San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JAN 10 2019

Mr. Ray Arthur
Fresno/Clovis Regional WWTP
5607 W Jensen Ave
Fresno, CA 93706-9458

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: C-535
Project Number: C-1170082

Dear Mr. Arthur:

Enclosed for your review is the District's analysis of an application for Authorities to Construct (ATCs) for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project includes the installation of a new enclosed John Zink flare under permit unit C-535-45 to operate in conjunction with existing flare listed under permit unit C-535-9 at the facility. You have also submitted an ATC application for the modification of an existing 7.46 MMBtu/hr combustion device in the gas conditioning system (permitted under C-535-26) to clarify the equipment description to allow the combustion of raw untreated digester gas.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

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

www.valleyair.org www.healthyairliving.com

If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

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

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Enclosed Flare for Burning Wastewater Treatment Digester Gas and Modified Thermal Oxidizer

Facility Name:	Fresno/Clovis Regional Waste Water Treatment Plant	Date:	January 9 2019
Mailing Address:	5607 W. Jensen Avenue Fresno, CA 93706	Engineer:	Mahsa Hooshmandi
		Lead Engineer:	Joven Refuerzo
Contact Person:	Ray Arthur		
Telephone:	(559) 621-5266		
E-Mail:	ray.arthur@fresno.gov		
Application #(s):	C-535-45-0 and -26-4		
Project #:	C-1170082 and C-1170245		
Deemed Complete:	December 21, 2017		

I. Proposal

Fresno/Clovis Regional Waste Water Treatment Plant, herein referred to as FWWTP, is requesting an Authority to Construct (ATC) permit for the installation of a new 58.5 MMBtu/hr John Zink ZBRID digester gas flare, serving the waste water treatment plant in combusting the excess digester gas not combusted in the existing boilers or turbine at the facility.

FWWTP has also requested an Authority to Construct (ATC) permit for the modification of an existing 7.46 MMBtu/hr combustion device in the gas conditioning system (permitted under C-535-26) to clarify the equipment description to allow the combustion of raw untreated digester gas. This modification does not result in a change to permit conditions or method of operation because the combustion device is currently already allowed to combust raw untreated digester gas per permit condition #6 on PTO C-535-26-2. Therefore, as indicated in Section VIII below, this proposed modification does not constitute an NSR modification to unit C-535-26 and this unit is not subject to District Rule 2201 and no calculations will be performed at this time.

See Appendix B: Current Permit To Operate C-535-26-2.

FWWTP has also requested to remove the turbine, permitted as C-535-18, as part of this Stationary Source Project as defined in Rule 2201 Section 3.40. Therefore, the following condition will be included in ATC C-535-45 issued with this project:

- *Upon startup of the equipment authorized by this Authority to Construct (ATC), Permit to Operate C-535-18 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable. [District Rule 2201]*

FWWTP has received their Title V Permit. Installation of a new John Zink flare (permit unit -45) at the facility can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. FWWTP must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4301	Fuel Burning Equipment (12/17/92)
Rule 4311	Flares (6/18/09)
Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The facility is located at 5607 W. Jensen Avenue in Fresno, CA. The District has verified that the facility is not located within 1,000 feet of the outer boundary of any K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project and no further discussion is required.

IV. Process Description

The primary business of FWWTP is the processing of wastewater produced by the cities of Fresno and Clovis. In the processing of the wastewater several pieces of equipment are operated by the facility.

C-535-26-4: Digester Gas Treatment System

The facility operates a raw digester gas treatment system (permit unit C-535-26) to remove undesirable constituents such as moisture, hydrogen sulfide, siloxanes, and carbon dioxide before digester gas can be used as fuel in any of the permitted equipment. These contaminants can reduce energy production efficiency, damage equipment and increase maintenance costs. Of particular significance is hydrogen sulfide (H_2S), which is a hazardous air pollutant and is required by various air quality regulations to be reduced to minimum levels before the digester gas can be used as fuel. The system uses a combustion device to dispose of the waste gas. Since High Heating Value (HHV) of the waste gas is low, raw digester gas is currently used as a supplemental fuel in the combustion device to dispose of waste gas from the digester gas treatment system

(permit unit C-535-26). Facility will have an option to use PUC-quality natural gas as supplemental fuel for the combustion device as needed as allowed by PTO C-535-26-6.

The treated digester gas is currently used as fuel in a 3.377 MW digester/natural gas-fired turbine (permit C-535-18), which produces electrical energy sufficient to meet a significant portion of the facility's electricity requirements; or a 16.7 MMBtu/hr digester gas-fired boiler (permit unit C-535-6), which provides heat to the digesters. Excess digester gas that cannot be burned in the turbine or the boiler is currently combusted in a 36.3 MMBtu/hr enclosed flare (permit unit C-535-9). The H_2S limit for digester gas combusted in the turbine, flare, and combustion device is 200 ppmv.

As stated in Section I above, the facility is proposing to clarify the use of untreated raw digester gas fuel as a method of disposing of excess digester gas produced as the facility.

C-535-45-0: New Flare

As discussed above, the facility is equipped with anaerobic digesters, which produce digester gas. The sewage treatment plant is equipped to collect digester gas to fuel currently permitted boilers and turbine. Excess digester gas not combusted in the boilers or turbine will be burned in the proposed enclosed ground flare (permit unit -45) which may operate at the same time as the existing flare at the facility (permit unit -9). The proposed 58.5 MMBtu/hr digester gas-fired enclosed type flare will be also used to dispose excess wastewater biogas as a backup flare if the primary flare or boiler at the facility were to fail.

V. Equipment Listing

Modified Emission Unit:

Pre-Project Equipment Description:

C-535-26-2: DIGESTER GAS TREATMENT SYSTEM CONSISTING OF A CHILLER, COMPRESSOR, HYDROGEN SULFIDE REMOVAL UNIT, MEMBRANE PROCESSING UNIT, 7.46 MMBTU/HR JOHN ZINK MODEL ZBRID WASTE GAS/DIGESTER GAS-FIRED COMBUSTION DEVICE AND ACTIVATED CARBON ADSORPTION BEDS

Proposed Modification:

C-535-26-4: MODIFICATION OF DIGESTER GAS TREATMENT SYSTEM CONSISTING OF A CHILLER, COMPRESSOR, HYDROGEN SULFIDE REMOVAL UNIT, MEMBRANE PROCESSING UNIT, 7.46 MMBTU/HR JOHN ZINK MODEL ZBRID WASTE GAS/DIGESTER GAS-FIRED COMBUSTION DEVICE AND ACTIVATED CARBON ADSORPTION BEDS: CLARIFY THE EQUIPMENT DESCRIPTION TO ALLOW THE EXISTING 7.46 MMBTU/HR DIGESTER TREATMENT SYSTEM TO COMBUST BOTH WASTE/RAW UNTREATED DIGESTER GAS

Post Project Equipment Description:

C-535-26-4: DIGESTER GAS TREATMENT SYSTEM CONSISTING OF A CHILLER, COMPRESSOR, HYDROGEN SULFIDE REMOVAL UNIT, MEMBRANE PROCESSING UNIT, 7.46 MMBTU/HR JOHN ZINK MODEL ZBRID WASTE GAS/RAW UNTREATED DIGESTER GAS-FIRED COMBUSTION DEVICE AND ACTIVATED CARBON ADSORPTION BEDS

New Permit Unit:

C-535-45-0: WASTE WATER TREATMENT PLANT OPERATION SERVED BY A 58.5 MMBTU/HR JOHN ZINK COMPANY WASTE GAS FLARE

VI. Emission Control Technology Evaluation

The digester gas treatment system is not designed to control criteria pollutant emissions. However, the system is designed to remove harmful constituents from the digester gas before it is used as fuel in any of the permitted equipment. The chiller removes moisture from the raw digester gas. Once the moisture is removed, the remaining gas is compressed to approximately 180 psig and is treated for hydrogen sulfide removal, using SulfaTreat media, which is a non-regenerative media. From the H_2S removal unit, the gas is processed through a membrane processing skid. The membrane processing skid separates the carbon dioxide and methane that primarily make up the raw digester gas. The skid employs pressure swing adsorption and active carbon for preliminary gas clean-up prior to the membranes. The waste gas produced by the membrane processing skid is primarily made up of carbon dioxide and will be sent to a 7.46 MMBtu/hr John Zink ZBRID enclosed combustion device. Treated gas is passed through one final set of activated carbon beds to provide final polishing of the product gas that is sent to the various combustion equipment operated at this facility.

The proposed use of raw untreated digester gas is not expected to result in any changes to these pieces of process equipment or the effectiveness of the control technologies that are currently employed by these units.

VII. General Calculations

A. Assumptions

To streamline emission calculations, $PM_{2.5}$ emissions are assumed to be equal to PM_{10} emissions. Only if needed to determine if a project is a Federal major modification for $PM_{2.5}$ will specific $PM_{2.5}$ emission calculations be performed.

For C-535-26 (Digester Gas Treatment System)

This project does not meet the criteria for a Rule 2201 Modification, as defined in Section 3.25, and is not subject to the requirements of Rule 2201. Therefore, formal calculations for Rule 2201 are not necessary and no further discussion is required.

For C-535-45 (New Flare)

- The unit is fired solely on digester gas except for the pilot light which is fired on PUC regulated natural gas.
- Total volume of gaseous fuel flared shall not exceed 2,160,000 scf/day = 1,500 scf/min x 60 min/day x 24 hr/day (per application)
- Max heat input rating = 2,160,000 scf/day x 650 Btu/scf x 1MMBtu/1E6 Btu x = 1,404 MMBtu/day
- Annual post-project potential to emit is calculated based on 365 days of operation per year

B. Emission Factors

C-535-45 (New Flare)

The emissions factors are as summarized in the following table:

Pollutant	Emission Factors	Source
NOx	0.06 lb-NOx/MMBtu	Proposed by Applicant/Manufacturer
SOx	0.0614 lb-SOx/MMBtu	Proposed by Applicant (See Calculation Below)
PM10	0.005 lb-PM10/MMBtu	AP-42 Table 1.4-2
CO	0.20 lb-CO/MMBtu	Proposed by Applicant/Manufacturer, Current Permit
VOC	0.0027 lb-VOC/MMBtu (98% control efficiency)	Proposed by Applicant

SOx – 200 ppmvd H_2S in fuel gas

$$\frac{200\,ft^3\,H_2S}{10^6\,ft^3} \times \frac{32.06\,lb\,S}{lb\text{-}mol\,H_2S} \times \frac{lb\text{-}mole}{379.5\,ft^3} \times \frac{64.06\,lb\,SO_2}{32.06\,lb\,S} \times \frac{ft^3}{550\,Btu} \times \frac{10^6\,Btu}{MMBtu} = 0.0614\ \frac{lb\,SOx}{MMBtu}$$

B. Calculations

For C-535-26 (Digester Gas Treatment System)

As stated in section VII.A above, the changes to this permit unit do not meet criteria for a Rule 2201 modification therefore, no further calculation for Rule 2201 is needed. Below is

the summary table of the pre and post project potential to emit for permit unit C-535-26 (from project C-1173466) showing no changes to the emissions.

Pre-Project Potential to Emit		
Raw Untreated Digester Gas		
Pollutant	Daily PE1 (lb/day)	Annual PE1 (lb/year)
NOx	10.7	3,921
SOx	34.0	12,416
PM10	2.9	1,046
CO	35.8	13,070
VOC	15.0	5,489

Post-project Potential to Emit		
Raw Untreated Digester Gas		
Pollutant	Daily PE2 (lb/day)	Annual PE2 (lb/year)
NOx	10.7	3,921
SOx	34.0	12,416
PM10	2.9	1,046
CO	35.8	13,070
VOC	15.0	5,489

For C-535-45 (New Flare)

1. Pre-Project Potential to Emit (PE1)

Since this is a new emissions unit, the PE1 = 0 for all pollutants

For C-535-18 (Existing Turbine)

Maximum Daily PE1

The maximum daily emissions occur when the turbine operates for 4 hours of operation during startup, 19 hours of operation at full load, and 2 hour of operation during shutdown. The results are summarized in the table below:

Maximum Daily Pre-Project Potential to Emit (PE1)		
	Emissions Rate @ Full Load (lb/hr)	Daily Emissions Limitation (lb/day)
NO_X	--	51.5*
SO_X	2.07	49.7
PM_{10}	1.34	32.2
CO	27.95	670.8
VOC	0.02	0.5
NH_3	1.37	32.9

* 5.74 lb/hr x 4 hr/day + 0.95 lb/hr x 18 hr/day + 5.74 lb/hr x 2 hr/day = 51.5 lb/day

c. Maximum Annual PE1

The maximum annual emissions occur when the turbine operates for 192 hours during startup, 8,556 hours of operation at full load, and 12 hours during shutdown. The results are summarized in the table below:

Maximum Annual Pre-Project Potential to Emit (PE1)						
Pollutant	NO_X	SO_X	PM_{10}	CO	VOC	NH3
Annual PE (lb/year)	9,299*	18,141	11,753	244,842	183	12,009

* 5.74 lb/hr x 192 hr/year + 0.95 lb/hr x 8556 hr/year + 5.74 lb/hr x 12 hr/year = 9,299 lb/year

d. Summary of PE1

The daily and annual PE1 is summarized in the table below:

Pre-Project Potential to Emit (PE1) Summary (C-535-18)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO_X	51.5	9,299
SO_X	49.7	18,141
PM_{10}	32.2	11,753
CO	670.8	244,842
VOC	0.5	183
NH_3	32.9	12,009

2. Post Project Potential to Emit (PE2)

For C-535-18 (Existing Turbine)

As discussed above applicant has proposed to remove the existing turbine, permitted as C-535-18, as part of this Stationary Source Project as defined in Rule 2201 Section 3.40. Therefore, PE2 = 0.

