

**DOCKETED**

<b>Docket Number:</b>	85-AFC-03C
<b>Project Title:</b>	Compliance - Application for Certification for Midway-Sunset Cogeneration Project
<b>TN #:</b>	237725-4
<b>Document Title:</b>	Attachment C - Letter from San Joaquin Valley Air Pollution Control District
<b>Description:</b>	N/A
<b>Filer:</b>	Greg Jans
<b>Organization:</b>	Midway Sunset Cogeneration Company
<b>Submitter Role:</b>	Applicant
<b>Submission Date:</b>	5/6/2021 4:03:41 PM
<b>Docketed Date:</b>	5/6/2021



February 18, 2021

Greg Jans  
Midway Sunset Cogeneration Company  
P.O. Box 457  
Fellows, CA 93224-0457

**Re: Notice of Final Action - Minor Title V Permit Modification  
District Facility # S-1135  
Project # S-1204542**

Dear Mr. Jans:

The Air Pollution Control Officer has modified the Title V permit for Midway Sunset Cogeneration Company in the Midway-Sunset oilfield of western Kern County. The modification involves deleting reference and requirement that existing gas turbine engine generators operate solely in cogeneration mode.

Enclosed is the modified Title V permit. The application and proposal were submitted to US EPA Region IX on December 30, 2020. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Sincerely,



Brian Clements  
Director of Permit Services

BC:spl

Enclosures

cc: Gerardo C. Rios, EPA (w/enclosure) via EPS

**Samir Sheikh**  
Executive Director/Air Pollution Control Officer

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**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
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**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: (661) 392-5500 FAX: (661) 392-5585



Facility # S-1135  
AERA ENERGY LLC  
PO BOX 11164  
BAKERSFIELD, CA 93389-1164

## Notice of Permit Issuance

The enclosed permit unit requirements authorize the operation of the equipment as described. These permit unit requirements supersede any and all previous permits for the specified equipment.\* Please insert these documents into the Facility Permit to Operate, and post copies on or near the equipment as required by District Rule 2010.

Please contact any of our Small Business Assistance (SBA) staff at the numbers below if you have any questions:

Modesto: (209) 557-6446  
Fresno: (559) 230-5888  
Bakersfield: (661) 392-5665

\*Failure to comply with the permit unit requirements may result in enforcement action.

**Samir Sheikh**

Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
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# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1135-224-29

**EXPIRATION DATE:** 05/31/2021

**SECTION:** 17 **TOWNSHIP:** 31S **RANGE:** 22E

## **EQUIPMENT DESCRIPTION:**

78.2 MW COGENERATION UNIT A WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS (DLN1+ TURNDOWN ENHANCE), SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

## **PERMIT UNIT REQUIREMENTS**

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1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO<sub>x</sub>, CO, and O<sub>2</sub>. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO<sub>x</sub> concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours) when SCR is operated. The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO<sub>x</sub> and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When SCR is operated, permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When SCR is operated, ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NO<sub>x</sub> (as NO<sub>2</sub>) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-224-29 : Feb 16 2021 10:06AM -- LEONARDS

10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rule 4001 and District rule 1080, 8.0] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and CO flue gas concentration corrected to 15% O<sub>2</sub> and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM<sub>10</sub>: 0.010 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>): 0.001 lb/MMBtu, NO<sub>x</sub> (as NO<sub>2</sub>): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O<sub>2</sub>. [District Rules 2201, 4201; and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load: NO<sub>x</sub> (as NO<sub>2</sub>): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O<sub>2</sub> corrected to ISO conditions. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO<sub>x</sub> and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory on an annual basis. Compliance with NO<sub>x</sub>, CO and ammonia emissions limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of any use of the SCR system, unless compliance with emissions limitations has been demonstrated with the SCR system in operation within the preceding 12 month period. [District Rule 4703 and 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 1081, 40 CFR 60.335 (b), and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 =  $((a-(bxc/1,000,000)) \times 1,000,000 / b) \times d$ , where a = ammonia injection rate(lb/hr)/17(lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29(lb/lb. mol), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102] Federally Enforceable Through Title V Permit
29. Official test results and field data shall be submitted within 60 days after collection. [District Rule 4703 and District Rule 1081] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb/yr, SOx (as SO2) - 24,200 lb/yr, NOx (as NO2) - 464,170 lb/yr, VOC - 236,520 lb/yr, or CO - 1,443,101 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District Rule 2201] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703, and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rules 1080 and 4703; 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NOx and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333 (a) & (b); 40 CFR 60.334 (c)(2); Kern County Rule 407; and District Rule 4801] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H2S and mercaptans. [40 CFR 60.335 (d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334 (b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332 (a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334 (a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit
56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [SJVUAPCD Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ-87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and, if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO<sub>x</sub> and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO<sub>x</sub> and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO<sub>x</sub> must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O<sub>2</sub> or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O<sub>2</sub> or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O<sub>2</sub> or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO<sub>x</sub> into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O<sub>2</sub> or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO<sub>x</sub> (as NO<sub>2</sub>) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O<sub>2</sub> or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O<sub>2</sub> or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO<sub>x</sub>; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NOx exceed the maximum emission limits set forth in the condition with a NOx emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1135-225-28

