



September 19, 2023

Ms. Jennifer Loving-Biggert Fresno/Clovis Regional WWTP 5607 W Jensen Ave Fresno, CA 93706

Final - Authorities to Construct / Certificates of Conformity (Significant Re:

Mod)

Facility Number: C-535 **Project Number: C-1193676**

Dear Ms. Loving-Biggert:

The Air Pollution Control Officer has issued Authorities to Construct (ATCs) C-535-9-19, -24-6, -44-2, -50-0, and -51-0 with Certificates of Conformity to Fresno/Clovis Regional WWTP at 5607 W Jensen Ave, Fresno. Fresno/Clovis Regional Wastewater Reclamation Facility requested to install two 75.1 MMBtu/hr ultra-low emission flares that will become the primary means to dispose of the digester gas, to designate an existing 36.3 MMBtu/hr flare as an emergency flare, and to remove the conditions limiting total NOx emissions from the existing 36.3 MMBtu/hr flare and two transportable diesel-fueled IC engines. Enclosed are the ATCs and a copy of the notice of final action that has been posted on the District's website (www.valleyair.org).

Notice of the District's preliminary decision to issue the ATCs was posted on July 21, 2023. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on July 24, 2023. No comments were received following the District's preliminary decision on this project.

Also enclosed is an invoice for the engineering evaluation fees pursuant to District Rule 3010. Please remit the amount owed, along with a copy of the attached invoice, within 60 days.

Prior to operating with the modifications authorized by the ATCs, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5. Application forms are found on the District's website at www.valleyair.org/permits/TVforms.

> Samir Sheikh Executive Director/Air Pollution Control Officer

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 Ms. Jennifer Loving-Biggert Page 2

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Sincerely,

Brian Clements

Director of Permit Services

Enclosures

Courtney Graham, CARB (w/enclosure) via email Gerardo Rios, EPA (w/enclosure) via EPS CC:

CC:





Facility # C-535 FRESNO/CLOVIS REGIONAL WWTP 5607 W JENSEN AVE FRESNO, CA 93706-9458

AUTHORITY TO CONSTRUCT (ATC)

QUICK START GUIDE

- 1. Pay Invoice: Please pay enclosed invoice before due date.
- 2. Modify Your Title V Permit. Prior to operating the equipment authorized under this ATC, submit an application to modify your Title V permit. See application forms at http://www.valleyair.org/permits/TVforms.
- 3. Fully Understand ATC: Make sure you understand ALL conditions in the ATC prior to construction, modification and/or operation.
- 4. **Follow ATC**: You must construct, modify and/or operate your equipment as specified on the ATC. Any unspecified changes may require a new ATC.
- 5. **Notify District**: You must notify the District's Compliance Department, at the telephone numbers below, upon start-up and/or operation under the ATC. Please record the date construction or modification commenced and the date the equipment began operation under the ATC. You may NOT operate your equipment until you have notified the District's Compliance Department. A startup inspection may be required prior to receiving your Permit to Operate.
- 6. Source Test: Schedule and perform any required source testing. See http://www.valleyair.org/busind/comply/source testing.htm for source testing resources.
- 7. **Maintain Records**: Maintain all records required by ATC. Records are reviewed during every inspection (or upon request) and must be retained for at least 5 years. Sample record keeping forms can be found at http://www.valleyair.org/busind/comply/compliance_forms.htm.

By operating in compliance, you are doing your part to improve air quality for all Valley residents.

For assistance, please contact District Compliance staff at any of the telephone numbers listed below.

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

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





PERMIT NO: C-535-9-19 **ISSUANCE DATE:** 09/19/2023

LEGAL OWNER OR OPERATOR: FRESNO/CLOVIS REGIONAL WWTP

MAILING ADDRESS: 5607 W JENSEN AVE

FRESNO, CA 93706-9458

LOCATION: 5607 W JENSEN AVE

FRESNO, CA 93706

EQUIPMENT DESCRIPTION:

MODIFICATION OF WASTEWATER TREATMENT DIGESTER TANKS SERVED BY A 36.3 MMBTU/HR JOHN ZINK COMPANY ENCLOSED DIGESTER GAS FLARE: DESIGNATE AS EMERGENCY FLARE AND LIMIT NON-EMERGENCY USAGE TO 1,815 MMBTU/YEAR AND REMOVE TOTAL COMBINED NOX EMISSION LIMIT FOR UNITS C-535-9, -24, AND -44

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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 4. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. The flare shall be designed with a minimum residence time of 0.6 seconds and shall operate with a minimum chamber temperature of at least 1,400 degrees F. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCO

- 7. The flare system shall have continuous readout and recording of flare gas flow rate and flare combustion chamber temperature [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Emissions from the flare shall not exceed any of the following limits: NOx (as NO2) 0.06 lb/MMBtu; SOx (as SO2) 0.0614 lb/MMBtu, PM10 0.015 lb/MMBtu, CO 0.29 lb/MMBtu; or VOC (as methane) 0.0027 lb/MMBtu. [District Rules 2201, 4311, and 4801] Federally Enforceable Through Title V Permit
- 9. The maximum sulfur content of the gas combusted in the flare shall not exceed 200 ppmv as H2S on any day. Multiple sulfur content measurements in a day may be averaged to demonstrate compliance with this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 10. The total heat input of the gas combusted in the flare shall not exceed 871.2 MMBtu/day based on the higher heating value (HHV) of the gas flared. [District Rule 2201] Federally Enforceable Through Title V Permit
- 11. This flare shall be operated only for testing and maintenance of the flare, required regulatory purposes, and during emergency situations. Operation of the flare for maintenance, testing, and required regulatory purposes shall not exceed either of the following limits: 200 hours per calendar year and 1,815 MMBtu per calendar year based on the HHV of the gas flared. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
- 12. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
- 13. The flare outlet shall be equipped with an automatic ignition system, or shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
- 14. Unless the flare is equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. All pilot monitor downtime shall be reported annually pursuant to Rule 4311, Section 6.2.3.6. [District Rule 4311] Federally Enforceable Through Title V Permit
- 15. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
- 16. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to District Rule 4311, Section 6.5, and all commitments listed in that plan have been met. This standard does not apply if the APCO determines that the flaring is caused by an emergency as defined by District Rule 4311, Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311] Federally Enforceable Through Title V Permit
- 17. The operator shall monitor and record the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. [District Rule 4311] Federally Enforceable Through Title V Permit
- 18. Source testing to measure NOx and VOC emissions shall be conducted within 60 days of operation of the flare unless a source test has been conducted within the last 12 months of the date of the operation of the flare. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
- 19. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test and a source test plan must be submitted for approval at least 30 days prior to testing. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
- 20. The results of each source test shall be submitted to the District within 60 days after completion of the source test. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
- 21. NOx emissions for source test purposes shall be determined using EPA Method 19 on a heat input basis, or EPA Method 3A, EPA Method 7E, or ARB 100 on a ppmv basis. [District Rule 4311] Federally Enforceable Through Title V Permit

- 22. VOC emissions for source test purposes shall be determined using EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used in conjunction with EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources" for the measurement and subtraction of exempt compounds (e.g. methane, ethane, and exempt halogenated compounds). [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
- 23. Oxygen (O2) concentration of flared gas shall be determined using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311] Federally Enforceable Through Title V Permit
- 24. Hydrogen sulfide (H2S) content of vent gas shall be determined using ASTM Method D1945-96, ASTM Method UOP 539-97, ASTM Method D4084-94, ASTM Method D4468, ASTM Method D4810-88, or ASTM-D5504-20, or other methods approved by the District, ARB, and EPA. [District Rule 4311] Federally Enforceable Through Title V Permit
- 25. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. [District Rule 4311] Federally Enforceable Through Title V Permit
- 26. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311] Federally Enforceable Through Title V Permit
- 27. For purposes of the flow verification report required by Rule 4311, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311] Federally Enforceable Through Title V Permit
- 28. The higher heating value (HHV) of the gas flared shall be determined using ASTM D1826-88, ASTM 1945-81 in conjunction with ASTM D3588-89, or an alternative method approved by the EPA and the District Rule 4311] Federally Enforceable Through Title V Permit
- 29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit
- 30. The sulfur content (as H2S) of the digester gas flared shall be monitored at least once every day the flare operates using methods included in this permit, a colorimetric tube system, or other methods approved by the District and EPA. If the average sulfur content of the digester gas is found to exceed the digester gas sulfur content limit of this permit, corrective actions shall be taken to reduce the sulfur content of the digester gas and the sulfur content of the digester gas shall be monitored again within three hours of completion of the corrective action. Records of the dates and results of monitoring of the sulfur content of the digester gas flared and any corrective action required to reduce the sulfur content of the digester gas shall be maintained. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit
- 31. The operator of a flare subject to flare minimization plans (FMPs) pursuant to District Rule 4311, Section 5.11 shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit
- 32. The operator of a flare subject to flare minimization plans pursuant to District Rule 4311, Section 5.11 shall submit an annual report to the APCO that summarizes all Reportable Flaring Events as defined in Section 3.0 that occurred during the previous 12 month period. The report shall be submitted within 30 days following the end of the previous calendar year. The report shall include, but is not limited to all of the following: 1) The results of an investigation to determine the primary cause and contributing factors of the flaring event; 2) Any prevention measures considered or implemented to prevent recurrence together with a justification for rejecting any measures that were considered but not implemented; 3) If appropriate, an explanation of why the flaring was an emergency and necessary to prevent accident, hazard or release of vent gas to the atmosphere, or where, due to a regulatory mandate to vent a flare, it cannot be recovered, treated and used as a fuel gas at the facility; and 4) The date, time, and duration of the flaring event. [District Rule 4311] Federally Enforceable Through Title V Permit

- 33. The operator shall submit an annual report, in an electronic report approved by the District, to the APCO within 30 days following the end of each 12-month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet (scf) for each day for the previous calendar year; 2) If the flow monitor used pursuant to Rule 4311, Section 5.13 measures molecular weight, the average molecular weight for each hour of each month; 3) For each day and for each month provide calculated SOx emissions (as SO2); and 4) A flow verification report for each flare subject to Rule 4311. The flow verification report shall include flow verification testing pursuant to Rule 4311, Section 6.3.5. [District Rule 4311] Federally Enforceable Through Title V Permit
- 34. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by Rule 4311 the existing FMP shall no longer be considered an approved plan. [District Rule 4311] Federally Enforceable Through Title V Permit
- 35. An updated FMP shall be submitted by the operator pursuant to Rule 4311, Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if: 1) The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and 2) The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions. [District Rule 4311] Federally Enforceable Through Title V Permit
- 36. For purposes of the flow verification report required by Rule 4311, Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: EPA Methods 1 and 2; a verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10; tracer gas dilution or velocity; other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311] Federally Enforceable Through Title V Permit
- 37. The permittee shall maintain the following records: a copy of the results of source testing conducted pursuant to Rule 4311, Section 6.4.2; a copy of the approved flare minimization plan pursuant to Section 6.5; and copies of annual reports submitted to the APCO pursuant to Section 6.2. [District Rule 4311] Federally Enforceable Through Title V Permit
- 38. Operational, non-resettable, totalizing mass or volumetric fuel flow meter(s) or other District-approved alternative method(s) shall be used to measure the amount of gas flared. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit
- 39. The permittee shall maintain records of the higher heating value (HHV), in Btu per standard cubic foot (scf), of the gas flared each calendar quarter in which the unit operates. The records shall include the method(s) used to determine the HHV of the fuel and the dates the HHV was determined. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 40. The SOx emission factor in lb-SOx/MMBtu shall be calculated at least once every quarter the flare operates based on the average sulfur content of the gas flared in ppmv as H2S and the HHV value of the gas flared using the following equation: SOx Emission Factor (lb-SOx/MMBtu) = [average sulfur content of gas flared (ppmv as H2S)] x [0.1688 lb-SOx/MMscf]/[HHV of Gas Flared (Btu/scf)]. [District Rule 2201] Federally Enforceable Through Title V Permit
- 41. Records shall be maintained and made available for District inspection of the amount of gas flared, in standard cubic feet (scf) and MMBtu, each day the flare operates; the average sulfur content of the gas flared each day in ppmv as H2S; and the calculated SOx emission factor of the gas flared in lb-SOx/MMBtu. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 42. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the amount of gas flared during each emergency, the nature of each emergency situation that required flaring, the date and number of hours of all testing and maintenance operations, and the purpose of the operation. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit
- 43. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit





PERMIT NO: C-535-24-6 **ISSUANCE DATE:** 09/19/2023

LEGAL OWNER OR OPERATOR: FRESNO/CLOVIS REGIONAL WWTP

MAILING ADDRESS: 5607 W JENSEN AVE

FRESNO, CA 93706-9458

LOCATION: 5607 W JENSEN AVE

FRESNO, CA 93706

EQUIPMENT DESCRIPTION:

MODIFICATION OF TRANSPORTABLE 125 BHP JOHN DEERE MODEL 4045HF275 TIER 3 CERTIFIED DIESEL-FIRED IC ENGINE POWERING AN AIR COMPRESSOR: REMOVE TOTAL COMBINED NOX EMISSION LIMIT FOR UNITS C-535-9. -24. AND -44

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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 7. This engine shall be equipped with an operational non-resettable hour meter. [District Rule 4702 and 17 CCR 93116] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCO

- 8. The only approved location for operation of this engine shall be District Facility C-535 at 5607 W Jensen Avenue, Fresno, CA. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. This transportable IC engine shall not be attached to a foundation or operated at any location at this facility for more than 12 consecutive months. The period during which the engine is maintained at a storage location shall be excluded from the residency time determination. [District Rules 2201 and 4701 and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 10. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight shall be used. [District Rules 2201, 4702, and 4801, Fresno County Rule 406, and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 11. Emissions from this IC engine shall not exceed any of the following limits: 4.10 g-NOx/bhp-hr, 0.75 g-CO/bhp-hr, or 0.30 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 12. Emissions from this IC engine shall not exceed 0.19 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 13. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
- 14. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
- 15. The permittee shall maintain an engine operating log that shall include the following: daily records of the date, location at the facility, operational time; a record of the total annual hours of operation of the engine; and records of operational characteristics monitoring. [District Rules 1070, 2201, and 4702, and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 16. The permittee shall maintain monthly records of the type of fuel purchased and shall retain fuel purchase records that demonstrate that the only CARB certified diesel fuel was purchased to supply this engine. [District Rules 1070 and 4702] Federally Enforceable Through Title V Permit
- 17. 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 4702, and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 18. This transportable IC engine shall not be operated on or after January 1, 2027, unless it is designated a low-use engine permitted to operate no more than 200 hours in any calendar year, designated an emergency-use engine prior to this date, or otherwise demonstrates compliance with the applicable requirements of the California Airborne Toxic Control Measure (ATCM) for Diesel particulate Matter from Portable Engines Rated at 50 hp and Greater (California Code of Regulations (CCR) Title 17, Section 93116). [17 CCR 93116]





PERMIT NO: C-535-44-2 **ISSUANCE DATE:** 09/19/2023

LEGAL OWNER OR OPERATOR: FRESNO/CLOVIS REGIONAL WWTP

MAILING ADDRESS: 5607 W JENSEN AVE

FRESNO, CA 93706-9458

LOCATION: 5607 W JENSEN AVE

FRESNO, CA 93706

EQUIPMENT DESCRIPTION:

MODIFICATION OF TRANSPORTABLE 74 BHP JOHN DEERE MODEL 4045TFC03 TIER 4F CERTIFIED DIESEL-FIRED IC ENGINE POWERING A PUMP: REMOVE TOTAL COMBINED NOX EMISSION LIMIT FOR UNITS C-535-9, -24, AND - 44

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. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
- 6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 7. This engine shall be equipped with an operational non-resettable hour meter. [District Rule 4702 and 17 CCR 93116] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCO

- 8. This only approved location for operation of this engine shall be District Facility C-535 at 5607 W Jensen Avenue, Fresno, CA. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. This transportable IC engine shall not be attached to a foundation or operated at any location at this facility for more than 12 consecutive months. The period during which the engine is maintained at a storage location shall be excluded from the residency time determination. [District Rules 2201 and 4701 and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 10. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight shall be used. [District Rules 2201, 4702, and 4801, Fresno County Rule 406, and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 11. Emissions from this IC engine shall not exceed any of the following limits: 3.12 g-NOx/bhp-hr, 0.0746 g-CO/bhp-hr, or 0.16 g-VOC/bhp-hr. [District Rule 2201 and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 12. Emissions from this IC engine shall not exceed 0.0007 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 13. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702] Federally Enforceable Through Title V Permit
- 14. Operation of this engine shall not exceed 2,160 hours per year. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. During periods of operation, the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emission control system supplier (for example: check engine fluid levels, battery, cables and connections; change engine oil and filters; replace engine coolant; and/or other operational characteristics as recommended by the manufacturer or supplier). [District Rule 4702] Federally Enforceable Through Title V Permit
- 16. The permittee shall maintain an engine operating log that shall include the following: daily records of the date, location at the facility, operational time; a record of the total annual hours of operation of the engine; and records of operational characteristics monitoring. [District Rules 1070, 2201, and 4702, and 17 CCR 93116] Federally Enforceable Through Title V Permit
- 17. The permittee shall maintain monthly records of the type of fuel purchased and shall retain fuel purchase records that demonstrate that the only CARB certified diesel fuel was purchased to supply this engine. [District Rules 1070 and 4702] Federally Enforceable Through Title V Permit
- 18. 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 4702, and 17 CCR 93116] Federally Enforceable Through Title V Permit





PERMIT NO: C-535-50-0 **ISSUANCE DATE:** 09/19/2023

LEGAL OWNER OR OPERATOR: FRESNO/CLOVIS REGIONAL WWTP

MAILING ADDRESS: 5607 W JENSEN AVE

FRESNO, CA 93706-9458

LOCATION: 5607 W JENSEN AVE

FRESNO, CA 93706

EQUIPMENT DESCRIPTION:

WASTEWATER TREATMENT DIGESTER TANKS SERVED BY A 75.1 MMBTU/HR JOHN ZINK ZULE ULTRA-LOW EMISSION ENCLOSED DIGESTER GAS FLARE

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. Prior to operating equipment under this Authority to Construct (ATC), permittee shall surrender NOx emission reduction credits (ERCs) for the following quantity of emissions: 1st quarter 2,000 lb, 2nd quarter 2,000 lb, 3rd quarter 2,000 lb, and 4th quarter 2,000 lb. These amounts include the applicable offset ratio specified in Rule 2201, Section 4.8 (as amended 8/15/19). NOx ERCs used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of issuance of this ATC and the total quantity of ERCs surrendered shall be calculated based on the ERC surplus value percent discount of each ERC certificate used. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. ERC Certificate Numbers N-1595-2, N-1598-2, S-5313-2, and/or S-5317-2 (or certificates split from these certificates) shall be used to supply the required NOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this ATC shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (559) 230-5950 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.

Samir Sheikh, Executive Director / APCO

- 5. Prior to operating equipment under this Authority to Construct (ATC), permittee shall surrender SOx emission reduction credits (ERCs) for the following quantity of emissions: 1st quarter 5,881 lb, 2nd quarter 5,881 lb, 3rd quarter 5,881 lb, and 4th quarter 5,881 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19). [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. ERC Certificate Numbers N-1489-5, N-1491-5, and/or N-1573-5 (or certificates split from these certificates) shall be used to supply the required SOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this ATC shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Within 90 days of startup of the equipment authorized by this Authority to Construct (ATC), Permits to Operate (PTOs) C-535-6-18 and -45-0 shall each be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Authority to Construct (ATC) C-535-9-19 shall be implemented concurrently or prior to implementation of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 10. The exhaust from the flare shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 11. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 12. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Emissions from the flare shall not exceed any of the following limits: NOx (as NO2) 0.025 lb/MMBtu; SOx (as SO2) 0.0614 lb/MMBtu, PM10 0.015 lb/MMBtu, CO 0.06 lb/MMBtu; or VOC (as methane) 0.0027 lb/MMBtu. [District Rules 2201, 4311, and 4801] Federally Enforceable Through Title V Permit
- 14. The maximum sulfur content of the gas combusted in the flare shall not exceed 200 ppmv as H2S on any day. Multiple sulfur content measurements in a day may be averaged to demonstrate compliance with this limit. [District Rule 2201] Federally Enforceable Through Title V Permit
- 15. The total heat input of the gas combusted in the flare shall not exceed 1,802.4 MMBtu/day based on the higher heating value (HHV) of the gas flared. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
- 17. The flare outlet shall be equipped with an automatic ignition system, or shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
- 18. Unless the flare is equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. All pilot monitor downtime shall be reported annually pursuant to Rule 4311, Section 6.2.3.6. [District Rule 4311] Federally Enforceable Through Title V Permit
- 19. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311] Federally Enforceable Through Title V Permit
- 20. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), pursuant to District Rule 4311, Section 6.5, and all commitments listed in that plan have been met. This standard does not apply if the APCO determines that the flaring is caused by an emergency as defined by District Rule 4311, Section 3.7 and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311] Federally Enforceable Through Title V Permit

- 21. The operator shall monitor and record the vent gas flow to the flare with a flow measuring device or other parameters as specified in the Permit to Operate. [District Rule 4311] Federally Enforceable Through Title V Permit
- 22. Source testing to measure NOx and VOC emissions from the flare shall be conducted within 60 days of initial startup. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
- 23. Source testing to measure NOx and VOC emissions from the flare shall be conducted at least once every twelve (12) months, unless the flare has not operated within the last 12-month period in which case source testing will be required within 60 days of recommencing operation of the flare. [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
- 24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test and a source test plan must be submitted for approval at least 30 days prior to testing. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
- 25. The results of each source test shall be submitted to the District within 60 days after completion of the source test. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
- 26. NOx emissions for source test purposes shall be determined using EPA Method 19 on a heat input basis, or EPA Method 3A, EPA Method 7E, or ARB 100 on a ppmv basis. [District Rule 4311] Federally Enforceable Through Title V Permit
- 27. VOC emissions for source test purposes shall be determined using EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used in conjunction with EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources" for the measurement and subtraction of exempt compounds (e.g. methane, ethane, and exempt halogenated compounds). [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
- 28. Oxygen (O2) concentration of flared gas shall be determined using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311] Federally Enforceable Through Title V Permit
- 29. Total hydrocarbon content and methane (CH4) content of vent gas shall be determined using ASTM Method D1945, ASTM Method UOP 539, EPA Method 18, or EPA Method 25A or 25B. [District Rule 4311] Federally Enforceable Through Title V Permit
- 30. Hydrogen sulfide (H2S) content of vent gas shall be determined using ASTM Method D1945-96, ASTM Method UOP 539-97, ASTM Method D4084-94, ASTM Method D4468, ASTM Method D4810-88, or ASTM-D5504-20, or other methods approved by the District, ARB, and EPA. [District Rule 4311] Federally Enforceable Through Title V Permit
- 31. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. [District Rule 4311] Federally Enforceable Through Title V Permit
- 32. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311] Federally Enforceable Through Title V Permit
- 33. For purposes of the flow verification report required by Rule 4311, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311] Federally Enforceable Through Title V Permit
- 34. The higher heating value (HHV) of the gas flared shall be determined using ASTM D1826-88, ASTM 1945-81 in conjunction with ASTM D3588-89, or an alternative method approved by the EPA and the District Rule 4311] Federally Enforceable Through Title V Permit
- 35. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

- 36. The sulfur content (as H2S) of the digester gas flared shall be monitored at least once every day the flare operates using methods included in this permit, a colorimetric tube system, or other methods approved by the District and EPA. If the average sulfur content of the digester gas is found to exceed the digester gas sulfur content limit of this permit, corrective actions shall be taken to reduce the sulfur content of the digester gas and the sulfur content of the digester gas shall be monitored again within three hours of completion of the corrective action. Records of the dates and results of monitoring of the sulfur content of the digester gas flared and any corrective action required to reduce the sulfur content of the digester gas shall be maintained. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit
- 37. The operator shall monitor vent gas composition using one of the five methods included in Rule 4311, Section 6.6.1 through Section 6.6.5, as appropriate. [District Rule 4311] Federally Enforceable Through Title V Permit
- 38. The operator shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311] Federally Enforceable Through Title V Permit
- 39. The operator shall comply with the following requirements as applicable: 1) Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating 2: During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Rule 4311, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Rule 4311. During periods of inoperation of required flow monitors, flow shall be calculated using good engineering practices; 3) Maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure; and 4) All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311] Federally Enforceable Through Title V Permit
- 40. The total combined NOx emissions from the flares permitted as Units C-535-50 and -51 shall not exceed 26,056 lb-NOx in any 12 consecutive calendar month period. [District Rule 2201] Federally Enforceable Through Title V Permit
- 41. On a monthly basis, the permittee shall calculate and record the NOx emissions in pounds from this unit for the prior calendar month. The NOx emissions from this unit in each month shall be calculated as follows: lb-NOx emitted = [total volume of gas flared, in scf] x 10E-06 x [average HHV of gas flared (Btu/scf)] x [NOx emission factor measured in most recent source test (lb-NOx/MMBtu)]. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 42. On a monthly basis, the permittee shall calculate and record the total combined NOx emissions, in pounds, from the flares permitted as Units C-535-50 and -51 for the previous 12 consecutive calendar month period. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 43. The operator of a flare subject to flare minimization plans (FMPs) pursuant to District Rule 4311, Section 5.11 shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit

- 44. The operator shall submit an annual report, in an electronic report approved by the District, to the APCO within 30 days following the end of each 12-month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet (scf) for each day for the previous calendar year; 2) Hydrogen sulfide (H2S) content, methane (CH4) content, and hydrocarbon content of vent gas composition, where applicable; 3) The total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used pursuant to Rule 4311, Section 5.13 measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow, as applicable; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated SOx emissions (as SO2); and 8) A flow verification report for each flare subject to Rule 4311. The flow verification report shall include flow verification testing pursuant to Rule 4311, Section 6.3.5. [District Rule 4311] Federally Enforceable Through Title V Permit
- 45. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by Rule 4311, the existing FMP shall no longer be considered an approved plan. [District Rule 4311] Federally Enforceable Through Title V Permit
- 46. An updated FMP shall be submitted by the operator pursuant to Rule 4311, Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if: 1) The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and 2) The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions. [District Rule 4311] Federally Enforceable Through Title V Permit
- 47. For purposes of the flow verification report required by Rule 4311, Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: EPA Methods 1 and 2; a verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10; tracer gas dilution or velocity; other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311] Federally Enforceable Through Title V Permit
- 48. The permittee shall maintain the following records: a copy of the results of source testing conducted pursuant to Rule 4311, Section 6.4.2; a copy of the approved flare minimization plan pursuant to Section 6.5; and copies of annual reports submitted to the APCO pursuant to Section 6.2. [District Rule 4311] Federally Enforceable Through Title V Permit
- 49. Operational, non-resettable, totalizing mass or volumetric fuel flow meter(s) or other District-approved alternative method(s) shall be used to measure the amount of gas flared. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit
- 50. The permittee shall maintain records of the higher heating value (HHV), in Btu per standard cubic foot (scf), of the gas flared each calendar quarter in which the unit operates. The records shall include the method(s) used to determine the HHV of the fuel and the dates the HHV was determined. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 51. The SOx emission factor in lb-SOx/MMBtu shall be calculated at least once every quarter the flare operates based on the average sulfur content of the gas flared in ppmv as H2S and the HHV value of the gas flared using the following equation: SOx Emission Factor (lb-SOx/MMBtu) = [average sulfur content of gas flared (ppmv as H2S)] x [0.1688 lb-SOx/MMscf]/[HHV of Gas Flared (Btu/scf)]. [District Rule 2201] Federally Enforceable Through Title V Permit
- 52. Records shall be maintained and made available for District inspection of the amount of gas flared, in standard cubic feet (scf) and MMBtu, each day the flare operates; the average sulfur content of the gas flared each day in ppmv as H2S; the calculated SOx emission factor of the gas flared in lb-SOx/MMBtu; and calculations to verify compliance with the total combined NOx emission limit for the flares permitted as Units C-535-50 and -51. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 53. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit





PERMIT NO: C-535-51-0 **ISSUANCE DATE:** 09/19/2023

LEGAL OWNER OR OPERATOR: FRESNO/CLOVIS REGIONAL WWTP

MAILING ADDRESS: 5607 W JENSEN AVE

FRESNO, CA 93706-9458

LOCATION: 5607 W JENSEN AVE

FRESNO, CA 93706

EQUIPMENT DESCRIPTION:

WASTEWATER TREATMENT DIGESTER TANKS SERVED BY A 75.1 MMBTU/HR JOHN ZINK ZULE ULTRA-LOW EMISSION ENCLOSED DIGESTER GAS FLARE

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. Prior to operating equipment under this Authority to Construct (ATC), permittee shall surrender NOx emission reduction credits (ERCs) for the following quantity of emissions: 1st quarter 1,999 lb, 2nd quarter 2,000 lb, 3rd quarter 2,000 lb, and 4th quarter 2,000 lb. These amounts include the applicable offset ratio specified in Rule 2201, Section 4.8 (as amended 8/15/19). NOx ERCs used to satisfy the offset quantity required under District Rule 2201 must be surplus at the time of issuance of this ATC and the total quantity of ERCs surrendered shall be calculated based on the ERC surplus value percent discount of each ERC certificate used. [District Rule 2201] Federally Enforceable Through Title V Permit
- 4. ERC Certificate Numbers N-1595-2, N-1598-2, S-5313-2, and/or S-5317-2 (or certificates split from these certificates) shall be used to supply the required NOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this ATC shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

- 5. Prior to operating equipment under this Authority to Construct (ATC), permittee shall surrender SOx emission reduction credits (ERCs) for the following quantity of emissions: 1st quarter 5,880 lb, 2nd quarter 5,880 lb, 3rd quarter 5,880 lb, and 4th quarter 5,881 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 8/15/19). [District Rule 2201] Federally Enforceable Through Title V Permit
- 6. ERC Certificate Numbers N-1489-5, N-1491-5, and/or N-1573-5 (or certificates split from these certificates) shall be used to supply the required SOx offsets, unless a revised offsetting proposal is received and approved by the District, upon which this ATC shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- 7. Within 90 days of startup of the equipment authorized by this Authority to Construct (ATC), Permits to Operate (PTOs) C-535-6-18 and -45-0 shall each be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. Authority to Construct (ATC) C-535-9-19 shall be implemented concurrently or prior to implementation of this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- 10. The exhaust from the flare shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]
- 11. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 12. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
- 13. Emissions from the flare shall not exceed any of the following limits: NOx (as NO2) 0.025 lb/MMBtu; SOx (as SO2) 0.0614 lb/MMBtu, PM10 0.015 lb/MMBtu, CO 0.06 lb/MMBtu; or VOC (as methane) 0.0027 lb/MMBtu. [District Rules 2201, 4311, and 4801] Federally Enforceable Through Title V Permit
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- 15. The total heat input of the gas combusted in the flare shall not exceed 1,802.4 MMBtu/day based on the higher heating value (HHV) of the gas flared. [District Rule 2201] Federally Enforceable Through Title V Permit
- 16. A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311] Federally Enforceable Through Title V Permit
- 17. The flare outlet shall be equipped with an automatic ignition system, or shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311] Federally Enforceable Through Title V Permit
- 18. Unless the flare is equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. The flame detection device shall be kept operational at all times except during flare maintenance when the flare is isolated from gas flow. All pilot monitor downtime shall be reported annually pursuant to Rule 4311, Section 6.2.3.6. [District Rule 4311] Federally Enforceable Through Title V Permit
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- 24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test and a source test plan must be submitted for approval at least 30 days prior to testing. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
- 25. The results of each source test shall be submitted to the District within 60 days after completion of the source test. [District Rules 1081 and 4311] Federally Enforceable Through Title V Permit
- 26. NOx emissions for source test purposes shall be determined using EPA Method 19 on a heat input basis, or EPA Method 3A, EPA Method 7E, or ARB 100 on a ppmv basis. [District Rule 4311] Federally Enforceable Through Title V Permit
- 27. VOC emissions for source test purposes shall be determined using EPA Method 25, except when the outlet concentration must be below 50 ppm in order to meet the standard, in which case Method 25a may be used in conjunction with EPA Method 18 or ARB Method 422 "Determination of Volatile Organic Compounds in Emission from Stationary Sources" for the measurement and subtraction of exempt compounds (e.g. methane, ethane, and exempt halogenated compounds). [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
- 28. Oxygen (O2) concentration of flared gas shall be determined using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311] Federally Enforceable Through Title V Permit
- 29. Total hydrocarbon content and methane (CH4) content of vent gas shall be determined using ASTM Method D1945, ASTM Method UOP 539, EPA Method 18, or EPA Method 25A or 25B. [District Rule 4311] Federally Enforceable Through Title V Permit
- 30. Hydrogen sulfide (H2S) content of vent gas shall be determined using ASTM Method D1945-96, ASTM Method UOP 539-97, ASTM Method D4084-94, ASTM Method D4468, ASTM Method D4810-88, or ASTM-D5504-20, or other methods approved by the District, ARB, and EPA. [District Rule 4311] Federally Enforceable Through Title V Permit
- 31. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. [District Rule 4311] Federally Enforceable Through Title V Permit
- 32. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule 4311] Federally Enforceable Through Title V Permit
- 33. For purposes of the flow verification report required by Rule 4311, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311] Federally Enforceable Through Title V Permit
- 34. The higher heating value (HHV) of the gas flared shall be determined using ASTM D1826-88, ASTM 1945-81 in conjunction with ASTM D3588-89, or an alternative method approved by the EPA and the District Rule 4311] Federally Enforceable Through Title V Permit
- 35. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 1081] Federally Enforceable Through Title V Permit

- 36. The sulfur content (as H2S) of the digester gas flared shall be monitored at least once every day the flare operates using methods included in this permit, a colorimetric tube system, or other methods approved by the District and EPA. If the average sulfur content of the digester gas is found to exceed the digester gas sulfur content limit of this permit, corrective actions shall be taken to reduce the sulfur content of the digester gas and the sulfur content of the digester gas shall be monitored again within three hours of completion of the corrective action. Records of the dates and results of monitoring of the sulfur content of the digester gas flared and any corrective action required to reduce the sulfur content of the digester gas shall be maintained. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit
- 37. The operator shall monitor vent gas composition using one of the five methods included in Rule 4311, Section 6.6.1 through Section 6.6.5, as appropriate. [District Rule 4311] Federally Enforceable Through Title V Permit
- 38. The operator shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311] Federally Enforceable Through Title V Permit
- 39. The operator shall comply with the following requirements as applicable: 1) Periods of flare monitoring system inoperation greater than 24 continuous hours shall be reported by the following working day, followed by notification of resumption of monitoring. Periods of inoperation of monitoring equipment shall not exceed 14 days per any 18consecutive-month period. Periods of flare monitoring system inoperation do not include the periods when the system feeding the flare is not operating 2: During periods of inoperation of continuous analyzers or auto-samplers installed pursuant to Rule 4311, operators responsible for monitoring shall take one sample within 30 minutes of the commencement of flaring, from the flare header or from an alternate location at which samples are representative of vent gas composition and have samples analyzed pursuant to Rule 4311. During periods of inoperation of required flow monitors, flow shall be calculated using good engineering practices; 3) Maintain and calibrate all required monitors and recording devices in accordance with the applicable manufacturer's specifications. In order to claim that a manufacturer's specification is not applicable, the person responsible for emissions must have, and follow, a written maintenance policy that was developed for the device in question. The written policy must explain and justify the difference between the written procedure and the manufacturer's procedure; and 4) All in-line continuous analyzer and flow monitoring data must be continuously recorded by an electronic data acquisition system capable of one-minute averages. Flow monitoring data shall be recorded as one-minute averages. [District Rule 4311] Federally Enforceable Through Title V Permit
- 40. The total combined NOx emissions from the flares permitted as Units C-535-50 and -51 shall not exceed 26,056 lb-NOx in any 12 consecutive calendar month period. [District Rule 2201] Federally Enforceable Through Title V Permit
- 41. On a monthly basis, the permittee shall calculate and record the NOx emissions in pounds from this unit for the prior calendar month. The NOx emissions from this unit in each month shall be calculated as follows: lb-NOx emitted = [total volume of gas flared, in scf] x 10E-06 x [average HHV of gas flared (Btu/scf)] x [NOx emission factor measured in most recent source test (lb-NOx/MMBtu)]. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 42. On a monthly basis, the permittee shall calculate and record the total combined NOx emissions, in pounds, from the flares permitted as Units C-535-50 and -51 for the previous 12 consecutive calendar month period. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 43. The operator of a flare subject to flare minimization plans (FMPs) pursuant to District Rule 4311, Section 5.11 shall notify the APCO of an unplanned flaring event within 24 hours after the start of the next business day or within 24 hours of their discovery, whichever occurs first. The notification shall include the flare source identification, the start date and time, and the end date and time. [District Rule 4311] Federally Enforceable Through Title V Permit

- 44. The operator shall submit an annual report, in an electronic report approved by the District, to the APCO within 30 days following the end of each 12-month period. The report shall include the following: 1) The total volumetric flow of vent gas in standard cubic feet (scf) for each day for the previous calendar year; 2) Hydrogen sulfide (H2S) content, methane (CH4) content, and hydrocarbon content of vent gas composition, where applicable; 3) The total reduced sulfur content by volume or hydrogen sulfide content by volume of vent gas flared for each hour of the month; 4) If the flow monitor used pursuant to Rule 4311, Section 5.13 measures molecular weight, the average molecular weight for each hour of each month; 5) For any pilot and purge gas used, the type of gas used, the volumetric flow for each day and for each month, and the means used to determine flow, as applicable; 6) Flare monitoring system downtime periods, including dates and times; 7) For each day and for each month provide calculated SOx emissions (as SO2); and 8) A flow verification report for each flare subject to Rule 4311. The flow verification report shall include flow verification testing pursuant to Rule 4311, Section 6.3.5. [District Rule 4311] Federally Enforceable Through Title V Permit
- 45. Every five years after the initial FMP submittal, the operator shall submit an updated FMP for each flare to the APCO for approval. The current FMP shall remain in effect until the updated FMP is approved by the APCO. If the operator fails to submit an updated FMP as required by Rule 4311, the existing FMP shall no longer be considered an approved plan. [District Rule 4311] Federally Enforceable Through Title V Permit
- 46. An updated FMP shall be submitted by the operator pursuant to Rule 4311, Section 6.5 addressing new or modified equipment, prior to installing the equipment. Updated FMP submittals are only required if: 1) The equipment change would require an authority to construct (ATC) and would impact the emissions from the flare, and 2) The modification is not solely the removal or decommissioning of equipment that is listed in the FMP, and has no associated increase in flare emissions. [District Rule 4311] Federally Enforceable Through Title V Permit
- 47. For purposes of the flow verification report required by Rule 4311, Section 6.2.3.8, vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: EPA Methods 1 and 2; a verification method recommended by the manufacturer of the flow monitoring equipment installed pursuant to Section 5.10; tracer gas dilution or velocity; other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule 4311] Federally Enforceable Through Title V Permit
- 48. The permittee shall maintain the following records: a copy of the results of source testing conducted pursuant to Rule 4311, Section 6.4.2; a copy of the approved flare minimization plan pursuant to Section 6.5; and copies of annual reports submitted to the APCO pursuant to Section 6.2. [District Rule 4311] Federally Enforceable Through Title V Permit
- 49. Operational, non-resettable, totalizing mass or volumetric fuel flow meter(s) or other District-approved alternative method(s) shall be used to measure the amount of gas flared. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit
- 50. The permittee shall maintain records of the higher heating value (HHV), in Btu per standard cubic foot (scf), of the gas flared each calendar quarter in which the unit operates. The records shall include the method(s) used to determine the HHV of the fuel and the dates the HHV was determined. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 51. The SOx emission factor in lb-SOx/MMBtu shall be calculated at least once every quarter the flare operates based on the average sulfur content of the gas flared in ppmv as H2S and the HHV value of the gas flared using the following equation: SOx Emission Factor (lb-SOx/MMBtu) = [average sulfur content of gas flared (ppmv as H2S)] x [0.1688 lb-SOx/MMscf]/[HHV of Gas Flared (Btu/scf)]. [District Rule 2201] Federally Enforceable Through Title V Permit
- 52. Records shall be maintained and made available for District inspection of the amount of gas flared, in standard cubic feet (scf) and MMBtu, each day the flare operates; the average sulfur content of the gas flared each day in ppmv as H2S; the calculated SOx emission factor of the gas flared in lb-SOx/MMBtu; and calculations to verify compliance with the total combined NOx emission limit for the flares permitted as Units C-535-50 and -51. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
- 53. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 2201, and 4311] Federally Enforceable Through Title V Permit