For C-535-45 (New Flare)

Pollutant	Daily PE2		
	EF2 (lb/MMBtu)	Heat Input (MMBtu/day)	Daily PE2 (lb/day)
NO_X	0.06	1,404	84.2
SO_X	0.0614	1,404	86.2
PM_{10}	0.005	1,404	7.0
CO	0.20	1,404	280.8
VOC	0.0027	1,404	3.8

Pollutant	Annual PE2			
	EF2 (lb/MMBtu)	Heat Input (MMBtu/day)	Operating Schedule (day/year)	Annual PE2 (lb/year)
NO_X	0.06	1,404	365	30,748
SO_X	0.0614	1,404	365	31,465
PM_{10}	0.005	1,404	365	2,562
CO	0.20	1,404	365	102,492
VOC	0.0027	1,404	365	1,384

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

SSPE1 (lb/year)					
Permit Unit	NOx	SOx	PM_{10}	CO	VOC
C-535-6-15	1,609	3,804	702	8,924	585
C-535-9-15	19,272	15,786	1,577	91,980	913
C-535-24-4		0	459	1,811	724
C-535-44-0		2	0	26	56
C-535-10-3*	1,188	1	24	289	12
C-535-11-3	37	0	1	3	0
C-535-12-3	37	0	1	3	0
C-535-13-7	0	0	0	0	2,902
C-535-17-3	113	0	4	30	6
C-535-18-15	9,299	18,141	11,753	244,842	183
C-535-26-6	3,921	12,416	1,046	13,070	5,489
C-535-28-1	0	0	1,050	0	0
C-535-48-0	0	0	14	0	510
SSPE1	**35,476**	**50,150**	**16,631**	**360,978**	**11,380**

* Detailed calculations can be found in project C-1171942

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

SSPE2 (lb/year)					
Permit Unit	NOx	SOx	PM_{10}	CO	VOC
C-535-6-16	1,609	3,812	704	8,944	805
C-535-9-15	19,272	15,786	1,577	91,980	913
C-535-24-4		0	459	1,811	724
C-535-44-0		2	0	26	56
C-535-10-3	1,188	1	24	289	12
C-535-11-3	37	0	1	3	0
C-535-12-3	37	0	1	3	0
C-535-13-7	0	0	0	0	2,902
C-535-17-3	113	0	4	30	6
~~C-535-18-15*~~	~~9,299~~	~~18,141~~	~~11,753~~	~~244,842~~	~~183~~
C-535-26-6	3,921	12,416	1,046	13,070	5,489
C-535-28-1	0	0	1,050	0	0
C-535-45-0	30,748	31,465	2,562	102,492	1,384
C-535-48-0	0	0	14	0	510
SSPE2	**59,925**	**63,482**	**7,442**	**218,648**	**12,801**

* This permit unit will be cancelled with this project

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- Any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)						
	NOx	**SOx**	**PM_{10}**	**$PM_{2.5}$**	**CO**	**VOC**
SSPE1	35,476	50,150	16,631	16,631	360,978	11,380
SSPE2	59,925	63,482	7,442	7,442	218,648	12,801
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	Yes	No

Note: $PM_{2.5}$ assumed to be equal to PM_{10}

As seen in the table above, the facility is an existing Major Source for NOx and CO emissions and will remain a Major Source for these pollutants as a result of this project.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Estimated Facility PE before Project Increase	18	6	25	180	8	8
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

C-535-45-0

Since this is a new emissions unit, BE = PE1 = 0 for all pollutants.

C-535-18-15

a. BE NOx and CO

Clean Emissions Unit, Located at a Major Source

As shown in Section VII.C.5 above, this facility is a major stationary source for NOx emissions. Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is "equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

Based on the detailed analysis performed in Appendix E of this document, the digester gas-fired turbine is a Clean Emissions Unit for NOx and CO and therefore, BE = PE1 for these pollutants.

b. BE SOx, PM_{10}, and VOC

Unit Located at a Non-Major Source

As shown above, the facility is not a major stationary source for SOx, PM_{10}, and VOC emissions. Therefore, BE = PE1.

BE Summary

Baseline Emissions (lb/year)					
ATC #	**NOx**	**SOx**	**PM_{10}**	**CO**	**VOC**
C-535-18-15	9,299	18,141	11,753	244,842	183
C-535-45-0	0	0	0	0	0

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is a major source for NOx and CO emissions, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required. Note that there is no SB 288 major modification threshold for CO emissions, so the following table lists only NOx emissions.

SB 288 Major Modification Thresholds			
Pollutant	**Project PE2 (lb-NOx/year)**	**Threshold (lb/year)**	**SB 288 Major Modification Calculation Required?**
NOx	30,748	50,000	No

As demonstrated in the preceding table, since none of the SB 288 Major Modification Thresholds are surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

Step 1

Permit Unit C-535-45-0

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.
Since there is an increase in NO_x emissions, this project constitutes a Federal Major Modification. Federal Offset quantities are calculated below:

Federal Offset Quantities:

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit times the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC.

Permit unit C-535-18-15 has been in operation since 2001 and has been proposed to get removed with this project. The actual emissions for permit unit -18 is calculated using the yearly process rate for this unit using data from the District emission inventory. (See detailed calculation in Appendix G)

NOx **Federal Offset Ratio 1.5**

Permit No.	Potential Emissions (lb/year)	Actual Emissions (lb/year)	Emissions Change (lb/year)
C-535-18-15	0	8,738	-8,738
C-535-45-0	30,748	0	30,748
		Net Emission Change (lb/year):	**22,010**
		Federal Offset Quantity: (NEC * 1.5)	**(22,010 * 1.5) = 33,015**

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit						
	NO_x	VOC	SO_x	CO	PM	PM_{10}
C-535-45-0	30,748	1,384	31,465	102,492	2,562	2,562
Total PE from New and Modified Units (lb/year)	30,748	1,384	31,465	102,492	2,562	2,562
Total PE from New and Modified Units (tons/year)	15	1	16	51	1	1
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix F.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

As noted in Section VII of this engineering evaluation, the proposed modification for permit unit C-535-26 with this project does not constitute an NSR modification; Pursuant to section 3.25 of District Rule 2201, a modification is defined as:

3.25.1.1 Any change in hours of operation, production rate, or method of operation of an existing emissions unit, which would necessitate a change in permit conditions.

The proposed modification does not result in a change in the hour of operation, production rate or method of operation which necessitates a change in permit conditions.

3.25.1.2 Any structural change or addition to an existing emissions unit which would necessitate a change in permit conditions. Routine replacement shall not be considered to be a structural change.

The proposed modification does not constitute a structural change or addition to an existing emissions unit which necessitates a change in permit conditions.

3.25.1.3 An increase in emissions from an emissions unit caused by a modification of the Stationary Source when the emissions unit is not subject to a daily emissions limitation.

The proposed modification does not result in an increase in emissions from any emissions unit.

3.25.1.4 Addition of any new emissions unit which is subject to District permitting requirements.

The proposed modification does not result in the addition of any new emissions units.

3.25.1.5 A change in a permit term or condition proposed by an applicant to obtain an exemption from an applicable requirement to which the source would otherwise be subject.

The proposed modification does not necessitate any change to permit conditions or description.

As discussed above, the proposed modification for permit unit C-535-26 does not meet any of the criteria for a modification. Therefore, it is not subject to the requirements of District Rule 2201.

Detailed NSR Review for permit unit C-535-45 (New flare):

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

a. Any new emissions unit with a potential to emit exceeding two pounds per day,
b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding two pounds per day, and/or
d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

The daily PE for the proposed digester gas-fired backup flare (permit unit -45-0) is summarized in the following table:

Pollutant	Daily PE2 Summary - Flare		
	EF2 (lb/MMBtu)	Heat Input (MMBtu/day)	Daily PE2 (lb/day)
NO_X	0.06	1,404	84.2
SO_X	0.0614	1,404	86.2
PM_{10}	0.005	1,404	7.0
CO	0.20	1,404	280.8
VOC	0.0027	1,404	3.8

BACT is triggered for VOC since the PE is greater than 2 lb/day for this pollutant. BACT is not triggered for NOx, SOx, PM_{10}, and CO since these are secondary pollutants resulting from combustion of the digester gas in the flare, which is an emissions control device. In accordance with District definitions, an emissions control device is not an emission unit. Per District Rule 2201, only emission units can trigger BACT. Therefore, secondary emissions resulting from an emissions control device are not subject to BACT requirements.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

There are no NSR modification associated with this project; therefore, BACT is not triggered for this purpose.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification for any pollutant. Therefore BACT is not triggered for any pollutant.

2. BACT Guideline

When permit unit (C-535-45-0) was installed in 2017, BACT guideline 1.4.4 B was applicable and the proposed unit met BACT requirements at that time. In addition the same BACT guideline was applicable when the District received the application and when the project was deemed complete. Therefore, for this project BACT guideline 1.4.4 B is still applicable and will be used.

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the Top-Down BACT Analysis (see Appendix C), BACT has been satisfied with the following:

VOC: VOC emissions ≤ 0.0027 lb/MMBtu (98% control efficiency)

Therefore, the following condition will be listed on the ATC (C-535-45-0) to ensure compliance with the BACT requirements:

- VOC emissions shall not exceed 0.0027 lb-VOC/MMBtu. [District Rules 2201 and 4311, 5.7]

C. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post-project Stationary Source Potential to Emit (SSPE2) equals to or exceeds emissions of 20,000 lbs/year for NO_X and VOC, 200,000 lbs/year for CO, 54,750 lbs/year for SO_X and 29,200 lbs/year for PM_{10}.

As seen in the table below, the facility's SSPE2 is greater than the offset thresholds for NO_X, SOx and CO emissions. Therefore, offset calculations are necessary.

Per District Rule 2201, Section 4.6.1, emission offsets shall not be required for increases in carbon monoxide in attainment areas if the applicant demonstrates to the satisfaction of the APCO, that the Ambient Air Quality Standards are not violated in the areas to be affected, and such emissions will be consistent with Reasonable Further Progress, and will not cause or contribute to a violation of Ambient Air Quality Standards.

Offset Determination (lb/year)					
	NO_X	**SO_X**	**PM_{10}**	**CO**	**VOC**
SSPE2	59,925	63,482	7,442	218,648	12,801
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	Yes	No	Yes	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for NOx and SOx. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for NOx is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

Where,
PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

There are no increases in cargo carrier emissions due to this project. Therefore, ICCE = 0 lb/year.

NOx Offset Calculations:

Assuming a worst case offset ratio of 1.5:1, the amount of NOx ERC's that need to be withdrawn is:

Offsets Required = Σ[PE2 $_{(-18)}$ – BE $_{(-18)}$] + [PE2 $_{(-45)}$ – BE $_{(-45)}$] x DOR

= Σ[0 – 9,299] + [30,748 – 0] x 1.5

= 32,174

Calculating the appropriate quarterly emissions to be offset is as follows:

Quantity of Offsets Required					
	1st Quarter (lb/qtr)	2nd Quarter (lb/qtr)	3rd Quarter (lb/qtr)	4th Quarter (lb/qtr)	Total (lb/year)
NOx	8,043	8,043	8,044	8,044	32,174

SOx Offset Calculations:

The quantity of offsets in pounds per year for SOx is calculated as follows for sources with an SSPE1 less than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = ([SSPE2 – Offset Threshold] + ICCE) x DOR

Where,
SSPE2 = Post Project Facility Potential to Emit, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

Offsets Required = ([63,482 – 54,750] + 0) x 1.5

= 8,732 x 1.5

= 13,098

Calculating the appropriate quarterly emissions to be offset for the SOx is as follows:

Quantity of Offsets Required					
	1st Quarter (lb/qtr)	2nd Quarter (lb/qtr)	3rd Quarter (lb/qtr)	4th Quarter (lb/qtr)	Total (lb/year)
SOx	3,274	3,274	3,274	3,274	13,098

The applicant has stated that the facility plans to use the ERC certificates stated below to offset the increases in NOx and SOx emissions associated with this project. These certificates have available quarterly NOx and SOx credits as follows[2]:

Quarterly NOx Offsets						
Certificates	1st Quarter (lb/qtr)	2nd Quarter (lb/qtr)	3rd Quarter (lb/qtr)	4th Quarter (lb/qtr)	Total (lb/year)	Total (tons/year)
S-2896-2	130	131	132	132	525	0.3
S-2740-2	0	4,802	0	0	4,802	2.4
S-4823-2	765	765	766	765	3,061	1.5
S-2802-2	3,233	0	0	5,000	8,233	4.1
N-1402-2	0	0	1,109	0	1,109	0.5
N-1404-2	0	0	1,010	0	1,010	0.5
N-1400-2	6,473	4,904	7,584	4,704	23,665	11.8
Total	10,601	10,602	10,601	10,601	42,405	21.2

[2] The available credit values listed below only show the credits available from each certificate that are not currently reserved for other ATC projects in the District's permit database.