**EXPIRATION DATE:** 05/31/2021

**SECTION:** 17 **TOWNSHIP:** 31S **RANGE:** 22E

## **EQUIPMENT DESCRIPTION:**

78.2 MW COGENERATION UNIT B WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS (DLN1+ TURNDOWN ENHANCE), SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

## **PERMIT UNIT REQUIREMENTS**

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1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO<sub>x</sub>, CO, and O<sub>2</sub>. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO<sub>x</sub> concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours) when SCR is operated. The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO<sub>x</sub> and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. When SCR is operated, permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. When SCR is operated, ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NO<sub>x</sub> (as NO<sub>2</sub>) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-225-28 : Feb 16 2021 10:06AM -- LEONARDS

10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rule 4001 and District rule 1080, 8.0] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and CO flue gas concentration corrected to 15% O<sub>2</sub> and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM<sub>10</sub>: 0.010 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>): 0.001 lb/MMBtu, NO<sub>x</sub> (as NO<sub>2</sub>): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O<sub>2</sub>. [District Rules 2201, 4201; and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load: NO<sub>x</sub> (as NO<sub>2</sub>): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O<sub>2</sub> corrected to ISO conditions. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO<sub>x</sub> and CO emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory on an annual basis. Compliance with NO<sub>x</sub>, CO and ammonia emissions limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of any use of the SCR system, unless compliance with emissions limitations has been demonstrated with the SCR system in operation within the preceding 12 month period. [District Rule 4703 and 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 1081, 40 CFR 60.335 (b), and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 =  $((a - (b \times c / 1,000,000)) \times 1,000,000 / b) \times d$ , where a = ammonia injection rate (lb/hr)/17 (lb/lb. mol), b = dry exhaust gas flow rate (lb/hr)/(29 (lb/lb. mol)), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102] Federally Enforceable Through Title V Permit
29. Official test results and field data shall be submitted within 60 days after collection. [District Rule 4703 and District Rule 1081] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S-1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb/yr, SOx (as SO2) - 24,200 lb/yr, NOx (as NO2) - 464,170 lb/yr, VOC - 236,520 lb/yr, or CO - 1,443,101 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District Rule 2201] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District Rule 2201] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District Rule 2201] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S-1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703, and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit
41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rules 1080 and 4703; 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NO<sub>x</sub> and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NO<sub>x</sub>, CO, and ammonia emission concentrations (ppmv @ 15% O<sub>2</sub>), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NO<sub>x</sub> emission standards indicated by the NO<sub>x</sub> CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NO<sub>x</sub> and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333 (a) & (b); 40 CFR 60.334 (c)(2); Kern County Rule 407; and District Rule 4801] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H<sub>2</sub>S and mercaptans. [40 CFR 60.335 (d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334 (b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NO<sub>x</sub> concentration corrected to 15% O<sub>2</sub> (dry). [40 CFR 60.332 (a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334 (a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.



55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit
56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [SJVUAPCD Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ-87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and, if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO<sub>x</sub> and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO<sub>x</sub> and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO<sub>x</sub> must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O<sub>2</sub> or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O<sub>2</sub> or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O<sub>2</sub> or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO<sub>x</sub> into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O<sub>2</sub> or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO<sub>x</sub> (as NO<sub>2</sub>) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O<sub>2</sub> or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O<sub>2</sub> or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO<sub>x</sub>; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NOx exceed the maximum emission limits set forth in the condition with a NOx emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

# San Joaquin Valley Air Pollution Control District

**PERMIT UNIT:** S-1135-226-27

**EXPIRATION DATE:** 05/31/2021

**SECTION:** 17 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

NOMINALLY RATED 78.2 MW COGENERATION UNIT C WITH GE MODEL G7111E FRAME 7E GAS TURBINE ENGINE WITH DRY LOW NOX COMBUSTORS, SELECTIVE CATALYTIC REDUCTION (SCR), AND UNFIRED HEAT RECOVERY STEAM GENERATOR (HRSG)

