777 12th Street 3rd Floor SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT Sacramento, CA 95814

STATEMENT OF BASIS FOR INITIAL TITLE V FEDERAL OPERATING PERMIT

TITLE V PERMIT NO.: TV2010-20-01
DATE: January 13, 2011
REVIEWING ENGINEER: Venk Reddy

A. FACILITY INFORMATION:

FACILITY NAME: RagingWire Enterprise Solutions, Inc.

LOCATION: 1200 Striker Ave.
Sacramento, CA 95834

1312 Striker Ave.
Sacramento, CA 95834

MAILING ADDRESS: 1200 Striker Ave.
Sacramento, CA 95834

RESPONSIBLE OFFICIAL: Yatish Mishra
President and CEO
(916) 286-3000

CONTACT PERSON: James Kennedy
Director of Operations
(916) 286-3000

B. PURPOSE OF THIS STATEMENT OF BASIS

The Title V Federal Operating Permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes, which makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose of this Statement of Basis is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this Statement of Basis, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

C. Permit Action History

This Statement of Basis is for the initial Title V Federal Operating Permit No. TV2010-20-01 to be issued to RagingWire Enterprise Solutions, Inc. The facility began operation in January 2001 but was not subject to Title V permitting until November 2010. A current project undertaken by the applicant is the installation of 24 diesel fired 2922 hp IC engines used for emergency power generation. This project is on property adjacent to the existing facility and brings the total aggregate facility potential to emit to greater than 24.4 tons of NOx. Based on the Sacramento area ozone non-attainment status, this project requires the applicant to enter the Title V program. The Title V permit application was received in November 2010 and was determined to be complete on January 13, 2011. The SMAQMD is required to issue the Title V permit within 18 months of determining that the Title V application is complete.

The project to install 24 standby IC engines at 1312 Striker Ave undertaken by the applicant will take up to 4 years to complete. The general conditions used for the current IC engines are the same for current and future IC engines. A section of the Title V permit will address future IC engine specific conditions. As the IC engines begin operation, the equipment specific conditions will be moved administratively out of the future conditions section and grouped with the rest of the existing units. The project was based on a Cummins US EPA certified tier II engine, model XQSK-60. The actual make and model of the equipment is left “TBD” to give the applicant flexibility to change the engine to another manufacturer, with similar parameters.

All engines involved in this project are used for emergency standby electric power generation, have gone through the SMAQMD Rule 201 permitting process and local air district (SMAQMD) permits have been issued.

D. Facility Description

The following facility description is for informational purposes only and does not contain any applicable federally enforceable requirements.

The applicant operates two adjacent facilities that contain data process servers. Data process servers are electronic devices that provide digital storage and computing capabilities. The applicant provides a facility with specific environmental and electrical parameters to house these data process servers. To provide a high reliability of constant environmental and electrical parameters, IC engine driven electric generators are used in the event of loss of usable power from the serving utility. An organization that procures RagingWire Enterprise Solutions, Inc.'s services can for a fee place their data process servers at the facility.

In order to provide for the uninterrupted operation of the data servers as well as HVAC equipment, the facility has installed or is in the process of installing 40 standby IC engines. An IC engine that is designated standby or emergency is defined as an IC engine that is limited in the numbers of hours it can run to maintain integrity of the system or maintenance, and operate in the event of a power failure or emergency. These IC engines drive generators that provide power in the event that the serving utility cannot provide adequate quality of power to maintain the integrity of the data process servers or environmental control equipment. Data process servers, as with any electronic equipment optimally run at a constant temperature and humidity, but produce heat. To remove this heat the applicant has HVAC equipment to accomplish this task, such as cooling towers, air handlers, chillers, and heaters.

There are two buildings adjacent to each other where the applicant operates the business. One building is at 1200 Striker Ave, Sacramento, CA and the other is 1312 Striker Ave, Sacramento, CA. Since both buildings are located on contiguous properties, the emissions from the buildings will be aggregated and considered one facility. Sixteen IC engines are currently installed at 1200 Striker Ave., Sacramento, CA. Twenty - four IC engines will be installed at 1312 Striker Ave., Sacramento, CA.

The facility will contain 40 diesel fired IC engines. There are 2 air pollution control devices to control NOx emissions connected to 2 of the IC engines. A Selective Catalytic Reduction device, or SCR, is an air emission control device that reduces the amount of NOx emissions from the exhaust of the IC engine by converting it to nitrogen and water in the presence of ammonia. The SCRs were installed to meet SMAQMD Rule 202 Section 301 (02-24-2005 version), *Best Available Control Technology* or BACT requirements, not to meet federal emission standards set forth by the U.S. EPA tier emission standards in effect for the model year and horse power rating of the IC engine. Thirty-seven IC engines meet SMAQMD BACT requirements imposed at the time of application without the addition of emissions control equipment. The engine permitted under Permit No. 19408 is restricted in hours of operation in order to not trigger BACT requirements. The IC engines are permitted to operate for a limited amount of hours to preserve the integrity of the specific IC engine or the electrical infrastructure, defined as maintenance, as well as a disruption in power quality, defined as emergency. The IC engines are typically permitted by SMAQMD to operate 50 hours per year for maintenance. The IC engines are limited by local district permit to operate less than 200 hours per year for both emergency and maintenance per IC engine. The overall facility is permitted by SMAQMD to not exceed 45.5 tons per year of NOx. This restriction prevents all the IC

D. Facility Description (continued)

engines from operating 200 hour per year each. All the IC engines operate on diesel fuel certified by CARB. Currently diesel fuel certified by CARB has a sulfur content of 0.0015%.

The applicant currently has 16 engines permitted, built and operational at 1200 Striker Ave. The applicant has applied for the installation of the engines at 1312 Striker in two application packets. The first 8 engines have an Authority to Construct that will expire on 9-10-2012. The next 16 engines are permitted under another Authority to Construct that is set to expire on 5-21-2012. Under SMAQMD Rule 201, (1984 SIP approved version), Section 301, SMAQMD may grant up to a two year extension on these Authorities to Construct permits. Currently the applicant has not begun operation at 1312 Striker Ave and continues the construction and installation of the engines.

To be considered an emergency IC engine, SMAQMD Rule 202 Section 110.2 (02-24-2005 version) limits total usage of the IC engine to less than 200 hours per year. The State of California *Air Toxic Control Measure for Stationary Diesel Fueled Engines* (ATCM) limits maintenance and testing of each IC engine to 50 hours per year or less. All the IC engines at the facility are at a minimum compliant with this requirement. There are other limiting factors that limit the operation of the IC engines further below this amount. The applicant has built up the facility through a series of distinct projects. At times the applicant has taken various emission caps. The following is a summary.

Project Scope - IC Engine Permit No.	Quarterly Limiting Factor	Yearly Limiting Factor
P/O 19104	Project emission restriction of 5,000 lbs/qtr of NOx restricts quarterly operation to 100 hrs/qtr	200 hours
P/O 19408, 19409, 19410	Project emission restriction of 5,000 lbs/qtr of NOx restricts quarterly operation to 161 hrs/qtr total for these IC engines.	19408 – 200 hours 19409 - 200 hours 19410 – 122 hours
P/O 21579	Project emission restriction of 5,000 lbs/qtr of NOx restricts quarterly operation to 161 hrs/qtr total for this IC engine.	200 hours
P/O 20279, 20280, 20282, 20283, 20284, 20285, 20286, 20287, 20288	Project emission restriction of 5,000 lbs/qtr of NOx restricts quarterly operation to 161 hrs/qtr total for these IC engines.	Total emissions from this set of IC engines cannot exceed 20,000 lbs/year of NOx.

D. Facility Description (continued)

Project Scope - IC Engine Permit No.	Quarterly Limiting Factor	Yearly Limiting Factor
IC Engines Permitted at 1200 Striker Ave (16 Total) P/O 15495, 15963, 19104, 19408, 19409, 19410, 20279, 20280, 20282, 20283, 20284, 20285, 20286, 20287, 20288, 21579	Total emissions from this set of IC engines cannot exceed 24.4 tons (48,800 lbs) of NOx per quarter and per year.	Total emissions from this set of IC engines cannot exceed 24.4 tons (48,800 lbs) of NOx per quarter and per year.
IC Engines Permitted at 1312 Striker Ave (24 Total) A/C 21352, 21366, 21367, 21368, 21369, 21370, 21371, 21372, 22348, 22349, 22350, 22351, 22352, 22353, 22354, 22355, 22356, 22357, 22358, 22359, 22360, 22361, 22362, 22363	Total emissions from this set of IC engines cannot exceed 24.4 tons (48,800 lbs) of NOx per quarter and per year.	Total emissions from this set of IC engines cannot exceed 24.4 tons (48,800 lbs) of NOx per quarter and per year.
All IC engines permitted at 1200 Striker Ave & 1312 Striker Ave	Total emissions facility wide cannot exceed 45.5 tons (91,100 lbs) of NOx per quarter.	Total emissions facility wide cannot exceed 45.5 Tons (91,100 lbs) of NOx per year

Additionally the operation of multiple IC engines facility - wide is restricted to operate only for infrastructure upgrades necessitating multiple IC engine operation, during a once a year facility operational test, or during an emergency event.

Other equipment that are considered insignificant sources of air emissions are listed in the Insignificant Emission Units section of this Statement of Basis as well as the reasoning for the exemption. To operate a facility of this nature, there are several cooling towers, small natural gas fired heaters used for humidification, chillers, diesel and urea storage. The applicant has an office located at the facility that will have heating and cooling of the air space as well as a hot water heater. The operation has a support staff at this location that has office space heating. All the equipment considered insignificant per the adopted list and criteria document and SMAQMD rules.

