



**JUL 25 2013**

Mr. Kelly Lucas  
Midset Cogeneration Company  
PO Box 80178  
Bakersfield, CA 93380

**Re: Final - Authority to Construct / COC (Significant Mod)  
District Facility # S-2592  
Project # 1131720**

Dear Mr. Lucas:

The Air Pollution Control Officer has issued an Authority to Construct (S-2592-1-11) with a Certificate of Conformity to Midset Cogeneration Company at 13705 Shale Road, Fellows. Midset Cogeneration Company (MCC) has requested that gas turbine S-2592-1's MMscf/day fuel use limit be removed. Enclosed are the an Authority to Construct and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permit was published on 6/17/2013. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on 6/12/2013. No comments were received following the District's preliminary decision on this project.

Prior to operating with modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5.

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,



David Warner  
Director of Permit Services

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email  
cc: Gerardo C. Rios, EPA (w/enclosure) via email

**Seyed Sadredin**  
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  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585

Newspaper notice for publication in Bakersfield Californian and for posting on valleyair.org

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**NOTICE OF FINAL DECISION  
FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT AND  
THE PROPOSED SIGNIFICANT MODIFICATION OF FEDERALLY  
MANDATED OPERATING PERMIT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District has made its final decision to issue an Authority to Construct to Midset Cogeneration Company at 13705 Shale Road, Fellows, California. Midset Cogeneration Company (MCC) has requested that gas turbine S-2592-1's MMscf/day fuel use limit be removed.

No comments were received following the District's preliminary decision on this project.

The District's analysis of the legal and factual basis for this proposed action, project #1131720, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm), the SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308, and at any other District office. For additional information, please contact the District at (661) 392-5500.



# AUTHORITY TO CONSTRUCT

**PERMIT NO:** S-2592-1-11

**ISSUANCE DATE:** 07/19/2013

**LEGAL OWNER OR OPERATOR:** MID-SET COGENERATION COMPANY

**MAILING ADDRESS:** PO BOX 80178  
BAKERSFIELD, CA 93380

**LOCATION:** 13705 SHALE RD  
FELLOWS, CA

**SECTION:** 36 **TOWNSHIP:** 31S **RANGE:** 22E

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 39.86 MW GENERAL ELECTRIC, FRAME 6, MODEL PG6531(B) GAS-FIRED GAS TURBINE ENGINE COGENERATION SYSTEM: REMOVE MMSCF/DAY FUEL USE LIMIT

## CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. 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. [District Rule 4703, 6.2.6; 40 CFR 60.332(a),(b) and 40 CFR Part 64] Federally Enforceable Through Title V Permit
4. A violation of NOx emission standards indicated by the NOx CEM shall be reported by the operator to the APCO within 96 hours. [District Rule 1080, 9.0 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
5. Operator shall notify the APCO no later than eight hours after the detection of a breakdown of the CEM. Operator shall inform the APCO of the intent to shut down the CEM at least 24 hours prior to the event. [District Rule 1080, 10.0 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO



DAVID WARNER, Director of Permit Services

S-2592-1-11 : Jul 19 2013 10:05AM -- TORID : Joint Inspection NOT Required

6. Cogeneration unit shall include General Electric, Frame 6, mode PG6531(B), natural gas fired turbine engine, Pneumafil PVC media type inlet air evaporative cooler and turbine combustor water injection system for NOx control. [District NSR Rule] Federally Enforceable Through Title V Permit
7. Cogeneration unit shall include 215,000 pounds per hour unfired heat recovery steam generator, Mitsubishi selective catalytic reduction NOx control system with ammonia injection and continuously recorded emission monitors for NOx, CO and CO2. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
8. All gas turbine engine exhaust shall flow through catalyst bed. [District NSR Rule] Federally Enforceable Through Title V Permit
9. Compliance with ammonia slip limit shall be demonstrated by continuously recording the following parameters: inlet air mass flow rate (lbm/sec), fuel gas mass flow rate (lbm/sec), injected water mass flow rate (lbm/sec), ammonia injection volumetric flow rate (scf/hr), fuel f factor (scf dry gas/scf wet gas), NOx concentration into SCR catalyst (ppm), and NOx concentration out of SCR catalyst (ppm); and calculating the ammonia slip using the following equation: ammonia slip ppm (uncorrected) = ammonia injection volumetric flow rate/[fuel f factor x (3600/10<sup>6</sup>) x 379.5 x (inlet air mass flow rate + fuel gas mass flow rate + injected water mass flow rate)/exhaust gas molecular weight] - (NOx concentration into the SCR catalyst - NOx concentration out of the SCR catalyst). Uncorrected ammonia slip calculated using the above equation shall be corrected to 15% O2. [District Rule 4102]
10. Turbine maximum heat input rate shall not exceed 500 MMBtu/hr (LHV) when fired on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
11. Maximum daily emission limitations (DEL) shall not exceed the following: PM-10: 60.0 lb./day, SOx (as SO2): 14.4 lb./day, NOx (as NO2): 259.7 lb./day, VOC: 24.0 lb./day and CO: 259.2 lb./day. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Startup and shutdown of gas turbine engine, as defined in 40 CFR Subpart 60.2, shall not exceed a time period of two hours and two hours, respectively, per occurrence. [40 CFR Subpart 60.2] Federally Enforceable Through Title V Permit
13. Except during periods of startup/shutdown, gas turbine engine emission rates (three-hour average) shall not exceed: PM10: 2.50 lb/hr, SOx as SO2: 0.6 lb/hr, NOx as NO2: 9 lb/hr, VOC: 1.00 lb/hr and CO: 10.8 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Permittee shall report the following emission exceedences to the District: emission rates of NOx & CO on a three hour average, NSPS emission rate on one hour average, and DEL of NOx & CO during days of gas turbine engine startup/shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
15. Except during periods of gas turbine engine startup/shutdown, inlet gas temperature to catalyst bed shall be maintained within the range recommended by catalyst manufacturer of 392 degrees and 752 degrees F. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
16. Except during periods of gas turbine engine startup/shutdown, gas turbine engine shall not be operated unless water injection and SCR system are operating. [District NSR Rule] Federally Enforceable Through Title V Permit
17. If water injection or SCR system are inoperative, gas turbine engine operation shall be curtailed such that compliance with emission limits is achieved. [District NSR Rule] Federally Enforceable Through Title V Permit
18. Except during periods of gas turbine engine startup/shutdown, gas temperature at ammonia injection grid shall be maintained below 2000 F. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
19. On days of gas turbine engine startup/shutdown, permittee shall demonstrate compliance with NOx and CO daily emission limitations by records of calculations using CEM data, fuel rate data, and daily hours of operation data. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
20. Permittee shall maintain accurate records of daily fuel consumption of gas turbine engine and continuous emission monitoring printouts. [District NSR Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
21. Ammonia concentration in exhaust stream shall not exceed 20 ppmv @15% O2 (three hour average). [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