## PERMIT UNIT REQUIREMENTS

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1. CTG exhaust after the SCR unit shall be equipped with continuously recording emissions monitors dedicated to this unit for NO<sub>x</sub>, CO, and O<sub>2</sub>. Continuous emissions monitors shall meet the requirements of 40 CFR Part 60, Appendices B and F, and 40 CFR Part 75, and shall be capable of monitoring emissions during startups and shutdowns as well as normal operating conditions. If relative accuracy of CEM(s) cannot be demonstrated during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained from source testing to determine compliance with emission limits. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
2. CTG shall be equipped with a continuously recording emission monitor preceding the SCR module measuring NO<sub>x</sub> concentration for the purposes of calculating ammonia slip. Permittee shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours). The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-control. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-control. If the analyzer is out-of-control, the permittee shall take appropriate corrective action and then repeat the CD check. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
3. Ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Heat recovery steam generator design shall provide space for additional selective catalytic reduction catalyst and oxidation catalyst if required to meet NO<sub>x</sub> and CO emission limits. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Permittee shall monitor and record exhaust gas temperature at selective catalytic reduction and oxidation catalyst inlets. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Ammonia shall be injected whenever the selective catalytic reduction system catalyst temperature exceeds the minimum ammonia injection temperature recommended by the manufacturer. [District Rule 2201] Federally Enforceable Through Title V Permit
7. Gas turbine engine shall be equipped with fuel consumption monitor recorder accurate to +/- 3%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. CEM for NO<sub>x</sub> (as NO<sub>2</sub>) and CO shall conform to Rule 1080 specifications. [District Rules 1080 and 4703] Federally Enforceable Through Title V Permit
9. HRSG exhaust stack shall be equipped with permanent stack sampling provisions adequate to facilitate testing consistent with EPA test methods. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: AERA ENERGY LLC

Location: HEAVY OIL WESTERN STATIONARY SOURCE, MIDWAY-SUNSET, KERN COUNTY, CA

S-1135-226-27 : Feb 16 2021 10:06AM -- LEONARDS

10. Flue gas ducting from engine to HRSG shall have no provisions for introduction of dilution air. [District Rule 1110] Federally Enforceable Through Title V Permit
11. Lube oil cooler/accumulation vent shall be equipped with control device(s) approved by the APCO sufficient to prevent emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Lube oil cooler/accumulator vent(s) shall not have detectable emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Natural gas sulfur content shall not exceed 0.31 gr/100 scf. [District Rule 2201] Federally Enforceable Through Title V Permit
14. All CEM's shall be calibrated and operated according to EPA guidelines as specified in 40 CFR 60 Appendix B. [District Rule 1080] Federally Enforceable Through Title V Permit
15. Quarterly CEM reports shall be submitted to the APCO according to EPA regulations as specified in 40 CFR 60 Appendix B. [District Rule 4001 and District rule 1080, 8.0] Federally Enforceable Through Title V Permit
16. Audits of all monitors shall be conducted by independent laboratory in accordance with EPA guidelines and witnessed by District. Reports shall be submitted to District within 60 days of audits. [District Rule 1080] Federally Enforceable Through Title V Permit
17. All notification, recordkeeping, performance tests, reporting requirements, and compliance testing requirements of Rule 4001 NSPS shall be satisfied. [District Rule 4001] Federally Enforceable Through Title V Permit
18. Operational records including fuel type, fuel characteristics, and consumption shall be maintained and shall be made readily available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
19. Accurate records of NO<sub>x</sub> (as NO<sub>2</sub>) and CO flue gas concentration corrected to 15% O<sub>2</sub> and fuel gas sulfur content shall be maintained and shall be reported as described in Rule 1080 upon request. [District Rule 1080] Federally Enforceable Through Title V Permit
20. Emission rates shall not exceed the following: PM<sub>10</sub>: 0.010 lb/MMBtu, SO<sub>x</sub> (as SO<sub>2</sub>): 0.001 lb/MMBtu, NO<sub>x</sub> (as NO<sub>2</sub>): 0.018 lb/MMBtu, VOC: 0.009 lb/MMBtu, CO: 0.057 lb/MMBtu, and ammonia - 10 ppmvd @ 15%O<sub>2</sub>. [District NSR Rule; District Rule 4201; and Kern County Rule 404] Federally Enforceable Through Title V Permit
21. Permittee shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load as defined in Rule 4703: NO<sub>x</sub> (as NO<sub>2</sub>): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O<sub>2</sub> corrected to ISO conditions. [40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703] Federally Enforceable Through Title V Permit
22. Gas turbine engine start-up is that period of time not exceeding two hours in duration during which the unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
23. Gas turbine engine shutdown is that period of time not exceeding two hours in duration during which the unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
24. Gas turbine reduced load period is that period not exceeding one hour in duration during which the unit is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
25. Compliance with NO<sub>x</sub>, CO and ammonia emission limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory annually. [District Rules 4703 and 1081] Federally Enforceable Through Title V Permit
26. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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27. The following test methods shall be used PM10: EPA method 5 (front half and back half), NOx: EPA Method 7E or 20, CO: EPA method 10 (or 10B) or CARB Method 100, O2: EPA Method 3, 3A, or 20, VOC: EPA method 18 or 25, ammonia: BAAQMD ST-1B, and fuel gas sulfur content: ASTM D3246. Alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rule 1081, 40 CFR 60.335 (b), and District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
28. Compliance with ammonia slip limit shall be demonstrated by using the following calculation procedure: ammonia slip ppmv @ 15% O2 =  $((a - (b \times c / 1,000,000)) \times 1,000,000 / b) \times d$ , where a = ammonia injection rate (lb/hr) / 17 (lb/lb. mol), b = dry exhaust gas flow rate (lb/hr) / (29 (lb/lb. mol)), c = change in measured NOx concentration ppmv at 15% O2 across catalyst, and d = correction factor. The correction factor shall be derived annually during compliance testing by comparing the measured and calculated ammonia slip. [District Rule 4102] Federally Enforceable Through Title V Permit
29. Official test results and field data shall be submitted within 60 days after collection. [District Rule 4703 and District Rule 1081] Federally Enforceable Through Title V Permit
30. Combined annual emissions from units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, S-1135-226 shall not exceed any of the following: PM10 - 262,360 lb/yr, SOx (as SO2) - 24,200 lb/yr, NOx (as NO2) - 464,170 lb/yr, VOC - 236,520 lb/yr, or CO - 1,443,101 lb/yr. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The permittee shall maintain records of fuel type, quantity, heating value of gas burned, permitted emission factors and annual emissions for each unit. For units equipped with continuous emissions monitors (CEMs), CEM data may be used in place of calculated emissions. If CEM shows a violation, CEM data shall be used. Records shall be updated at least monthly. Reports of annual emissions and fuel usage shall be submitted within 30 days after the end of the calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
32. If fuel use monitoring provisions fail, emissions shall be calculated based on operational data, or if not available, on set equal to the average of four days prior to failure. [District NSR Rule] Federally Enforceable Through Title V Permit
33. When three gas turbine engines S-1135-224, '-225, and '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 shall be shut down. [District NSR Rule] Federally Enforceable Through Title V Permit
34. When up to two gas turbine engines S-1135-224, '-225, or '-226 are operating, four steam generators S-1135-115, '-119, '-122, and '-123 may be operated. [District NSR Rule] Federally Enforceable Through Title V Permit
35. The permittee shall maintain records of operational status of units S-1135-115, S-1135-119, S-1135-122, S1135-123, S-1135-224, S-1135-225, and S-1135-226 on a daily basis. [District Rule 2201] Federally Enforceable Through Title V Permit
36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4703] Federally Enforceable Through Title V Permit
37. CEC emission rates, except during periods of startup, shutdown, or reduced load shall not exceed PM10: 9.98 lb/hr, SOx (as SO2): 0.92 lb/hr, NOx (as NO2): 17.66 lb/hr, VOC: 9.00 lb/hr, and CO: 54.91 lb/hr. [District Rules 2080 and 4703, and 40 CFR 60] Federally Enforceable Through Title V Permit
38. For CEC purposes, emissions during periods of startup and shutdown shall not exceed the following values average over 2 hours: NOx: 140 lb/hr, and CO: 94 lb/hr. [District Rule 2080] Federally Enforceable Through Title V Permit
39. The CEC shall be notified of any changes to the combined annual emission limits for steam generators S-1135-115, -119, -122, and -123, and cogeneration units S-1135-224, -225, and -226, only to the extent to be informed of their impact on the Midway-Sunset Cogeneration Facility. [District Rule 2080] Federally Enforceable Through Title V Permit
40. Results of continuous emissions monitoring must be reduced according to the procedure established in 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3, or by other methods deemed equivalent by mutual agreement with the District, the CARB, and the EPA. [Kern County Rule 108 and District Rule 1080] Federally Enforceable Through Title V Permit

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These terms and conditions are part of the Facility-wide Permit to Operate.