E. Significant Emissions Unit Information

1. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 15495
Manufacturer:	Caterpillar
Model No.	3516B
Serial No.	6HN01216
Engine BHP:	2876 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2000
Tier:	Tier 1
EPA Family No.	YCPXL69.OERK (From CARB Executive order U-R-1-103)
Location:	1200 Striker Ave.

2. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 15963
Manufacturer:	Caterpillar
Model No.	3516B
Serial No.	6HN01330
Engine BHP:	2876 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2000
Tier:	Tier 1
EPA Family No.	YCPXL69.OERK (From CARB Executive order U-R-1-103)
Location:	1200 Striker Ave.

3. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 19104
Manufacturer:	Caterpillar
Model No.	3516B
Serial No.	6HN.1254
Engine BHP:	2876 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2000
Tier:	Tier 1
EPA Family No.	YCPXL69.OERK (From CARB Executive order U-R-1-103)
Location:	1200 Striker Ave.

E. Significant Emissions Unit Information (continued)

4. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 19409
Manufacturer:	Cummins
Model No.	QSK60-G6 Non Road 1
Serial No.	33163718
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2006
Tier:	Tier 1
EPA Family No.	5CEXL060.ABA
Location:	1200 Striker Ave.

Exhausted through SCR APC device (P/O 19585) to meet BACT standards

5. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 19410
Manufacturer:	Cummins
Model No.	QSK60-G6 Non Road 1
Serial No.	33163633
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2006
Tier:	Tier 1
EPA Family No.	5CEXL060.ABA
Location:	1200 Striker Ave.

Exhausted through SCR APC device (P/O 19586) to meet BACT standards

6. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 19408
Manufacturer:	Cummins
Model No.	2000DQKC
Serial No.	C040616638
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2004
Tier:	Tier 1
EPA Family No.	5CEXL060.ABA
Location:	1200 Striker Ave.

E. Significant Emissions Unit Information (continued)

7. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20279
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	33167241
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2007
Tier:	Tier 2
EPA Family No.	7CEXL060AAD
Location:	1200 Striker Ave.

8. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20280
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	33167380
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2007
Tier:	Tier 2
EPA Family No.	7CEXL060AAD
Location:	1200 Striker Ave.

9. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20282
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	3375779-93
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2007
Tier:	Tier 2
EPA Family No.	7CEXL060AAD
Location:	1200 Striker Ave.

E. Significant Emissions Unit Information (continued)

10. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20283
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	75779-93
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2007
Tier:	Tier 2
EPA Family No.	7CEXL060AAD
Location:	1200 Striker Ave.

11. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20284
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	33176023
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2008
Tier:	Tier 2
EPA Family No.	8CEXL060.AAD
Location:	1200 Striker Ave.

12. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20285
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	33175727
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2008
Tier:	Tier 2
EPA Family No.	8CEXL060.AAD
Location:	1200 Striker Ave.

E. Significant Emissions Unit Information (continued)

13. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20286
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	33173817
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2008
Tier:	Tier 2
EPA Family No.	8CEXL060.AAD
Location:	1200 Striker Ave.

14. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20287
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	33175193
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2008
Tier:	Tier 2
EPA Family No.	8CEXL060.AAD
Location:	1200 Striker Ave.

15. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 20288
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	33170830
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2007
Tier:	Tier 2
EPA Family No.	7CEXL060AAD
Location:	1200 Striker Ave.

E. Significant Emissions Unit Information (continued)

16. IC ENGINE, EMERGENCY USE

Permit No.:	P/O 21579
Manufacturer:	Cummins
Model No.	XQSK60-G6
Serial No.	33175768
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	2008
Tier:	Tier 2
EPA Family No.	8CEXL060.AAD
Location:	1200 Striker Ave.

17. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 21352
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

18. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 21366
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

E. Significant Emissions Unit Information (continued)

19. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 21367
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

20. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 21368
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

21. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 21369
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

E. Significant Emissions Unit Information (continued)

22. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 21370
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

23. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 21371
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

24. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 21372
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

E. Significant Emissions Unit Information (continued)

25. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22348
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

26. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22349
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

27. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22350
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

E. Significant Emissions Unit Information (continued)

28. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22351
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

29. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22352
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

30. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22353
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

E. Significant Emissions Unit Information (continued)

31. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22354
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

32. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22355
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

33. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22356
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

E. Significant Emissions Unit Information (continued)

34. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22357
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

35. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22358
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

36. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22359
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

E. Significant Emissions Unit Information (continued)

37. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22360
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

38. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22361
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

39. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22362
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

E. Significant Emissions Unit Information (continued)

40. IC ENGINE, EMERGENCY USE

Permit No.:	A/C 22363
Manufacturer:	TBD
Model No.	TBD
Serial No.	TBD
Engine BHP:	2922 bhp @ 1,800 RPM
Fuel Type:	CARB diesel
Driving:	Electrical generator
Model Year:	TBD
Tier:	Tier 2
EPA Family No.	TBD
Location:	1312 Striker Ave.

41. AIR POLLUTION CONTROL SELECTIVE CATALYTIC REDUCTION SYSTEM SERVING IC ENGINE P/O 19409

Permit No.: P/O 19585

A selective catalytic reduction (SCR) system is utilized for NOx control on the IC engine exhaust. The SCR system is comprised of a reactor chamber, catalyst modules, urea storage system, urea injection system, monitoring equipment and sensors. The urea injection rate is controlled by monitoring the flow rate and temperature. The SCR system is designed to control NOx at or below US EPA Tier II emission standards. The IC engine that the SCR is controlling meets US EPA Tier 1 emission standards without the benefit of an SCR and is in compliance with the emission standards for the specific model year.
Location: 1200 Striker Ave.

42. AIR POLLUTION CONTROL SELECTIVE CATALYTIC REDUCTION SYSTEM SERVING IC ENGINE P/O 19410

Permit No.: P/O 19586

A selective catalytic reduction (SCR) system is utilized for NOx control on the IC engine exhaust. The SCR system is comprised of a reactor chamber, catalyst modules, urea storage system, urea injection system, monitoring equipment and sensors. The urea injection rate is controlled by monitoring the flow rate and temperature. The SCR system is designed to control NOx at or below US EPA Tier II emission standards. The IC engine that the SCR is controlling meets US EPA Tier 1 emission standards without the benefit of an SCR and is in compliance with the emission standards for the specific model year.
Location: 1200 Striker Ave.

F. Insignificant Emissions Unit Information

Equipment Category As Listed in the Title V List and Criteria Adopted 03-1985	Equipment	Basis for Exemption
A. Fugitive Emission Sources Associated with Insignificant Activities	1. 5,000 gallon water storage tank 2. Chill water expansion tank 1,980 gallons with air separator 3. Chill water expansion tank 1,000 gallons with air separator	1 - 3. Insignificant air pollutant sources from these sources
B. Combustion and Heat Transfer Equipment	1. 250,000 BTU/hr heating unit and exclusively fired with natural gas. (qty 1) 2. 400,000 btu/hr heating unit for makeup air exclusively fired with natural gas - separate processes (qty 8) 3. 5 Hp pressure washer, fuel: gasoline 4. Forklift, fuel: propane 5. Propane Fired Barbeque	1 ,2, 5. <5,000,000 Btu and exclusively fired with natural gas or LPG (propane) 3,4. Piston-type internal combustion engine with rating <50bhp.
C. Cooling Towers	1. Cooling Towers at 2,700 GPM - Quantity 3 2. Cooling Towers at 3,600 GPM - Quantity 3 3. Cooling Towers at 3,800 GPM – Quantity 9	1 – 3 <10,000 GPM and are not used to cool process water, water from barometric jets or water from barometric condensers
D. Printing and Reproduction Equipment	Office Printers, Fax and copiers	Insignificant pollution source
E. Food Processing Equipment	None	N/A
F. Plastic and / or Rubber Processing Equipment	None	N/A

F. Insignificant Emissions Unit Information (continued)

Equipment Category As Listed in the Title V List and Criteria Adopted 03-1985	Equipment	Basis for Exemption
G. Storage Containers, Reservoirs, and Tanks – Fuel, Fuel Oil and Asphalt	1. See Table 3 for diesel fuel and motor oil	Diesel Fuel and motor oil storage capacity of <19,800 gallons with specific gravity >0.8251
H. Storage Containers, Reservoirs, and Tanks – General Organic and VOC-Containing Material	None	N/A
I. Storage Containers, Reservoirs, and Tanks – Inorganic Material	1. See Table 4	Insignificant air pollutant emissions source
J. Storage Containers, Reservoirs, and Tanks – Liquefied Gases	1. Carbon Dioxide Tanks 2. Propane Tanks	1 - 2. Insignificant air pollutant emissions
K. Compression and Storage of Dry Natural Gas	None	N/A
L. Transfer Equipment	1. Urea tank has two transfer systems for injection of urea for SCR units	Insignificant air pollutant emissions source
M. Adhesive Application	None	N/A
N. Surface Coating	None	N/A
O. Solvent Cleaning	None	N/A
P. Abrasive Blasting	None	N/A
Q. Brazing, Soldering, Welding and Cutting Torches	None	N/A
R. Solder Leveler, Hydrosqueegee, Wave Solder Machine, or Drag Solder Machine	None	N/A
S. Metal Products	None	N/A
T. Aerosol Can Puncturing or Crushing	None	N/A