Quarterly SOx Offsets						
Certificates	1st Quarter (lb/qtr)	2nd Quarter (lb/qtr)	3rd Quarter (lb/qtr)	4th Quarter (lb/qtr)	Total (lb/year)	Total (tons/year)
N-711-5	0	0	4,196	4,195	8,391	4.2
N-713-5	4,195	4,196	0	0	8,391	4.2
Total	4,195	4,196	4,196	4,195	16,782	8.4

As seen above, the facility have sufficient credits to fully offset the quarterly NOx and SOx emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions:

The following conditions will be included on ATC -45-0 for the new flare:

- Prior to operating equipment under this Authority to Construct, permittee shall surrender SOx emission reduction credits for the following quantity of emissions: 1st quarter – 3,274 lb, 2nd quarter – 3,274 lb, 3rd quarter – 3,274 lb, and fourth quarter – 3,274 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16). [District Rule 2201]

- Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter – 8,043 lb, 2nd quarter – 8,043 lb, 3rd quarter – 8,044 lb, and fourth quarter – 8,044 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16). [District Rule 2201]

- ERC Certificate Numbers N-711-5, N-713-5, S-2896-2, S-2740-2, S-4823-2, S-2802-2, N-1402-2, N-1404-2, or N-1400-2 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]

C. Public Notification

1. Applicability

Public noticing is required for:
a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,

c. Any project which results in the offset thresholds being surpassed,
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
e. Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Sections VII.C.7 and VII.C.8, this project is an SB 288 or Federal Major Modification. Therefore, public noticing for SB 288 or Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. PE2 for the new unit in this project (unit -45) is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	**PE2 (lb/day)**	**Public Notice Threshold**	**Public Notice Triggered?**
NO_X	84.2	100 lb/day	No
SO_X	86.2	100 lb/day	No
PM_{10}	7.0	100 lb/day	No
CO	280.8	100 lb/day	Yes
VOC	3.8	100 lb/day	No

As seen above, the daily emissions greater than 100 lb/day for CO emissions; therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds				
Pollutant	**SSPE1 (lb/year)**	**SSPE2 (lb/year)**	**Offset Threshold**	**Public Notice Required?**
NO_x	35,476	59,925	20,000 lb/year	Yes
SO_x	50,150	63,482	54,750 lb/year	Yes
PM_{10}	16,631	7,442	29,200 lb/year	No
CO	360,978	218,648	200,000 lb/year	Yes
VOC	11,380	12,801	20,000 lb/year	No

As detailed above, offset thresholds were surpassed for NO_x with this project; therefore public noticing is required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	**SSPE2 (lb/year)**	**SSPE1 (lb/year)**	**SSIPE (lb/year)**	**SSIPE Public Notice Threshold**	**Public Notice Required?**
NOx	59,925	35,476	24,449	20,000 lb/year	Yes
SOx	63,482	50,150	13,332	20,000 lb/year	No
PM10	7,442	16,631	-9,189	20,000 lb/year	No
CO	218,648	360,978	-142,330	20,000 lb/year	No
VOC	12,801	11,380	1,421	20,000 lb/year	No

As demonstrated above, the SSIPE for NO_x was greater than 20,000 lb/year; therefore public noticing for SSIPE purposes for this pollutant is required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for triggering a Federal Major Modification, a PE of greater than 100 lb/day for each emission unit, and a Title V

Significant Permit Modification. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB), EPA, and a public notice will be published in the local newspaper of general circulation prior to the issuance of the ATCs for this project.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The following conditions will ensure continued compliance with the DEL requirements for the proposed emission units in this project:

C-535-45-0 (New Flare):

- The waste gas flare system shall be specifically designed for burning on digester gas except for the pilot light which is fired on PUC regulated natural gas. [District Rule 2201]
- Total volume of gaseous fuel flared shall not exceed 2,160,000 scf per day. [District Rule 2201]

- A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311]

E. Compliance Assurance

1. Source Testing

C-535-45-0 (New Flare):

- Source testing to measure digester gas-combustion NOx and VOC emissions from this unit shall be conducted at least once every twelve (12) months. [District Rule 4311, 6.1.2]

- The results of each source test shall be submitted to the District within 45 days thereafter. [District Rule 4311, 6.1.2]

- 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 15 days prior to testing. [District Rules 1081 and 4311]

- VOC emissions for source test purposes, measured and calculated as carbon, shall be determined by 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, and analysis of halogenated exempt compounds shall be analyzed by EPA

Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". [District Rule 4311, 6.3.1]

- NOx emissions for source test purposes, in pounds per million Btu, shall be determined by using EPA Method 19. [District Rule 4311, 6.3.2]

- NOx and O2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311, 6.3.3]

2. Monitoring

C-535-26-4 (Digester Gas Treatment System):

Current PTO listed the following conditions in order to ensure that the combustion device is operating properly at all times, the combustion temperature is maintained above 1,400 degrees Fahrenheit, and the device is equipped with a continuous temperature monitoring and recording device. Since no changes are proposed, these conditions will be listed on the new ATC to ensure continued compliance:

- The combustion zone of the combustion device shall be maintained at a minimum of 1,400 degrees Fahrenheit. [District Rule 2520]

- The combustion device shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2520]

- The combustion device shall be equipped with a non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of waste gas and raw digester gas combusted in the unit. [District Rule 2201]

C-535-45-0 (New Flare):

No specific monitoring is required for this permit unit.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following condition(s) are listed on the permit to operate:

C-535-45-0 (New Flare):

- Daily records of total gas flared shall be maintained. [District Rules 2201 and 2520, 9.4.2]

- Records of flare maintenance, inspections and repair shall be maintained. [District Rule 2520, 9.4.2]

- Records of daily sulfur testing results shall be maintained. [District Rule 2520, 9.4.2]

- Records of all source tests shall be maintained. [District Rule 4311, 6.2]

- 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 4311]

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

5. Additional Requirements

In addition, the following condition will be listed on the ATC for permit unit -45 to ensure that all equipment is maintained in good operating condition and in a manner to minimize emissions of air contaminants into the atmosphere:

- 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]

F. Ambient Air Quality Analysis (AAQA)

As discussed earlier under offset section of Rule 2201 discussion, in order to ensure that the project qualifies for the offset exemption for CO emissions, an AAQA will need to be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to Appendix D of this document for the HRA and AAQA Summary.

The proposed location is in an attainment area for NOx, CO, and SOx. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NOx, CO, or SOx.

The proposed location is in a non-attainment area for the state's PM_{10} as well as federal and state $PM_{2.5}$ thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM_{10} and $PM_{2.5}$ (See Appendix D for HRA and AAQA summary).

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VIII above, this facility is a Federal Major Modification, therefore this requirement is applicable. Fresno/Clovis Regional Wastewater Treatment Plant's compliance certification is included in Appendix H.

H. Alternate Siting Analysis

District Rule 2201, Section 4.15.1 requires an alternative siting analysis for any project which constitutes a New Major Source or a Federal Major Modification. As shown above, this project triggers a Federal Major Modification. Therefore, an alternative siting analysis must be performed.

Since the current project involves the installation of a new flare, it represents only a minimal change in the plant and no change to any other stage of the operation, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures and facilities on a much greater scale, and would therefore result in a much greater impact.

Rule 2410 Prevention of Significant Deterioration

The prevention of significant deterioration (PSD) program is a construction permitting program for new major stationary sources and major modifications to existing major stationary sources located in areas classified as attainment or in areas that are unclassifiable for any criteria air pollutant.

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. Therefore, this project is not subject to the requirements of Rule 2410 and no further discussion is required.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit.

In accordance with Rule 2520, Minor Permit Modifications are permit modifications that:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

    a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
    b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and

5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements;
7. Do not grant or modify a permit shield.

Additionally, Section 11.4 requires a description of the proposed change, the emissions resulting from the change, any new applicable requirements that will apply if the change occurs, suggested draft permits, compliance certification and an EPA 45-day review period of the proposed permit modification (or a shorter period if EPA has notified the District that EPA will not object to issuance of the permit modification, whichever is first).

As discussed above, the facility has applied for a Certificate of Conformity (COC) and the District will forward to EPA, for a 45-day review period, this application review which includes the proposed modified Title V permit [proposed ATC -45] and the compliance certification form which demonstrates compliance with the minor permit modification requirements in Section 11.4. Therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may construct/operate under the ATC upon submittal of the Title V administrative amendment application.

Rule 4001 New Source Performance Standards (NSPS)

C-535-26-4 (Digester Gas Treatment System) and C-535-45-0 (New Flare):

40 CFR Part 60, Subpart A, section 14, defines the meaning of modification to which the the standards are applicable. §60.14, paragraph (e)(5) states that the following will not be considered as a modification: *"the addition or use of any system or device whose primary funtion is the reduction of air pollutants, except when an emission control system is removed or replaced by a system which the Administrator determines to be less environmentally beneficial".*

No newly constructed, reconstructed or modified affected facilities are proposed in this project. Therefore, the requirements of this rule do not apply to this proposal.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all

sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to digester gas-fired boilers, digester gas treatment systems, or a combustion device of this class and category of operation. Therefore, no further discussion is required under this section.

Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 or 20% opacity. This unit is currently required to be in compliance with the requirements of this rule. There are no changes expected that would affect this unit's emissions. Therefore, continued compliance is expected and the following condition will be placed on the ATCs with this project:

- {15} 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]

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, the following condition will be listed on the permit to ensure compliance:

Compliance with this requirement is ensured by the following condition listed on the facility-wide PTO C-535-0-3:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

The following condition will be listed on the ATC for permit unit C-535-45-0 to ensure compliance with this Rule:

- The flare shall be operated in a manner preventing the emission of noxious odors or other nuisances. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix D), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

RMR Summary						
Units	**Prioritization Score**	**Acute Hazard Index**	**Chronic Hazard Index**	**Maximum Individual Cancer Risk**	**T-BACT Required?**	**Special Permit Requirements?**
C-535-26-4 (Digester Gas Treatment System)	0.31	0.00	0.00	6.34E-07	No	Yes
C-535-45-0 (Flare)	0.50	0.00	0.00	9.25E-07	No	Yes
Project Totals	0.82	0.00	0.00	1.56E-06		
Facility Totals	>1	0.02	0.00	4.96E-06		

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 20 in a million). As outlined by the HRA Summary in Appendix D of this report, the emissions increases for this project was determined to be less than significant.

The following condition will be listed on both ATCs to ensure compliance with the District's risk management policy:

C-535-26-4 (Digester Gas Treatment System) and C-535-45-0 (New Flare):

- {1898} 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]

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

C-535-26-4 (Digester Gas Treatment System):

F-Factor for Digester Gas: 8,578 dscf/MMBtu (natural gas F-Factor used as a worst case value for calculation purposes assuming F-Factor for digester gas is typically always higher: approximately 9,000 dscf/MMBtu)

PM_{10} Emission Factor:	0.005 lb-PM_{10}/MMBtu
Percentage of PM as PM_{10} in Exhaust:	100%
Exhaust Oxygen (O_2) Concentration:	3%

Excess Air Correction to F Factor = $\frac{20.9}{(20.9 - 3)} = 1.17$

(0.005 lb-PM/MMBtu x 7,000 grain/lb – PM) / 8,578 ft^3/MMBtu x 1.17)

= 0.003 grain/dscf < grain/dscf

Therefore, compliance with District Rule 4201 requirements is expected and the following condition will be listed on the ATC to ensure compliance:

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Rule 4311 Flares

C-535-26-4 (Digester Gas Treatment System) and C-535-45-0 (New Flare):

The purpose of this rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NOx), and sulfur oxides (SOx) from the operation of flares.

Section 3.11 defines flare as a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or temperature control.

As determined under the original permitting action under project C-1110245, the combustion device is equipped with a continuous temperature monitoring and recording device for temperature control due to the low Btu heat content of the waste gas combusted in the device. The temperature control device is used to determine how much additional raw digester or PUC-quality natural gas supplemental fuel is required to be combusted in the device such that the operating temperature is maintained and the waste gas is destroyed. Since the combustion device is equipped with a temperature control device, it does not meet the definition of a flare and the requirements of this rule are not applicable to this unit. No further discussion is required.

C-535-45-0 (Flare):

Section 5.1 refers to emergency flares and is not applicable to this unit.

Section 5.2 requires that a flame always be present in the flare whenever combustible gases are present. The following condition will be placed on the permit to ensure compliance:

- A flame shall be present at all times in the flare whenever combustible gases are vented through the flare. [District Rule 4311, 5.2]

Section 5.3 requires that the flare be equipped with either an automatic ignition system or operated with a continuous pilot. Per the applicant, this unit is equipped with a continuous pilot. The following condition will be added to ensure compliance:

- The flare 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, 5.3]

Section 5.4 requires that the flare be equipped with a device to monitor and confirm operation of the pilot. The following condition will be placed on the permit to ensure compliance:

- The flare shall be equipped and operated with 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. [District Rule 4311, 5.4]

Sections 5.5 and 5.6 refer to flares equipped with flow sensing automatic ignition devices and to open flares respectively. Since this unit is an enclosed ground flare, not equipped with a flow sensing automatic ignition device, these sections do not apply.

