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Palomar Energy Project Compliance
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County of San Diego Air Pollution Control District Authority to Construct for Power Station Unit No.1 (West or Unit No.1)
Authority to Construct is granted pursuant to Rule 20 of the Air Pollution Control District Rules and Regulations for equipment to consist of: Power Station Unit No.1 (West or Unit No.1) consisting of: one 176 MW rated natural-gas fired combined cycle General Electric Power Systems Frame 7FA gas turbine generator (combustion turbine), max heat input 1765 MMBtu/hr, S/N 298258, with dry low-NOx combustors, a heat recovery steam generator, a 195 MMbtu/hr (HHV) auxiliary duct burner, a Peerless Selective Catalytic Reduction unit (SCR) [with a Cormetech catalyst block, a Peerless Ammonia Vaporizer Skid], an Engelhart oxidation catalyst, a steam turbine generator shared with Power Station Unit No. 2, and an Emerson Ovation control system with lowload emissions and startup fuel gas heating capability
Anwar Ali
California Energy Commission
Commission Staff
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COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT 10124 OLD GROVE ROAD, SAN DIEGO, CA 92131 (858) 586-2600 FAX (858) 586-2601

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Sectors: 2, D Site Record ID: APCD2001-SITE-04276 Application Record ID APCD2015-APP-003970

SDG&E Palomar Energy Center Jason Bowman 2300 Harveson Place Escondido, CA 92029 **EQUIPMENT ADDRESS** SDG&E Palomar Energy Center Jason Bowman 2300 Haverson Place Escondido, CA 92029

AUTHORITY TO CONSTRUCT EXPIRES: June 20, 2017

After examination of your Application for an Air Pollution Control District (hereinafter referred to as "the District") Authority to Construct and Permit to Operate for equipment located at the above location, the District has decided on the following actions:

<u>Authority to Construct</u> is granted pursuant to Rule 20 of the Air Pollution Control District Rules and Regulations for equipment to consist of:

Power Station Unit No.1 (West or Unit No.1) consisting of: one 176 MW rated natural-gas fired combinedcycle General Electric Power Systems Frame 7FA gas turbine generator (combustion turbine), max heat input 1765 MMBtu/hr, S/N 298258, with dry low-NOx combustors, a heat recovery steam generator, a 195 MMbtu/hr (HHV) auxiliary duct burner, a Peerless Selective Catalytic Reduction unit (SCR) [with a Cormetech catalyst block, a Peerless Ammonia Vaporizer Skid], an Engelhart oxidation catalyst, a steam turbine generator shared with Power Station Unit No. 2, and an Emerson Ovation control system with lowload emissions and startup fuel gas heating capability.

Centralized chiller plant of 9800 ton refrigeration capacity or less, potentially including a thermal energy storage tank (3 to 5 million gallons), fixed and variable speed pumps and four (4) York chillers, Model YKZ1Z3J7-DHF, S/N's SATM-7832-20, SATM-7834-20, SATM-7920-40 and SATM-9722-70.

This Authority to Construct is issued with the following conditions:

A. FEDERALLY-ENFORCEABLE AND DISTRICT-ENFORCEABLE CONDITIONS

- 1. This equipment shall be properly maintained and kept in good operating condition at all times.
- 2. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request.
- 3. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO2 allowances.
- 4. For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein.

5. When the unit is combusting fuel (operating), the concentration of oxides of Nitrogen (NOx), calculated as nitrogen dioxide (NO2) and measured in the exhaust stack, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen, except during periods of startup, shutdown, low load operation, or tuning. The following averaging periods shall apply to CEMS data:

A. During any clock hour when duct firing above 19.5 MMBTU/hr heat input is occurring (a "duct-fired hour"): 3-clock hour average, calculated as the average of the duct fired hour, the clock hour immediately prior to and the clock hour immediately following the duct-fired hour.