F. Insignificant Emissions Unit Information (continued)

Equipment Category As Listed in the Title V List and Criteria Adopted 03-1985	Equipment	Basis for Exemption
U. Biotechnology Manufacturing	None	N/A
V. Textile Dyeing, Stripping or Bleaching	None	N/A
W. Laboratory Fume Hoods and Vents	None	N/A
X. Refrigeration Units	1. 900 ton chillers Quantity 3 2. 1,200 ton chillers Quantity 3 3. 1,725 ton chillers Quantity 6	1 - 3. Not used in conjunction with air pollution control equipment

Table 3 – Tanks for Diesel Fuel

Tank / Container ID#	Contents	Capacity (gal)
Diesel Fuel Storage Tank	Diesel	10,000
Diesel Fuel Storage Tank qty 10	Diesel	12,000 each
Gen1 Belly Tank for Diesel Fuel	Diesel	1,000
Day Tank Diesel Fuel qty 40	Diesel	360 each

Table 4 Tanks and Containers for Other Products

Tank / Container ID#	Contents	Capacity (gal)
Transformer Oil Filled qty 5	Mineral Oil	2,233 each
T-6 Transformer Oil Filled	Mineral Oil	636
Voltage Regulator qty 9	Mineral Oil	303 each
Radiators associated with Emergency Diesel Generators @1200 Striker Ave and 1312 Striker Ave (qty 40)	Propylene Glycol	80 each
Urea Storage Tank for SCRs	Urea	1000
Lead acid batteries – 2400 jars @ 1200 Striker and 1860 jars @ 1312 Striker	Sulfuric Acid 10-30% by weight	10 each

F. Insignificant Emissions Unit Information (continued)

Emergency Generators 1 L sumps qty 40	Lubricating Oil	74 each

G. Alternate Operating Scenarios

None requested by the permittee.

H. Facility Emissions

The following table represents the maximum emission for each pollutant based on the US EPA Tier emission standard applicable when the IC engine was permitted and limiting factors for IC engine hours of operation and overall facility emission limits. Since there are different emission factors, for some of the IC engines, the maximum of a specific pollutant is derived by specific IC engine sets that may not necessarily match between pollutants.

Maximum Allowable Emissions tons per year								
Equipment	**ROC**	**NOx**	**SOx**	**PM10**	**CO**	**Single HAP** (A)	**Total HAPs** (A)	**GHG CO2e**
40 Standby IC engines								
Total	**9.4**	**45.5**	**0.5**	**1.5**	**35**	**0.031**	**0.131**	**4,582**

(A) The HAP values are based on the maximum fuel usage to achieve 45.5 tons/year of NOx and AP-42 emission factors for this source category. Ammonia slip for the SCR is estimated to be 10 PPM. They are not federally enforceable emission limits. The federally enforceable emission limits would be 9.9 tons/year for a single HAP and 24.9 tons/year for a combination of HAPs.

Maximum ROC Emissions When NOx Emissions Equal 45.5 Tons

P/O or A/C No.	VOC	NOx	SOx	PM10	CO
15495	541	3,736	89	216	4,602
15963	0	0	0	0	0
19104	0	0	0	0	0
19408	0	0	0	0	0
19409	1,288	6,184	212	193	3,349
19410	1,288	6,184	212	193	3,349
20279, 20280, 20282 - 20288	4,184	19,912	20	620	10,788
21579	1,288	6,184	6	192	3,350
21352, 21366-21372, 22348 - 22363	10,164	48,800	47	1,515	26,436
Total lbs	18,753	91,000			
Total tons	9.4	45.5			
NOx at 1312 Striker (lbs)		48,800			
NOx at 1200 Striker (lbs)		42,200			

H. Facility Emissions (continued)

Maximum SOx Emissions when NOx Emissions Equal 45.5 Tons

P/O or A/C No.	VOC	NOx	SOx	PM10	CO
15495	1,268	8,750	209	507	10,779
15963	1,268	8,750	203	127	10,779
19104	1,268	8,750	203	189	10,779
19408	0	0	0	0	0
19409	1,288	6,184	212	193	3,349
19410	1,288	6,184	212	193	3,349
20279, 20280, 20282 – 20288	0	0	0	0	0
21579	1,288	6,184	6	192	3,350
21352, 21366-21372, 22348 – 22363	9,622	46,198	45	1,367	25,026
Total lbs		91,000	1,090		
Total tons		45.5	0.545		
NOx at 1312 Striker (lbs)		46,198			
NOx at 1200 Striker (lbs)		44,802			

Maximum PM10 Emissions when NOx Emissions Equal 45.5 Tons

P/O or A/C No.	VOC	NOx	SOx	PM10	CO
15495	1,268	8,750	209	507	10,779
15963	0	0	0	0	0
19104	0	0	0	0	0
19408	0	0	0	0	0
19409	1,288	6,184	212	193	3,349
19410	1,288	6,184	212	193	3,349
20279, 20280, 20282 – 20288	3,130	14,898	15	464	8,071
21579	1,288	6,184	6	192	3,350
21352, 21366-21372, 22348 – 22363	10,164	48,800	47	1,515	26,436
Total lbs		91,000		3,064	
Total tons		45.5		1.5	
NOx at 1312 Striker (lbs)		48,800			
NOx at 1200 Striker (lbs)		42,200			

H. Facility Emissions (continued)

Maximum CO Emissions when NOx Emissions Equal 45.5 Tons

P/O or A/C No.	VOC	NOx	SOx	PM10	CO
15495	1,268	8,750	209	507	10,779
15963	1,268	8,750	203	127	10,779
19104	1,268	8,750	203	189	10,779
19408	474	3,271	0.9	71	4,030
19409	1,288	6,184	212	193	3,349
19410	65	311	11	10	168
20279, 20280, 20282 - 20288	0	0	0	0	0
21579	1,288	6,184	6	192	3,350
21352, 21366-21372, 22348 - 22363	10,167	48,800	51	1,525	26,433
Total lbs		91,000			69,667
Total tons		45.5			35
NOx at 1312 Striker (lbs)		48,800			
NOx at 1200 Striker (lbs)		42,200			

H. Facility Emissions (continued)

Maximum Fuel Usage When NOx Emissions Equal 45.5 Tons(A)

P/O or A/C No.	Gal/hr	NOx Emission Rate g/hp-hr	HP	lb/hr	gal/lb NOx	NOx emissions	Total gallons per year
15495	138.9	6.9	2,876	43.7	3.2	3,736	11,861
15963	138.9	6.9	2,876	43.7	3.2	0	0
19104	138.9	6.9	2,876	43.7	3.2	0	0
19408	136.6	6.9	2,922	44.4	3.1	0	0
19409	136.6	4.8	2,922	30.9	4.4	6,184	27,319
19410	136.6	4.8	2,922	30.9	4.4	6,184	27,319
20279, 20280, 20282 - 20288	137.9	4.8	2,922	30.9	4.5	19,912	88,802
21579	137.9	4.8	2,922	30.9	4.5	6,184	27,579
21352, 21366-21372, 22348 - 22363	137.9	4.8	2,922	30.9	4.5	48,800	217,635
Total Fuel (gal)							400,515
Total lbs						91,000	
Total tons						45.5	
NOx at 1312 Striker (lbs)						48,800	
NOx at 1200 Striker (lbs)						36,016	

(A) This table is needed to calculate GHG emissions as well as HAP emissions

H. Facility Emissions (continued)

HAP Emissions (A)

HAP	Emission Factor lbs/MMBTU	lbs/yr	tons/yr
Benzene	9.33E-04	48.4	0.024
1,3 Butadiene	3.91E-05	2.0	0.001
Acrolein	9.25E-05	4.8	0.0024
Total PAH*	1.68E-04	8.7	0.00436
Xylenes	2.85E-04	14.8	0.00739
Toluene	4.09E-04	21.2	0.0106
Acetaldehyde	7.67E-04	39.8	0.0199
Formaldehyde	1.18E-03	61.2	0.0306
Ammonia Slip (B)		62	0.031
Total		263	0.131

Basis for Emission Calculations

Gal/year	400,515.3	
Energy Content	129,500	BTU/gal
BTU/yr	51,866,733,378	
MMBTU/yr	51,866.7	

* Assumed all PAH are HAPs

(A) Emission factors taken from U.S. EPA AP-42 Table 3.3-2 (10/96)
(B) Ammonia Slip estimated at 10 PPM

H. Facility Emissions (continued)

Ammonia Slip Calculation
Given
10 PPM Ammonia Slip for the SCRs (P/O 19595 &19596)
IC Engine limitation of 200 hrs/year each (P/O 19401 & 19410)
IC Engine Exhaust Rate = 14,920 ACFM @ 893 F
1 ATM Assumed Pressure
R = 0.730241 FT^3XATM/(LBmol*R)
MW of Ammonia = 17 lb/lbmol

lb/year of ammonia emissions =

(10 PPM) X (1E-6) X (1atm/1,352.07R) X (1lbmol/ (0.730241 ft^3 X ATM) X(17 lb/lbmol) x (14,920 ft^3/min) X (60 min/ hr) X (400 hr/yr)
= 61.65 lb/yr

GHG Emission Calculation

From California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions
California Code of Regulations subchapter 10, Article 2, section 95100 to 95133

Appendix A-5 Table 3

Distillate Fuel (#1, 2 &4) conversion to CO2e

10.4 Kg CO2e per gallon of distillate Fuel

400,515 gallons/year X 10.4 Kg CO2e/gallon X 2.2 lbs/Kg X 1 ton/ 2000 lbs = 4,582 Tons CO2e

I. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS General Requirements

SMAQMD Rule 101 – General Provision and Definitions

SIP Approved: 09-03-1998 (64 FR 13514)

Rule Description: This rule provides definitions of terms, specifies authority to arrest and specifies what data is public information.

Compliance Status: The rule does not require the permittee to take any actions.

SMAQMD Rule 102 – Circumvention

SIP Approved: 12-05-1984 (49 FR 47490)

Rule Description: This rule prohibits concealment of emissions and specifies how compliance determinations are made for combined and separated emissions.

Compliance Status: The permittee is expected to comply with the rule requirements.

SMAQMD Rule 105 - Emission Statement

SIP Approved: 06-06-2008 (73 FR 32240)
09-05-1996 rule version is SIP approved

Rule Description: This rule requires the facility to provide annual emission data for ROC and NOx when emissions exceed 25 tons

Compliance Status: The applicant's actual emissions have not exceeded 25 tons of ROC or NOx. The applicant will submit an emission report when emissions exceed 25 tons per year

SMAQMD Rule 201 - General Permit Requirements

SIP Approved: 07-13-1987 (52 FR 26148)
11-20-1984 rule version is SIP approved
08-24-2006 rule version is the current version and is not SIP approved

Rule Description: This rule provides an orderly procedure for the review of new sources of air pollution and of the modification and operation of existing sources through the issuance of permits.

Compliance Status: The permittee has active permits for all sources that require permits.

I. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS General Requirements (continued)

SMAQMD Rule 202 - New Source Review

SIP Approved: 06-19-1985 (50 FR 25417)
11-20-1984 rule version is SIP approved
02-24-2005 rule version is the current version and is not SIP approved

Rule Description: This rule sets the procedures for review of new and modified stationary sources and provides the mechanisms for evaluating the applicability of BACT and/or offset requirements.

Compliance Status: **SIP approved version (adopted 11-20-1984)**
Based on Section 107 of this rule, electrical emergency generation equipment is exempt from Sections 301 (BACT requirements), 302 (Offset requirements), and 303 (offset location application requirements) if the project is not at a major source or is not a major modification. In 1984, when the rule was adopted the major source threshold was 50 tons per year of NOx emissions. The applicant is restricted by permit condition to not exceed 45.5 tons per year of NOx and is therefore not a major source based on the SIP approved rule. The applicant restricted the 24 IC engines at 1312 Striker Ave, project to 24.4 tons per year of NOx emissions. This would make the project not a major modification. This facility is not a major source as defined by the 1984 SIP approved rule, since the facility's potential to emit is below 50 tons per year Therefore the applicant is exempt from sections 301, 302, and 303. The rule also states that maintenance operation be restricted to 100 hours per year. Currently the engines are restricted below this threshold.

Current version (adopted 2-24-2005)
Section 110 of this rule provides an exemption from section 302 (offset requirements) and 303 (offset applications) for equipment used for emergency operation, provided that the equipment is operated in the following manner

1) Maintenance operation is limited to 100 hours
2) Total operation shall not exceed 200 hours of operation (emergency and maintenance combined)
3) The unit does not supply power to the serving utility.

Requirements of Section 301(BACT Requirements) are still applicable.

The IC engines located at this facility have been evaluated as an emergency/standby application and have been given SMAQMD permits for this purpose. The IC engines were evaluated for compliance with the BACT standards. All but one IC engine triggered the BACT requirements

I. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS General Requirements (continued)

and the BACT standards that were in effect at the time of permit issuance were met. One IC engine was restricted in operation by permit condition to not exceed BACT requirement thresholds. BACT requirements were applied per the SMAQMD IC engine permitting policy manual.

SMAQMD Rule 207 - Title V Federal Operating Permits

SIP Approved: 11-21-2003 (68 FR 65637) (part of Title V program approval)
04-26-2001 rule version is SIP approved

Rule Description: This rule sets forth the procedures for review, issuance and renewal of Title V operating permits.

Compliance Status: The permittee has submitted a timely and complete Title V initial permit application.

SMAQMD Rule 301 - Permit Fees (Title V related fees only)

SIP approved: The rule is not SIP approved but the portions of the rule related to Title V permit fees are applicable because they are part of the SMAQMD Title V Federal Operating Permit program approved by U.S. EPA on 11-21-2003 (68 FR 65637).

Rule Description: This rule requires Title V sources to pay specified fees.

Compliance Status: The owner/operator is expected to comply with the Title V fee requirement.

SMAQMD Rule 307 – Clean Air Act Fees

SIP Approved: 08-26-2003 (68 FR 51184)

Rule Description: This rule requires major sources of ROC and NOx to pay specified fees beginning after the U.S. EPA determines that the SMAQMD has failed to demonstrate attainment of the one hour ozone ambient air quality standard by the attainment year.

Compliance Status: The owner/operator is expected to comply with the fee requirement.

SMAQMD Rule 401 - Ringelmann Chart

SIP Approved: 02-01-1984 (49 FR 3987):

I. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS General Requirements (continued)

Rule Description: This rule limits the discharge of air contaminants into the atmosphere through visible emissions and opacity limitations.

Compliance Status: All equipment is expected to comply with the visible emission requirement.

SMAQMD Rule 403 - Fugitive Dust

SIP Approved: 12-05-1984 (49 FR 47490)
08-03-1977 rule version is SIP approved

Rule Description: This rule regulates operations which may cause fugitive dust emissions into the atmosphere.

Compliance Status: The facility complies with this rule by taking the necessary precautions to ensure that fugitive dust is not airborne beyond the property line.

SMAQMD Rule 442 - Architectural Coatings

SIP Approved: 11-09-1998 (63 FR 60214)
09-05-1996 rule version is SIP approved
05-24-2001 rule version is the current version and is not SIP approved

Rule Description: This rule limits the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application or manufactured for use within the District.

Compliance Status: The affected coatings used by the permittee are received and stored in containers that display the required manufacturer's labels and demonstrate compliance with the rule's requirements. The use of coating and solvents are in compliance with this rule.

SMAQMD Rule 466 - Solvent Cleaning

SIP approved: 05-05-2010 (75 FR 24406)
05-23-2002 rule version is SIP approved
10-28-2010 rule version is the current version and is not SIP approved

Rule Description: This rule reduces the emissions of volatile organic compounds from solvent cleaning operations and activities, and from the storage and disposal of new and spent cleaning solvents.

I. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS General Requirements (continued)

Compliance Status: The affected architectural coating application equipment solvent cleaning materials used by the facility are received and stored in containers that display the required manufacturer's labels and demonstrate compliance with the rule's requirements.

Although the 10-28-2010 rule version has not been SIP approved, this rule requires more stringent VOC content limits on solvent cleaning materials than the previous rule version and has already been submitted for, and is expected to receive, SIP approval. Therefore, pursuant to U.S. EPA's *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*, the most stringent requirements are the permit conditions based on SMAQMD Rule No. 466 rule version 10-28-201, which will be included in the Title V permit.

The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination:

SMAQMD Rule 701 - Emergency Episode Plan

SIP approved: 09-05-2000 (65 FR 53602):

Rule Description: This rule requires a plan be prepared for specific actions to be taken when health related levels of ozone, Carbon Monoxide or PM10 are exceeded and is applicable to sources exceeding 50 tons of VOC or NOx or 100 tons of CO or PM.

Compliance Status: This rule is not applicable since the potential to emit for the criteria pollutants listed in the rule are higher than the permitted potential of the facility.

The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination:

40 CFR 68 (begin at 68.1) - Chemical Accident Prevention Provisions

Promulgated: 01-31-1994 (59 FR 4493)
[04-09-2004 (69 FR 18831) most recent amendment]

Rule Description: This regulation specifies requirements for owners or operators of stationary sources concerning the prevention of accidental chemical releases.

I. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS General Requirements (continued)

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, must comply with the requirements of 40 CFR Part 68.

40 CFR 68.215 requires that the air permitting authority include in the Title V permit for a facility specified statements regarding the regulation. Those statements are included in the Federally Enforceable Requirements - General section of the permit.

Compliance Status: The permittee does not store more than the designated amounts of the specified chemical substances in 40 CFR 68 and is therefore not subject to this regulation

40 CFR 82 Subpart F (begin at 82.150) - Protection of Stratospheric Ozone - Recycling and Emissions Reduction

Promulgated: 05-14-1993 (58 FR 28712)
[04-13-2005 (70 FR 19278) most recent amendment]

Rule Description: The purpose of this subpart is to reduce emissions of class I and class II refrigerants and their substitutes to the lowest achievable level by maximizing the recapture and recycling of such refrigerants during the service, maintenance, repair and disposal of appliances and restricting the sale of refrigerants consisting in whole or in part of a class I and class II ODS in accordance with Title VI of the Clean Air Act.

This subpart applies to any person servicing, maintaining or repairing appliances. This subpart also applies to persons disposing of appliances, including small appliances and motor vehicle air conditioners. In addition, this subpart applies to refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale and persons purchasing class I or class II refrigerants.