22. The Relative Accuracy Audit and annual compliance tests shall be conducted by an independent laboratory in accordance with EPA guidelines, and witnessed by the District. [District NSR Rule] Federally Enforceable Through Title V Permit
23. Non-compliance with emission limits shall result in either shutdown or curtailment (reduced fuel consumption) for the permit unit, and an Authority to Construct to modify emission limits shall be required. A variance from this requirement cannot be obtained. [District Rule 1100, 6.3] Federally Enforceable Through Title V Permit
24. Failure of catalysts to perform as required because of catalyst poisoning or fouling shall not be recognized as basis for Rule 1100, Section 4.0 (amended 12/17/92) enforcement exemptions. [District Rule 1100, 4.0] Federally Enforceable Through Title V Permit
25. Compliance source testing for NO<sub>x</sub>, CO, SO<sub>x</sub>, VOCs & ammonia shall be conducted annually (or as approved by the District) within 60 days prior to permit anniversary and official test results & field data submitted within 60 days thereafter. [District NSR Rule] Federally Enforceable Through Title V Permit
26. No annual source testing shall be required for SO<sub>x</sub> emissions if the turbine is fired on PUC-regulated natural gas. [District NSR Rule and 40 CFR Part 60.334(h)(3)] Federally Enforceable Through Title V Permit
27. Samples shall be collected during maximum fuel consumption, use of water and NH<sub>3</sub> injection at desired rates, and use of evaporative coolers (if necessary, to test at maximum fuel consumption). [District NSR Rule] Federally Enforceable Through Title V Permit
28. Each one hour period in a three-hour average shall commence upon the hour. The three hour average will be compiled from the three most recent one hour periods. [District NSR Rule] Federally Enforceable Through Title V Permit
29. This facility is part of Chevron's the heavy oil western stationary source, which includes facilities S-1128, S-1129, S-1141, S-1549, and S-2592. [District NSR Rule] Federally Enforceable Through Title V Permit
30. Permittee shall report exceedances of daily emissions limits to the District. [District NSR Rule] Federally Enforceable Through Title V Permit
31. Source testing shall be performed for VOCs according to EPA Method 25 or 18, for CO according to EPA Method 10 or 10B, and for SO<sub>x</sub> according to EPA Method 6 or 8. [District Rule 2520, 9.3.2, District Rule 4703, 6.4] Federally Enforceable Through Title V Permit
32. The owner or operator shall install, operate and maintain in calibration a system which continuously measures and records: emissions control system operating parameters, elapsed time of operation of the turbine, the fuel consumption, and the exhaust gas NO<sub>x</sub> and O<sub>2</sub> concentrations. [District NSR Rule, District Rules 2520, 9.3.2, 4703, 6.2.1, 6.2.3 and 40 CFR 60.334(a) and 40 CFR Part 64] Federally Enforceable Through Title V Permit
33. CEM cycling times shall be those specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. [District Rule 1080, 6.4] Federally Enforceable Through Title V Permit
34. The continuous NO<sub>x</sub> and O<sub>2</sub> monitoring system shall meet all the applicable requirements in 40 CFR 60, Appendix F, 40 CFR 51, Appendix P, and Part 60, Appendix B, or shall meet equivalent specifications established by mutual agreement of the District, the ARB, and the EPA. [District Rule 1080, 6.3, 6.5, 6.6 and 7.2] Federally Enforceable Through Title V Permit
35. The owner or operator shall, upon written notice from the APCO, provide a summary of the data obtained from the CEM systems. This summary of data shall be in the form and the manner prescribed by the APCO. [District Rule 1080, 7.1] Federally Enforceable Through Title V Permit
36. The owner or operator shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 1080, Section 4.0 (as amended 12/17/92), and emission measurements. [40 CFR 60.8(b) and District Rule 1080, 7.3] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