B. For any clock hour during which the change in gross electrical output produced by the combustion turbine exceeds 50 MW per minute for one minute or longer (transient hour): 3-clock hour average, calculated as the average of the transient hour, the clock hour immediately prior to and the clock hour immediately following the transient hour.

C. All other hours: 1-clock-hour average. (NSR)

- 6. When the unit is operating, the concentration of CO measured in the exhaust stack shall not exceed 4.0 ppmvd corrected to 15% oxygen, except during periods of startup, shutdown, low load operation, or tuning. A 3-clock hour averaging period shall apply to CEMS data. (NSR)
- 7. When the unit is operating, the VOC concentration, calculated as methane and measured in the exhaust stack, shall not exceed 2.0 ppmvd corrected to 15% oxygen, except during periods of startup, shutdown, low load operation, or tuning. For purposes of determining compliance based on the CEMS, the District approved VOC/CO surrogate relationship, the CO CEMS data, and a 3-clock hour average shall be used in accordance with the CEMS protocol. The VOC/CO surrogate relationship shall be verified and/or modified, if necessary, based on source testing. (NSR)
- 8. When the unit is operating, the Ammonia concentration (Ammonia slip) measured in the exhaust stack, shall not exceed 5.0 ppmvd corrected to 15% oxygen, except during periods of startup, low load, or tuning.
- 9. When the unit is operating, the concentration of Oxides of Nitrogen (NOx), calculated as nitrogen dioxide (NO2) and measured in the exhaust stack, shall not exceed 11.8 ppmvd corrected to 15% oxygen, averaged over each clock hour period, except for exempt periods of operation during startup, combined-cycle gas turbine extended startup, shutdowns, and low load operation, as defined in Rule 69.3.1. All CEMS calculations and averages shall be performed in accordance with the CEMS protocol approved by the District. [Rule 69.3.1(d)(1)]
- 10. When the unit is operating, the concentration of Oxides of Nitrogen (NOx), calculated as Nitrogen Dioxide (NO2) and measured in the exhaust stack, shall not exceed 42 ppmvd corrected to 15% oxygen, calculated over each clock hour period except for periods of Startup or Shutdown, as defined in Rule 69.3. All CEMS calculations, averages shall be performed in accordance with the CEMS protocol approved by the District. [Rule 69.3.]
- 11. The emissions of particulate matter less than 10 microns (PM-10) shall not exceed 14.0 lbs/hr for each unit with and without duct burner firing.
- 12. The discharge of particulate matter from the exhaust stack of the unit shall not exceed 0.10 grains per dry standard cubic foot (0.23 grams/dscm). The District may require periodic testing to verify compliance with this standard. (Rule 53)
- 13. Visible emissions from the lube oil vents and the exhaust stack of the unit shall not exceed 20% opacity for more than three (3) minutes in any period of 60 consecutive minutes. (Rule 50)
- 14. When operating with the duct burner at or below 19.5 MMBTU/hr heat input, mass emissions from each unit shall not exceed the following limits, except during periods of startup, shutdown, low load operation, or tuning. A 3 clock-hour averaging period for these limits shall apply to CEMS data except for NOx emissions during non-transient hours when a 1 clock-hour averaging period shall apply.

Pollutant - Emission Limit, Ibs/hr

- A) Oxides of Nitrogen, NOx (calculated as NO2) 13.4
- B) Carbon Monoxide, CO 16.3
- C) Volatile Organic Compounds, VOC 4.0
- 15. When operating with the duct burner firing above 19.5 MMBTU/hr heat input, mass emissions from each unit shall not exceed the following emission limits, except during periods of startup, shutdown, low load operation, or tuning. A 3-clock-hour averaging period shall apply to CEMS data