As indicated in 40 CFR 70.6, Title V permits need to assure compliance with all applicable requirements at the time of permit issuance. Part 70 defines as an applicable requirement, "Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the Act, unless the Administrator has determined that such requirements need not be contained in a Title V permit." [40 CFR

I. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS General Requirements (continued)

70.2(12)]. The applicable requirements of Title VI are included in the Federally Enforceable Requirements - General section of the permit.

Compliance Status: The permittee employs qualified contractors to maintain equipment that contains class I or class II refrigerants.

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS
Equipment Specific Requirements

SMAQMD Rule 406 - Specific Contaminants

SIP approved: 12-05-1984 (49 FR 47490)
12-06-1978 rule version is SIP approved

Rule Description: This rule regulates emissions of sulfur compounds and combustion contaminants by limiting the emission concentration of particulate matter (PM) and SO2. Sulfur compounds cannot exceed 0.2% by volume calculated as SO2, PM cannot exceed 0.1 gr/DSCF corrected to 12% CO2

Compliance Status: The following table represents the grain loading information for the facility. The facility is in compliance with this rule based on the calculation methodology described below.

Emission Unit	Permit No.	PM Emission Rate g/hp-hr	Gr/DSCF @ 12% CO2	Sulfur Emission Factor g/hp-hr	% by Volume
1	15495	0.4	0.0735	0.1645	0.00339
2	15693	0.1	0.0184	0.16	0.00330
3	19104	0.149	0.0274	0.16	0.00330
4	19408	0.149	0.0274	0.1645	0.00339
5	19409	0.15	0.0276	0.16	0.00330
6	19410	0.15	0.0276	0.16	0.00330
7	20279	0.15	0.0276	0.005	0.00010
8	20280	0.15	0.0276	0.005	0.00010
9	20282	0.15	0.0276	0.005	0.00010
10	20283	0.15	0.0276	0.005	0.00010
11	20284	0.15	0.0276	0.005	0.00010
12	20285	0.15	0.0276	0.005	0.00010
13	20286	0.15	0.0276	0.005	0.00010
14	20287	0.15	0.0276	0.005	0.00010
15	20288	0.15	0.0276	0.005	0.00010
16	21579	0.15	0.0276	0.005	0.00010
17	21352	0.15	0.0276	0.005	0.00010
18	21366	0.15	0.0276	0.005	0.00010
19	21367	0.15	0.0276	0.005	0.00010
20	21368	0.15	0.0276	0.005	0.00010
21	21369	0.15	0.0276	0.005	0.00010
22	21370	0.15	0.0276	0.005	0.00010

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS
Equipment Specific Requirements (continued)

Emission Unit	Permit No.	PM Emission Rate g/hp-hr	Gr/DSCF @ 12% CO2	Sulfur Emission Factor g/hp-hr	% by Volume
22	21370	0.15	0.0276	0.005	0.00010
23	21371	0.15	0.0276	0.005	0.00010
24	21372	0.15	0.0276	0.005	0.00010
25	22348	0.15	0.0276	0.005	0.00010
26	22349	0.15	0.0276	0.005	0.00010
27	22350	0.15	0.0276	0.005	0.00010
28	22351	0.15	0.0276	0.005	0.00010
29	22352	0.15	0.0276	0.005	0.00010
30	22353	0.15	0.0276	0.005	0.00010
31	22354	0.15	0.0276	0.005	0.00010
32	22355	0.15	0.0276	0.005	0.00010
33	22356	0.15	0.0276	0.005	0.00010
34	22357	0.15	0.0276	0.005	0.00010
35	22358	0.15	0.0276	0.005	0.00010
36	22359	0.15	0.0276	0.005	0.00010
37	22360	0.15	0.0276	0.005	0.00010
38	22361	0.15	0.0276	0.005	0.00010
39	22362	0.15	0.0276	0.005	0.00010
40	22363	0.15	0.0276	0.005	0.00010

Calculation methodology. (See Attachment B)

SMAQMD Rule 412 - Stationary IC Engines Located at Major Stationary Sources of NOx

SIP Approved: 04-30-1996 (61 FR 18959)
06-01-1995 rule version is SIP approved

Rule Description: This rule regulates emissions of NOx, CO and NMHC for the operation of stationary internal combustion IC engines located at a major stationary source of NOx

Compliance Status: Section 110 of this rule exempts emergency standby equipment from sections 301 (RACT emission limits), 302 (BARCT emission limits), 303 (alternative control requirements) 400 (administrative requirements) of this

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

rule.
Section 304 (equipment requirements) requires a non-resting totalizing hour meter on each IC engine
Section 501 (recordkeeping requirements) requires maintenance of (a) permit number each stationary IC engine. (b) Manufacturer, model number and rating in HP of each stationary IC engine (c) Actual quarterly hours of operation of each stationary IC engine (d) Copies of most recent emission tests.

The permittee's equipment complies with this rule.

(See discussion of streamlining of multiple applicable requirements at the end of this section titled "Equipment Specific Requirements - IC Engine, Emergency Use)

The Title V permit will contain a permit shield indicating that compliance with the conditions of the Title V permit will be deemed compliance with SMAQMD Rule 412.

SMAQMD Rule 420 - Sulfur Content of Fuels

SIP approved: 12-05-1984 (49 FR 47490)

Rule Description: This rule regulates emissions of sulfur compounds from the combustion of fuels by limiting the sulfur content of the fuel. The limit for liquid fuel (diesel) is not to exceed 0.5% sulfur by weight.

Compliance Status: CARB diesel is required to be used exclusively at the facility. CARB diesel is regulated to have 15 PPM by weight and is in compliance with this rule.

$$\frac{PPM}{1E6} \text{ X } 100\% = \text{Weight of sulfur in the fuel}$$

$$\frac{15PPM}{1E6} \text{ X } 100\% = 0.0015\%$$

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

Equipment	Fuel	SMAQMD Rule 420 Allowable Sulfur Content of Fuel % S by weight	Expected Sulfur Content of Fuel Used % S by weight
IC engine, emergency use	CARB diesel	0.5	0.0015

Permit Conditions on SMAQMD Rule 201 Authorities to Construct and Permits to Operate

Condition Description: The conditions of operation on SMAQMD Rule 201 Authorities to Construct and Permits to Operate for the emergency/standby IC engines limit emission concentrations, hours of operation, limit mass emissions, require BACT, recordkeeping and reporting.

The following table indicates the conditions on the SMAQMD Rule 201 permits that are not applicable federally enforceable requirements.

Equipment	**SMAQMD Rule 201 Permit No.**	**Permit conditions that are not federally enforceable**
IC Engine Standby, 2876 HP	P/O 15495	Condition Nos. 1, 2, 3, and 4 – These are administrative requirements not contained in any SIP-approved rule or other federally enforceable regulation. All other permit conditions are federally enforceable.
IC Engine Standby, 2876 HP	P/O 15963	Condition Nos. 1, 2, 3, and 4 – These are administrative requirements not contained in any SIP-approved rule or other federally enforceable regulation. All other permit conditions are federally enforceable.
IC Engine Standby, 2876 HP	P/O 19104	Condition Nos. 1, 2, 3, and 4 – These are administrative requirements not contained in any SIP-approved rule or other federally enforceable regulation. All other permit conditions are federally enforceable.

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

Equipment	SMAQMD Rule 201 Permit No.	Permit conditions that are not federally enforceable
IC Engines Standby 2922 HP (qty 2) with associated SCR	P/O 19409, 19410, 19585, 19586	Condition Nos. 1, 2, 3, and 4 – These are administrative requirements not contained in any SIP-approved rule or other federally enforceable regulation. All other permit conditions are federally enforceable.
IC Engine Standby, 2922 HP	P/O 19408	C Condition Nos. 1, 2, 3, and 4 – These are administrative requirements not contained in any SIP-approved rule or other federally enforceable regulation. All other permit conditions are federally enforceable.
IC Engine Standby, 2922 HP (qty 10)	P/O 20279, 20280, 20281 – 20288, 21579	Condition Nos. 1, 2, 3, and 4 – These are administrative requirements not contained in any SIP-approved rule or other federally enforceable regulation. All other permit conditions are federally enforceable.
IC Engine Standby, 2922 HP (qty 8)	A/C 21352, 21366 – 21372	Condition Nos. 1, 2, 3, and 4 – These are administrative requirements not contained in any SIP-approved rule or other federally enforceable regulation. All other permit conditions are federally enforceable. Condition Nos. 7 will be removed in the final permit. Proper noticing to exceed 5,000 lbs per quarter of NOx was completed when the project was expanded to include all 24 engines at 1312 Striker Ave. Condition Nos. 14, 15 are start-up / administrative condition for local permit issuance procedures

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

Equipment	SMAQMD Rule 201 Permit No.	Permit conditions that are not federally enforceable
IC Engine Standby, 2922 HP (qty 16)	A/C 22348 - 22363	Condition Nos. 1, 2, 3, and 4 – These are administrative requirements not contained in any SIP-approved rule or other federally enforceable regulation. Conditions No. 13 (limitation of multiple engine operation) is for limitation of acute toxic effects and is not part of any federal regulation. Condition Nos. 14, 15 are start-up/administrative condition for local permit issuance procedures

Compliance Status: The permittee's equipment complies with the SMAQMD Rule 201 permit conditions.

40 CFR 63 (begin at 63.6580) Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal combustion Engines:

Promulgated: 06-15-2004 (69 FR 33506)

Rule Description: This regulation affects all Stationary Reciprocating Internal combustion engines at an area source.

Section 63.5960 (a) (1) (iii) States "For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006."

Section 63.5960 (a) (3) States "The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part including initial notification requirements"

Section 63.5960 (a)(3)(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions.