41. Records shall be maintained and shall contain: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance of any CEM's that have been installed pursuant to District Rule 1080, and emission measurements. [Kern County Rule 108; District Rules 1080 and 4703; 40 CFR 60.7 (b)] Federally Enforceable Through Title V Permit
42. The permittee shall maintain hourly average records of NOx and CO emissions. Compliance with the hourly, daily, and twelve month rolling average VOC emission limits shall be demonstrated by the CO CEM data and the VOC/CO relationship determined by annual CO and VOC source tests of NOx, CO, and ammonia emission concentrations (ppmv @ 15% O2), and hourly, daily, and twelve month rolling. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [Kern County Rule 108 and District Rule 1080, 9.0] Federally Enforceable Through Title V Permit
44. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. The operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [Kern County Rule 108 and District Rule 1080, 10.0] Federally Enforceable Through Title V Permit
45. Emissions for this unit shall be calculated using the arithmetic mean, pursuant to District Rule 1081 (Amended December 16, 1993), of 3 thirty-minute test runs for NOx and CO. [District Rule 1081] Federally Enforceable Through Title V Permit
46. Unit shall be fired on a natural gas which has a sulfur content of less than or equal to 0.017% by weight. [40 CFR 60.333 (a) & (b); 40 CFR 60.334 (c)(2); Kern County Rule 407; and District Rule 4801] Federally Enforceable Through Title V Permit
47. If the turbine is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
48. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using method(s) specified on this permit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
49. If the turbine is not fired on PUC-regulated natural gas, then the sulfur content of the natural gas being fired in the turbine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246, or double GC for H2S and mercaptans. [40 CFR 60.335 (d)] Federally Enforceable Through Title V Permit
50. If the turbine is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be semi-annually. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [40 CFR 60.334 (b)(2)] Federally Enforceable Through Title V Permit
51. Operator shall submit a semiannual report listing any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8% by weight. [40 CFR 60.334(a)(2)] Federally Enforceable Through Title V Permit
52. HHV and LHV of the fuel shall be determined using ASTM D3588, ASTM 1826, OR ASTM 1945. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
53. The operator shall provide source test information annually regarding the exhaust gas NOx concentration corrected to 15% O2 (dry). [40 CFR 60.332 (a),(b) and District Rule 4703, 5.1] Federally Enforceable Through Title V Permit
54. Results of continuous emission monitoring must be averaged in accordance with the requirements of 40 CFR 60.13. [40 CFR 60.334 (a),(b),(c) and District Rule 4703, 5.0] Federally Enforceable Through Title V Permit
55. Operator shall maintain a stationary gas turbine operating log that includes, on a daily basis the actual local start-up and stop time, length and reason for reduced load periods, total hours of operation and quantity of fuel used. [40 CFR 60.332 (a),(b) and District Rule 4703, 6.2.4] Federally Enforceable Through Title V Permit

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56. This unit is a simple combustion turbine as defined in 40 CFR 72.6 (b)(1) and shall not be subject to the requirements of 40 CFR Part 72. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
57. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: Kern County Rules 404, 108, and 108.1. A permit shield is granted from these requirements. [SJVUAPCD Rule 2520, 13.2] Federally Enforceable Through Title V Permit
58. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: Kern County Rule 407; District Rules 4801, 4201, 1081, and 1080, Sections 6.5, 7.2, 8.0, 9.0, and 10.0; 40 CFR 60.332 (c) and (d); 60.334 (b), (c)(2); 60.335(d). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
59. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: District Rule 4703, sections 5.0, 5.1.1, 6.2.1, 6.2.4, 6.3, 6.4.1, 6.4.3, 6.4.5, and 6.4.6. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
60. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed requirements: District Rules 1080, 7.3 and 4703, 6.2.2; 40 CFR 60.332(a), (b); 60.333(a) and (b), 60.334(a), (b), and (c)(1); 60.335(a), (b) and (c)(2). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
61. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
62. The Permittee (MSCC) must notify EPA by telephone, facsimile, or electronic mail transmission within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above any allowable emission limit stated in any conditions where PSD is cited as the basis of the condition. In addition, the Permittee (MSCC) must notify EPA in writing within fifteen (15) days of any such failure. The notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in any conditions where PSD is cited as the basis of the condition, and the methods utilized to mitigate emissions and restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or of any law or regulation that such malfunction may cause, except as provided for in the conditions where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
63. A malfunction means a sudden and unavoidable breakdown of equipment or of a process beyond the reasonable control of the source. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
64. Emissions in excess of the limits specified in any conditions where PSD is cited as the basis of the condition shall constitute a violation of this permit and may be the subject of enforcement proceedings. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