Pollutant - Emission Limit, Ibs/hr

- A) Oxides of Nitrogen, NOx (calculated as NO2) 14.9
- B) Carbon Monoxide, CO 18.1
- C) Volatile Organic Compounds, VOC 7.3
- 16. Total combined NOx emissions from both units shall not exceed 400 pounds per hour, calculated as Nitrogen Dioxide and measured over each 1-clock-hour period. These emission limits shall apply during all times during which one or both units are operating, including, but not limited to, emissions during periods of startup, shutdown, low load operation and tuning. In addition, Unit No. 1 shall not begin operating while Unit No. 2 is already operating in a startup period nor shall Unit No. 2 begin operating while Unit No. 1 is already operating in a startup period unless the unit already operating in a startup period meets all of the following in the clock-minute immediately preceding the clock-minute that the other unit begins operating:

A) has been operating with a gross electrical output from the combustion turbine of 64 MW or more during the preceding 10 consecutive-clock-minute period;

B) the concentration of NOx, calculated as NO2 and measured in the exhaust stack, does not exceed 2.0 ppmvd corrected to 15% oxygen; and

C) the concentration of CO measured in the exhaust stack does not exceed 4.0 ppmvd corrected to 15% oxygen. (Rule 20.3(d)(2)(i))

- 17. Total combined CO emissions from both units shall not exceed 2,000 pounds per hour measured over each 1-clock-hour period. This emission limit shall apply during all times that one or both units are operating, including, but not limited to emissions during periods of startup, shutdown, low load operation and tuning. (Rule 20.3(d) (2)(i))
- 18. Total emissions from all stationary emission units at this stationary source, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d)(1) as it exists on the date the permit to operate for this equipment is approved, shall not exceed the following limits for each rolling 12-calendar-month period:

Pollutant	Emission Limit, tons per year
 a. Oxides of Nitrogen, NOx (calculated as NO2) 	99
b. Carbon Monoxide, CO	99
 c. Volatile Organic Compounds, VOC 	49
d. PM10	99

The aggregate emissions of each pollutant shall include emissions during all times that the equipment is operating. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(1)-20.3(d)(5), 20.3(d)(8), and 21]

- 19. The owner or operator shall obtain written authorization from the District prior to making any changes to the annual emission calculation protocol. Any approved changes to the protocol shall take effect no earlier than 30 days after requesting approval of the modified protocol unless an alternative is stated in writing by the District [Rules 20.3(d)(1)-20.3(d)(5), 20.3(d)(8), and 21].
- 20. For each calendar month and each rolling 12-calendar-month period, the Permittee shall maintain records, as applicable, on a calendar monthly basis, of mass emissions during each calendar month and rolling 12-calendar-month period of NOx (calculated as NO2), CO, VOC (calculated as methane), PM10,

and SOx (calculated as SO2), in tons, from each emission unit located at this stationary source, except for emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d)(1) as it exists on the date the permit to operate for this equipment is approved. These records shall be made available for inspection within 30 calendar days after the end of each calendar month. [Rules 20.3(d)(5), 20.3(d)(8) and 21]

- 21. The emissions of any single Federal Hazardous Air Pollutant (HAP) shall not equal or exceed 10 tons, and the aggregate emissions of all Federal HAPs shall not equal or exceed 25 tons in any rolling 12-calendar month period. Compliance with these single and aggregate HAP limits shall be based on a methodology approved by the District for the purpose of calculating HAP emissions for this permit. If emissions exceed these limits, the permittee shall apply to amend permit to reflect applicable Federal Maximum Achievable Control Technology (MACT) standards and requirements in accordance with applicable provisions (including timing requirements) of 40 CFR Part 63.
- 22. The maximum total dissolved solids (TDS) concentration of the water used in the cooling towers shall not exceed 4,000 mg/l. This concentration shall be verified through quarterly testing of the water by a certified lab using EPA approved methods.
- 23. When combusting fuel, Ammonia shall be injected at all times that the SCR outlet temperature is 510 degrees Fahrenheit or greater.
- 24. The Ammonia injection flow rate shall be continuously measured, recorded and controlled. The Ammonia injection flow control equipment shall be installed, calibrated and maintained in accordance with a District approved protocol.
- 25. Except during periods when the Ammonia injection system is being tuned or one or more Ammonia injection systems is in manual control (for compliance with applicable permits), the automatic Ammonia injection system serving the SCR shall be in operation in accordance with manufacturer's specifications at all times when Ammonia is being injected into the SCR. Manufacturer specifications shall be maintained on site and made available to District personnel upon request.
- 26. The concentration of Ammonia solution used in the Ammonia injection system shall be less than 20% ammonia by weight. Records of Ammonia solution concentration shall be maintained on site and made available to District personnel upon request
- 27. For purposes of determining compliance with the emission limits of this permit, a shutdown period is the period of time that begins with the lowering of the gross electrical output of the combustion turbine below 64 MW and that ends five minutes after fuel flow to the combustion turbine ceases, not to exceed 65 consecutive minutes.
- 28. A startup period is the period of time that begins when fuel flows to the combustion turbine following a non-operational period. For purposes of determining compliance with the emission limits of this permit, the duration of a startup period shall not exceed 120 consecutive minutes if the steam turbine reheat bowl temperature is above 500° F when the startup period begins and shall not exceed 360 consecutive minutes if the steam turbine reheat bowl temperature is less than or equal to 500° F when the startup period begins.
- 29. Low load operation is a period of time that begins when the gross electrical output (load) of the combustion turbine is reduced below 64 MW from a higher load and that ends 10 consecutive minutes after the combustion turbine load next exceeds 64 MW provided that fuel is continuously combusted during the entire period and one or more clock hour concentration emission limits specified in this permit are exceeded as a result of the low-load operation. Periods of operation at low load shall not exceed 130 minutes in any calendar day nor an aggregate of 780 minutes in any calendar year, and no period of operation at low load shall begin during a startup period.
- 30. Tuning is defined as adjustments to the combustion system that involves operating the unit in a manner

such that the emissions control equipment may not be fully effective or operational. Only one combustion turbine will be tuned at any given time. Tuning events shall not exceed 480 minutes in a calendar day nor exceed 40 hours in a calendar year. The District compliance division shall be notified at least 24 hours in advance of any tuning event.

- 31. A CEMS Protocol is a document approved in writing by the APCD M&TS division that describes the Quality Assurance and Quality Control procedures for monitoring, calculating and recording stack emissions from the unit.
- 32. This unit shall be source tested to demonstrate compliance with the NOx, CO, VOC, PM-10, and Ammonia emission standards of this permit, using District approved methods. The source test and the NOx and CO Relative Accuracy Test Audit (RATA) tests shall be conducted in accordance with the applicable RATA frequency requirements of 40 CFR75, appendix B, sections 2.3.1 and 2.3.3.
- 33. A Relative Accuracy Test Audit (RATA) and all other required certification tests shall be performed and completed on the CEMS in accordance with applicable provisions of 40 CFR part 75 Appendix A and B performance specifications. At least 30 days prior to the test date, the permittee shall submit a test protocol to the District for approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present.
- 34. If source testing will be performed by an independent contractor and witnessed by the District, a source test protocol shall be submitted to the District for written approval at least 30 days prior to source testing. The source test protocol shall comply with the following requirements:

A. Measurements of NOX, CO, and O2 emissions shall be conducted in accordance with

U.S. Environmental Protection Agency (EPA) methods 7E, 10, and 3A, respectively, and District Source Test, method 100, or alternative methods approved by the District and EPA.

B. Measurement of VOC emissions shall be conducted in accordance with EPA Methods 25A and/or 18, or alternative methods approved by the District and EPA.

C. Measurements of ammonia emissions shall be conducted in accordance with Bay

Area Air Quality Management District ST-1B or an alternative method approved by the District and EPA. D. Measurements of PM-10 emissions shall be conducted in accordance with EPA Methods 201A and 202 or alternative methods approved by the district and EPA.

E. Source testing shall be performed with both the combustion turbine and the duct burner in operation. Each duct burner shall operate with a minimum heat input of 97 MMBTU/hr.