Section 63.6590 (c) States "An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by the meeting the requirements of 40 CFR Part 60 Subpart IIII, for compression ignition engines…. No further

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

requirements apply for such engines under this part.

Section (c)(1) States "A new or reconstructed Stationary RICE located at an area source.

Compliance Status: The IC engines permitted under 15495 &15963 were installed prior to June 12, 2006, therefore it is considered existing. Guidance documentation from EPA as well as confirmation from the EPA contact Melanie King on 6/24/2011, states that a data center is considered a commercial facility therefore these engines are not subject to this standard. All other permitted engines meet the standard by complying with 40 CFR 60 subpart IIII.

40 CFR 60 (begin at 60.42000) Subpart IIII – NSPS for Stationary Reciprocating Internal combustion Engines:

Promulgated: 07-11-2006 (69 FR 39172)

Rule Description: This NSPS is applicable to any of the following:

a. Manufacturers of engines with a displacement of less than 30 liters per cylinder where the model year is 2007 or later for non fire pump engines and the model year listed in Table 3 of this subpart for fire pump engines.
b. Owners or operators of engines that commence construction after July 11, 2005 where the engine is manufactured after April 1, 2006 for a non fire pump engine or for engines manufactured as a certified National Fire Protection Association (NFPA) fire pump after July 1, 2006.
c. Owners and operators of engines that modify or reconstruct their engine after July 11, 2005.

The NSPS requires the following:

a. The engine must meet the non-road standard that is applicable to the engine size and year of manufacture. The engine has been certified to the current tier 3 standard
b. The fuel used must meet the requirements specified in 40 CFR 80.510(b). The engine is required to use CARB diesel which complies with the aforementioned fuel specification.

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

c. The engine must have an hour meter installed. The engine is required to have an hour meter installed.
d. Operation for maintenance purposes shall be limited to 100 hours per year. The engine will be limited to 50 hours per year for maintenance purposes.

Compliance Status: IC engines permitted under 15495 & 15963 were installed prior to July 11, 2005, and therefore are not subject to these subparts, although they meet US EPA Tier 1 emission standards. All other IC engines are subject. The IC engines are US EPA Tier compliant based on their model year. All the IC engines will run on CARB diesel which is in compliance with the 15 PPM sulfur content. All are equipped with a non-resettable hour meter. All are operated and maintained per the manufacturer. All IC engines have data from the manufacturer to show compliance with emission standards and/or are certified to meet the emission standards of the model year. All IC engines are respectively limited to less than 50 hours per year of maintenance. All permitted IC engines are in compliance with this subpart.

The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:

40 CFR Parts 72 through 78 Acid Rain Program:

Promulgated: 01-11-1993 (58 FR 3650)
[01-24-2008 (73 FR 4357) most recent amendment]

Rule Description: This federal regulation limits the emission of NOx and SO2 from electric utility associated combustion equipment such as boilers and gas turbines in order to reduce the formation of acid rain.

Compliance Status: The facility is not subject to this provision based on part 72 Applicability, defined in section 72.6
No individual unit is greater than 25 MW, is not a Turbine or a Cogeneration facility. There is no intention to sell power back to the common electrical grid, nor is it considered a power production facility. It does not have a solid waste incinerator.

Since it does not have the applicability, this facility is not subject to the Acid Rain Program.

The following federal regulation is not an applicable federal requirement but is discussed here to document the non-applicability determination for the record:

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

40 CFR 64 (begin at 64.1) Compliance Assurance Monitoring (CAM):

Promulgated: 10-22-1997 (52 FR 54940)

Rule Description: This federal regulation specifies monitoring requirements for Title V sources that will assure compliance with emission limitations or standards.

Compliance Status: Section 64.2 (a) states that the equipment is exempt from this section if the emission unit does not meet all the conditions specified in 64.2 (a) 1-3. Section 64.2 (a) (3) states CAM is required if an individual unit can exceed emission that are equal to or greater than 100 percent of the amount, in tons per year required to be considered a major source. Currently the major source threshold for SMAQMD jurisdictional area is 25 tons per year of NOx. Each building at the applicant's facility is subject to an emission limit of 24.4 tons per year of NOx as a permit condition. Since any one engine is limited by permit conditions, to not exceed 24.4 tons of NOx per year, the requirements of this section are not imposed.

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

Streamlining Multiple Applicable Requirements:
Each of the IC engines is subject to the following overlapping Applicable Federally Enforceable/Local rule Requirements:

A. Criteria Pollutant Tier Standards and BACT Requirements.

	Emission Limits		
40 CFR 60 Subpart IIII NSPS for IC Engines	Installed prior to 7-11-2005	NOx, PM, CO, ROC, SOx	Not Covered
	Installed after 7-11-2005	NOx, PM, CO, ROC	Pre 2007 model year must meet US EPA Tier 1 IC engine emission standards Post 2007 Model year must meet the US EPA Tier emission standard in effect for the specific model year.
		SOx	15 PPM of Sulfur content in the fuel
SMAQMD Rule 412 (6-01-95 version) Stationary Internal combustion engines located at a major source of NOx	Emergency equipment is exempt from this rule		
BACT requirement from SMAQMD Rule 202 New Source Review	NOx, PM, CO, ROC, PM		Meet emission standards of the highest US EPA Tier emission standard available at time the application is deemed complete. A new US EPA Tier emission standard is not imposed as BACT until 6-months after the effective date.
	SOx		15 PPM of Sulfur, Found in CARB diesel

Pursuant to U.S. EPA White Paper Number 2, the above applicable requirements will be streamlined and only the BACT related NSR requirements, which are the most stringent

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

requirements, will be incorporated into the Title V permit.

B. Specific Contaminants

Basis of Requirement	Applicable Requirements
SMAQMD Rule No. 406 (12-06-78 version) – Specific Contaminants	≤ 0.1 grains PM/dscf at12% CO2 and ≤ 2000 ppmv sulfur compounds as SO2
SMAQMD Rule No. 201 permit conditions based on: SMAQMD Rule No. 202 – New Source Review	≤ 0.13 lb PM/hour (equivalent to 0.05 grains/dscf at 12% CO2) and ≤ 0.0015 ppmw S in the fuel (equivalent to 0.95 ppmv as SO2)

Pursuant to U.S. EPA's *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*, the above applicable requirements will be streamlined. The most stringent requirements are the permit conditions based on SMAQMD Rule Nos. 201 and 202, which will be included in the Title V permit.

C. Sulfur Contents of Fuels

Basis of Requirement	Applicable Requirements % S by weight
SMAQMD Rule No. 420 – Sulfur Content of Fuels	≤ 0.5%
SMAQMD Rule No. 201 Permit Conditions based on: SMAQMD Rule No. 202 – New Source Review	≤ 0.0015%

Pursuant to U.S. EPA's *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*, the above applicable requirements will be streamlined. The most stringent requirements are the permit conditions based on SMAQMD Rule Nos. 201 and 202, which will be included in the Title V permit.

J. APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS Equipment Specific Requirements (continued)

D. Hour Meter

Basis of Requirement	Applicable Requirements
SMAQMD Rule No. 412 (06-01-1995 version) – Stationary IC Engines Located at Major Stationary Sources of NOx	Operate a non-resetting totalizing hour meter (or computerized tracking) and maintain operation records.
SMAQMD Rule No. 201 permit conditions based on: SMAQMD Rule No. 202 – New Source Review	Operate a non-resetting totalizing hour meter (or computerized tracking) and maintain operation records.

Pursuant to U.S. EPA's *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*, the above applicable requirements will be streamlined. The permit conditions based on SMAQMD Rule Nos. 201 and 202 are as stringent as the SMAQMD Rule 412 requirements and will be included in the Title V permit.

K. *NON*-FEDERALLY ENFORCEABLE REQUIREMENTS
Facility-wide Requirements

SMAQMD Rule 301 - Permit Fees - Stationary Source

SIP approved: Not SIP approved.

Rule Description: This rule requires the facility to pay fees associated with the issuance and renewal of SMAQMD Rul2 201 permits.

Compliance Status: The permittee has paid permit fees as required and is in compliance.

SMAQMD Rule 306 - Air Toxic Fees

SIP approved: Not SIP approved.

Rule Description: This rule requires the facility to pay fees associated with toxic emissions regulated through the California "Toxic Hotspot" Program.

Compliance Status: The permittee has paid toxic fees as required and is in compliance.

SMAQMD Rule 602 - Breakdown Conditions: Emergency Variance

SIP approved: Not SIP approved.

Rule Description: This rule requires the facility to notify the SMAQMD of any equipment breakdowns that cause an emission violation and to follow specific procedures.

Compliance Status: The permittee has complied with the requirements of the rule when equipment breakdowns have caused emission violations.

California Code of Regulations, Title 17, Section 93115, Air Toxic Control Measure (ATCM)
Airborne toxic control measure for stationary compression ignition engines.

SIP approved: Not SIP approved
10-18-2007 - adopted by California Air Resources Board

Rule Description : The California Air Resources Board's Air Toxic Control Measure (ATCM) - Regulation for stationary IC engines requires limiting the run time for in use IC engines, requiring emission limits of newly installed IC engines, and providing additional operational conditions if an IC engine is placed near a school. In-use IC engines are limited in hours of operation based on the PM emission rate, and no increase of other pollutants if a control device is added. IC engines installed after January 1, 2005 must meet PM emission 0.15 g/hp-hr or less, be restricted to 50 hours/year of maintenance, and must meet the highest US EPA Tier emission standards emission limits

K. *NON*-FEDERALLY ENFORCEABLE REQUIREMENTS
Equipment Specific Requirements (cont.)

available for the model year of the IC engine. For those IC engines that fall under the requirements of this ATCM, only those fuels define by section 93115.5 can be used. Not discussed are rules governing diesel fired engines driving Fire Pump, since there are none as part of this application.