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65. Affirmative defense: In the context of an enforcement proceeding, emissions which are below the limits set forth in any condition where PSD is cited as the basis of the condition shall not be subject to penalty if the Permittee (MSCC) retains properly signed, contemporaneous operating logs or other relevant evidence and can demonstrate all of the following: i.) A malfunction caused the emissions in excess of the limits in any condition where PSD is cited as the basis of the condition; ii.) The permitted facility, including the air pollution control equipment and process equipment, was being properly operated at the time of the malfunction; iii.) Preventative maintenance was regularly performed in a manner consistent with good practice for minimizing emissions; iv.) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; v.) During the period of the malfunction, the permittee (MSCC) took all reasonable steps to minimize the amount and duration of emissions (including any bypass) that exceeded the emission limits provided in any condition where PSD is cited as the basis of the condition. Reasonable steps to minimize emissions could include, but are not limited to, reducing production to the lowest level practicable, reducing the material feed that results in the increased emissions, and switching to alternative, less polluting fuels. Where repairs were required, repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as possible; and vi.) The permittee (MSCC) complied with the malfunction reporting requirements as specified in the condition where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
66. All emissions, including those associated with a malfunction which may be eligible for an affirmative defense, must be included in all emissions calculations and demonstrations of compliance with mass emission limits (e.g., daily, monthly, and annual emission limits) specified in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
67. This provision is in addition to any emergency or malfunction provision contained in any applicable requirement or elsewhere in this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
68. The EPA Regional Administrator, and/or their authorized representative, upon the presentation of credential, must be permitted: (1) to enter the premises where the source is located or where any records are required to be kept under the terms and conditions of the PSD permit SJ-87-01; and (2) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of PSD permit SJ-87-01; and (3) to inspect any equipment, operation, or method required in the PSD permit SJ-87-01; and (4) to sample emissions from source(s). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
69. In the event of any changes in control or ownership of facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The Permittee (MSCC) shall notify the succeeding owner and operator of the existence of the PSD permit SJ-87-01 and its conditions by letter, a copy of which shall be forwarded to the EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
70. The provisions of the PSD permit SJ-87-01 are severable, and, if any provisions of the permit is held invalid, the remainder of the permit must not be affected thereby. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
71. The permittee (MSCC) must construct and operate the proposed power plant in compliance with all other applicable provisions of 40 CFR Parts 52, 60, 62, and 63 and all other applicable Federal, State, and local air quality regulations. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
72. On or before the date of startup (as defined in 40 C.F.R. 60.2) of the Western Midway Sunset Cogeneration Project (WMSCP; PSD Permit No. SJ-00-01) and thereafter the Permittee (MSCC) must install, continuously operate, and maintain the Dry Low NOx (DLN) combustion systems to reduce NOx emissions from each of its three turbines. The Permittee (MSCC) shall also use proper combustion techniques for the control of CO emissions from the equipment at MSCP. [PSD SJ-87-01] Federally Enforceable Through Title V Permit