Compliance with the VOC emission standard will be ensured by the following condition:

- VOC emissions shall not exceed 0.0027 lb-VOC/MMBtu. [District Rules 2201 and 4311, 5.7]

The sulfur concentration of 200 ppmv as H_2S is less than the rule limit of 2,000 ppmv (or 0.2%). Therefore the combustion device is in compliance with the requirements of this rule and the following condition will be listed on the ATC to ensure compliance:

- The H_2S content of the digester gas processed through this gas treatment system shall not exceed 200 ppmv. [District Rules 2201 and 4801]

Section 6.1.2 requires the operator of an enclosed ground flare to conduct source testing every 12 months to demonstrate compliance with the emission standards of Section 5.7. The following conditions will be placed on the permit to ensure compliance:

- Source testing to measure digester gas-combustion NOx and VOC emissions from this unit shall be conducted at least once every twelve (12) months. [District Rule 4311, 6.1.2]

- The results of each source test shall be submitted to the District within 45 days thereafter. [District Rule 4311, 6.1.2]

- 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 15 days prior to testing. [District Rules 1081 and 4311]

Sections 6.3.1 through 6.3.3 specify test methods for source testing. The following conditions will be placed on the permit to ensure compliance:

- VOC emissions for source test purposes, measured and calculated as carbon, shall be determined by 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, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". [District Rule 4311, 6.3.1]

- NOx emissions for source test purposes, in pounds per million Btu, shall be determined by using EPA Method 19. [District Rule 4311, 6.3.2]

- NOx and O2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311, 6.3.3]

Section 6.2 requires that the facility maintain all source test records for at least five years. The following condition will be placed on the permit to ensure compliance:

- Records of all source tests shall be maintained. [District Rule 4311, 6.2]

- 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 4311]

District Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO_2, on a dry basis averaged over 15 consecutive minutes.
The allowable hourly SOx emission rate from the permit is first converted into an emission factor using the rated heat release capacity of the flare:

SOx Emission Factor = 0.0614 lb-SOx/MMBtu

Then, using the ideal gas equation and the emission factors calculated above, the sulfur compound emissions are calculated as follows:

$$\text{Volume } SO_2 = \frac{n\,RT}{P}$$

With:

N = moles SO_2
T (Standard Temperature) = 60°F = 520°R

~~P (Standard Pressure) = 14.7 psi~~

R (Universal Gas Constant) = $\frac{10.73 \text{psi} \cdot \text{ft}^3}{\text{lb} \cdot \text{mol} \cdot {}^\circ\text{R}}$

$$0.0614 \frac{lbSOx}{MMBtu} x \frac{MMBtu}{9{,}230\ dscf} x \frac{1lb.mol}{64lb} x\ 10.73\ psi. \frac{ft3}{lb.mol.{}^\circ R} x \frac{520{}^\circ R}{14.7psi} x\ 1{,}000{,}000. \frac{parts}{million}$$

$$= 38.5 \frac{parts}{million} < 2{,}000\ ppmv\ (or\ 0.2\%)$$

$$SulfurConcentration = 32.1 \frac{parts}{million} < 2{,}000 \text{ ppmv (or 0.2\%)}$$

Therefore, compliance with District Rule 4801 requirements is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

For C-535-26-4 (Digester Gas Treatment System)

The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are not subject to Best Available Control Technology (BACT) requirements. Furthermore, the District has determined that the proposed project has no potential emission increases and will have a less than significant health impact on sensitive receptors.
Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over

which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

For C-535-45-0 (New Flare)

Greenhouse Gas (GHG) Significance Determination

District is a Lead Agency and Project not Covered Under Cap-and-Trade

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.
The District's engineering evaluation (this document) demonstrates that the project would only result in an increase in VOC emissions which are not designated as greenhouse gases. Therefore, the project will not result in an increase in project specific greenhouse gas emissions and the District concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

DISTRICT RESPONSIBLE AGENCY – NOTICE OF EXEMPTION

The City of Fresno (City) is the public agency having principal responsibility for approving the Project. As such, the City served as the Lead Agency for the Project. The City determined the project to be exempt from CEQA according to CEQA Guidelines §15301. Consistent with CEQA Guidelines §15062, a Notice of Exemption was prepared and adopted by the City.

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381).

The District's engineering evaluation of the project (this document) demonstrates that compliance with District rules and permit conditions would reduce Stationary Source emissions from the project to levels below the District's thresholds of significance for criteria pollutants. Thus, the District concludes that through a combination of project design elements and permit conditions, project specific stationary source emissions will be less than significant. The District doe s not have authority over any of the other project impacts and has, therefore, determined that no additional findings are required (CEQA Guidelines §15096(h)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern,

its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

For C-535-26-4 (Digester Gas Treatment System)

The proposed project requires only ministerial approval, and is exempt from the provisions of CEQA. As such, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

For C-535-45-0 (New Flare)

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATCs C-535-26-4 and -45-0 subject to the permit conditions on the attached draft ATCs in **Appendix A.**

X. Billing Information

Annual Permit Fees			
Permit Number	**Fee Schedule**	**Fee Description**	**Annual Fee**
C-535-26-4	3020-02-G	7.46 MMBtu/hr	$893
C-535-45-0	3020-02-H	58.5 MMBtu/hr	$1,128

Appendixes

A: Draft ATCs
B: Current Permit To Operate (C-535-26-2)
C: Top-Down BACT Analysis and BACT Guideline 1.4.4 B
D: HRA Summary
E: NOx Clean Emissions Unit Determination
F: Quarterly Net Emissions Change (For permit unit C-535-45)
G: Actual Emission Calculation (For permit unit C-5353-18)
H: Fresno/Clovis Regional Wastewater Treatment Plant's compliance certification

APPENDIX A
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: C-535-26-4

ISSUANCE DATE: DRAFT

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 DIGESTER GAS TREATMENT SYSTEM CONSISTING OF A CHILLER, COMPRESSOR, HYDROGEN SULFIDE REMOVAL UNIT, MEMBRANE PROCESSING UNIT, 7.46 MMBTU/HR JOHN ZINK MODEL ZBRID WASTE GAS/DIGESTER GAS-FIRED COMBUSTION DEVICE AND ACTIVATED CARBON ADSORPTION BEDS: TO CLARIFY THE EQUIPMENT DESCRIPTION SO IT WILL READ THAT THE EXISTING 7.46 MMBTU/HR DIGESTER TREATMENT SYSTEM IN THE GAS CONDITIONING SYSTEM IS ALLOWED TO COMBUST BOTH WASTE/RAW UNTREATED DIGESTER GAS

CONDITIONS

1. Particulate matter emissions from the exhaust of the combustion device shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. 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
3. 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]
4. Emission rates from the combustion device shall not exceed any of the following limits: NOx - 0.06 lb/MMBtu; CO - 0.20 lb/MMBtu; 20 ppmv VOC @ 3% O2 (as hexane) or 0.0027 lb-VOC/MMBtu; or PM10 - 0.005 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The H2S content of the raw digester gas processed through this gas treatment system shall not exceed 200 ppmv. [District Ruled 2201 and 4801] Federally Enforceable Through Title V Permit
6. Source testing of the NOx and CO emissions from the exhaust of the combustion device shall be performed at least once every five years. [District Rules 2201 and 2520] 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.

Seyed Sadredin, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726 • (559) 230-5900 • Fax (559) 230-6061

7. Testing to demonstrate compliance with the raw digester gas H2S content limit shall be conducted quarterly. Once eight (8) consecutive quarterly test show compliance, the H2S content testing frequency may be reduce to once every calendar year. If an annual test shows violation of the H2S content limit, then quarterly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive quarterly tests, then testing may return to once every calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. 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 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
9. NOx emissions for source test purposes shall be determined using EPA Method 19. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
10. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
11. VOC emissions for source test purposes shall be determined using EPA Method 18 or 25. [District Rule 2201]
12. Testing to measure the H2S content of the fuel shall be conducted using either EPA Method 15, ASTM Method D1072, D3031, D3246, D4084, D4810, D5504, D6228 or with the use of the Testo 350 XL portable analyzer. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
14. The combustion zone of the combustion device shall be maintained at a minimum of 1,400 degrees Fahrenheit. [District Rule 2520] Federally Enforceable Through Title V Permit
15. The combustion device shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2520] Federally Enforceable Through Title V Permit
16. The combustion device shall be equipped with a non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of waste gas and raw digester gas combusted in the unit. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The permittee shall maintain daily records of the thermal oxidizer combustion temperature. [District Rule 2520] Federally Enforceable Through Title V Permit
18. The permittee shall maintain records of: (1) daily amount of waste gas, raw digester gas, and/or PUC-quality natural gas consumed by the combustion device, in standard cubic feet; (2) copy of source test reports; and (3) copies of all annual reports submitted to the District. [District Rules 2201 and 2520] Federally Enforceable Through Title V Permit
19. 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 2201 and 2520] Federally Enforceable Through Title V Permit

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: C-535-45-0

ISSUANCE DATE: DRAFT

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:
WASTE WATER TREATMENT PLANT OPERATION SERVED BY A 58.5 MMBTU/HR JOHN ZINK COMPANY WASTE GAS FLARE

CONDITIONS

1. {1830} 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. {1831} 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. Upon startup of the equipment authorized by this Authority to Construct (ATC), Permit to Operate C-535-18 shall be surrendered to the District and the associated equipment shall be removed or rendered inoperable to mitigate the emissions increase. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOx emission reduction credits for the following quantity of emissions: 1st quarter - 3,274 lb, 2nd quarter - 3,274 lb, 3rd quarter - 3,274 lb, and fourth quarter - 3,274 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16). [District Rule 2201] Federally Enforceable Through Title V Permit
5. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 8,043 lb, 2nd quarter - 8,043 lb, 3rd quarter - 8,044, and fourth quarter - 8,044. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 2/18/16). [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

Arnaud Marjollet, Director of Permit Services
C-535-45-0 : Jan 2 2019 4:23PM – HOOSHMAM : Joint Inspection NOT Required

6. ERC Certificate Numbers N-711-5, N-713-5, S-2896-2, S-2740-2, S-4823-2, S-2802-2, N-1402-2, N-1404-2, or N-1400-2 (or a certificate split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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 4102]
8. 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
9. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
10. 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]
11. The flare shall be operated in a manner preventing the emission of noxious odors or other nuisances. [District Rule 4102]
12. The waste gas flare system shall be specifically designed for burning on digester gas except for the pilot light which is fired on PUC regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The flare shall be equipped and operated with 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. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
14. The flare system shall have continuous readout and recording of gas flow rate and stack temperature. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Total volume of gaseous fuel flared shall not exceed 2,160,000 scf per day. [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, 5.2] Federally Enforceable Through Title V Permit
17. The flare 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, 5.3] Federally Enforceable Through Title V Permit
18. Daily testing of digester gas is required so as to not exceed an average of 200 ppm as hydrogen sulfide (H2S). Corrections shall be made, and re-tested within 3 hours in order to maintain average below 200 ppm. [District Rule 2201] Federally Enforceable Through Title V Permit
19. VOC emissions shall not exceed 0.0027 lb-VOC/MMBtu. [District Rules 2201 and 4311, 5.7] Federally Enforceable Through Title V Permit
20. Source testing to measure digester gas-combustion NOx and VOC emissions from this unit shall be conducted at least once every twelve (12) months. [District Rule 4311, 6.1.2] Federally Enforceable Through Title V Permit
21. The results of each source test shall be submitted to the District within 45 days thereafter. [District Rule 4311, 6.1.2] Federally Enforceable Through Title V Permit
22. 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 15 days prior to testing. [District Rules 1081 and 4311]
23. VOC emissions for source test purposes, measured and calculated as carbon, shall be determined by 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, and analysis of halogenated exempt compounds shall be analyzed by EPA Method 18 or ARB Method 422 "Determination of Volatile organic Compounds in Emission from Stationary Sources". [District Rule 4311, 6.3.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

24. NOx emissions for source test purposes, in pounds per million Btu, shall be determined by using EPA Method 19. [District Rule 4311, 6.3.2] Federally Enforceable Through Title V Permit
25. NOx and O2 concentrations shall be determined by using EPA Method 3A, EPA Method 7E, or ARB 100. [District Rule 4311, 6.3.3] Federally Enforceable Through Title V Permit
26. The sulfur content of gas being flared shall be determined using ASTM D 1072, D 3031, D 4084, D 3246 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
27. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
28. This flare shall be inspected annually while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If excess emissions continue, a EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
29. Daily records of total gas flared shall be maintained. [District Rules 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
30. Records of flare maintenance, inspections and repair shall be maintained. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
31. Records of daily sulfur testing results shall be maintained. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
32. Records of all source tests shall be maintained. [District Rule 4311, 6.2] Federally Enforceable Through Title V Permit
33. 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 4311] Federally Enforceable Through Title V Permit

APPENDIX B
Current Permit To Operate
(C-535-26-2)