Rule Compliance: The IC engines permitted by the applicant are all compliant with this rule. All IC engines installed after January 1, 2005 were built to the US EPA Tier emission standard of engine model year. IC engines installed prior to 2005 do not have any control devices. Those IC engines that do not have a PM emission rate of 0.15 g/hp-hr or less have a reduced maintenance hour limit for standby IC engines per the ATCM. All new IC engines meet the 0.15 g-hp/hr emission limit for PM and are restricted to less than 50 hours per year of maintenance time per IC engine. The facility does not have any prime power IC engines. All the IC engines considered in this project are emergency standby. The location of the IC engines are not within 1,000' or 500' of a school. The IC engines are only fired on CARB diesel that is listed as an approved fuel under the ATCM.

L. Title V Permit Conditions

It is recommended that the RagingWire Enterprise Solutions, Inc. Title V Federal Operating permit be issued.

See proposed Title V Federal Operating Permit TV2010-20-01 for permit conditions.

Approved by: _____ Date: _____

ATTACHMENT A

SMAQMD RULES THAT ARE

"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"

FOR THE RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	101	General Provisions and Definitions 09-03-1998 adoption	**Yes** - no related conditions are included in the permit because of general nature of the rule.
●	●	102	Circumvention 11-29-1983 adoption	**Yes** - no related conditions are included in the permit because of general nature of the rule.
	●	103	Exceptions 11-29-1983 adoption	**No** - source does not operate the type of equipment described in this rule.
	●	104	General Conformity 11-03-1994 adoption	**No** - the rule's purpose is to have the SMAQMD review federal conformity findings.
●	●	105	Emission Statement 09-05-1996 adoption	**Yes** - related conditions are included in the permit.
		107	Alternative Compliance	**No** - it is not a SIP approved rule.
●		108	Minor Violations	**No** - it is not a SIP approved rule.
●	●	201	General Permit Requirements 11-20-1984 adoption	**Yes** - no related conditions are included in the permit because of the general nature of the rule.
●	●	202	New Source Review 11-20-1984 adoption	**Yes** - related conditions are included in the permit.

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
		203	Prevention of Significant Deterioration	**No** - it is not a SIP approved rule.
		204	Emission Reduction Credits	**No** - it is not a SIP approved rule.
		205	Community Bank and Priority Reserve Bank	**No** - it is not a SIP approved rule.
		206	Mobile and Transportation Source Emission Reduction Credits	**No** - it is not a SIP approved rule.
●	*	207	Title V Federal Operating Permit Program	**Yes** - related conditions are included in the permit. (*Although this is not a SIP approved rule, it is applicable because it is part of the approved SMAQMD Title V Permit Program.)
		208	Acid Rain	**No** - it is not a SIP approved rule. *Note: there is an equivalent federal regulation.*
		209	Limiting Potential to Emit	**No** - it is not a SIP approved rule.
		210	Synthetic Minor Source Status	**No** - it is not a SIP approved rule.
		211	MACT at Major Sources of Hazardous Air	**No** - it is not a SIP approved rule.

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
			Pollutants	
		213	Federal Major Modifications	**No** - it is not a SIP approved rule.
		215	Agricultural Permit Requirements and New Agricultural Permit Review	**No -** it is not a SIP approved rule.
●	*	301	Stationary Source Permit Fees	**Yes** - related conditions are included in the permit. (*Although this is not a SIP approved rule ,it is applicable because it is part of the approved SMAQMD Title V Permit Program.)
●		302	Hearing Board Fees	**No** - it is not a SIP approved rule.
		303	Agricultural Burning Permit Fees	**No** - it is not a SIP approved rule.
		304	Plan Fees	**No** - it is not a SIP approved rule.
		305	Environmental Document Preparation and Processing Fees	**No** - it is not a SIP approved rule.
●		306	Air Toxics Fees	**No** - it is not a SIP approved rule.
●	●	307	Clean Air Act Fees	**Yes** - related conditions are included in the permit.

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
			09-26-2002 version	
		310	Permit Fees - Agricultural Source	**No** - it is not a SIP approved rule
●	●	401	Ringelmann Chart 04-05-1983 adoption	**Yes** - related conditions are included in the permit.
●		402	Nuisance	**No** - it is not a SIP approved rule.
●	●	403	Fugitive Dust 11-29-1983 adoption	**Yes** - related conditions are included in the permit.
●	●	404	Particulate Matter 11-20-1984 adoption	**Yes** - related conditions are included in the permit. (see discussion of streamlining applicable requirements and permit shield)
	●	405	Dust and Condensed Fumes 11-29-1983 adoption	**No** - the source does not operate such a process.
●	●	406	Specific Contaminants 11-29-1983 adoption	**Yes** - related conditions are included in the permit. (see discussion of streamlining applicable requirements and permit shield)
●	●	407	Open Burning	**Yes** - no related conditions are included in the permit

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
			11-29-1983 adoption	because the source does not conduct open burning.
	●	408	Incinerator Burning 11-29-1983 adoption	**No** - the source does not operate an incinerator.
	●	409	Orchard Heaters 11-29-1983 adoption	**No** - the source does not operate orchard heaters.
	●	410	Reduction of Animal Matter 11-29-1983 adoption	**No** - the source does not operate equipment for the reduction of animal matter.
	●	411	Boiler NOx 02-02-1995 adoption	**No** - the source does not operate a boiler subject to this rule.
●	●	412	Stationary IC Engines at Major Stationary Sources of NOx 06-01-1995 adoption	**Yes** - related conditions are included in the permit. (see discussion of streamlining applicable requirements and permit shield)
		413	Stationary Gas Turbines 03-24-2005 adoption	**Yes** - related conditions are included in the permit. (see discussion of streamlining applicable requirements and permit shield)
	●	414	Natural Gas Fired Water Heaters 08-01-1996 adoption 03-24-2005 rule version is not SIP approved	**No** - the source does not operate natural gas fired water heaters.

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
		417	Wood Burning Appliances	**No -** it is not a SIP approved rule.
●	●	420	Sulfur Content of Fuels 11-29-1983 adoption	**Yes** - related conditions are included in the permit. (see discussion of streamlining applicable requirements and permit shield)
●	●	441	Organic Solvents 11-29-1983 adoption	**Yes** - no related conditions are included in the permit because of limited applicability.
●	●	442	Architectural Coatings 09-05-1996 adoption 05-24-2001 rule version is not SIP approved	**Yes** - related conditions are included in the permit.
	●	443	Leaks from Synthetic Organic Chemical and Polymer Manufacturing 09-05-1996 adoption	**No** - the source does not operate synthetic organic chemical or polymer manufacturing equipment.
	●	444	Petroleum Solvent Dry Cleaning 08-13-1981 adoption	**No** - the source does not operate petroleum solvent dry cleaning equipment.
	●	446	Storage of Petroleum Products 11-16-1993 adoption	**No** - the source does not store affected petroleum products.

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
	●	447	Organic Liquid Loading 04-02-1998 adoption	**No** - the source does not operate organic liquid loading equipment.
	●	448	Gasoline Transfer into Stationary Storage Containers 02-02-1995 adoption	**No** - the source does not operate gasoline transfer equipment.
	●	449	Transfer of Gasoline into Vehicle Fuel Tanks 09-26-2002 adoption	**No** - the source does not operate gasoline transfer equipment.
	●	450	Graphic Arts Operations 10-24-2008 adoption	**No** - the source does not operate a graphic arts process as defined in the rule.
●	●	451	Surface Coating of Miscellaneous Metal Parts and Products 11-29-1983 adoption 10-28-2010 rule version is not SIP approved	**Yes** - no related conditions are included in the permit because of limited applicability.
	●	452	Can Coating 09-25-2008 adoption	**No** - the source does not operate a can coating process.

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

●	453	Cutback and Emulsified Asphalt Paving Materials 11-29-1983 adoption	**No** - the source does not manufacture or apply cutback or emulsified asphalt paving materials.
●	454	Degreasing Operations 09-25-2008 adoption	**No** - the source does not operate degreasers subject to this rule.
●	455	Pharmaceuticals Manufacturing 11-29-1983 adoption	**No** - the source does not manufacture pharmaceuticals.
●	456	Aerospace Coating Operations 09-05-1996 adoption	**No** - the source does not coat aerospace parts.
	457	Methanol Compatible Tanks	**No** - it is not a SIP approved rule.
●	458	Large Commercial Bread Bakeries 09-05-1996 adoption	**No** - the source does not produce bread products.
●	459	Automotive, Truck and Heavy Equipment Refinishing Operations 10-02-1997 adoption	**No** - the source does not refinish vehicles.
●	460	Adhesives and Sealants	**No** - it is not a SIP approved rule.
	463	Wood Products Coatings	**No** - it is not a SIP approved rule.
●	464	Organic Chemical Manufacturing Operations 07-23-1998 adoption	**No** - the source does not manufacture organic chemicals.

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR RAGINGWIRE ENTERPRISE SOLUTIONS, INC.