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73. Within 60 days after achieving the base load, but no later than 180 days after initial startup of all three modified turbines (as defined in 40 C.F.R. 60.2), and annually thereafter (at about the anniversary of the initial performance test), the Permittee (MSCC) must conduct performance tests (as described in 40 C.F.R. 60.8) for NO<sub>x</sub> and CO on the exhaust stack gases. The Permittee (MSCC) must furnish the District, the California Air Resources Board (CARB), and the EPA a written report of the results of such tests. Upon written request from the Permittee (MSCC), and adequate justification, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
74. Performance tests for the emissions of NO<sub>x</sub> and CO must be conducted and the results reported in accordance with the test methods set forth in 40 C.F.R. 60.8 and 40 C.F.R. 60, Appendix A. The following test methods must be used: a.) Performance tests for the emissions of NO<sub>x</sub> must be conducted using EPA Method 1-4 and 7E. b.) Performance tests for the emissions of CO must be conducted using the EPA Methods 1-4 and 10. In lieu of the above-mentioned test methods, equivalent methods may be used with prior written approval from EPA. The Permittee (MSCC) must notify EPA in writing at least 30 days prior to such tests to allow time for the development of an approvable performance test plan and to arrange for an observer to be present at the test. [PSD SJ 87-01] Federally Enforceable Through Title V Permit
75. For performance test purposes, sampling ports, platforms, and access must be provided by the Permittee on the emission unit exhaust system in accordance with 40 C.F.R. 60.8(e). [PSD SJ 87-01] Federally Enforceable Through Title V Permit
76. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of CO into the atmosphere in excess of the following emission limits per turbine: The more stringent of 25 ppmvd @ 15% O<sub>2</sub> or 55 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
77. This condition applies prior to the startup of the WMSCP: On and after the date of start up any of the three turbines at MSCP must not discharge (per turbine, and based on 3-hour rolling average) into the atmosphere CO in excess of the following of any of: 1.) The more stringent of 52.0 ppmvd @ 15% O<sub>2</sub> or 94 pounds for loads greater than or equal to 75%. 2.) The more stringent of 62.0 ppmvd @ 15% O<sub>2</sub> or 94 pounds for loads greater than or equal to 35% but less than 75%. 3.) 94 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
78. On and after the date of startup of the WMSCP (PSD Permit No. SJ-00-01), the Permittee (MSCC) must not discharge or cause the discharge of NO<sub>x</sub> into the atmosphere in excess of the following emission limits per turbine: The more stringent of 10 ppmvd @ 15% O<sub>2</sub> or 36.1 pounds per hour, based on 3-hour rolling average. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
79. This condition applies prior to the startup of the WMSCP: On and after the date of start-up of any of the three turbines, MSCC must not discharge (per turbine, based on 3-hour rolling average) into the atmosphere NO<sub>x</sub> (as NO<sub>2</sub>) in excess of the following: 1.) The more stringent of 25.0 ppmvd @ 15% O<sub>2</sub> or 85.0 pounds per hour for loads greater than or equal to 75%; 2.) The more stringent of 42.0 ppmvd @ 15% O<sub>2</sub> or 85 pounds per hour for loads greater than or equal to 35% but less than 75%; 3.) 85 pounds per hour for loads less than 35%. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
80. The hourly (3-hour averaging) emissions must not exceed: 1.) 94 pounds of CO and 85 pounds of NO<sub>x</sub>; 2.) All CEMs must be operating during startups and shut downs; 3.) The time, date and duration of each startup and shutdown event must be recorded. The records must include the lbs/hour calculations based on the CEM data. These records must be kept for five years following the date of such events. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
81. Prior to the date of startup and thereafter, the Permittee (MSCC) must install, maintain and operate the following continuous monitoring systems (CEMs) in the exhaust stacks: a.) Continuous monitoring systems to measure stack gas NO<sub>x</sub>, CO and O<sub>2</sub> concentrations. The systems must meet EPA monitoring performance specification (40 C.F.R. 60.13 and 40 C.F.R. 60, Appendix B, Performance Specifications 2, 3 and 4); b.) A continuous monitoring system to measure stack gas and natural gas volumetric flow rates. The stack gas flow measurement system must meet EPA Performance Specifications for (40 C.F.R. Part 52, Appendix E). [PSD SJ-87-01] Federally Enforceable Through Title V Permit

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82. The Permittee (MSCC) must maintain a file of all measurements, including continuous monitoring systems evaluations; all continuous monitoring systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; performance and all other information required by 40 C.F.R. 60 Appendices A-B recorded in a permanent form suitable for inspection. The file must be retained for five years following the date of such measurements, maintenance, reports and records. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
83. The Permittee (MSCC) must notify EPA of the date on which demonstration for the continuous monitoring system performance commences (40 C.F.R. 60.13). This date must be no later than 60 days after full load operation but not later than 180 days after startup. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
84. The Permittee (MSCC) must submit a written report of all excess emissions to EPA for every calendar quarter. The quarterly report must include the following: a.) The magnitude of the excess emissions computed in accordance with 40 C.F.R. 60.13(h), any conversion factors used, and the date and time of commencement and compilation of each time period of excess emissions; b.) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of any equipment. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted must also be reported; c.) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments; d.) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and e.) Excess emissions must be defined as any 3-hour period during which the average emissions of CO, as measured by the CEM exceeds the maximum emission limits set forth in the condition with a CO emission limit, where PSD is cited as the basis of the condition or any 3-hour period during which the average emissions of NOx exceed the maximum emission limits set forth in the condition with a NOx emission limit, where PSD is cited as the basis of the condition. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
85. Excess emissions indicated by the CEM system must be considered violations of the applicable emission limit for the purpose of this permit. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
86. The quality assurance project plan used by the Permittee (MSCC) for the certification and operation of the continuous emissions monitors, which meets the requirements of 40 C.F.R. Part 60, Appendix F, must be available upon request to EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
87. The Permittee (MSCC) must keep a monthly record of all fuel uses. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
88. The proposed power plant is subject to the federal regulations entitled Standards of Performance for New Stationary Sources (40 C.F.R. 60). The owner or operator must meet all applicable requirements of 40 C.F.R. 60 Subparts A and GG of this regulation. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
89. All three turbines will fire natural gas only. The Permittee (MSCC) must only combust pipeline quality natural gas with sulfur content (as S) below 0.75 grains per 100 dry standard cubic feet (dscf). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
90. MSCC shall have legal and operational responsibility and control of all air pollutant emitting activities of the MSCP. This responsibility shall include, but shall not be limited to the following: 1.) Operating and maintaining the project to comply with all federal, state, and local air pollution laws, regulations, orders, and other requirements; 2.) Ensuring the emissions offsets, tradeoffs, or other emission reductions required for this project under permits issued by the U.S. EPA, the District, and/or the California Energy Commission are obtained as required; or 3.) Any violations of any air pollution requirements are the legal responsibility of MSCC, in addition to any other legal responsible entity. Any proposed change to this condition shall require prior written concurrence of the US EPA. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
91. In accordance with the emissions offset plan proposed by the applicant for the District (dated November 12, 1987) and the emissions offset plan for the U.S. EPA (dated July 21, 1987), Aera Energy LLC must not operate the following four steam generators (listed by District permit numbers S-1135-119, S-1135-122, S-1135-123, and S-1135-115) simultaneously with the firing of the MSCP turbines unless one or more of the MSCP turbines is shutdown: Andersen-Goodwin Lease: S-1135-119, S-1135-122, S-1135-123 and Neely Lease: S-1135-115 [PSD SJ-87-01] Federally Enforceable Through Title V Permit

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92. MSCC shall maintain a record of the date(s), time(s), and duration(s) of the shutdown of any of the above mentioned steam generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
93. Aera Energy LLC shall not lease or modify the permit conditions for any of the above generators for use in the Midway Sunset Oil field, unless creditable emissions reductions (as defined in 40 C.F.R. 52.21), at a ratio of at least 1:1, are provided for emissions from those generators. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
94. Aera Energy LLC shall not modify any of the District Permit to Operate numbers. If any of the above steam generators are issued new Permit to Operate numbers by the District, Aera Energy LLC shall notify the U.S. EPA in writing of this action and shall make such notification upon issuance of a new Permit to Operate number. This letter shall include the original District Permit to Operate number(s) of the subject generator(s) and a copy of the new Permit to Operate issued by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
95. Aera Energy LLC shall notify the U.S. EPA in writing of the intention to sell, or potential sale, of any of the above generators and shall make such notification prior to the District's final action of the re-permitting process associated with the sale of a generators. This letter shall include the following: a.) The subject steam generator as identified by its District Permit to Operate number; b.) The name of the buyer (as identified by the company name) of the steam generator; and c.) An estimated date of the final action of the re-permitting process by the District. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
96. The allowable incidental taking (killing, harming, or harassment) of San Joaquin kit foxes, blunt-nosed leopard lizards, and giant kangaroo rats is confined to the proposed cogeneration plant site one half mile radius around this site (on lands owned or leased by Aera Energy LLC), and associated subject cogeneration plant facilities (including pipelines, transmission lines, temporary equipment stockpiling areas, and access roads) as discussed in the project Application for Certification report (Sun Cogeneration Company and Southern Sierra Energy Company 1985). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
97. MSCC is required to implement the "Agreement on Conditions for Mitigation of the Biological Impacts of the Midway-Sunset Project" as required by the U.S. Fish and Wildlife Service (USFWS) (Memorandum dated March 16, 1987 from the USFWS to the US EPA). [PSD SJ-87-01] Federally Enforceable Through Title V Permit
98. Any endangered species found dead should be turned in to the California Department of Fish and Game for Analysis. MSCC must also report this event to the USFWS. The USFWS may recommend amendment to the existing project actions pending results of the analysis. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
99. All correspondence as required by this permit shall be forwarded to: 1.) Director, Air Division (Attn: Air-3) EPA Region IX 75 Hawthorne Street San Francisco, CA 94105-3901 Tel: (415) 744-1291 Fax: (415) 744-1076; 2.) Chief, Stationary Source Division, California Air Resource Board P.O. Box 2815 Sacramento, CA 95812; and 3.) Air Pollution Control Officer, San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301-2370. [PSD SJ-87-01] Federally Enforceable Through Title V Permit
100. Aera Energy LLC is the legal owner of the subject steam generators and of the leases on which the steam generators are located. MSCC is the legal owner of the gas turbine cogeneration facility. MSCC is jointly owned by Sun Cogeneration Limited Partnership (Sun Cogen LP) and San Joaquin Energy Company. Sun Cogen LP is managed and controlled by a wholly owned subsidiary of Aera Energy LLC. (See Condition 104) [PSD SJ-87-01] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.