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: C-535-26-2 **EXPIRATION DATE:** 01/31/2021

EQUIPMENT DESCRIPTION:
DIGESTER GAS TREATMENT SYSTEM CONSISTING OF A CHILLER, COMPRESSOR, HYDROGEN SULFIDE REMOVAL UNIT, MEMBRANE PROCESSING UNIT, 7.46 MMBTU/HR JOHN ZINK MODEL ZBRID WASTE GAS/DIGESTER GAS-FIRED COMBUSTION DEVICE AND ACTIVATED CARBON ADSORPTION BEDS

PERMIT UNIT REQUIREMENTS

1. Particulate matter emissions from the exhaust of the combustion device shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. 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 4102]
3. Emission rates from the combustion device shall not exceed any of the following limits: NOx - 0.06 lb/MMBtu; CO - 0.20 lb/MMBtu; 20 ppmv VOC @ 3% O2 (as hexane) or 0.084 lb-VOC/MMBtu; or PM10 - 0.016 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The H2S content of the digester gas processed through this gas treatment system shall not exceed 200 ppmv. [District Rule 2201] Federally Enforceable Through Title V Permit
5. Source testing of the NOx and CO emissions from the exhaust of the combustion device shall be performed at least once every five years. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
6. Testing to demonstrate compliance with the raw digester gas H2S content limit shall be conducted quarterly. Once eight (8) consecutive quarterly test show compliance, the H2S content testing frequency may be reduce to once every calendar year. If an annual test shows violation of the H2S content limit, then quarterly testing shall resume and continue until eight (8) consecutive tests show compliance. Once compliance is shown on eight (8) consecutive quarterly tests, then testing may return to once every calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. 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 15 days prior to testing. [District Rule 1081 and 4311, 6.4.2] Federally Enforceable Through Title V Permit
8. NOx emissions for source test purposes shall be determined using EPA Method 19. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
9. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
10. VOC emissions for source test purposes shall be determined using EPA Method 18 or 25. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Testing to measure the H2S content of the fuel shall be conducted using either EPA Method 15, ASTM Method D1072, D3031, D3246, D4084, D4810, D5504, D6228 or with the use of the Testo 350 XL portable analyzer. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

13. The combustion zone of the combustion device shall be maintained at a minimum of 1,400 degrees Fahrenheit. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
14. The combustion device shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
15. The combustion device shall be equipped with a non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of waste gas and raw digester gas combusted in the unit. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The permittee shall maintain accurate daily records of the thermal oxidizer combustion temperature. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
17. The permittee shall maintain records of: (1) daily amount of waste gas and/or raw digester gas consumed by the combustion device, in standard cubic feet; (2) copy of annual source test reports; and (3) copies of all annual reports submitted to the District. [District Rules 2201 and 2520, 9.4.2] 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 2201 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

APPENDIX C
Top-Down BACT Analysis and BACT Guideline 1.4.4 B

Top-Down BACT Analysis

BACT Analysis for VOC Emissions:

a. Step 1 - Identify all control technologies

The SJVAPCD BACT Clearinghouse guideline 1.4.4 identifies achieved in practice BACT for digester gas-fired flare:

1) VOC: Enclosed flare, NOx emission concentration of 0.06 lb/MMBtu

b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from Step 1.

c. Step 3 - Rank remaining options by control effectiveness

No ranking needs to be done because only one control option is listed in Step 1.

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the only control option listed for each pollutant. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

BACT for VOC is the use of an enclosed flare with minimum NOx emission concentration of 0.06 lb/MMBtu. The facility is proposing to meet BACT by the use of an enclosed digester gas-fired flare. Therefore, BACT for VOC is satisfied.

Location:		**Date of Determination:**	11/7/2016
Pollutant		**BACT**	
	BACT Status		**Comment**

Best Available Control Technology (BACT) Guideline 1.4.4 B

Emissions Unit:	Digester Gas-Fired Flare	**Equipment Rating:**	140 ft^3/min
Facility:	City of Turlock Water Control	**References:**	ATC # N-3669-6-0; project # N-1053183
Location:	Turlock	**Date of Determination:**	5/16/2006

Pollutant	**BACT**
CO	BACT NOT TRIGGERED
NOx	enclosed flare, VOC emission concentration of 0.068 lb/MMBtu
PM10	BACT NOT TRIGGERED
SOx	natural gas-fired pilot
VOC	enclosed flare, NOx emission concentration of 0.06 lb/MMBtu

BACT Status	**Comment**
Achieved in Practice	

APPENDIX D
HRA Summary

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	Mahsa Hooshmandi – Permit Services
From:	Jessica Rosas – Technical Services
Date:	May 22, 2018
Facility Name:	Fresno/Clovis WWTP
Location:	5607 W Jensen Ave, Fresno
Application #(s):	C-535-26-4 & 45-0
Project #:	C-1170082

A. RMR SUMMARY

RMR Summary						
Units	**Prioritization Score**	**Acute Hazard Index**	**Chronic Hazard Index**	**Maximum Individual Cancer Risk**	**T-BACT Required?**	**Special Permit Requirements?**
Unit 45-0 (Digester Flare)	0.50	0.00	0.00	9.25E-07	No	Yes
Project Totals	0.82	0.00	0.00	1.56E-06		
Facility Totals	>1	0.02	0.00	4.96E-06		

Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 45-0

1. 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.

B. RMR REPORT

I. Project Description

Technical Services received a request on May 5, 2018, to perform a Risk Management Review for a proposed modification to a waste water treatment operation. The modification consisted of the installation of: a new 58.5 MMBtu/hr John Zink ZBRID digester gas flare to be permitted under C-535-45. As a method of disposing of excess digester gas produced at the facility they are also proposing to modify an existing 7.46 MMBtu/hr combustion device in the gas conditioning system permitted under C-535-26 to clarify the equipment description so it will read how the system is allowed to combust waste gas and raw untreated digester gas. This modification does not result in a change to permit conditions or method of operation because the combustion device is currently allowed to combust raw digester gas per permit condition

#6. Furthermore, unit C-535-26 uses natural gas as supplemental fuel to ignite the Thermal Oxidizer (C-1173466). The hourly rate of natural gas is 0.018 mmscf/hr and 157.68 mmscf/yr. In addition, turbine permitted under C-535-18 is also requested to be removed.

II. Analysis

Toxic emissions for this proposed unit were calculated using 2001 Ventura County's Air Pollution District emission factors for Natural Gas Fired external combustion and the 1996 speciation of Pt Loma Waste Water Treatment Plant Raw Gas by the SDAPCD. Toxic emissions for natural gas supplemental fuel were calculated using 2001 Ventura County's Air Pollution Control District's emission factors for Natural Gas Fired external combustion, and input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015), risks from the proposed unit's toxic emissions were prioritized using the procedure in the 1990 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Fresno to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 45-0			
Source Type	Point	**Location Type**	Rural
Stack Height (m)	12.19	**Closest Receptor (m)**	836
Stack Diameter. (m)	2.13	**Type of Receptor**	Business
Stack Exit Velocity (m/s)	0.79	**Max Hours per Year**	8760
Stack Exit Temp. (°K)	1033.15	**Fuel Type**	N/A
Fuel Usage (mmscf/hr)	0.0585	**Fuel Usage (mmscf/yr)**	512.5

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x, and PM10 with the emission rates below:

Unit #	**NO_x (Lbs.)**		**SO_x (Lbs.)**		**CO (Lbs.)**		**PM_{10} (Lbs.)**	
	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.
45-0	3.98	34,847	3.59	31,465	11.7	102,492	0.875	7,665

*CO emission rates from supplemental natural gas fuel.

The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

	Background Site	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Fresno-Drummond (2015)	Pass	X	Pass	X	X
NO_x	Fresno-Drummond (2016)	Pass[1]	X	X	X	Pass
SO_x	Fresno – Garland (2016)	Pass	Pass	X	Pass	Pass
PM_{10}	Fresno-Drummond (2016)	X	X	X	Pass[2]	Pass[2]
$PM_{2.5}$	Fresno-Drummond (2016)	X	X	X	Pass[3]	Pass[3]

*Results were taken from the attached PSD spreadsheet.
[1]The project was compared to the 1-hour NO2 National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.
[2]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).
[3]The court has vacated EPA's $PM_{2.5}$ SILs. Until such time as new SIL values are approved, the District will use the corresponding PM_{10} SILs for both PM_{10} and $PM_{2.5}$ analyses.

III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.
The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

IV. Attachments

A. RMR request from the project engineer
B. Additional information from the applicant/project engineer
C. Prioritization score w/ toxic emissions summary
D. Facility Summary

APPENDIX E
NOx Clean Emissions Unit Determination

A clean emissions unit is defined in District Rule 2201, Section 3.13 as an emissions unit that meets one of the following criteria:

- The unit is equipped with an emission control technology with a minimum control efficiency of at least 95%; or
- The unit is equipped with emission control technology that meets the requirements for achieved-in-practice (AIP) Best Available Control Technology (BACT) during the 5 years immediately prior to the submission of the complete application.

The existing digester gas-fired turbine, permit unit C-535-18-15, is equipped with a selective catalytic reduction (SCR) system which is considered to achieve only a 90% control efficiency; therefore, the unit cannot be a clean emissions unit from having a control efficiency of at least 95%.

Since the District does not have an existing BACT guideline for digester or landfill gas-fired turbines, an AIP BACT analysis is required and is performed below to determine if the unit meets AIP within the past five years.

Since the facility is only a major source for NOx and CO, as demonstrated above in Section VII.5 of the application review, only NOx and CO will be evaluated.

Achieved in Practice BACT Analysis:

The Environmental Protection Agency (EPA), California Air Resources Board (CARB), San Diego County Air Pollution Control District (SDCAPCD), Bay Area Air Quality Management District (BAAQMD) and South Coast Air Quality Management District (SCAQMD) and BACT clearinghouses were reviewed to determine potential control technologies for a digester or landfill gas-fired turbine. Two existing BACT guidelines were found as follows:

Bay Area Air Quality Management District (BAAQMD)

The BAAQMD BACT clearinghouse contains Document # 89.3.1 (see attached), applicable to "gas turbine – landfill gas-fired" dated 6/17/99 listing the following limits as achieved in practice:

NOx:	25 ppmv @ 15% O2
CO:	200 ppmv @ 15% O2

Additionally, the BAAQMD was contacted in an effort to determine if any units within this class and category are operating at lower emission levels than the limits required by the BACT guideline. The BAAQMD staff directed the District to Supervising Air Quality Engineer Carol Allen. A voicemail message was left with Carol Allen and the District has yet to receive a return phone call to determine if there are any units within this class and category are operating at lower emission levels than the limits required by the BACT guideline.

South Coast Air Quality Management District (SCAQMD)

The SCAQMD BACT clearinghouse contains a BACT determination from application number 358625 (see attached), applicable to "gas turbine, landfill or digester gas fired" dated 9/24/03 listing the following permit limits which were verified by a source test:

NOx: 25 ppmv @ 15% O2
CO: 60 ppmv @ 15% O2

Additionally, the SCAQMD was contacted in an effort to determine if any units within this class and category are operating at lower emission levels than the limits required by the BACT guideline. Charles Tupac of the SCAQMD provided a source test of SCAQMD's lowest emitting operating unit within this class and category (see attached). The unit was source tested at the following levels:

NOx: 4.34 ppmv @ 15% O2
CO: 11.3 ppmv @ 15% O2

The SJVAPCD permit database was also searched for possible facilities within this class and category of operation. Other than the subject facility, Fresno/Clovis Regional Wastewater Treatment Plant (C-535), there are no other permitted landfill or digester gas-fired turbines. The digester gas-fired turbine permitted under C-535-18 contains the following limits during steady state, which were verified by source tests:

NOx: 5 ppmv @ 15% O2
CO: 188 ppmv @ 15% O2

The landfill gas-fired turbine operating within the SCAQMD has the lowest NOx emission level of 4.34 ppmv @ 15% O2. This emissions level could potentially be considered AIP BACT; however, District practice is to allow a 20% margin of compliance above source tested values for permitting limits which would result in a permit limit of 5.2 ppmv @ 15% O2 (4.34 ppmv @ 15% O2 x 1.2).

The digester gas-fired turbine permitted under C-535-18 has a permitted NOx emission limit lower than the other potential AIP limits stated above; therefore, the unit is considered to have met achieved in practice BACT and is a clean emissions unit for NOx.

As shown above, the minimum CO emission limit required by an applicable BACT guideline is 60 ppmvd @ 3% O2; however, in general, low CO corresponds to high NOx. Since NOx and CO are directly related and since NOx reductions are more critical to the District's attainment effort than CO, the lower CO emission limits will be removed from consideration to allow a facility the flexibility to tune a turbine to meet low NOx levels. The CO emission limit of 188 ppmv @ 15% O2 with a NOx limit of 5 ppmvd @ 3% O2 will be considered achieved in practice; therefore, the digester gas-fired turbine permitted under C-535-18 is a clean emissions unit for CO.

APPENDIX F
Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

QNEC = PE2 - PE1, where:

QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr.
PE2 = Post Project Potential to Emit for each emissions unit, lb/qtr.
PE1 = Pre-Project Potential to Emit for each emissions unit, lb/qtr.