37. Operators of CEM systems installed at the direction of the APCO shall submit a written report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, data and magnitude of excess emissions, nature and cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the CEM was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District NSR Rule and District Rule 1080, 8.0] Federally Enforceable Through Title V Permit
38. APCO or an authorized representative shall be allowed to inspect, as he or she determines to be necessary, the monitoring devices required by District Rule 1080, Section 11.0 (amended 12/17/92) to ensure that such devices are functioning properly. [District Rule 1080, 11.0] Federally Enforceable Through Title V Permit
39. The owner or operator shall be required to conform to the compliance testing and sampling procedures described in District Rule 1081, Sections 3.0 through 7.0 (as amended 12/16/93). [District Rule 1081, 3.0 through 7.0] Federally Enforceable Through Title V Permit
40. This unit shall be fired exclusively on PUC-quality natural gas which has a sulfur content of less than or equal to 0.017% by weight. [District NSR Rule, District Rule 4801; 40 CFR 60.333(a) and (b); and Kern County Rule 407] Federally Enforceable Through Title V Permit
41. If this unit 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 quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District NSR Rule, District Rule 4801; 40 CFR 60.334(h)(1); and Kern County Rule 407] Federally Enforceable Through Title V Permit
42. If this unit 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 the Gas Processors Association Method 2377 or ASTM method D 1072, D 4084 or D 3246. [40 CFR 60.335(b)(10)] Federally Enforceable Through Title V Permit
43. If this unit is fired on PUC-regulated natural gas, then maintain on file copies of natural gas bills. [District Rule 2520, 9.3.2 and Kern County Rule 407] Federally Enforceable Through Title V Permit
44. The owner or operator shall annually source test the exhaust emissions for NO<sub>x</sub> and CO concentration corrected to 15% O<sub>2</sub> (dry). EPA Methods 7E or 20 shall be used for NO<sub>x</sub> emissions. EPA Methods 10 or 10B shall be used for CO emissions. EPA Methods 3, 3A, or 20 shall be used for Oxygen content of the exhaust gas. Results of the CEM system shall be averaged over a three hour period, using consecutive 15-minute sampling periods. [District Rule 4703, 5.1, 6.3.1, 6.4.1, 6.4.2, and 6.4.3] Federally Enforceable Through Title V Permit
45. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. [40 CFR 60.13(b)] Federally Enforceable Through Title V Permit
46. The owner or operator of a stationary gas turbine system shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 2520, 9.4.2 and 4703, 6.2.4] Federally Enforceable Through Title V Permit
47. Results of the CEM system shall be averaged over a one hour period, using consecutive 15-minute sampling periods in accordance with 40 CFR 60.13(e)(2) and (h). [40 CFR 60.13(e)(2) and (h); 40 CFR 60.334(a), (b)(2), (c) and District Rule 4703, 6.2.2 and 6.2.3 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
48. The owner or operator shall not operate the gas turbine under load conditions, excluding the thermal stabilization period or reduced load period, which results in the measured NO<sub>x</sub> emissions concentration exceeding the following: 5 ppmv @ 15% O<sub>2</sub> averaged over a three hour period, for the standard option. [District Rule 4703, 5.1.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

49. The owner or operator shall not operate the gas turbine under load conditions, excluding the thermal stabilization period or reduced load period, which results in the measured CO emissions concentration exceeding 200 ppmv @ 15% O<sub>2</sub> averaged over a three hour period. [District Rule 4703, 5.2] Federally Enforceable Through Title V Permit
50. The HHV and LHV of the fuel combusted shall be determined using ASTM D3588, ASTM 1826, or ASTM 1945. [40 CFR 60.332(a) and (b) and District Rule 4703, 6.4.5] Federally Enforceable Through Title V Permit
51. Compliance with permit conditions in the Title V permit shall be deemed compliance with Kern County Rule 407 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
52. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.332(a), (a)(1) and (b), 60.333 (a) and (b); 60.334(a), (c)(2), (c)(3), and 60.335(b), (c)(3), and (d); District Rule 4201 (as amended 12/25/92), Section 3 and 4703 (as amended 4/25/02), Sections 5.1.2, 5.2, 6.1, 6.2.1, 6.3.1, 6.3.3, 6.4.1, 6.4.2, 6.4.3, and 6.4.5 as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
53. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following applicable requirements: 40 CFR 60.7(b), 60.8, 60.8(d), 60.13, and 60.13(b); District Rules 1080 (as amended 12/17/92), Sections 6.3, 6.4, 6.5, 7.0, 7.1, 7.2, 7.3, 8.0, 9.0, 10.0, and 11.0; and 1081 (as amended 12/16/93) as of the date of permit issuance. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit