construct (ATC)/Permit to Operate (PTO).~~

~~H. Pressure sensing equipment shall be installed that will be capable of sensing a major rupture or spill within the HTF network.~~

~~The inspection and maintenance plan shall be submitted to the CPM for review and approval at least 30 days before taking delivery of the HTF. The project owner shall make the site available for inspection of HTF piping Inspection and Maintenance Program records and HTF system equipment by representatives of the District, ARB, and the Energy Commission.~~

AQ-13 The project owner shall submit to the District a compliance test protocol within sixty (60) days of start-up and shall conduct all required compliance/certification tests in accordance with a District-approved test plan. Thirty (30) days prior to the compliance/certification tests the project owner shall provide a written test plan for District review and approval. Written notice of the compliance/certification test shall be provided to the District ten (10) days prior to the tests so that an observer may be present. A written report with the results of such compliance/certification tests shall be submitted to the District within forty-five (45) days after testing.

Verification: The project owner shall provide a compliance test protocol to the District for approval and CPM for review at least no later than sixty (60) days after start-up and submit a test plan to the District for approval and CPM for review at least thirty (30) days prior to the compliance tests. The project owner shall notify the District and the CPM within ten (10) working days before the execution of the compliance tests required in AQ-14 and AQ-15, and the test results shall be submitted to the District and to the CPM within forty-five (45) days after the tests are conducted.

AQ-14 The project owner shall perform the following initial compliance tests on this equipment in accordance with the MDAQMD Compliance Test Procedural Manual. The test report shall be submitted to the District within 180 days of initial start up. The following compliance tests are required:

- a. VOC as CH₄ in ppmvd and lb/hr (measured per USEPA Reference Methods 25A and 18 or equivalent).
- b. Benzene in ppmvd and lb/hr (measured per CARB method 410 or equivalent).

Verification: The project owner shall submit the test results to the District and to the CPM within 180 days after initial start up.

AQ-15 The project owner shall perform the following annual compliance tests on this equipment in accordance with the MDAQMD Compliance Test

Procedural Manual. The test report shall be submitted to the District no later than six weeks prior to the expiration date of this permit. The following compliance tests are required:

- a. VOC as CH₄ in ppmvd and lb/hr (measured per USEPA Reference Methods 25A and 18 or equivalent).
- b. Benzene in ppmvd and lb/hr (measured per CARB method 410 or equivalent).

Additionally, records of all compliance tests shall be maintained on site for a period of five (5) years and presented to District personnel upon request.

Verification: As part of the Annual Compliance Report, the project owner shall include the test results demonstrating compliance with this condition and the project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-16 Emissions from this equipment may not exceed the following emission limits, based on a calendar day summary:

- a. VOC as CH₄ – 1.5 lb/day, verified by compliance test.
- b. Benzene – 0.6 lb/day, verified by compliance test.

Verification: As part of the Annual Compliance Report, the project owner shall include the test results demonstrating compliance with this condition and the project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-174 If current non-criteria substances become regulated as toxic or hazardous substances and are used in this equipment, the project owner shall submit to the District a plan demonstrating how compliance will be achieved and maintained with such regulations.

Verification: The project owner shall submit a compliance plan of the toxic or hazardous substances for District approval and CPM review if current non-criteria substances in the HTF become regulated as toxic or hazardous substances.

Application No. 00010787 and 00010841 (Two Cooling Towers)

EQUIPMENT DESCRIPTION:

Two 7-cell cooling towers with drift eliminator rate of 0.0005% and water circulation rate of 94,623 gpm.

AQ-185 Operation of this equipment shall be conducted in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-196 This equipment shall be operated and maintained in strict accord with the recommendations of its manufacturer or supplier and/or sound engineering principles.

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-2017 The drift rate shall not exceed 0.0005 percent with a maximum circulation rate of 94,623 gallons per minute. The maximum hourly PM10 emission rate shall not exceed 2.36 pounds per hour, as calculated per the written District-approved protocol.

Verification: The manufacturer guarantee data for the drift eliminator, showing compliance with this condition, shall be provided to the CPM and the District 30 days prior to cooling tower operation. As part of the Annual Compliance Report the project owner shall include information on operating emission rates to demonstrate compliance with this condition.

AQ-2118 The project owner shall perform weekly specific conductivity tests of the blow-down water to indirectly measure total dissolved solids (TDS). Quarterly tests of the below down water will be done to confirm the relationship between conductance and TDS. The TDS shall not exceed 5,000 ppmv on a calendar monthly basis. ~~The project owner shall maintain a log which contains the date and result of each blow-down water test in TDS ppm, and the resulting mass emission rate. This log shall be maintained on-site for a minimum of five (5) years and shall be provided to District personnel on request.~~

Verification: The cooling tower recirculation water TDS content test results shall be provided to representatives of the District, ARB, and the Energy Commission upon request.

AQ-2219 The project owner shall conduct all required cooling tower water tests in accordance with a District-approved test and emissions calculation protocol. Thirty (30) days prior to the first such test the project owner shall provide a written test and emissions calculation protocol for District review and approval.

Verification: The project owner shall provide an emissions calculation and water sample testing protocol to the District for approval and CPM for review at least 30 days prior to the first cooling tower water test.

AQ-230 This equipment shall not be operated for more than 3,200 hours per rolling twelve month period and more than 15 hours per calendar day.

Verification: The project owner shall submit to the CPM the cooling tower operating data demonstrating compliance with this condition as part of the Annual Operation Report.

AQ-241 The project owner shall maintain an operations log for this equipment on-site and current for a minimum of five (5) years, and said log shall be

provided to District personnel on request. The operations log shall include the following information at a minimum:

- a. Total operation time (hours per day, hours per month, and hours per rolling twelve month period); and
- b. The date and result of each blow-down water test in TDS ppm, and the resulting mass emission rate.

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-252 A maintenance procedure shall be established that states how often and what procedures will be used to ensure the integrity of the drift eliminators. This procedure is to be kept on-site and available to District personnel on request.

Verification: The project owner shall make available at request the written drift eliminator maintenance procedures for inspection by representatives of the District, ARB, and the Energy Commission.

Application No. 00010790 and 00010791 (Two - 1,341 HP Emergency IC Engine)

EQUIPMENT DESCRIPTION:

Two - ~~Tier II~~ 1,341 HP diesel fueled emergency generator engines, each driving a generator.

AQ-263 This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

Verification: The project owner shall make the site available for inspection of equipment and records by representatives of the District, ARB, and the Energy Commission

AQ-274 This unit shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15 ppm) on a weight per weight basis per CARB Diesel or equivalent requirements.

Verification: The project owner shall make the site available for inspection of equipment and fuel purchase records by representatives of the District, ARB, and the Energy Commission.

AQ-285 A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed and maintained on this unit to indicate elapsed engine operating time. (Title 17 CCR §93115.10(e)(1)).

Verification: At least thirty (30) days prior to the installation of the engine, the project owner shall provide the District and the CPM the specification of the hour meter.

AQ-296 This unit shall be limited to use for emergency power, defined as in response to a fire or when commercially available power has been interrupted. In addition, this unit shall be operated no more than 50 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 50 hour per year limit.

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-3027 The project owner shall maintain a operations log for this unit current and on-site, either at the engine location or at a on-site location, for a minimum of two (2) years, and for another year where it can be made available to the District staff within 5 working days from the District's request, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:

- a. Date of each use and duration of each use (in hours);
- b. Reason for use (testing & maintenance, emergency, required emission testing);
- c. Calendar year operation in terms of fuel consumption (in gallons) and total hours; and,
- d. Fuel sulfur concentration (the project owner may use the supplier's certification of sulfur content if it is maintained as part of this log).

Verification: The project owner shall submit records required by this condition that demonstrating compliance with the sulfur content and engine use limitations of conditions **AQ-274** and **AQ-296** in the Annual Compliance Report, including a photograph showing the annual reading of engine hours. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-3128 This unit shall not be used to provide power during a voluntary agreed to power outage and/or power reduction initiated under an Interruptible Service Contract (ISC); Demand Response Program (DRP); Load Reduction Program (LRP) and/or similar arrangement(s) with the electrical power supplier.

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-3229 This engine may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where

the engine is located or expects to order such outages at a particular time, the engine is located in the area subject to the rotating outage, the engine is operated no more than 30 minutes prior to the forecasted outage, and the engine is shut down immediately after the utility advises that the outage is no longer imminent or in effect.

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-330 This unit is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines (Title 17 CCR 93115). In the event of conflict between these conditions and the ATCM, the more stringent shall govern.

Verification: Not necessary.

AQ-344 This unit is subject to the requirements of the Federal National Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII).

Verification: The project owner shall submit the engine specifications at least 30 days prior to purchasing the engines for review and approval demonstrating that the engines meet NSPS and ARB ATCM emission limit requirements at the time of engine purchase.

Application No. 00010792 and 00010793 (Two - 315 HP Emergency IC Engine)

EQUIPMENT DESCRIPTION:

Two - ~~Tier III~~ 315 HP diesel fueled emergency fire pump engines, each driving a fire suppression water pump.

AQ-352 This equipment shall be installed, operated and maintained in strict accord with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.

Verification: The project owner shall make the site available for inspection of equipment and records by representatives of the District, ARB, and the Energy Commission

AQ-363 This unit shall only be fired on ultra-low sulfur diesel fuel, whose sulfur concentration is less than or equal to 0.0015% (15 ppm) on a weight per weight basis per CARB Diesel or equivalent requirements.

Verification: The project owner shall make the site available for inspection of equipment and fuel purchase records by representatives of the District, ARB, and the Energy Commission.

AQ-374 A non-resettable hour meter with a minimum display capability of 9,999 hours shall be installed and maintained on this unit to indicate elapsed engine operating time. (Title 17 CCR §93115.10(e)(1)).

Verification: At least thirty (30) days prior to the installation of the engine, the project owner shall provide the District and the CPM the specification of the hour timer.

AQ-385 This unit shall be limited to use for emergency power, defined as in response to a fire or due to low fire water pressure. In addition, this unit shall be operated no more than 50 hours per year for testing and maintenance, excluding compliance source testing. Time required for source testing will not be counted toward the 50 hour per year limit. The 50 hour limit can be exceeded when the emergency fire pump assembly is driven directly by a stationary diesel fueled CI engine operated per and in accord with the National Fire Protection Association (NFPA) 25 - "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 1998 edition. This requirement includes usage during emergencies. {Title 17 CCR 93115.3(n)}

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-396 The project owner shall maintain an operations log for this unit current and on-site, either at the engine location or at a on-site location, for a minimum of two (2) years, and for another year where it can be made available to the District staff within 5 working days from the District's request, and this log shall be provided to District, State and Federal personnel upon request. The log shall include, at a minimum, the information specified below:

- a. Date of each use and duration of each use (in hours);
- b. Reason for use (testing & maintenance, emergency, required emission testing);
- c. Calendar year operation in terms of fuel consumption (in gallons) and total hours; and,
- d. Fuel sulfur concentration (the project owner may use the supplier's certification of sulfur content if it is maintained as part of this log).

Verification: The project owner shall submit records required by this condition that demonstrating compliance with the sulfur content and engine use limitations of conditions **AQ-363** and **AQ-385** in the Annual Compliance Report, including a photograph showing the annual reading of engine hours. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

~~**AQ-37** This unit shall not be used to provide power during a voluntary agreed to power outage and/or power reduction initiated under an Interruptible Service Contract (ISC); Demand Response Program (DRP); Load~~

~~Reduction Program (LRP) and/or similar arrangement(s) with the electrical power supplier.~~

~~**Verification:** The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.~~

~~**AQ-38** This engine may operate in response to notification of impending rotating outage if the area utility has ordered rotating outages in the area where the engine is located or expects to order such outages at a particular time, the engine is located in the area subject to the rotating outage, the engine is operated no more than 30 minutes prior to the forecasted outage, and the engine is shut down immediately after the utility advises that the outage is no longer imminent or in effect.~~

~~**Verification:** The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.~~

AQ-4039 This unit is subject to the requirements of the Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines (Title 17 CCR 93115). In the event of conflict between these conditions and the ATCM, the requirements of the ATCM shall govern.

Verification: Not necessary.

AQ-410 This unit is subject to the requirements of the Federal National Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII).

Verification: The project owner shall submit the engine specifications at least 30 days prior to purchasing the engines for review and approval demonstrating that the engines meet NSPS and ARB ATCM emission limit requirements at the time of engine purchase.

Application No. 0001246 (One – Gasoline Storage Tank)

EQUIPMENT DESCRIPTION:

One – Above ground gasoline storage tank and fuel receiving and dispensing equipment.

AQ-42 The toll-free telephone number that must be posted is 1-800-635-4617.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-43 The project owner shall maintain a log of all inspections, repairs, and maintenance on equipment subject to Rule 461. Such logs or records shall be maintained at the facility for at least two (2) years and available to the District upon request. Records of Maintenance, Tests, Inspections, and Test Failures shall be maintained and available to District personal

upon request; record form shall be similar to the Maintenance Record form indicated in EO VR-401-A, Figure 2N.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-44 Any modifications or changes to the piping or control fitting of the vapor recovery system require prior approval from the District.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-45 Pursuant to EO VR-401-A, vapor vent pipes are to be equipped with Husky 5885 pressure relief valves or as otherwise allowed by EO.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-46 The project owner shall perform the following tests within 60 days of construction completion and annually thereafter in accord with the following test procedures:

- a. Determination of Static Pressure Performance of Vapor Recovery Systems at Gasoline Dispensing Facilities with Aboveground Storage Tanks shall be conducted per EO VR-401-A Exhibit 4, and
- b. Phase I Adapters, Emergency Vents, Spill Container Drain Valve, Dedicated gauging port with drop tube and tank components, all connections, and fittings shall NOT have any detectable leaks; test methods shall be per EO VR-401-A Table 2-1, and
- c. Liquid Removal Test (if applicable) per TP-201.6, and

Summary of Test Data shall be documented on a Form similar to EO VR-401-A Form 1

The District shall be notified a minimum of 10 days prior to performing the required tests with the final results submitted to the District within 30 days of completion of the tests.

The District shall receive passing test reports no later than six (6) weeks prior to the expiration date of this permit.

Verification: The project owner shall notify the District at least 10 days prior to performing the required tests. The test results shall be submitted to the District within 30 days of completion of the tests and shall be made available to the CPM if requested.

AQ-47 Pursuant to California Health and Safety Code sections 39600, 39601 and 41954, this aboveground tank shall be installed and maintained in accordance with Executive Order (EO) VR-401-A for EVR Phase I, and

Standing Loss requirements: <http://www.arb.ca.gov/vapor/eos/eo-vr401/eo-vr401a/eo-401a.pdf>.

Additionally, Phase II Vapor Recovery System shall be installed and maintained per G-70-116-F with the exception that hanging hardware shall be EVR Balance Phase II type hanging hardware (VST or other CARB Approved EVR Phase II Hardware).

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-48 Pursuant to EO VR-401-A: Maintenance and repair of system components, including removal and installation of such components in the course of any required tests, shall be performed by OPW Certified Technicians.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-49 Pursuant to EO VR-401-A, Maintenance Intervals for OPW; Tank Gauge Components; Dust Caps Emergency Vents; Phase I Product and Vapor Adapters, and Spill Container Drain Valve, shall be conducted by an OPW trained technician annually.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-50 The annual throughput of gasoline shall not exceed 600,000 gallons per year. Throughput Records shall be kept on site and available to District personnel upon request. Before this annual throughput can be increased the facility may be required to submit to the District a site specific Health Risk Assessment in accord with a District approved plan. In addition public notice and/or comment period may be required.

Verification: The project owner shall submit to the CPM gasoline throughput records demonstrating compliance with this condition as part of the Annual Compliance Report. The project owner shall maintain on site the annual gasoline throughput records and shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-51 The project owner shall; install, maintain, and operate EVR Phase I in compliance with CARB Executive Order VR-401-A, and Phase II vapor recovery in accordance with G-70-116-F. In the event of conflict between these permit conditions and/or the referenced EO's the more stringent requirements shall govern.

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

REFERENCES

MDAQMD 2010b (Mojave Desert Air Quality Management District) - Final Determination of Compliance (PDOC). Genesis Solar Energy Project. July 2010.