ATC C-535-45-0 (Flare):

Pollutant	Annual PE1 (lb/yr)	Quarterly PE1 (lb/qtr)
NOx	0	0
SOx	0	0
PM_{10}	0	0
CO	0	0
VOC	0	0

Pollutant	Annual PE2 (lb/yr)	Quarterly PE2 (lb/qtr)
NOx	30,748	7,687
SOx	31,465	7,866
PM_{10}	2,562	641
CO	102,492	25,623
VOC	1,384	346

QNEC (lb/qtr) = PE2 (lb/qtr) – PE1 (lb/qtr)

Quarterly NEC [QNEC]			
	PE2 (lb/qtr)	PE1 (lb/qtr)	QNEC (lb/qtr)
NOx	7,687	0	7,687
SOx	7,866	0	7,866
PM_{10}	641	0	641
CO	25,623	0	25,623
VOC	346	0	346

APPENDIX G
Actual Emissions Calculation (Unit -18)

Emission Statement - Calendar Year 2010 Emissions

Date / Time Printed 10/01/2018 / 8:43:26 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
6	1	16.7 MMBTU/HR WASTE GAS STEAM BLR -PE	109.302	MILLION CUBIC FEET BURNED	15.8	3.0	4.5	.87	5.4	.0	
				10300701	**.86**	**.16**	**.25**	**.05**	**.3**	**.0**	(Tons/Yr)
9	1	JOHN ZINK FLARE	89.994	MILLION CUBIC FEET GAS BU	78.8	.8	4.5	37.1	2.73	.0	
				50300601	**3.55**	**.04**	**.2**	**1.67**	**.12**	**.0**	(Tons/Yr)
10	1	2518 HP EMERGENCY DIESEL-FIRED ICE	2.0025	THOUSANDS OF GALLONS	469.0	32.1	31.2	102.0	33.5	.0	
				20300101	**.47**	**.03**	**.03**	**.1**	**.03**	**.0**	(Tons/Yr)
11	1	140 HP diesel ICE#1 for water transf pump	0	THOUSANDS OF GALLONS	249.5	32.1	31.2	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
12	1	140 HP diesel ICE#2 for water transf pump	0.0148466	THOUSANDS OF GALLONS	249.5	32.1	31.2	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
17	1	455 hp Diesel emerg ICE	0.31369	THOUSANDS OF GALLONS	233.2	32.1	31.2	102.0	33.5	.0	
				20300101	**.04**	**.01**	**.0**	**.02**	**.01**	**.0**	(Tons/Yr)
18	1	Digester gas-fired turbine generator #1	81.30143	MILLION CUBIC FEET BURNED	80.28	4.77	35.4	9.67	5.0	.0	
				20300701	**3.26**	**.19**	**1.44**	**.39**	**.2**	**.39**	(Tons/Yr)
18	2	Natural gas-fired turbine generator #1	139.7329	MILLION CUBIC FEET BURNED	80.28	4.77	2.85	9.67	5.0	.0	
				20300202	**5.61**	**.33**	**.2**	**.68**	**.35**	**.0**	(Tons/Yr)
19	1	Digester gas-fired turbine generator #2	118.0458	MILLION CUBIC FEET BURNED	80.21	4.77	35.4	12.03	5.0	.0	
				20300701	**4.73**	**.28**	**2.09**	**.71**	**.3**	**.57**	(Tons/Yr)
19	2	Natural gas-fired turbine generator #2	163.7833	MILLION CUBIC FEET BURNED	80.21	4.77	2.85	12.03	5.0	.0	
				20300202	**6.57**	**.39**	**.23**	**.99**	**.41**	**.0**	(Tons/Yr)
20	1	158 HP LOW-USE DIESEL-FIRED ICE	0.10056	THOUSANDS OF GALLONS	469.0	32.1	31.2	102.0	33.5	.0	
				20300101	**.02**	**.0**	**.0**	**.01**	**.0**	**.0**	(Tons/Yr)
21	1	158 HP LOW-USE DIESEL-FIRED ICE	0.02514	THOUSANDS OF GALLONS	469.0	32.1	32.1	102.0	33.5	.0	
				20300101	**.01**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
24	1	125 BHP DIESEL-FIRED ICE	1.623857	THOUSANDS OF GALLONS	469.0	32.1	31.2	102.0	33.5	.0	
				20300101	**.38**	**.03**	**.03**	**.08**	**.03**	**.0**	(Tons/Yr)

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By BOTILLB

Emission Statement - Calendar Year 2010 Emissions

Date / Time Printed 10/01/2018 / 8:43:26 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit
		Totals For the Facility (TONS / YEAR)			25.5	1.46	4.47	4.69	1.74	.96

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

Contact	RAUL CAMPOS
Company	FRESNO/CLOVIS REGIONAL WWTP
Address	5607 W JENSEN AVE
City,State,Zip	FRESNO CA 93706
Telephone	(559) 621 - 5132
Email:	Raul.Campos@fresno.gov
Location of facility if different from above	FRESNO/CLOVIS REGIONAL WWTP 5607 W JENSEN AVE FRESNO, CA 93706

Name and Title of Responsible Official

Rick Staggs, Wastewater Manager
Rosa Staggs, Wastewater Manager

I certify that the information contained in the Emission Statement is accurate to the best of my knowledge.

Signature of Responsible Official and Date

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By BOTILLB

Emission Statement - Calendar Year 2011 Emissions

Date / Time Printed 10/01/2018 / 8:42:58 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
6	1	16.7 MMBTU/HR WASTE GAS STEAM BLR -PE	130.16	MILLION CUBIC FEET BURNED	15.8	3.0	4.5	.87	5.4	.0	
				10300701	**1.03**	**.2**	**.29**	**.06**	**.35**	**.0**	(Tons/Yr)
9	1	JOHN ZINK FLARE	178.401	MILLION CUBIC FEET GAS BU	78.8	.8	4.5	37.1	2.73	.0	
				50300601	**7.03**	**.07**	**.4**	**3.31**	**.24**	**.86**	(Tons/Yr)
10	1	2518 bhp EMERGENCY DIESEL-FIRED ICE	1.335	THOUSANDS OF GALLONS	469.0	32.1	31.2	102.0	33.5	.0	
				20300101	**.31**	**.02**	**.02**	**.07**	**.02**	**.0**	(Tons/Yr)
11	1	140 bhp diesel ICE#1 for water transf pump	0	THOUSANDS OF GALLONS	249.5	32.1	31.2	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
12	1	140 bhp diesel ICE#2 for water transf pump	0	THOUSANDS OF GALLONS	249.5	32.1	31.2	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
17	1	455 bhp Diesel emerg ICE	0.518795	THOUSANDS OF GALLONS	233.2	32.1	31.2	102.0	33.5	.0	
				20300101	**.06**	**.01**	**.01**	**.03**	**.01**	**.0**	(Tons/Yr)
18	1	Digester gas-fired turbine generator #1	71.39438	MILLION CUBIC FEET BURNED	80.28	4.77	35.4	9.67	5.0	.0	
				20300701	**2.87**	**.17**	**1.26**	**.35**	**.18**	**.0**	(Tons/Yr)
18	2	Natural gas-fired turbine generator #1	113.5541	MILLION CUBIC FEET BURNED	80.28	4.77	2.85	9.67	5.0	.0	
				20300202	**4.56**	**.27**	**.16**	**.55**	**.28**	**.0**	(Tons/Yr)
19	1	Digester gas-fired turbine generator #2	71.3877	MILLION CUBIC FEET BURNED	80.21	4.77	35.4	12.03	5.0	.0	
				20300701	**2.86**	**.17**	**1.26**	**.43**	**.18**	**.0**	(Tons/Yr)
19	2	Natural gas-fired turbine generator #2	100.184	MILLION CUBIC FEET BURNED	80.21	4.77	2.85	12.03	5.0	.0	
				20300202	**4.02**	**.24**	**.14**	**.6**	**.25**	**.0**	(Tons/Yr)
20	1	158 bhp LOW-USE DIESEL-FIRED ICE	0.07542	THOUSANDS OF GALLONS	469.0	32.1	31.2	102.0	33.5	.0	
				20300101	**.02**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
21	1	158 bhp LOW-USE DIESEL-FIRED ICE	0.026816	THOUSANDS OF GALLONS	469.0	32.1	32.1	102.0	33.5	.0	
				20300101	**.01**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
24	1	125 BHP DIESEL-FIRED ICE	1.562196	THOUSANDS OF GALLONS	469.0	32.1	31.2	102.0	33.5	.0	
				20300101	**.37**	**.03**	**.02**	**.08**	**.03**	**.0**	(Tons/Yr)

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By BOTILLB

Emission Statement - Calendar Year 2011 Emissions

Date / Time Printed 10/01/2018 / 8:42:58 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit
		Totals For the Facility (TONS / YEAR)			23.13	1.17	3.58	5.47	1.55	.86

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

Contact Ray Arthur
Company FRESNO/CLOVIS REGIONAL WWTP
Address 5607 W JENSEN AVE
City,State,Zip FRESNO CA 93706
Telephone (559) 621 - 5132
Email: Ray.Arthur@fresno.gov
Location of facility if different from above FRESNO/CLOVIS REGIONAL WWTP
5607 W JENSEN AVE
FRESNO, CA 93706

Name and Title of Responsible Official

Rick Staggs, Wastewater Manager
Rosa Staggs, Wastewater Manager

I certify that the information contained in the Emission Statement is accurate to the best of my knowledge.

Signature of Responsible Official and Date

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By BOTILLB

Emission Statement - Calendar Year 2012 Emissions

Date / Time Printed 10/01/2018 / 8:42:29 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
6	1	16.7 MMBtu/Hr Waste Gas Steam Boiler -PE	39.166	MILLION CUBIC FEET BURNED	6.05	2.2	14.3	.87	2.64	.0	
				10300701	.12	.04	.28	.02	.05	.0	(Tons/Yr)
9	1	36.3 MMBtu/Hr John Zinc Waste Gas Flare	142.012	MILLION CUBIC FEET GAS BU	78.8	.8	4.5	37.1	2.73	.0	
				50300601	5.6	.06	.32	2.63	.19	.68	(Tons/Yr)
10	1	2518 bhp Diesel Emergency IC Engine	0.9345	THOUSANDS OF GALLONS	469.0	32.1	31.2	102.0	33.5	.0	
				20300101	.22	.01	.01	.05	.02	.0	(Tons/Yr)
11	1	140 bhp Diesel Emergency IC Engine - Water Pump	0	THOUSANDS OF GALLONS	249.5	32.1	31.2	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
12	1	140 bhp Diesel Emergency IC Engine - Water Pump	0	THOUSANDS OF GALLONS	249.5	32.1	31.2	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
17	1	455 bhp Diesel Emergency IC Engine	0.159258	THOUSANDS OF GALLONS	233.2	32.1	31.2	102.0	33.5	.0	
				20300101	.02	.0	.0	.01	.0	.0	(Tons/Yr)
18	1	Digester Gas-Fired Turbine Generator #1	111.855	MILLION CUBIC FEET BURNED	5.08	4.77	35.4	4.54	5.0	1.57	
				20300701	.28	.27	1.98	.25	.28	175.61	(Tons/Yr)
18	2	Natural Gas-Fired Turbine Generator #1	183.8858	MILLION CUBIC FEET BURNED	11.73	4.77	2.85	24.76	5.0	3.55	
				20300202	1.08	.44	.26	2.28	.46	652.79	(Tons/Yr)
19	1	Digester Gas-Fired Turbine Generator #2	71.514	MILLION CUBIC FEET BURNED	4.89	4.77	35.4	10.92	5.0	2.17	
				20300701	.17	.17	1.27	.39	.18	155.19	(Tons/Yr)
19	2	Natural Gas-Fired Turbine Generator #2	117.5664	MILLION CUBIC FEET BURNED	8.18	4.77	2.85	22.75	5.0	3.68	
				20300202	.48	.28	.17	1.34	.29	432.64	(Tons/Yr)
24	1	125 bhp Diesel IC Engine - Transportable - Tier 3	1.335282	THOUSANDS OF GALLONS	170.47	12.47	.21	31.18	7.9	.0	
				20300101	.11	.01	.0	.02	.01	.0	(Tons/Yr)
26	1	Digester Gas-Fired Turbine Generator #1	19.046	MILLION CUBIC FEET BURNED	6.24	1.52	38.0	2.78	3.2	.0	
				20300702	.06	.01	.36	.03	.03	.0	(Tons/Yr)

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By LAUDIGB

Emission Statement - Calendar Year 2012 Emissions

Date / Time Printed 10/01/2018 / 8:42:29 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit
				Totals For the Facility (TONS / YEAR)	8.14	1.30	4.65	7.01	1.51	1416.92

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

Contact Ray Arthur
Company FRESNO/CLOVIS REGIONAL WWTP
Address 5607 W JENSEN AVE
City,State,Zip FRESNO CA 93706
Telephone (559) 621 - 5132
Email: Ray.Arthur@fresno.gov
Location of facility if different from above FRESNO/CLOVIS REGIONAL WWTP
5607 W JENSEN AVE
FRESNO, CA 93706

Name and Title of Responsible Official

Rick Staggs, Wastewater Manager
Rosa Staggs, Wastewater Manager

I certify that the information contained in the Emission Statement is accurate to the best of my knowledge.