F. Source testing shall be performed at the most frequently used load level, as specified in 40 CFR Part 75 Appendix A Section 6.5.2.1.d, provided it is not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the district that the unit cannot operate under these conditions. If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous level power level.

G. Measurements of particulate matter emissions shall be conducted in accordance with SDAPCD Method 5 or an alternative method approved by the District and EPA.

H. Measurements of opacity shall be conducted in accordance with EPA Method 9 or an alternative method approved by the District and EPA.

I. Measurement of fuel flow shall be conducted in accordance with an approved test protocol.

- 35. Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval.
- 36. The Oxides of Nitrogen (NOx) and Oxygen (O2) CEMs shall be certified and maintained in accordance with applicable federal regulations including the requirements of Sections 75.10 and 75.12 of Title 40, Code of Federal Regulations Part 75 (40 CFR75), the performance specifications of Appendix A of 40 CFR 75, the quality assurance procedures of Appendix B of 40 CFR 75 and the CEMs protocol approved by the District. The Carbon Monoxide (CO) CEMs shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit.

37. Continuous emission monitoring system (CEMS) shall be installed and properly maintained and calibrated to measure, calculate and record the following, in accordance with the District approved CEMS protocol:

A. Hourly average concentration of Oxides of Nitrogen (NOX) corrected to 15% oxygen, in parts per million (ppmvd);

B. Concentration of Carbon Monoxide (CO) corrected to 15% oxygen, in parts per million (ppmvd);

C. Percent oxygen (O2) in the exhaust gas (%) for each clock hour period;

D. Average concentration of Oxides of Nitrogen (NOX) for each rolling 3-hour period, in parts per million (ppmv) corrected to 15% oxygen;

- E. Hourly and Monthly mass emissions of Oxides of Nitrogen (NOX), in pounds;
- F. Rolling 12 month mass emissions of Oxides of Nitrogen (NOX), in tons;
- G. Hourly and monthly mass emissions of Carbon Monoxide (CO), in pounds;
- H. Annual mass emissions of Carbon Monoxide (CO), in tons.
- I. Natural gas flow rate to combustion turbine in scf/hr.
- J. Natural gas flow rate to duct burner in scf/hr.

K. Concentration of Volatile Organic Compounds (VOC) corrected to 15% oxygen, in parts per million (pmvd) for each rolling 3-hour period, based upon the approved VOC/CO surrogate relationship.

M. Hourly and monthly mass emissions of VOC in pounds

N. Rolling 12-month mass emissions of VOC in tons.

The CEMS shall be in operation in accordance with the District approved CEMS monitoring protocol at all times when the combustion turbine is in operation. A copy of the District approved CEMS monitoring protocol shall be maintained on site and made available to District personnel upon request.

- 38. When the CEMs is not recording data and the unit is operating, hourly NOx emissions annual calculations shall be determined in accordance with 40 CFR 75 Appendix C. Additionally, hourly CO emissions for the annual emission calculations shall be determined using the hourly emission rate recorded by the CEMs during the most recent hours in which the unit operated 3 continuous hours at no less than 80% of full power rating. Alternate CO emission factors shall be determined from compliance source test emissions data. The alternate hourly CO emission rate shall be reviewed and approved by the District, in writing.
- 39. Any violation of any emission standard as indicated by the CEMs shall be reported to the District's Compliance Division within 96 hours after such occurence.
- 40. The CEMs shall be maintained and operated, and reports submitted, in accordance with the requirements of Rule 19.2 sections (d), (e), (f)(2),(f)(3), (f)(4) and (f)(5) and CEMs protocol approved by the District.
- 41. The District shall be notified at least two weeks prior to any changes made in CEMS software that affect the measurement, calculation or correction of data displayed and/or recorded by the CEMS.
- 42. Fuel flowmeters with an accuracy of +/- 2% shall be maintained to measure the volumetric flow rate corrected for temperature and pressure. Correction factors and constants shall be maintained on site and made available to the District upon request. The fuel flowmeters shall meet the applicable quality assurance requirements of 40 CFR Part 75, Appendix D, and Section 2.1.6.
- 43. The unit shall be equipped with continuous monitors to measure, calculate and record the following operational characteristics:
 - A. Ammonia injection rate in lb/hr of solution.
 - B. Outlet temperature of SCR in degrees Fahrenheit.
 - C. Combustion turbine power output (MW).
 - D. Steam turbine reheat bowl temperature in degrees Fahrenheit.

