



APR 15 2013

Ray Arthur  
Fresno/Clovis Regional WWTP  
5607 W Jensen Ave  
Fresno, CA 93706

**Re: Notice of Preliminary Decision – Emission Reduction Credits**  
**Facility Number: C-535**  
**Project Number: C-1120356**

Dear Mr. Arthur:

Enclosed for your review and comment is the District's analysis of Fresno/Clovis Regional WWTP's application for Emission Reduction Credits (ERCs) resulting from the replacement of two diesel-fired IC engines with electric motors, at 5607 W Jensen Ave in Fresno, CA. The quantity of ERCs proposed for banking is 260 lb-NO<sub>x</sub>/yr, 18 lb-PM<sub>10</sub>/yr, 56 lb-CO/yr, and 22 lb-VOC/yr.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Chay Thao of Permit Services at (559) 230- 5895.

Sincerely,

David Warner  
Director of Permit Services

DW:ct

Enclosures

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

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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

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

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits to Fresno/Clovis Regional WWTP for the replacement of two diesel-fired IC engines with electric motors, at 5607 W Jensen Ave in Fresno, CA. The quantity of ERCs proposed for banking is 260 lb-NOx/yr, 18 lb-PM10/yr, 56 lb-CO/yr, and 22 lb-VOC/yr.

The analysis of the regulatory basis for this proposed action, Project #C-1120356, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and at any District office. For additional information, please contact the District at (559) 230-6000. Written comments on this project must be submitted by May 20, 2013 to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 1990 EAST GETTYSBURG AVENUE, FRESNO, CA 93726.**

# ERC BANKING APPLICATION REVIEW

Processing Chay Thao  
Lead Engineer: Sheraz Gill  
Date: February 5, 2013

Facility Name: Fresno/Clovis Regional WWTP

Mailing Address: 5607 W Jensen Ave  
Fresno, CA 93706

Facility Address: 5607 W Jensen Ave  
Fresno, CA 93706

Contact Name: Ray Arthur  
Telephone: (559) 621-5266

ERC Project: C-1120356

Date Received: February 17, 2012

Deemed Complete: March 16, 2012

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## I. PROPOSAL

The Fresno/Clovis Regional Wastewater Treatment Plant (WWTP) is proposing to bank NO<sub>x</sub>, VOC, CO, PM<sub>10</sub>, and SO<sub>x</sub> Emission Reduction Credits (ERCs) from the removal of two diesel IC engines under permits #C-535-20 and #C-535-21. Both engines are used exclusively for turbine start-up. WWTP has removed these engines from service and replaced them with electric motors.

The applicant initially requested to bank greenhouse gases (GHG), but has withdrawn that request. Banking GHG would have required annual power usage limits for the electric motors to ensure that the reductions are permanent and enforceable.

## II. APPLICABLE RULES

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)  
Rule 2301 Emission Reduction Credit Banking (1/19/12)  
Rule 4701 Stationary Internal Combustion Engines – Phase 1 (8/21/03)  
Rule 4702 Stationary Internal Combustion Engines – Phase 2 (8/18/11)  
40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE)  
Title 13 California Code of Regulations (CCR), Section 2423 – Exhaust Emission Standards and Test Procedures, Off-Road Compression-Ignition Engines and Equipment

Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

### III. LOCATION OF REDUCTION

The engines removed were located at 5607 W Jensen Ave in Fresno, CA.

### IV. METHOD OF GENERATING REDUCTIONS

The emissions reductions are generated by the shutdown of two permitted diesel-fired engines. Both engines are used exclusively for turbine start-up. WWTP has removed these engines from service and replaced them with electric motors.

The equipment descriptions are as follows:

C-535-20-2: 158 BHP DEUTZ MODEL #BFGL913 LOW-USE DIESEL-FIRED IC ENGINE  
USED EXCLUSIVELY FOR TURBINE STARTUP ONLY

C-535-21-2: 158 BHP DEUTZ MODEL #BFGL913 LOW-USE DIESEL-FIRED IC ENGINE  
USED EXCLUSIVELY FOR TURBINE STARTUP ONLY

### V. ACTUAL EMISSIONS

Actual Emissions are emissions from a source, which can be demonstrated as having actually occurred. The actual emissions will be determined as follows:

- Engine emission factors will be determined.
- A baseline period will be established.
- Actual engine emissions will be established.

#### A. Engine Emission Factors

The only emission factors available for these engines are from AP-42 and the permitted limits. Therefore, for a conservative estimate, between the two, the lowest emission factor will be used.

#### AP-42 (lb/hp-hr) to (g/bhp-hr) Conversion:

NOx:  $0.031 \text{ lb/hp-hr} \times 453.6 \text{ g/lb} = 14.06$   
SOx:  $2.05\text{e-}3 \text{ lb/hp-hr} \times 453.6 \text{ g/lb} = 0.93$   
PM10:  $2.20\text{e-}3 \text{ lb/hp-hr} \times 453.6 \text{ g/lb} = 1.00$   
CO:  $6.68\text{e-}3 \text{ lb/hp-hr} \times 453.6 \text{ g/lb} = 3.03$   
VOC:  $(2.47\text{e-}3 + 4.41\text{e-}5) \text{ lb/hp-hr} \times 453.6 \text{ g/lb} = 1.14$

<b>C-535-20-2 and '-21-2 (158 BHP DEUTZ MODEL #BFGL913)</b>			
Pollutant	AP-42 (g/bhp-hr)	Permit (g/bhp-hr)	Final EF (g/bhp-hr)
NOx	14.06	13.46	13.46
SOx	0.93	0.0051	0.0051
PM10	1.00	0.95	0.95
CO	3.03	2.90	2.90
VOC	1.14	1.11	1.11

$$\frac{0.000015 \text{ lb} - S}{\text{lb} - \text{fuel}} \times \frac{7.1 \text{ lb} - \text{fuel}}{\text{gallon}} \times \frac{2 \text{ lb} - SO_2}{1 \text{ lb} - S} \times \frac{1 \text{ gal}}{137,000 \text{ Btu}} \times \frac{1 \text{ bhp input}}{0.35 \text{ bhp out}} \times \frac{2,542.5 \text{ Btu}}{\text{bhp} - \text{hr}} \times \frac{453.6 \text{ g}}{\text{lb}} = 0.0051 \frac{\text{g} - SO_x}{\text{bhp} - \text{hr}}$$

**B. Baseline Period**

Pursuant to Rule 2201 Section 3.8, the baseline period is determined as follows:

A period of time equal to either:

- 3.8.1 the two consecutive years of operation immediately prior to the submission date of the Complete Application; or
- 3.8.2 at least two consecutive years within the five years immediately prior to the submission date of the Complete Application if determined by the APCO as more representative of normal source operation; or
- 3.8.3 a shorter period of at least one year if the emissions unit has not been in operation for two years and this represents the full operational history of the emissions unit, including any replacement units; or
- 3.8.4 zero years if an emissions unit has been in operation for less than one year (only for use when calculating AER).

During the last two consecutive years of operation, these IC engines were underutilized due to the turbines not working properly. Therefore, 2007 and 2008, which are more representative of normal source operation, will be used as the baseline period as provided by the applicant.

<b>Historical Hours of Operation</b>			
Permit#	2007 (hr)	2008 (hr)	Average Annual Hours of Operation (hr)
C-535-20-2	44	2	23.0
C-535-21-2	38	39	38.5

**C. Baseline Emissions**

The baseline emission for this project is calculated as follows:

$$\begin{aligned} &= [\text{emission factor}] \times [\text{horsepower}] \times [\text{combined annual hours}] \times [\text{g to lb}] [\text{annual to qtr}] \\ &= 13.46 \text{ g-NOx/bhp-hr} \times 158 \text{ bhp} \times [23+38.5] \text{ hr/yr} \times 1 \text{ lb}/453.6 \text{ g} \times 1 \text{ yr}/4 \text{ qtr} \\ &= 72.1 \text{ lb-NOx/qtr} \end{aligned}$$

<b>Baseline Emissions</b>				
<b>Pollutants</b>	<b>1<sup>st</sup> Quarter</b>	<b>2<sup>nd</sup> Quarter</b>	<b>3<sup>rd</sup> Quarter</b>	<b>4<sup>th</sup> Quarter</b>
	AER (lb/qtr)	AER (lb/qtr)	AER (lb/qtr)	AER (lb/qtr)
NOx	72.1	72.1	72.1	72.1
SOx	0.0	0.0	0.0	0.0
PM10	5.1	5.1	5.1	5.1
CO	15.5	15.5	15.5	15.5
VOC	5.9	5.9	5.9	5.9

