



JUN 23 2016

Mr. Mike Kandris
Pacific Ethanol Stockton LLC
3028 Navy Dr
Stockton, CA 95206

**Re: Final - Authority to Construct / Certificate of Conformity (Significant Mod)
District Facility # N-7365
Project # N-1153189**

Dear Mr. Kandris:

The Air Pollution Control Officer has issued Authorities to Construct (ATCs N-7365-4-7, -5-6, -6-5, -7-6, -8-7, -9-4, -10-5, -11-9, -20-5, -21-5, -22-5, -35-0 and -36-0) with Certificates of Conformity to Pacific Ethanol Stockton LLC at 3028 Navy Drive, Stockton. This project authorizes the installation of two oxidizers, each driving a turbine which powers an electrical generator and a heat recovery steam generator and establishes a combined annual emissions limit. Enclosed are the Authorities to Construct and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permit was published on May 6, 2016. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on May 3, 2016. No comments were received following the District's preliminary decision on this project.

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

Prior to operating with the modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5. Application forms have been enclosed for your use. These forms may also be found on the District's website at www.valleyair.org.

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

Mr. Mike Kandris
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Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Errol Villegas, Permit Services Manager, at (559) 230-5900.

Sincerely,


for Arnaud Marjollet
Director of Permit Services

Enclosures

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

APPLICATION FOR TITLE V MODIFICATION

- Instructions -

Page 1 of 2

On the application form, mark the box to indicate what type of Title V modification this is. Only one application form is needed for each facility.

- Line 1.** Indicate the name of the business exactly as it appears on the Permit to Operate.
- Line 2.** List the mailing address where correspondence regarding the application and the Permit to Operate may be sent. Please include your nine-digit zip code.
- Line 3.** List the physical location where the emissions unit(s) will be operated. If a street address is not applicable, provide the United States Geological Survey (USGS) quarter-section, township, and range or the Universal Transverse Mercator (UTM) coordinates. Indicate the installation date of any equipment changes from this modification.
- Line 4.** Indicate the general nature of the business performed by the facility.
- Line 5.** Describe each emissions unit. You may reference existing valid District Permits to Operate for each permitted emissions unit. A summary listing of all emissions units with valid District operating permits can be obtained from the District and may be attached and referenced. Reference and attach a copy of the Authority to Construct (ATC) issued by the District for this modification, if one is available.
- Line 6.** Type or print the name of the applicant followed by the title of the applicant.
- Line 7.** Sign and date the application in ink. Also include the daytime telephone number, FAX number, and e-mail address of the applicant.

OTHER REQUIRED INFORMATION

Please attach a Title V Modification – Compliance Certification Form (TVFORM-009). If needed to complete the processing of your Title V permit application, the District may request additional information.

APPLICATION FOR TITLE V MODIFICATION

- Instructions -

Page 2 of 2

FEES

A nonrefundable filing fee of \$20 per emissions unit, up to a maximum of \$1,468 per stationary source, is required. The applicant may submit the necessary filing fees along with this application, or the District will issue a bill for the appropriate fee. Checks or money orders shall be made payable to the SJVUAPCD. All filing fees paid will be credited toward the hourly evaluation fee.

Every applicant for a Title V permit modification, administrative amendment, or certificate of conformity, shall also pay an evaluation fee for the issuance of the Title V permit. The fee shall be calculated using the staff hours expended and a weighted labor rate. All filing fees paid will be credited towards the evaluation fee.

The fee requirements are specified in District Rule 3010 (Permit Fee).

APPLICATION SUBMITTAL

Title V sources are encouraged to schedule a meeting with District personnel prior to submitting Title V applications. Applications, including all supporting documents, must be submitted in duplicate since EPA requires that a copy of each application be forwarded to them. It is recommended that applications be submitted to the Central Regional Office. However, applications may be submitted either by mail or in person at the following locations:

Northern Region Office
(Serving San Joaquin, Stanislaus, and
Merced Counties):

4800 Enterprise Way
Modesto, CA 95356-8718
(209) 557-6400
FAX: (209) 557-6475
SBA Hotline: (209) 557-6446

Central Region Office
(Serving Madera, Fresno, and Kings
Counties):

1990 E. Gettysburg Avenue
Fresno, California 93726-0244
(559) 230-5900
FAX: (559) 230-6061
SBA Hotline: (559) 230-5888

Southern Region Office
(Serving Tulare and Kern Counties):

34946 Flyover Court
Bakersfield, California 93308
(661) 392-5500
FAX: (661) 392-5585
SBA Hotline: (661) 392-5665



San Joaquin Valley Air Pollution Control District

www.valleyair.org



Permit Application For:

ADMINISTRATIVE AMENDMENT MINOR MODIFICATION SIGNIFICANT MODIFICATION

1. PERMIT TO BE ISSUED TO:	
2. MAILING ADDRESS:	
STREET/P.O. BOX: _____	
CITY: _____	STATE: _____
	9-DIGIT ZIP CODE: _____
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:	INSTALLATION DATE:
STREET: _____ CITY: _____	
_____ ¼ SECTION _____ TOWNSHIP _____ RANGE _____	
4. GENERAL NATURE OF BUSINESS:	
5. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE (include Permit #'s if known, and use additional sheets if necessary)	
6. TYPE OR PRINT NAME OF APPLICANT:	
TITLE OF APPLICANT:	
7. SIGNATURE OF APPLICANT:	DATE:
	PHONE: ()
	FAX: ()
	EMAIL:

For APCD Use Only:

DATE STAMP	FILING FEE RECEIVED: \$ _____ CHECK#: _____
	DATE PAID: _____
	PROJECT NO: _____ FACILITY ID: _____



Facility # N-7365
PACIFIC ETHANOL STOCKTON LLC
400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

AUTHORITY TO CONSTRUCT (ATC)

QUICK START GUIDE

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

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

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

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

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-4-7

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 18,500 GALLON SLURRY TANK SERVED BY A KOTCH GLICH VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-7365-5, '-6, '-9, '-10 AND '-11) WHICH IS VENTED TO A 2.4 MMBTU/HR A.H. LUNDBERG ASSOCIATES, INC. REGENERATIVE THERMAL OXIDIZER WITH A MAXON MODEL KINEDIZER LE LOW NOX BURNER (RTO SHARED WITH PERMITS N-7365-5, '-6, '-7, '-8, '-9, '-10 AND '-11): ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36 AND ALLOW AN OPTION TO DISCHARGE THE EXHAUST FROM THE VENT GAS SCRUBBER TO THE POWER OXIDIZERS OF THE COGENERATION SYSTEMS UNDER PERMITS N-7365-35 AND '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) N-7365-4-5 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-5-6, '-6-5, '-7-6, '-8-7, '-9-4, '-10-5, '-11-9, '-20-5, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Ar 
Arnaud Marjollet, Director of Permit Services

N-7365-4-7 Jun 21 2016 3:30PM - GARCIAJ Joint Inspection Required with GARCIAJ

6. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 360,000 gallon/day or 70,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. All vapors from the slurry tank shall be vented through the vent gas scrubber and then through the RTO or power oxidizer(s) listed on permits N-7365-35 and '-36. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The overall control efficiency for the vent gas scrubber vented to the RTO and the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Total combined controlled VOC emissions rate from the slurry tank served by the vent gas scrubber vented to the RTO and from the slurry tank served by the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total combined controlled emissions rate from the vent gas scrubber vented to the RTO and from the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total combined controlled VOC emissions rate from the exhaust of the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, fermentation process, beerwell process tank, distillation process, process condensate tank and wet cake process shall not exceed 0.0636 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NOx/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM10/MMBtu; or 0.00285 lb-SOx/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any one rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NOx/year, 4,654 lb-SOx/year, 4,899 lb-PM10/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
15. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The VOC content of the vapor in the slurry tank and slurry mix tank shall not exceed 10% by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Operator shall conduct initial sampling from the slurry mix tank to qualify for exemption from fugitive component counts for components handling fluids with less than 10% VOC by weight. [District Rule 2201] Federally Enforceable Through Title V Permit
18. VOC content of vapor shall be determined by ASTM D1945, ASTM D1946, EPA Method 18 referenced as methane, or equivalent test method with prior District approval. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
21. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
23. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 month period. Source testing shall be conducted within 60 days of exceedance of the 100 hour limit. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to the RTO and the vent gas scrubber vented to the RTO shall be conducted at least once every twelve (12) months with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 and the vent gas scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 shall all be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - (\text{RTO Outlet and power oxidizer outlet})] / [\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]\} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
30. During source testing, permittee shall maintain record of ethanol production rate measured in gal-ethanol/hour. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
33. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
34. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
35. If the water flow rate through the vent gas scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the vent gas scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The permittee shall maintain records of (1) the date of water flow rate measurements, (2) the water flow rate through the vent gas scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 25 gal/minute limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
37. The RTO shall be operated at a temperature of no less than 1,400 øF. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
38. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
39. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit
40. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
41. The permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 øF limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
42. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
43. Monthly hours of operation of the RTO shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
44. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
45. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-5-6

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF 29,653 GALLON YEAST TANK SERVED BY A KOTCH GLICH VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-7365-4, '-6, '-9, '-10 AND '-11) WHICH IS VENTED TO A 2.4 MMBTU/HR A.H. LUNDBERG ASSOCIATES, INC. REGENERATIVE THERMAL OXIDIZER WITH A MAXON MODEL KINEDIZER LE LOW NOX BURNER (RTO SHARED WITH PERMITS N-7365-4, '-6, '-7, '-8, '-9, '-10 AND '-11): ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36 AND ALLOW AN OPTION TO DISCHARGE THE EXHAUST FROM THE VENT GAS SCRUBBER TO THE POWER OXIDIZERS OF THE COGENERATION SYSTEMS UNDER PERMITS N-7365-35 AND '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) N-7365-5-5 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-6-5, '-7-6, '-8-7, '-9-4, '-10-5, '-11-9, '-20-5, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO



Arnaud Marjollet, Director of Permit Services

N-7365-5-6 Jun 21 2016 3:30PM -- GARCIAJ (Joint Inspection Required with GARCIAJ)

6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 360,000 gallon/day or 70,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All vapors from the slurry tank shall be vented through the vent gas scrubber and then through the RTO or power oxidizer(s) listed on permits N-7365-35 and '-36. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The overall control efficiency for the vent gas scrubber vented to the RTO and the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total combined controlled VOC emissions rate from the slurry tank served by the vent gas scrubber vented to the RTO and from the slurry tank served by the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total combined controlled emissions rate from the vent gas scrubber vented to the RTO and from the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Total combined controlled VOC emissions rate from the exhaust of the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, fermentation process, beerwell process tank, distillation process, process condensate tank and wet cake process shall not exceed 0.0636 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NOx/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM10/MMBtu; or 0.00285 lb-SOx/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NOx/year, 4,654 lb-SOx/year, 4,899 lb-PM10/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
16. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Fugitive VOC emissions from equipment leaks associated with this tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
21. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
23. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 month period. Source testing shall be conducted within 60 days of exceedance of the 100 hour limit. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to the RTO and the vent gas scrubber vented to the RTO shall be conducted at least once every twelve (12) months with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 and the vent gas scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 shall all be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - (\text{RTO Outlet and power oxidizer outlet})] / [\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]\} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
30. During source testing, permittee shall maintain records of ethanol produced, in gal-ethanol/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
33. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
34. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
35. If the water flow rate through the vent gas scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the vent gas scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The permittee shall maintain records of (1) the date of water flow rate measurements, (2) the water flow rate through the vent gas scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 25 gal/minute limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
37. The RTO shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
38. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
39. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit
40. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
41. The permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 °F limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
42. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
43. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
44. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
45. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
46. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit N-7365-0. [District Rule 4455] Federally Enforceable Through Title V Permit
47. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit N-7365-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
48. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
49. Monthly hours of operation of the RTO shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
50. All records shall be retained on site for a minimum of five years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
51. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

52. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64]
Conditions for N-7365-5-6 (continued)
Page 5 of 5

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-6-5

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 177,748 GALLON LIQUEFACTION TANK SERVED BY A KOTCH GLICH VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-7365-4, '-5, '-9, '-10 AND '-11) WHICH IS VENTED TO A 2.4 MMBTU/HR A.H. LUNDBERG ASSOCIATES, INC. REGENERATIVE THERMAL OXIDIZER WITH A MAXON MODEL KINEDIZER LE LOW NOX BURNER (RTO SHARED WITH PERMITS N-7365-4, '-5, '-7, '-8, '-9, '-10 AND '-11): ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36 AND ALLOW AN OPTION TO DISCHARGE THE EXHAUST FROM THE VENT GAS SCRUBBER TO THE POWER OXIDIZERS OF THE COGENERATION SYSTEMS UNDER PERMITS N-7365-35 AND '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) N-7365-6-4 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-7-6, '-8-7, '-9-4, '-10-5, '-11-9, '-20-5, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

for 

Arnaud Marjollet, Director of Permit Services
N-7365-6-5 Jun 21 2016 3:30PM - GARCIAJ Joint Inspection Required with GARCIAJ

6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 360,000 gallon/day or 70,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All vapors from the liquefaction tank shall be vented through the vent gas scrubber and then through the RTO and power oxidizer(s) listed on permits N-7365-35 and '-36. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The overall control efficiency for the vent gas scrubber vented to the RTO and the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total combined controlled VOC emissions rate from the slurry tank served by the vent gas scrubber vented to the RTO and from the slurry tank served by the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total combined controlled emissions rate from the vent gas scrubber vented to the RTO and from the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Total combined controlled VOC emissions rate from the exhaust of the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, fermentation process, beerwell process tank, distillation process, process condensate tank and wet cake process shall not exceed 0.0636 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NO_x/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM₁₀/MMBtu; or 0.00285 lb-SO_x/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NO_x/year, 4,654 lb-SO_x/year, 4,899 lb-PM₁₀/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
16. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Fugitive VOC emissions from equipment leaks associated with the liquefaction tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
21. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
23. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 month period. Source testing shall be conducted within 60 days of exceedance of the 100 hour limit. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to the RTO and the vent gas scrubber vented to the RTO shall be conducted at least once every twelve (12) months with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 and the vent gas scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 shall all be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - (\text{RTO Outlet and power oxidizer outlet})] / [(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet})] \} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
30. During source testing, permittee shall maintain records of ethanol produced, in gal-ethanol/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
33. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
34. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
35. If the water flow rate through the vent gas scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the vent gas scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The permittee shall maintain daily records of (1) the date of water flow rate measurements, (2) the water flow rate through the vent gas scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 25 gal/minute limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
37. The RTO shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
38. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
39. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit
40. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7 [40 CFR Part 64] Federally Enforceable Through Title V Permit
41. The permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 °F limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
42. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
43. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
44. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
45. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
46. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit N-7365-0. [District Rule 4455] Federally Enforceable Through Title V Permit
47. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit N-7365-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
48. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
49. Monthly hours of operation of the RTO shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
50. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
51. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

52. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64]
Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-7-6

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF FERMENTATION PROCESS CONSISTING OF FOUR 705,000 GALLON FIXED ROOF PROCESS TANKS, A CHILLER SYSTEM (SHARED WITH PERMIT N-7365-8) CONSISTING OF AN AIR COOLED ROTARY LIQUID CHILLER, AN ENCLOSED CHILLED WATER HOLDING TANK, CHILLED WATER INJECTORS, AND A KOCH GLICH CO2 WET SCRUBBER (SHARED WITH PERMIT N-7365-8). THE EXHAUST FROM THE PROCESS TANKS IS VENTED THROUGH THE CHILLED WATER INJECTORS BEFORE ITS RELEASE INTO THE CO2 SCRUBBER WHICH IS VENTED TO A 2.4 MMBTU/HR A.H. LUNDBERG ASSOCIATES, INC. REGENERATIVE THERMAL OXIDIZER WITH A MAXON MODEL KINEDIZER LE LOW NOX BURNER (RTO SHARED WITH PERMITS N-7365-4, '-5, '-6, '-8, '-9, -10 AND '-11): ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36 AND ALLOW AN OPTION TO DISCHARGE THE EXHAUST FROM THE VENT GAS SCRUBBER TO THE POWER OXIDIZERS OF THE COGENERATION SYSTEMS UNDER PERMITS N-7365-35 AND '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) N-7365-7-5 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-8-7, '-9-4, '-10-5, '-11-9, '-20-5, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services