The monitors shall be installed, calibrated, and maintained in accordance with a protocol approved by the District, which shall include any relevant calculation methodologies. The monitors shall be in full operation at all times when the combustion turbine is in operation. Calibration records for the continuous monitors shall be maintained on site and made available to the District upon request.

- 44. Operating logs or Data Acquisition System (DAS) records shall be maintained to record the beginning and end times and durations of all startups, shutdowns, low load operations, and tuning periods to the nearest minute; quantity of fuel used (in each clock hour, calendar month, and 12 calendar month period) in standard cubic feet; hours of daily operation; and total cumulative hours of operation during each calendar year.
- 45. All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request. (Title V)
- 46. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.

B. DISTRICT-ONLY ENFORCEABLE CONDITIONS

- 47. The District may require one or more of the following compounds, or additional compounds to be quantified through source testing periodically to ensure compliance with rule 1200:
 - A) Acetaldehyde
 - B) Acrolein
 - C) Benzene
 - D) Formaldehyde
 - E) Toluene
 - F) Xylenes

If the District requires the permittee to perform this source testing, the District shall request the testing in writing a reasonable period of time prior to the testing date, and the permittee shall submit a source test protocol to the District for written approval at least 30 days prior to the testing date.

- 48. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
- 49. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

C. FEDERALLY-ENFORCEABLE AND DISTRICT-ENFORCEABLE (A/C ONLY) CONDITIONS

- 50. The conditions stated in this authorization shall take effect upon completion of construction of the modified equipment as described in applications APCD2015-APP-003970 and APCD2015-APP-003971. Any conditions referring to hour, day, month, year, clock hour, calendar day, calendar month or calendar year shall apply to the entire duration of that period if the equipment is operated for any portion of the corresponding period under this authorization. This condition does not relieve the owner or operator from complying with any other applicable conditions of other permits or authorizations.
- 51. Prior to operating the modified emission unit, the permittee shall submit an initial certification of compliance, To the District and EPA, for the modified emission unit, in accordance with Rule 1414(f)(3) (ix), and 40 CFR 70.5(c)(9), that includes the identification of each applicable term or condition of the final permit for which the compliance status is being certified, the current compliance status and whether the modified equipment was in continuous or intermittent compliance during the certification period, identification of the applicable permitted method used to determine compliance during the certification period, and any other information required by the District to determine the compliance status. This requirement may be fulfilled by submitting District form 1401-I along with the construction completion

notice. The modified equipment shall not be operated until written authorization is received from the District in accordance with Rule 1410(b)(2) or the permittee has submitted an application for an administrative amendment in accordance with Rule 1410(q)(6).

- 52. Not later than 60 calendar days after completion of construction for each combustion turbine, an Initial Emissions Source Test shall be conducted on that turbine to demonstrate compliance with the NOx, CO, VOC, PM10, and ammonia emission standards of this permit. The source test shall be conducted according to an approved protocol if testing is not performed by the District and the protocol shall comply with all applicable requirements dictated in this permit for routine source tests and/or RATAs. The protocol shall be submitted to the District for approval at least 60 days prior to the proposed test date.
- 53. After completion of construction, the NOx and O2 CEMs described in this permit shall be recertified according to the timelines and applicable requirements of Sections 75.10 and 75.12 of Title 40, Code of Federal Regulations Part 75 (40 CFR75), the performance specifications of Appendix A of 40 CFR 75, the quality assurance procedures of Appendix B of 40 CFR 75 and the CEMs protocol approved by the District. The Carbon Monoxide (CO) CEMs shall be recertified in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit.
- 54. After completion of construction, a Relative Accuracy Test Audit (RATA) and all other required certification tests shall be performed and completed on the CEMS in accordance with applicable provisions of 40 CFR part 75 Appendix A and B performance specifications. At least 30 days prior to the test date, the permittee shall submit a test protocol to the District for approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present.
- 55. At least 30 days prior to completion of construction of this equipment, the owner or operator shall submit a protocol to the District for approval to be used in calculating emissions to show compliance with all annual (ton/yr) emission limits of this permit. The protocol must contain the following information/meet the following requirements:

a. The protocol must provide procedures for calculating annual emissions of NOx, CO, VOC and PM10. b. NOx and CO emissions from the combustion turbine shall be calculated using CEMS data during all periods CEMS data is valid. For all other times the protocol must specify data substitution procedures or other calculation methodology.

c. During all times except periods of startup, shutdown, low load operation and tuning, VOC and PM10 emissions from the combustion turbine shall be calculated using measured fuel flow and/or operating time and the results of the most recent District witnessed source tests. The protocol shall specify procedures for calculating emissions during all other times for these pollutants.

d. Total emissions from the combustion turbines shall include the sum of all emissions during all periods of operation.

e. The protocol shall also specify procedures for calculating annual emissions from emission units located at this source, other than the combustion turbines, if they are subject to the annual emission limit included in this permit. These emissions shall be added to the totals for the combustion turbines to determine emissions from the stationary source.

f. For any parameter used in calculating emissions that is measured in more than one location (e.g. fuel flow) or using more than one monitoring protocol or procedure, an indication of which monitoring location, protocol or procedure will be used for this calculation.

g. Averaging times or other aggregation procedures for CEMS data if different than those specified in the applicable CEMS protocol.

h. For any instance where the CEMS protocol provides for correcting raw CEMS data prior to reporting, an indication of whether corrected or uncorrected data will be used for the calculation. [Rules 20.3(d)(1)-20.3(d)(5), 20.3(d)(8), and 21]

This Authority to Construct does not authorize operation of the above-specified equipment until written notification has been provided to the District indicating that construction (or modification) has been completed in accordance with this Authority to Construct. Upon submission of this notification, temporary Permit to Operate shall take effect and will remain in effect, unless withdrawn or modified by the District, until the equipment is inspected by the District and a revised temporary permit (Startup Authorization) is issued or a Permit to Operate is granted or denied.

This Authority to Construct shall be posted on or within 25 feet of the above described equipment or maintained readily available at all times on the operating premises.

Upon completion of construction (or modification) in accordance with this Authority to Construct, and <u>prior to</u> <u>commencing operation</u>, the applicant must complete and mail, deliver or email to <u>APCDPermits@sdcounty.ca.gov</u> the enclosed Construction Completion Notice to the District. After mailing, delivering or emailing the notice, the applicant may commence operation of the equipment. Operation must be in compliance with all the conditions of this Authority to Construct and applicable District Rules.

This Authority to Construct does not relieve the holder from obtaining permits or authorizations, which may be required by other governmental agencies. This Authority to Construct is not authority to exceed any applicable emission standard established by this District or any other governmental agency. This authorization is subject to cancellation if any emission standard or condition is violated.

Within 30 days after receipt of this Authority to Construct, the applicant may petition the Hearing Board for a hearing on any conditions imposed herein in accordance with Rule 25.

This Authority to Construct will expire on 06/20/2017 unless an extension is granted in writing.

<u>This is not a Permit to Operate</u>. Please be advised that installation or operation of this process or equipment without written authorization may be a misdemeanor subject to fines and penalties.

If you have any questions regarding this action, please contact me at (858) 586 2728 or via email at Nicholas.Horres@sdcounty.ca.gov.

Nicholas Horres Associate Engineer