		465 Polyester Resin Operations	**No** - it is not a SIP approved rule.
●		466 Solvent Cleaning 10-28-2010 version	**Yes** - Version 05-24-2002 is SIP approved, but superseded by requirements of 10-28-2010 (submitted for SIP approved)
		485 Municipal Landfill Gas	**No** - it is not a SIP approved rule.
		496 Large Confined Animal Facilities	**No** - it is not a SIP approved rule.
	●	501 Agricultural Burning 11-29-1983 adoption	**No** - the source does not conduct agricultural burning.
●		601 Procedure before the Hearing Board	**No** - it is not a SIP approved rule.
●		602 Breakdown Conditions: Emergency Variance	**No** - it is not a SIP approved rule.
	●	701 Emergency Episode Plan 05-27-1999 adoption	**No** - facility emissions are below applicability level.
●		801 New Source Performance Standards	**No** - it is not a SIP approved rule. *Note: there are equivalent federal regulations.*
		901 General Requirements	**No** - it is not a SIP approved rule. *Note: there are equivalent federal regulations.*
		902 Asbestos	**No** - it is not a SIP approved rule. *Note: there is an equivalent federal regulation.*

SMAQMD RULES THAT ARE
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	903	Mercury	**No** - it is not a SIP approved rule. *Note: there is an equivalent federal regulation.*
●	904	Airborne Toxic Control Measures	**No** - it is not a SIP approved rule. *Note: there are equivalent federal regulations for some of the listed ATCMs.*
	1002	Fleet Inventory	**No** - it is not a SIP approved rule.
	1003	Reduced-Emission Fleet Vehicles/Alternative Fuels	**No** - it is not a SIP approved rule.
	1005	Mobile Source Emission Reduction Credits/Banking	**No** - it is not a SIP approved rule.
	1006	Transportation Conformity	**No** - it is not a SIP approved rule.

ATTACHMENT B

Calculation methodology for Combustion Contaminants.

Combustion Contaminants

Using standard factors such as the F factor and brake specific fuel consumption, converting the emission factor for PM to grains/dscf is a matter of unit conversions. The calculation of the correction factor relies on the percent of stack CO2. This can be calculated with a few assumptions. The carbon content in diesel fuel is 87.3 % by weight. Ninty-nine percent (99%) of the carbon is converted to CO2. Using equations found in source testing protocol CARB METHOD 100 one can calculate PPM of CO2. PPM can be converted to a volume % and inserted back into the equation to correct to 12% CO2.

F factor that is used is to be corrected to a % O2 when used in this manner. However, the term is cancelled out, so there is no need to know the concentration of O2 to correct this term.

Assumptions for Calculating Particulate Matter and SO2 emissions

BSFC = 7,000 BTU / (HP-HR) or 0.007 MMBTU/(HP-HR)
87.3% = Wt % of Carbon in Diesel Fuel
99% = Conversion of Carbon in Fuel to CO2
385.3 dscf/mol = molar volume at 68F & 1 ATM
0.0193 MMBTU/lbfuel = BTU content per pound of diesel fuel.
MW of Carbon = 12 lb/lbmol
MW of CO2 = 44 lb/lbmol
F = F factor value at 0% 02 (DSCF/MMBTU)
EF = PM emission rate of the IC engine at g/hp-hr

Equations

From CARB Method 100

Equation 100-5

$$CO2_{12\%\ CO_2} = CO2_{\text{stack-CO2\%}}\ \text{X}\ \left(\frac{12\%}{STACK - CO2\%}\right)$$

Equation 100-4

(solving for PPM and specific to CO2)

$$\text{PPM-CO2 = Emission Rate } \left(\frac{lbs}{hr}\right) \text{ X } \left(\frac{385E6}{MWCO2}\right) \text{ X Q x 60}$$

385 is the Molar volume published in the CARB method 100, 385.3 was used for better accuracy.

Where
MWCO2 = Molecular weight of CO2 lb/lbmol
Q is flow rate.

Conversion of PPM to %

STACK-CO2% = $\left(\frac{PPM - CO2}{1E6}\right)$ X 100%

Calculation of gr/dscf from PM emission rate

$\frac{gr}{dscf}@12\%CO2$ = EF/BSFC/F Factor*(unit conversion)*(12%/stack CO2%)

or

$$\frac{gr}{dscf}@12\%CO2 = (EF)*\left(\frac{15.4321gr}{g}\right)*\left(\frac{hp-hr}{0.007MMBTU}\right)*\left(\frac{1}{F}\right)*\left(\frac{12\%CO2}{\%CO2stack}\right)$$

Step 1) – Calculate lb of CO2 per MMBTU

CO2 analysis based on 87.3% C in Diesel and 99% conversion to CO2 in the exhaust stack.

CO2 Stack emission (lb/MMBTU) =

(quantity of Carbon in 1 lb of fuel)*(BTU content in one pound of fuel)*(MW of Carbon)* (Conversion Rate of Carbon to CO2)*(MW of CO2)= (lbCO2/MMBTU) in the exhaust.

or

$$\left(\frac{0.873lbc}{1lbfuel}\right)*\left(\frac{1lbfuel}{0.0193MMBTU}\right)*\left(\frac{lbmolC}{12lbc}\right)*\left(\frac{0.99lbmolCO2}{1lbmolC}\right)*\left(\frac{44lbCO2}{1lbmolCO2}\right)$$

= 164.196 lbCO2/MMBTU

Step 2) Calculate PPM per MMBTU

PPM- CO2 per MMBTU =

From Equation 100-4 of CARB Method 1 and converting PPM to % Stack volume

PPM-CO2 = Emission Rate $\left(\frac{lbs}{hr}\right)$ X $\left(\frac{385E6}{MWCO2}\right)$ X Q x 60

Or

$$\left(\frac{164.196 lbco2}{MMBTU}\right) * \left(\frac{1 lbmol}{44 lbco2}\right) * \left(\frac{385.3 dscf}{mol}\right) * \frac{1}{\mathrm{F}} * (1E6)$$

$$= 1437.8345E6 \ \frac{dscf}{mmbtu} \ \text{x F}^{-1} \ = \text{PPM-CO2}$$

Step 3) Calculate Stack CO2% based on PPM

$$\text{CO2 stack \%} = (1437.8345E6) \frac{dscf}{MMBTU} \text{ X F}^{-1} \text{ X } 1E6^{-1} \text{ X } 100\%$$

$$= 143{,}783.45 \ \frac{dscf}{MMBTU} \% \text{ x F}^{-1}$$

Step 4) Calculate Correction Concentration

$$\text{Concentration Correction} = \frac{12\% CO2}{\% StackCO2}$$

$$= \frac{12\% CO2}{143{,}783.45\% \frac{dscf}{MMBTU}} \text{ X F}$$

$$= 8.34902E\text{-}5 \left(\frac{MMBTU}{dscf}\right) \text{ X F}$$

Step 5) Calculate uncorrected grains per DSCF

Uncorrected grains per DSCF

$$= \text{EF X } \frac{15.4321 gr}{g} \text{ X } \frac{hp - hr}{0.007 MMBTU} \text{ X F}$$

$$= \text{EF X F X } 2204.5857 \ \frac{gr * hp - hr}{g * dscf}$$

Step 6) Calculate corrected grains per DSCF

Corrected CO2 factor

= uncorrected grains per DSCF *Concentration Correction

= EF X F^{-1} X 2204 $\frac{gr * hp - hr}{g * dscf}$ X 8.34902 E-5 X F

=(step 5) X(step 6)

= EF X 0.184012 $\frac{gr * hp - hr}{g * dscf}$

Note the "F" term cancels out.

For an IC engine rated with a PM emission rate of 0.15 gr/hp-hr the calculation to convert to grains/dscf corrected to 12% CO2 would be

0.15 $\frac{g}{hp - hr}$ X 0.184012 $\frac{gr * hp - hr}{g * dscf}$

= 0.0276 $\frac{gr}{dscf}$ corrected to 12% CO2

SO2 analysis

The concentration of sulfur in diesel fuel is regulated by CARB to be 15 PPM. An assumption can be made that all the sulfur in the fuel is converted to SO2.

%S02 in the exhaust =

EF X MW of SO2 x Molar volume @ 68F and 1 ATM X (F factor @ X% O2)$^{-1}$ X BSFC^{-1} x 100%

= EF X $\frac{1lb}{453.6g}$ X $\frac{1lbmolSO2}{64lbSO2}$ X $\frac{385.3\,ft\text{^}3}{lbmol}$ X $\frac{MMBTU}{9190dscf}$ X$(\frac{20.9\%}{20.9\% - X\%})^{-1}$X $\frac{1hp - hr}{0.007MMBTU}$ X 100%

= EF x 2.06E-2 % $\frac{hp - hr}{gr}$ X $\frac{20.9\% - X\%}{20.9\%}$

The 02 correction factor is inverted

Example: Given emission of SOx of 0.005 g/hp-hr

0.005 $\frac{g}{hp - hr}$ x 2.06E-2 % $\frac{hp - hr}{gr}$

= 1.03E-4 SOX% X $\frac{20.9\% - X\%}{20.9\%}$ in the exhaust stream.

By not applying the correction factor for O2 the resultant number presented is the worst case. As O2 levels increases the % SOx decreases. Therefore, for compliance reasons the correction factor will be removed, and the number presented will be a worst case.

ATACHMENT C

SMAQMD RULE 201 PERMITS TO OPERATE

FOR

RAGINGWIRE ENTERPRISE SOLUTIONS, INC.