**D. Historical Actual Emissions (HAE)**

Historical Actual Emissions (HAE) are the Actual Emissions occurring during the baseline period after discounting for the following, as outlined in Section 3.23 of Rule 2201:

- 3.23.1 Any emissions reductions required or encumbered by any laws, rules, regulations, agreements, orders, or permits; and
- 3.23.2 Any emissions reductions attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, and
- 3.23.3 Any emissions reductions proposed in the District air quality plan for attaining the annual reductions required by the California Clean Air Act, and
- 3.23.4 Any Actual Emissions in excess of those required or encumbered by any laws, rules, regulations, orders, or permits. For units covered by a Specific Limiting Condition (SLC), the total overall HAE for all units covered by SLC must be discounted for any emissions in excess of that allowed by the SLC.

**a. Emissions reductions required or encumbered by any laws, rules, regulations, agreements, orders, or permits**

District Rule 4701

As defined by District Rule 4701, both IC engines are considered low-use public water district engines located at a Major source outside of the Westside area. Section 5.2 requires low-use engines located at a Major source outside of the Westside area to comply with the emission standards in Sections 5.1.1 and 5.1.2 but not Section 5.1.3. However, Section 7.3.2, states that engines used at public water districts are not required to comply with Sections 5.1.1 and 5.1.2. Therefore, these engines are not subject to the emission standards in District Rule 4701. No emission adjustments are necessary.

District Rule 4702

As defined by District Rule 4702, both IC engines are considered low-use engines equipped with non-resettable elapsed time meters, and therefore per Section 4.2 are

exempt from the emission standards of District Rule 4702. No emission adjustments are necessary.

40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Emissions (RICE)

Both engines are used solely to start up a combustion turbine and therefore are considered “black start” engines. There are no emission standards for black start engines in Subpart ZZZZ. Therefore, no emission adjustments are necessary.

Title 13 California Code of Regulations (CCR), Section 2423 – Exhaust Emission Standards and Test Procedures, Off-Road Compression-Ignition Engines and Equipment (Required by Title 17 CCR, Section 93115 for New Emergency Diesel IC Engines)

This application does not involve a new engine, an engine that was installed without first getting an ATC from the District, or an in-use engine being retrofitted with a PM10 control device to meet the ATCM requirements. Therefore, the engines involved with this application are not required to meet the requirements of Title 13 California Code of Regulations (CCR), Section 2423. No emission adjustments are necessary.

Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines

Per Section 93115.3(j), diesel-fired engines used solely to start gas turbines and located greater than 500 feet from school boundaries are exempt. Furthermore to qualify for this exemption, the engine cannot operate for more than 20 hours cumulatively per year unless the district APCO has authorized a different number that is justified, on a case-by-case basis, with consideration of the impacts of the emissions from the engine. Although the permitted hours for these engines are greater than 20 hr/yr, the limits are based on risk management review and therefore qualify for the exemption. Since both engines are used solely to start gas turbines and located greater than 500 feet from school boundaries, the requirements of this rule do not apply. No emission adjustments are necessary.

**b. Emissions reductions attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan**

There are no control measures for diesel-fired IC engines noticed for workshop, or proposed or contained in a State Implementation Plan.

**c. Emissions reductions proposed in the District air quality plan for attaining the annual reductions required by the California Clean Air Act**

In the latest adopted District 2012 PM2.5 Plan, there are no emissions reductions for diesel-fired IC engines proposed for attaining the annual reductions required by the California Clean Air Act.

- d. Actual emissions in excess of those required or encumbered by any laws, rules, regulations, orders, or permits. For units covered by a Specific Limiting Condition (SLC), the total overall HAE for all units covered by SLC must be discounted for any emissions in excess of that allowed by the SLC**

For these diesel-fired IC engines, there are no actual emissions in excess of those required or encumbered by any laws, rules, regulations, orders or permit.

Therefore, no adjustments are required for the baseline emissions.

HAE				
Pollutants	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
	(lb/qtr)	(lb/qtr)	(lb/qtr)	(lb/qtr)
NOx	72.1	72.1	72.1	72.1
SOx	0.0	0.0	0.0	0.0
PM10	5.1	5.1	5.1	5.1
CO	15.5	15.5	15.5	15.5
VOC	5.9	5.9	5.9	5.9

**E. Actual Emission Reductions (AER)**

The AER is calculated as follows:

$$\text{AER} = \text{PE2} - \text{HAE}$$

Since the engines will be removed, PE2 = 0. There, AER = HAE.

AER				
Pollutants	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
	(lb/qtr)	(lb/qtr)	(lb/qtr)	(lb/qtr)
NOx	72.1	72.1	72.1	72.1
SOx	0.0	0.0	0.0	0.0
PM10	5.1	5.1	5.1	5.1
CO	15.5	15.5	15.5	15.5
VOC	5.9	5.9	5.9	5.9

**F. Bankable Emission Reduction Credits**

In order to quantify Actual Emissions Reductions (AER) and ultimately bankable emission reductions, the HAE calculated above must be adjusted for the Air Quality Improvement Deduction (AQID).

Pursuant to Rule 2201 Section 4.12.1, prior to banking, AER shall be discounted by 10% for an AQID. In the following table, the 10% AQID is subtracted from the adjusted emission reductions in order to quantify the amount which is eligible for banking.



Example Quarterly NOx ERC Calculation for 1<sup>st</sup> Quarter:

$$\begin{aligned}
 &= \text{AER} - \text{AQID} \\
 &= 72.1 - 10\% * 72.1 \\
 &= 64.9 \text{ lb/qtr}
 \end{aligned}$$

Bankable ERC												
Pollutants	1 <sup>st</sup> Quarter			2 <sup>nd</sup> Quarter			3 <sup>rd</sup> Quarter			4 <sup>th</sup> Quarter		
	AER (lb/qtr)	AQID	ERC (lb/qtr)	AER (lb/qtr)	AQID	ERC (lb/qtr)	AER (lb/qtr)	AQID	ERC (lb/qtr)	AER (lb/qtr)	AQID	ERC (lb/qtr)
NOx	72.1	7.2	64.9	72.1	7.2	64.9	72.1	7.2	64.9	72.1	7.2	64.9
SOx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PM10	5.1	0.5	4.6	5.1	0.5	4.6	5.1	0.5	4.6	5.1	0.5	4.6
CO	15.5	1.6	14.0	15.5	1.6	14.0	15.5	1.6	14.0	15.5	1.6	14.0
VOC	5.9	0.6	5.4	5.9	0.6	5.4	5.9	0.6	5.4	5.9	0.6	5.4

**VII. COMPLIANCE**

**Rule 2301 Emission Reduction Credit Banking**

Pursuant to District Rules 2201 and 2301, Bankable Emission Reductions must be:

- Real
- Surplus
- Permanent
- Quantifiable
- Enforceable
- Not already used to offset an Authority to Construct
- Based on a timely application
- For non-permitted emissions units, the emissions must have been included in the 1987 emissions inventory

**A. Real**

These emissions reductions are created by the shutdown of two IC engines. Since the engines were in operation, as indicated by operational records, and are now replaced with electric motors, the baseline emissions are considered real.

**B. Surplus**

Surplus emission reductions are reductions that are in excess of those required by any laws, rules, regulations, agreements, orders, or State Implementation Plan. The baseline emissions from these engines have been adjusted (above) for all of these. Therefore, the remaining emissions reductions are considered surplus.

**C. Permanent**

The engines have been shut down, replaced with electric motors, and the PTO's have been surrendered.

**D. Quantifiable**

The reductions were calculated from historic hours of operation data, established emission factors, and methods according to District Rule 2201.

**E. Enforceable**

The PTO for each unit has been surrendered and the units have been replaced with electric motors.

**F. Not used for the approval of an Authority to Construct or as Offsets**

The ERC's generated by the shutdown of these units were not used for the approval of any Authorities to Construct or as offsets.

**G. Based on a Timely Submittal of Application**

Section 5.5 of Rule 2301 requires that ERC certificate applications for reductions be submitted within 180 days after shutdown.

Per the applicant, the first engine was replaced with an electric motor on April 11, 2011, and the second was replaced on November 8, 2011. On January 17, 2012, the permit cancelation was requested (see Appendix C). Even though the initial physical replacement took place on April 11, 2011, as stated by the applicant, the engines were still available on site as a precautionary measure. The system was still in a test phase. Therefore, January 17, 2012, the date of permit cancelation, is the official shutdown date as that represents the end of the test phase and official replacement of the engines.

The ERC application was received on February 17, 2012. Therefore, the application was submitted in a timely fashion.

**X. RECOMMENDATION**

Issue ERC certificates with the quarterly values shown below. The values have been rounded to the nearest integer.

<b>Bankable ERCs</b>					
<b>Pollutant</b>	<b>1<sup>st</sup> Quarter</b>	<b>2<sup>nd</sup> Quarter</b>	<b>3<sup>rd</sup> Quarter</b>	<b>4<sup>th</sup> Quarter</b>	<b>Total</b>
	lb/qtr	lb/qtr	lb/qtr	lb/qtr	lb/yr
NOx	65	65	65	65	260
PM10	5	5	4	4	18
CO	14	14	14	14	56
VOC	6	6	5	5	22

**List of Appendixes**

- A PTO's C-535-20-2 and '-21-2
- B AP-42 Emission Factors
- C Permit Cancellation
- D Draft ERC

**Appendix A**  
**PTO's C-535-20-2 and '-21-2**

INSPECTION  
EXPIRATION DATE: 01/31/2016  
WORKSHEET

**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

**INSPECT PROGRAM PARTICIPANT:** NO

**EQUIPMENT DESCRIPTION:**  
158 BHP DEUTZ MODEL #BFGL913 LOW-USE DIESEL-FIRED IC ENGINE USED EXCLUSIVELY FOR TURBINE STARTUP ONLY

## CONDITIONS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
2. Operation of the engine shall be limited to spinning-up gas-fired turbines C-535-18 or C-535-19 during startup and shall not exceed 2 hours per day or 49 hours in any one calendar year. [District NSR Rule, 4102, and 4702, 4.2.2] Federally Enforceable Through Title V Permit
3. Emissions from this IC engine shall not exceed any of the following limits: 13.46 g-NOx/bhp-hr, 0.95 g-PM10/bhp-hr, 2.90 g-CO/bhp-hr, or 1.11 g-VOC/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District NSR Rule, 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
5. This engine shall be equipped with an operational nonresettable elapsed time meter. [District Rule 4702, 5.7.4] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
7. During operation the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emissions control system supplier (e.g. oil pressure, exhaust gas temperature, etc.). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
8. The permittee shall maintain records of hours of operation. Records shall include the date, the number of hours of operation, the type of fuel used, and records of operational characteristics monitoring. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 4702, 6.2.3] Federally Enforceable Through Title V Permit

INSPECTION  
EXPIRATION DATE: 01/31/2016  
WORKSHEET

**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

**INSPECT PROGRAM PARTICIPANT:** NO

**EQUIPMENT DESCRIPTION:**  
158 BHP DEUTZ MODEL #BFGL913 LOW-USE DIESEL-FIRED IC ENGINE USED EXCLUSIVELY FOR TURBINE STARTUP ONLY

## CONDITIONS

1. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
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3. Emissions from this IC engine shall not exceed any of the following limits: 13.46 g-NOx/bhp-hr, 0.95 g-PM10/bhp-hr, 2.90 g-CO/bhp-hr, or 1.11 g-VOC/bhp-hr. [District NSR Rule] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with an operational nonresettable elapsed time meter. [District Rule 4702, 5.7.4] Federally Enforceable Through Title V Permit
5. Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight is to be used. [District NSR Rule, 4801, and 17 CCR 93115] Federally Enforceable Through Title V Permit
6. This engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. [District Rule 4702, 5.7.2] Federally Enforceable Through Title V Permit
7. During operation the permittee shall monitor the operational characteristics of the engine as recommended by the manufacturer or emissions control system supplier (e.g. oil pressure, exhaust gas temperature, etc.). [District Rule 4702, 5.7.3] Federally Enforceable Through Title V Permit
8. The permittee shall maintain records of hours of operation. Records shall include the date, the number of hours of operation, the type of fuel used, and records of operational characteristics monitoring. Such records shall be retained on-site for a period of at least five years and made available for District inspection upon request. [District Rule 4702, 6.2.3] Federally Enforceable Through Title V Permit

## Appendix B

### AP-42 Emission Factors

Table 3.3-1. EMISSION FACTORS FOR UNCONTROLLED GASOLINE AND DIESEL INDUSTRIAL ENGINES<sup>a</sup>

Pollutant	Gasoline Fuel (SCC 2-02-003-01, 2-03-003-01)		Diesel Fuel (SCC 2-02-001-02, 2-03-001-01)		EMISSION FACTOR RATING
	Emission Factor (lb/hp-hr) (power output)	Emission Factor (lb/MMBtu) (fuel input)	Emission Factor (lb/hp-hr) (power output)	Emission Factor (lb/MMBtu) (fuel input)	
NO <sub>x</sub>	0.011	1.63	0.031	4.41	D
CO	6.96 E-03 <sup>d</sup>	0.99 <sup>d</sup>	6.68 E-03	0.95	D
SO <sub>x</sub>	5.91 E-04	0.084	2.05 E-03	0.29	D
PM-10 <sup>b</sup>	7.21 E-04	0.10	2.20 E-03	0.31	D
CO <sub>2</sub> <sup>c</sup>	1.08	154	1.15	164	B
Aldehydes	4.85 E-04	0.07	4.63 E-04	0.07	D
TOC					
Exhaust	0.015	2.10	2.47 E-03	0.35	D
Evaporative	6.61 E-04	0.09	0.00	0.00	E
Crankcase	4.85 E-03	0.69	4.41 E-05	0.01	E
Refueling	1.08 E-03	0.15	0.00	0.00	E

<sup>a</sup> References 2,5-6,9-14. When necessary, an average brake-specific fuel consumption (BSFC) of 7,000 Btu/hp-hr was used to convert from lb/MMBtu to lb/hp-hr. To convert from lb/hp-hr to kg/kw-hr, multiply by 0.608. To convert from lb/MMBtu to ng/J, multiply by 430. SCC = Source Classification Code. TOC = total organic compounds.

<sup>b</sup> PM-10 = particulate matter less than or equal to 10 μm aerodynamic diameter. All particulate is assumed to be ≤ 1 μm in size.

<sup>c</sup> Assumes 99% conversion of carbon in fuel to CO<sub>2</sub> with 87 weight % carbon in diesel, 86 weight % carbon in gasoline, average BSFC of 7,000 Btu/hp-hr, diesel heating value of 19,300 Btu/lb, and gasoline heating value of 20,300 Btu/lb.

<sup>d</sup> Instead of 0.439 lb/hp-hr (power output) and 62.7 lb/mmBtu (fuel input), the correct emissions factors values are 6.96 E-03 lb/hp-hr (power output) and 0.99 lb/mmBtu (fuel input), respectively. This is an editorial correction. March 24, 2009



# Appendix C

## Permit Cancellation



# San Joaquin Valley AIR POLLUTION CONTROL DISTRICT

JAN 30 201



**CERTIFIED MAIL**

Fresno/Clovis Regional WWTP  
Attn: Barry Schwartz  
5607 W. Jensen Avenue  
Fresno, CA 93706-9458

**RE: Cancellation of Permit To Operate**

Dear Mr. Schwartz,

Pursuant to your request, Permit to Operate # C-535-20-2, '21-2 have been cancelled.

Please pay close attention to the following important information:

- The equipment described by the above permits must be placed out of service and rendered non-operational.
- Operating equipment without a permit is a violation of District regulations and is subject to enforcement action.
- Should you decide to place this equipment back into service, you must first obtain an Authority to Construct permit from the District. The equipment will be treated as new, and additional control equipment, more stringent emission limits, and/or emission offsets, may be required.

Should you have any questions, please contact Mr. Jim Swaney at (559) 230-5900.

Sincerely,

Dave Warner  
Director of Permit Services

Jim Swaney, P.E.  
Permit Services Manager

JS/st

cc: District Compliance Division  
Finance



Seyed Sadredin  
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

San Joaquin Valley Air Pollution Control District

Invoice Detail  
**RECEIVED**

*OK, 1/20/12  
OK to cancel  
& credit memo.  
Thank  
Jan*

Facility ID: C535

FRESNO/CLOVIS REGIONAL WWTP  
5607 W JENSEN AVE  
FRESNO, CA 93706

JAN 17 2012

lr  
lr  
P

Permits Services  
SJVAPCD

Permit Number	Billing Period	Equipment Description	Fee Rule	Qty	Fee Amount	Total Fees
C-535-6-11	2/1/2012 to 1/31/2013	16.7 MMBTU/HR CLEAVER-BROOKS MODEL CBI-700-400 DIGESTER GAS- FIRED BOILER WITH AN ALZETA MODEL CSB167R ULTRA LOW NOX BURNER	3020-02 H	1	\$ 1,030.00	\$ 1,030.00
C-535-9-3	2/1/2012 to 1/31/2013	36.3 MMBTU/HR JOHN ZINK COMPANY WASTE GAS FLARE	3020-02 H	1	\$ 1,030.00	\$ 1,030.00
C-535-10-2	2/1/2012 to 1/31/2013	2518 BHP CATERPILLAR MODEL 3516 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING A 1750 KW ELECTRICAL GENERATOR	3020-10 F	1	\$ 749.00	\$ 749.00
C-535-11-2	2/1/2012 to 1/31/2013	140 BHP CATERPILLAR MODEL #3116- DIT DIESEL- FIRED TURBOCHARGED EMERGENCY IC ENGINE #1 POWERING A WATER TRANSFER PUMP	3020-10 B	1	\$ 117.00	\$ 117.00
C-535-12-2	2/1/2012 to 1/31/2013	140 HP CATERPILLAR MODEL #3116-DIT DIESEL-FIRED TURBOCHARGED EMERGENCY IC ENGINE #2 SERVING A WATER TRANSFER PUMP	3020-10 B	1	\$ 117.00	\$ 117.00
C-535-13-2	2/1/2012 to 1/31/2013	150 HP ODOR CONTROL SCRUBBING SYSTEM INCLUDING THREE(3) 50 HP RJ ENVIRONMENTAL PACKED TOWER CAUSTIC SCRUBBERS EACH EQUIPPED WITH A KIMRE MIST ELIMINATOR MODEL B-GON	3020-01 D	1	\$ 314.00	\$ 314.00
C-535-17-2	2/1/2012 to 1/31/2013	455 BHP CUMMINS MODEL NTA855 DIESEL-FIRED EMERGENCY STANDBY IC ENGINE POWERING AN ONAN MODEL 350DFCC, 350 KW ELECTRICAL GENERATOR	3020-10 D	1	\$ 479.00	\$ 479.00
C-535-18-3	2/1/2012 to 1/31/2013	3.377 MW DIGESTER/NATURAL GAS- FIRED TURBINE GENERATOR #1 WITH WATER INJECTION AND HEAT RECOVERY STEAM GENERATOR	3020-08A C	1	\$ 1,533.00	\$ 1,533.00
C-535-19-3	2/1/2012 to 1/31/2013	3.377 MW DIGESTER/NATURAL GAS- FIRED TURBINE GENERATOR #2 WITH WATER INJECTION AND HEAT RECOVERY STEAM GENERATOR	3020-08A C	1	\$ 1,533.00	\$ 1,533.00
<del>C-535-20-2</del>	<del>2/1/2012 to 1/31/2013</del>	<del>158 BHP DEUTZ MODEL #BFGL913 LOW- USE DIESEL-FIRED IC ENGINE USED EXCLUSIVELY FOR TURBINE STARTUP ONLY</del>	<del>3020-10 B</del>	<del>1</del>	<del>\$ 117.00</del>	<del>\$ 117.00</del>
<del>C-535-21-2</del>	<del>2/1/2012 to 1/31/2013</del>	<del>158 BHP DEUTZ MODEL #BFGL913 LOW- USE DIESEL-FIRED IC ENGINE USED EXCLUSIVELY FOR TURBINE STARTUP ONLY</del>	<del>3020-10 B</del>	<del>1</del>	<del>\$ 117.00</del>	<del>\$ 117.00</del>

Note: Any of the above units which have been permanently removed from service may be marked through, and the corresponding fee for that equipment may be subtracted from the total amount due. Please sign and return with your payment a copy of each "Invoice Detail" page which has been so altered.

*Barry Schwartz* Chief of Facility (559) 621-5210 *Barry Schwartz*  
Name (Please print) Title Maintenance Phone Signature

JR

San Joaquin Valley Air Pollution Control District

Invoice Detail  
**RECEIVED**

Facility ID: C535

FRESNO/CLOVIS REGIONAL WWTP  
5607 W JENSEN AVE  
FRESNO, CA 93706

JAN 17 2012

Invoice Nbr: C181774  
Invoice Date: 12/2/2011  
Page: 1

**Permits Services**  
**SJVAPCD**

Permit Number	Billing Period	Equipment Description	Fee Rule	Qty	Fee Amount	Total Fees
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<del>C-535-21-2</del>	<del>2/1/2012 to 1/31/2013</del>	<del>158 BHP DEUTZ MODEL #BFGL913 LOW- USE DIESEL FIRED IC ENGINE USED EXCLUSIVELY FOR TURBINE STARTUP ONLY</del>	<del>3020-10 B</del>	<del>1</del>	<del>\$ 117.00</del>	<del>\$ 117.00</del>

Note: Any of the above units which have been permanently removed from service may be marked through, and the corresponding fee for that equipment may be subtracted from the total amount due. Please sign and return with your payment a copy of each "Invoice Detail" page which has been so altered.

Barry Schwartz Chief of Facility (559) 621-5210 Barry Schwartz  
Name (Please print) Title Maintenance Phone Signature

**Appendix D**  
**Draft ERC**

San Joaquin Valley  
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

**Emission Reduction Credit Certificate**  
**C-1211-1**

ISSUED TO: FRESNO/CLOVIS REGIONAL WWTP  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: 5607 W JENSEN AVE  
FRESNO, CA 93706

**For VOC Reduction In The Amount Of:**

Quarter 1	Quarter 2	Quarter 3	Quarter 4
6 lbs	6 lbs	5 lbs	5 lbs

Conditions Attached

Method Of Reduction

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

Replace two diesel-fired IC engines (permits C-535-20 and '-21) used exclusively for turbine startup with electric motors

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

**DRAFT**

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

**Emission Reduction Credit Certificate  
C-1211-2**

ISSUED TO: FRESNO/CLOVIS REGIONAL WWTP  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: 5607 W JENSEN AVE  
FRESNO, CA 93706

**For NOx Reduction In The Amount Of:**

Quarter 1	Quarter 2	Quarter 3	Quarter 4
65 lbs	65 lbs	65 lbs	65 lbs

Conditions Attached

**Method Of Reduction**

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

Replace two diesel-fired IC engines (permits C-535-20 and '-21) used exclusively for turbine startup with electric motors

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Seyed Sadredin, Executive Director / APCO

**DRAFT**

David Warner, Director of Permit Services

San Joaquin Valley  
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

**Emission Reduction Credit Certificate**  
**C-1211-3**

ISSUED TO: FRESNO/CLOVIS REGIONAL WWTP  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: 5607 W JENSEN AVE  
FRESNO, CA 93706

**For CO Reduction In The Amount Of:**

Quarter 1	Quarter 2	Quarter 3	Quarter 4
14 lbs	14 lbs	14 lbs	14 lbs

Conditions Attached

**Method Of Reduction**

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

**Replace two diesel-fired IC engines (permits C-535-20 and '-21) used exclusively for turbine startup with electric motors**

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Seyed Sadredin, Executive Director / APCO

**DRAFT**

David Warner, Director of Permit Services



San Joaquin Valley  
Air Pollution Control District

Central Regional Office • 1990 E. Gettysburg Ave. • Fresno, CA 93726

**Emission Reduction Credit Certificate**  
**C-1211-4**

ISSUED TO: FRESNO/CLOVIS REGIONAL WWTP  
ISSUED DATE: <DRAFT>  
LOCATION OF REDUCTION: 5607 W JENSEN AVE  
FRESNO, CA 93706

**For PM10 Reduction In The Amount Of:**

Quarter 1	Quarter 2	Quarter 3	Quarter 4
5 lbs	5 lbs	4 lbs	4 lbs

Conditions Attached

**Method Of Reduction**

- Shutdown of Entire Stationary Source  
 Shutdown of Emissions Units  
 Other

**Replace two diesel-fired IC engines (permits C-535-20 and '-21) used exclusively for turbine startup with electric motors**

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Seyed Sadredin, Executive Director /APCO

**DRAFT**

David Warner, Director of Permit Services