Signature of Responsible Official and Date

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By LAUDIGB

Emission Statement - Calendar Year 2013 Emissions

Date / Time Printed 10/01/2018 / 8:42:03 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
6	1	16.7 MMBtu/Hr Waste Gas Steam Boiler -PE	23.52	MILLION CUBIC FEET BURNED	6.05	2.2	14.3	.87	2.64	.0	
				10300701	.07	.03	.17	.01	.03	.0	(Tons/Yr)
9	1	36.3 MMBtu/Hr John Zinc Waste Gas Flare	29.89	MILLION CUBIC FEET GAS BU	78.8	.8	4.5	37.1	2.73	.0	
				50300601	1.18	.01	.07	.55	.04	.0	(Tons/Yr)
10	1	2518 bhp Diesel Emerg IC Engine-Testing	1.4685	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	.34	.02	.0	.07	.02	.0	(Tons/Yr)
10	2	2518 bhp Diesel Emerg IC Engine-Emergency	0	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
11	1	140 bhp Diesel Emerg IC Engine-Testing	0.000742	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
11	2	140 bhp Diesel Emerg IC Engine-Emergency	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
12	1	140 bhp Diesel Emerg IC Engine-Testing	0.000742	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
12	2	140 bhp Diesel Emerg IC Engine-Emergency	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
17	1	455 bhp Diesel Emerg IC Engine-Testing	0.246	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	.03	.0	.0	.01	.0	.0	(Tons/Yr)
17	2	455 bhp Diesel Emerg IC Engine-Emergency	0	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
18	1	Digester Gas-Fired Turbine Generator #1	126.341	MILLION CUBIC FEET BURNED	5.08	4.77	35.4	4.54	5.0	1.57	
				20300701	.32	.3	2.24	.29	.32	198.36	(Tons/Yr)
18	2	Natural Gas-Fired Turbine Generator #1	118.32	MILLION CUBIC FEET BURNED	11.73	4.77	2.85	24.76	5.0	3.55	
				20300202	.69	.28	.17	1.46	.3	420.04	(Tons/Yr)
19	1	Digester Gas-Fired Turbine Generator #2	112.037	MILLION CUBIC FEET BURNED	4.89	4.77	35.4	10.92	5.0	2.17	
				20300701	.27	.27	1.98	.61	.28	243.12	(Tons/Yr)
19	2	Natural Gas-Fired Turbine Generator #2	104.92	MILLION CUBIC FEET BURNED	8.18	4.77	2.85	22.75	5.0	3.68	
				20300202	.43	.25	.15	1.19	.26	386.11	(Tons/Yr)
24	1	125 bhp Diesel ICE-Transportable	1.749	THOUSANDS OF GALLONS	170.47	12.47	.21	31.18	7.9	.0	
				20300101	.15	.01	.0	.03	.01	.0	(Tons/Yr)

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By LAUDIGB

Emission Statement - Calendar Year 2013 Emissions

Date / Time Printed 10/01/2018 / 8:42:03 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
26	1	Digester Gas Treatment System w/TO	31.55	MILLION CUBIC FEET BURNED	6.24	1.52	38.0	2.78	3.2	.0	
				20300702	.1	.02	.6	.04	.05	.0	(Tons/Yr)
				Totals For the Facility (TONS / YEAR)	3.59	1.20	5.37	4.28	1.31	1247.62	

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

Contact Ray Arthur
Company FRESNO/CLOVIS REGIONAL WWTP
Address 5607 W JENSEN AVE
City,State,Zip FRESNO CA 93706
Telephone (559) 621 - 5132
Email: Ray.Arthur@fresno.gov
Location of facility if different from above FRESNO/CLOVIS REGIONAL WWTP
5607 W JENSEN AVE
FRESNO, CA 93706

Name and Title of Responsible Official

Rick Staggs, Wastewater Manager
Rosa Staggs, Wastewater Manager

I certify that the information contained in the Emission Statement is accurate to the best of my knowledge.

Signature of Responsible Official and Date

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By LAUDIGB

Emission Statement - Calendar Year 2014 Emissions

Date / Time Printed 10/01/2018 / 8:41:33 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
6	1	16.7 MMBtu/Hr Waste Gas Steam Boiler -PE	30.861	MILLION CUBIC FEET BURNED	6.05	2.2	14.3	.87	2.64	.0	
				10300701	**.09**	**.03**	**.22**	**.01**	**.04**	**.0**	(Tons/Yr)
9	1	36.3 MMBtu/Hr John Zinc Waste Gas Flare	104.096	MILLION CUBIC FEET GAS BU	78.8	.8	4.5	37.1	2.73	.0	
				50300601	**4.1**	**.04**	**.23**	**1.93**	**.14**	**.0**	(Tons/Yr)
10	1	2518 bhp Diesel Emerg IC Engine-Testing	1.068	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	**.25**	**.02**	**.0**	**.05**	**.02**	**.0**	(Tons/Yr)
10	2	2518 bhp Diesel Emerg IC Engine-Emergency	0	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
11	1	140 bhp Diesel Emerg IC Engine-Testing	0.000742	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
11	2	140 bhp Diesel Emerg IC Engine-Emergency	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
12	1	140 bhp Diesel Emerg IC Engine - Testing	0.000742	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
12	2	140 bhp Diesel Emerg IC Engine - Emergency	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
17	1	455 bhp Diesel Emerg IC Engine-Testing	0.191	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	**.02**	**.0**	**.0**	**.01**	**.0**	**.0**	(Tons/Yr)
17	2	455 bhp Diesel Emerg IC Engine-Emergency	0	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	(Tons/Yr)
18	1	Digester Gas-Fired Turbine Generator #1	103.989	MILLION CUBIC FEET BURNED	5.08	4.77	35.4	4.54	5.0	1.57	
				20300701	**.26**	**.25**	**1.84**	**.24**	**.26**	**163.26**	(Tons/Yr)
18	2	Natural Gas-Fired Turbine Generator #1	1444.812	MILLION CUBIC FEET BURNED	11.73	4.77	2.85	24.76	5.0	3.55	
				20300202	**8.47**	**3.45**	**2.06**	**17.89**	**3.61**	**5129.08**	(Tons/Yr)
19	1	Digester Gas-Fired Turbine Generator #2	81.706	MILLION CUBIC FEET BURNED	4.89	4.77	35.4	10.92	5.0	2.17	
				20300701	**.2**	**.19**	**1.45**	**.45**	**.2**	**177.3**	(Tons/Yr)
19	2	Natural Gas-Fired Turbine Generator #2	1135.209	MILLION CUBIC FEET BURNED	8.18	4.77	2.85	22.75	5.0	3.68	
				20300202	**4.64**	**2.71**	**1.62**	**12.91**	**2.84**	**4177.57**	(Tons/Yr)
24	1	125 bhp Diesel ICE-Transportable	1.032	THOUSANDS OF GALLONS	170.47	12.47	.21	31.18	7.9	.0	
				20300101	**.09**	**.01**	**.0**	**.02**	**.0**	**.0**	(Tons/Yr)

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By LAWLERC

Emission Statement - Calendar Year 2014 Emissions

Date / Time Printed 10/01/2018 / 8:41:33 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
26	1	Digester Gas Treatment System w/TO	51.76	MILLION CUBIC FEET BURNED	6.24	1.52	38.0	2.78	3.2	.0	
				20300702	.16	.04	.98	.07	.08	.0	(Tons/Yr)
				Totals For the Facility (TONS / YEAR)	18.3	6.74	8.40	33.58	7.21	9647.22	

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

Contact	Ray Arthur
Company	FRESNO/CLOVIS REGIONAL WWTP
Address	5607 W JENSEN AVE
City,State,Zip	FRESNO CA 93706
Telephone	(559) 621 - 5266
Email:	Ray.Arthur@fresno.gov
Location of facility if different from above	FRESNO/CLOVIS REGIONAL WWTP 5607 W JENSEN AVE FRESNO, CA 93706

Name and Title of Responsible Official

Rick Staggs, Wastewater Manager
Rosa Staggs, Wastewater Manager

I certify that the information contained in the Emission Statement is accurate to the best of my knowledge.

Signature of Responsible Official and Date

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By LAWLERC

Emission Statement - Calendar Year 2015 Emissions

Date / Time Printed 10/01/2018 / 8:41:08 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
6	1	16.7 MMBTU/HR STEAM BOILER-PE - WASTE GAS	29.52	MILLION CUBIC FEET BURNED	6.05	2.2	14.3	.28	2.64	.0	
				10300701	.09	.03	.21	.0	.04	.0	(Tons/Yr)
9	1	36.3 MMBTU/HR FLARE - PILOT FUEL - WASTE GAS COMBUSTION	0.33	MILLION CUBIC FEET BURNED	78.8	.4	4.5	37.1	2.73	.0	
				30390024	.01	.0	.0	.01	.0	.0	(Tons/Yr)
9	2	36.3 MMBTU/HR FLARE - WASTE GAS COMBUSTION	16.53	MILLION CUBIC FEET GAS BU	78.8	.4	4.5	37.1	2.73	.0	
				50300601	.65	.0	.04	.31	.02	.0	(Tons/Yr)
10	1	2518 BHP EMERG IC ENGINE – TESTING - DIESEL	1.335	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	.31	.02	.0	.07	.02	.0	(Tons/Yr)
10	2	2518 BHP EMERG IC ENGINE – EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
11	1	140 BHP EMERG IC ENGINE – TESTING - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
11	2	140 BHP EMERG IC ENGINE – EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
12	1	140 BHP EMERG IC ENGINE – TESTING - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
12	2	140 BHP EMERG IC ENGINE – EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
13	1	ODOR CONTROL SCRUBBING SYSTEM	20383	MILLION GALLONS WASTEWATE	.0	.08	.0	.0	.0	.0	
				50100701	.0	.76	.0	.0	.0	.0	(Tons/Yr)
17	1	455 BHP EMERG IC ENGINE – TESTING - DIESEL	0.301625	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	.04	.0	.0	.02	.01	.0	(Tons/Yr)
17	2	455 BHP EMERG IC ENGINE – EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
18	1	TURBINE GENERATOR #1 - DIGESTER GAS FIRED	0	MILLION CUBIC FEET BURNED	5.08	4.77	35.4	4.54	5.0	.0	
				20300701	.0	.0	.0	.0	.0	.0	(Tons/Yr)
18	2	TURBINE GENERATOR #1 - NATURAL GAS FIRED	0	MILLION CUBIC FEET BURNED	11.73	4.77	2.85	24.76	5.0	3.55	
				20300202	.0	.0	.0	.0	.0	.0	(Tons/Yr)
19	1	TURBINE GENERATOR #2 - DIGESTER GAS FIRED	265.67	MILLION CUBIC FEET BURNED	4.89	4.77	35.4	10.92	5.0	2.17	
				20300701	.65	.63	4.7	1.45	.66	576.5	(Tons/Yr)

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By BOTILLB

Emission Statement - Calendar Year 2015 Emissions

Date / Time Printed 10/01/2018 / 8:41:08 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
19	2	TURBINE GENERATOR #2 - NATURAL GAS FIRED	190.78	MILLION CUBIC FEET BURNED	8.18	4.77	2.85	22.75	5.0	3.68	
				20300202	.78	.46	.27	2.17	.48	702.07	(Tons/Yr)
24	1	125 BHP ICE-TRANSPORTABLE - DIESEL	0.17901	THOUSANDS OF GALLONS	170.47	12.47	.21	31.18	7.9	.0	
				20300101	.02	.0	.0	.0	.0	.0	(Tons/Yr)
26	1	DIGESTER GAS TREATMENT SYSTEM w/TO	27.61	MILLION CUBIC FEET BURNED	6.24	1.52	38.0	2.78	3.2	.0	
				20300702	.09	.02	.52	.04	.04	.0	(Tons/Yr)
28	1	UNCONFINED ABRASIVE BLASTING	0	TONS ABRASIVE CONSUMED	.0	.0	.0	.0	14.0	.0	
				30900201	.0	.0	.0	.0	.0	.0	(Tons/Yr)
		Totals For the Facility (TONS / YEAR)			2.63	1.94	5.75	4.06	1.28	1278.57	

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

Contact Ray Arthur
Company FRESNO/CLOVIS REGIONAL WWTP
Address 5607 W JENSEN AVE
City,State,Zip FRESNO CA 93706
Telephone (559) 621 - 5266
Email: Ray.Arthur@fresno.gov
Location of facility if different from above FRESNO/CLOVIS REGIONAL WWTP
5607 W JENSEN AVE
FRESNO, CA 93706

Name and Title of Responsible Official

Rick Staggs, Wastewater Manager
Rosa Staggs, Wastewater Manager

I certify that the information contained in the Emission Statement is accurate to the best of my knowledge.

Signature of Responsible Official and Date

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By BOTILLB

Emission Statement - Calendar Year 2016 Emissions

Date / Time Printed 10/01/2018 / 8:40:42 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170
Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
6	1	16.7 MMBTU/HR STEAM BOILER-PE - WASTE GAS	77.78	MILLION CUBIC FEET BURNED	6.05	2.2	14.3	.28	2.64	.0	
				10300701	.24	.09	.56	.01	.1	.0	(Tons/Yr)
9	1	36.3 MMBTU/HR FLARE - PILOT FUEL - WASTE GAS COMBUSTION	6.84	MILLION CUBIC FEET BURNED	78.8	.4	4.5	37.1	2.73	.0	
				30390024	.27	.0	.02	.13	.01	.0	(Tons/Yr)
9	2	36.3 MMBTU/HR FLARE - WASTE GAS COMBUSTION	342.13	MILLION CUBIC FEET GAS BU	78.8	.4	4.5	37.1	2.73	.0	
				50300601	13.48	.07	.77	6.35	.47	.0	(Tons/Yr)
10	1	2518 BHP EMERGENCY IC ENGINE - TESTING - DIESEL	1.335	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	.31	.02	.0	.07	.02	.0	(Tons/Yr)
10	2	2518 BHP EMERGENCY IC ENGINE - EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
11	1	140 BHP EMERGENCY IC ENGINE - TESTING - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
11	2	140 BHP EMERGENCY IC ENGINE - EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
12	1	140 BHP EMERGENCY IC ENGINE - TESTING - DIESEL	0.004452	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
12	2	140 BHP EMERGENCY IC ENGINE - EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
13	1	ODOR CONTROL SCRUBBING SYSTEM	20443	MILLION GALLONS WASTEWATE	.0	.08	.0	.0	.0	.0	
				50100701	.0	.77	.0	.0	.0	.0	(Tons/Yr)
17	1	455 BHP EMERGENCY IC ENGINE - TESTING - DIESEL	0.221996	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	.03	.0	.0	.01	.0	.0	(Tons/Yr)
17	2	455 BHP EMERGENCY IC ENGINE - EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	.0	.0	.0	.0	.0	.0	(Tons/Yr)
18	1	TURBINE GENERATOR #1 - DIGESTER GAS	50.93	MILLION CUBIC FEET BURNED	5.08	4.77	35.4	4.54	5.0	.0	
				20300701	.13	.12	.9	.12	.13	.0	(Tons/Yr)
18	2	TURBINE GENERATOR #1 - NG	22.63	MILLION CUBIC FEET BURNED	11.73	4.77	2.85	24.76	5.0	3.55	
				20300202	.13	.05	.03	.28	.06	80.34	(Tons/Yr)
19	1	TURBINE GENERATOR #2 - DIGESTER GAS	0	MILLION CUBIC FEET BURNED	4.89	4.77	35.4	10.92	5.0	2.17	
				20300701	.0	.0	.0	.0	.0	.0	(Tons/Yr)

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By BOTILLB

Emission Statement - Calendar Year 2016 Emissions

Date / Time Printed 10/01/2018 / 8:40:42 AM

UTM Zone : 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley Unified APCD
1990 East Gettysburg Avenue
Fresno, CA 93726
or FAX: (559) 230 - 6061

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170

Update SUmmary ☐

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	
19	2	TURBINE GENERATOR #2 - NG	0	MILLION CUBIC FEET BURNED	8.18	4.77	2.85	22.75	5.0	3.68	
				20300202	.0	.0	.0	.0	.0	.0	(Tons/Yr)
24	1	125 BHP TRANSPORTABLE IC ENGINE - DIESEL	0.44421	THOUSANDS OF GALLONS	170.47	12.47	.21	31.18	7.9	.0	
				20300101	.04	.0	.0	.01	.0	.0	(Tons/Yr)
26	1	DIGESTER GAS TREATMENT SYSTEM w/TO	35.93	MILLION CUBIC FEET BURNED	6.24	1.52	38.0	2.78	3.2	.0	
				20300702	.11	.03	.68	.05	.06	.0	(Tons/Yr)
28	1	UNCONFINED ABRASIVE BLASTING	0	TONS ABRASIVE CONSUMED	.0	.0	.0	.0	14.0	.0	
				30900201	.0	.0	.0	.0	.0	.0	(Tons/Yr)
44	1	74 BHP TRANSPORTABLE IC ENGINE - DIESEL	3.481352	THOUSANDS OF GALLONS	129.7	6.65	.21	3.1	.03	.0	
				20300101	.23	.01	.0	.01	.0	.0	(Tons/Yr)
				Totals For the Facility (TONS / YEAR)	14.96	1.16	2.96	7.02	.85	80.34	

*** Please Note: Emissions for NH3 are reported in Lbs / Year.**

Contact Ray Arthur
Company FRESNO/CLOVIS REGIONAL WWTP
Address 5607 W JENSEN AVE
City,State,Zip FRESNO CA 93706
Telephone (559) 621 - 5266
Email: Ray.Arthur@fresno.gov
Location of facility if different from above FRESNO/CLOVIS REGIONAL WWTP
5607 W JENSEN AVE
FRESNO, CA 93706

Name and Title of Responsible Official

Rick Staggs, Wastewater Manager
Rosa Staggs, Wastewater Manager

I certify that the information contained in the Emission Statement is accurate to the best of my knowledge.

Signature of Responsible Official and Date

This data was taken from last year's emissions inventory data. Please make any correction to this document in red ink.

Last Updated By BOTILLB

Emission Statement - Calendar Year 2017 Emissions

Date / Time Printed 10/01/2018 / 8:39:10 AM

UTM Zone: 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley APCD
1990 E. Gettysburg Ave.
Fresno, CA 93726

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	Note: NH3 emissions are in lbs / yr
6	1	16.7 MMBTU/HR STEAM BOILER-PE - DIGESTER GAS	119.36	MILLION CUBIC FEET BURNED	6.05	2.2	14.3	.28	2.64	.0	
				10300701	**.36**	**.13**	**.85**	**.02**	**.16**	**.0**	**(Tons/Yr)**
9	1	36.3 MMBTU/HR FLARE - PILOT FUEL - WASTE GAS COMBUSTION	0	MILLION CUBIC FEET BURNED	78.8	.4	4.5	37.1	2.73	.0	
				30390024	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
9	2	36.3 MMBTU/HR FLARE - WASTE GAS COMBUSTION	342.13	MILLION CUBIC FEET GAS BU	78.8	.4	4.5	37.1	2.73	.0	
				50300601	**13.48**	**.07**	**.77**	**6.35**	**.47**	**.0**	**(Tons/Yr)**
10	1	2518 BHP IC ENGINE - TESTING - DIESEL	0.4806	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	**.11**	**.01**	**.0**	**.02**	**.01**	**.0**	**(Tons/Yr)**
10	2	2518 BHP IC ENGINE - EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	469.0	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
11	1	140 BHP IC ENGINE - TESTING - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
11	2	140 BHP IC ENGINE - EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
12	1	140 BHP IC ENGINE - TESTING - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
12	2	140 BHP IC ENGINE - EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	249.5	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
13	1	ODOR CONTROL SCRUBBING SYSTEM	20947	MILLION GALLONS WASTEWATE	.0	.08	.0	.0	.0	.0	
				50100701	**.0**	**.79**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
17	1	455 BHP IC ENGINE - TESTING - DIESEL	0.09652	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	**.01**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
17	2	455 BHP IC ENGINE - EMERGENCY USE - DIESEL	0	THOUSANDS OF GALLONS	233.2	32.1	.21	102.0	33.5	.0	
				20300101	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
18	1	TURBINE GENERATOR #1 - DIGESTER GAS	0	MILLION CUBIC FEET BURNED	5.08	4.77	35.4	4.54	5.0	.0	
				20300701	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
18	2	TURBINE GENERATOR #1 - NG	0	MILLION CUBIC FEET BURNED	11.73	4.77	2.85	24.76	5.0	.0	
				20300202	**.0**	**.0**	**.0**	**.0**	**.0**	**.0**	**(Tons/Yr)**
24	1	125 BHP TRANSPOR IC ENGINE - DIESEL	0.745212	THOUSANDS OF GALLONS	170.47	12.47	.21	31.18	7.9	.0	
				20300101	**.06**	**.0**	**.0**	**.01**	**.0**	**.0**	**(Tons/Yr)**

Note: This data was taken from last year's emissions inventory data. Please update this sheet with this year's data.

Emission Statement - Calendar Year 2017 Emissions

Date / Time Printed 10/01/2018 / 8:39:10 AM

UTM Zone: 11
UTM East: 241.496
UTM North: 4066.18

Please Sign and Return to:
San Joaquin Valley APCD
1990 E. Gettysburg Ave.
Fresno, CA 93726

Facility ID # C - 535
TAD # 10 - 535
SIC # 4952
Facility Name FRESNO/CLOVIS REGIONAL WWTP
TOXID # 0
Planning Inventory 3170

CHECK BOX IF PROCESS RATES ARE CONFIDENTIAL : **N**

Device ID #	Process Number	Equipment Type	Yearly Process Rate	Units / Source Classification Code	NOX Lb / Unit	VOC Lb / Unit	SOX Lb / Unit	CO Lb / Unit	PM10 Lb / Unit	NH3* Lb / Unit	Note: NH3 emissions are in lbs / yr
26	1	DIGESTER GAS TREATMENT SYSTEM W/TO	36.52	MILLION CUBIC FEET BURNED	6.24	1.52	38.0	2.78	3.2	.0	
				20300702	.11	.03	.69	.05	.06	.0	(Tons/Yr)
28	1	UNCONFINED ABRASIVE BLASTING	0	TONS ABRASIVE CONSUMED	.0	.0	.0	.0	14.0	.0	
				30900201	.0	.0	.0	.0	.0	.0	(Tons/Yr)
44	1	74 BHP TRANSP IC ENGINE - DIESEL	1.9647	THOUSANDS OF GALLONS	129.7	6.65	.21	3.1	.03	.0	
				20300101	.13	.01	.0	.0	.0	.0	(Tons/Yr)
			Totals For the Facility (Tons / Year)		14.27	1.03	2.32	6.46	0.7	0.0	

Contact Ray Arthur
Company FRESNO/CLOVIS REGIONAL WWTP
Address 5607 W JENSEN AVE
City,State,Zip FRESNO, CA 93706-9458
Telephone (559) 621 - 5266
Email: Ray.Arthur@fresno.gov
Location of facility if different from above FRESNO/CLOVIS REGIONAL WWTP, 5607 W JENSEN AVE, FRESNO, CA 93706

Name and Title of Responsible Official

Rick Staggs, Wastewater Manager
Rosa Staggs, Wastewater Manager

I certify that the information contained in the Emission Statement is accurate to the best of my knowledge.

Signature of Responsible Official and Date

Note: This data was taken from last year's emissions inventory data. Please update this sheet with this year's data.

Normal Source Operation Determination

Non-Seasonal Source (Digester Gas-Fired Turbine Generator)		
Calendar Quarter	**NOx Emissions (lb/year)**	
2006		Not Available
2007		Not Available
2008		Not Available
2009		Not Available
2010	17,745	
2011	14,848	
2012	2,725	
2013	2,030	
2014	17,476	
2015	0	
2016	529	
2017	0	do not use - shutdown
NSO Average	**7,907**	

Baseline Period Determination

Non-Seasonal Source (Digester Gas-Fired Turbine Generator)					
Calendar Quarter	**NOx Emissions (lb/year)**	**2-year Block Differences vs NSO**			
2010	17,745				
2011	14,848	8,389			
2012	2,725	879			
2013	2,030	5,530			
2014	17,476	1,845			
2015	0	**831**			
2016	529	7,643			
2017	0	7,643			
NSO Average	**7,907**				

This value is the smallest "difference" compared to the Normal Source Operation (NSO) average. Therefore, the 2 consecutive years associated with it (2014 - 2015) most closely represent NSO. As such, the baseline period is 2014 - 2015.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period (5 years for electric utility steam generating units). As shown earlier the 2 consecutive years of 2014 and 2015 are the most closely representative of the Normal Source Operation (NSO). As such, the actual emissions is calculated as below:

Actual Emissions (lb/year) = Ave 2014-2015 NOx Emissions
= (17,476 + 0) / 2 = 8,738 (lb/year)

APPENDIX H
Compliance Certification

City of
FRESNO

Department of Public Utilities

Wastewater Management Division
5607 West Jensen Avenue
Fresno, California 93706-9458
559-621-5100 – FAX 559-498-1700
www.fresno.gov

October 4, 2018

MAHSA HOOSHMANDI, Air Quality Engineer
San Joaquin Valley Air Pollution Control District
1990 E Gettysburg Ave, Fresno, CA 93726

RE: Project # C-1182249
Fresno-Clovis Regional Wastewater Reclamation Facility, Certification of Compliance

Dear Ms. Hooshmandi,

Pursuant to San Joaquin Valley APCD District Rule 2201, Section 4.15.2, Compliance, the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) respectfully submits this *Letter of Certification* as it pertains to the City of Fresno, CA, a Major Source facility.

I hereby certify that the RWRF in the State of California is in compliance or is on a schedule for compliance with all applicable emission limitations and standards. This certification shall speak as to its date of execution.

Thank you for your time and consideration regarding this certification. If you have any questions regarding this matter, please contact Air Resources Project Manager Ray Arthur at 559.621.5266.

Sincerely,

Rick Staggs
Wastewater Plant Manager