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5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 360,000 gallon/day or 70,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All vapors from the fermentation tank shall be vented through the CO2 scrubber and then through the RTO and power oxidizer(s) listed on permits N-7365-35 and '-36. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The overall control efficiency for the CO2 scrubber vented to the RTO and CO2 scrubber vented power oxidizer(s) listed on permits N-7265-35 and '-36 shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total combined controlled VOC emissions rate from each fermentation tank served by the CO2 scrubber vented to the RTO and from each fermentation tank served by the CO2 scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.05365 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total combined controlled VOC emissions rate from the entire fermentation process served by the CO2 scrubber vented to the RTO and from the entire fermentation process served by the CO2 scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.05365 lb-VOC/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Total combined controlled VOC emissions rate from the fermentation process and beerwell process tank all served by the CO2 scrubber vented to the RTO and from the fermentation process and beerwell process tank all served by the CO2 scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.05365 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Total controlled VOC emissions rate from the exhaust of the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, fermentation process, beerwell process tank, distillation process, process condensate tank and wet cake process shall not exceed 0.0636 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NOx/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM10/MMBtu; or 0.00285 lb-SOx/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NOx/year, 4,654 lb-SOx/year, 4,899 lb-PM10/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
17. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Fugitive VOC emissions from equipment leaks associated with the fermentation process shall not exceed 3.8 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. VOC content in the fluid handled through the chiller system (shared with permit N-7365-8) shall be less than or equal to 10% by weight. Compliance with this condition shall be verified by sampling fluid from chilled water tank, as well as, the sump of the CO2 scrubber within 60 days of startup under this permit and whenever required by the District, ARB, or EPA. [District Rules 2201 and 4455 and 40 CFR 60.480a (d)(5)] Federally Enforceable Through Title V Permit
21. The owner or operator shall keep records of the following items for VOC content testing: a.) the date, b.) vessel or location from where fluid is sampled, c.) name of the person taking and analyzing samples and company affiliation, d.) VOC content (% by wt.) in the sample, and e.) report of the test results. [District Rules 2201 and 4455, 40 CFR 60.486a (i)(3)] Federally Enforceable Through Title V Permit
22. The permittee shall include in the Operator Management Plan all components exclusively handling liquid streams with VOC content less than 10% by weight. [District Rule 4455] Federally Enforceable Through Title V Permit
23. The results of any laboratory testing or other pertinent information to demonstrate compliance with the exemption criteria for components exclusively handling liquid streams with VOC content less than 10% by weight shall be submitted with the Operator Management Plan. [District Rule 4455] Federally Enforceable Through Title V Permit
24. VOC content shall be determined using South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids, or EPA Method 8260B, or other alternative test methods approved by the District prior to their use. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit
25. Tanks shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
26. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
27. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
28. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
29. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 month period. Source testing shall be conducted within 60 days of exceedance of the 100 hour limit. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO2 scrubber vented to the RTO and the vent gas scrubber vented to the RTO shall be conducted at least once every twelve (12) months with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO2 scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 and the vent gas scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 shall all be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - (\text{RTO Outlet and power oxidizer outlet})] / [\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]\} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
35. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
36. During source testing, permittee shall maintain records of ethanol produced, in gal-ethanol/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
37. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
38. The CO2 scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
39. The water flow rate through the CO2 scrubber shall not be less than 33 gal/minute. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
40. The permittee shall monitor and record the water flow rate through the CO2 scrubber at least once every day. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
41. If the water flow rate through the CO2 scrubber is less than 33 gal/minute, the permittee shall correct the water flow rate to exceed 33 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the CO2 scrubber continues to be less than 33 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
42. The permittee shall maintain daily records of (1) the date of water flow rate measurements, (2) the water flow rate through the CO2 scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 33 gal/minute limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
43. The RTO shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
44. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
45. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
47. The permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 °F limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
48. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
49. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

50. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
51. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
52. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit N-7365-0. [District Rule 4455] Federally Enforceable Through Title V Permit
53. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit N-7365-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
54. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
55. Monthly hours of operation of the RTO shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
56. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
57. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
58. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-8-7

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 928,526 GALLON FIXED ROOF BEERWELL PROCESS TANK, A CHILLER SYSTEM (SHARED WITH PERMIT N-7365-7) CONSISTING OF AN AIR COOLED ROTARY LIQUID CHILLER, AN ENCLOSED CHILLED WATER HOLDING TANK, CHILLED WATER INJECTORS, AND A KOCH GLICH CO2 WET SCRUBBER (SHARED WITH PERMIT N-7365-7). THE EXHAUST FROM THE PROCESS TANK IS VENTED THROUGH THE CHILLED WATER INJECTORS BEFORE ITS RELEASE INTO THE CO2 SCRUBBER WHICH IS VENTED TO A 2.4 MMBTU/HR A.H. LUNDBERG ASSOCIATES, INC. REGENERATIVE THERMAL OXIDIZER WITH A MAXON MODEL KINEDIZER LE LOW NOX BURNER (RTO SHARED WITH PERMITS N-7365-4, '-5, '-6, '-8, '-9, -10 AND '-11): ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36 AND ALLOW AN OPTION TO DISCHARGE THE EXHAUST FROM THE VENT GAS SCRUBBER TO THE POWER OXIDIZERS OF THE COGENERATION SYSTEMS UNDER PERMITS N-7365-35 AND '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) N-7365-8-6 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-9-4, '-10-5, '-11-9, '-20-5, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services

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5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 360,000 gallon/day or 70,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All vapors from the beerwell process tank shall be vented through the CO2 scrubber and then through the RTO or power oxidizer(s) listed on permits N-7365-35 and '-36. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The overall control efficiency for the CO2 scrubber vented to the RTO and the CO2 scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total combined controlled VOC emissions rate from the beerwell process tank served by the CO2 scrubber vented to the RTO and from the beerwell process tank served by the CO2 scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.05365 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total combined controlled VOC emissions rate from the fermentation process and beerwell process tank all served by the CO2 scrubber vented to the RTO and from the fermentation process and beerwell process tank all served by the CO2 scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.05365 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Total controlled VOC emissions rate from the exhaust of the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, fermentation process, beerwell process tank, distillation process, process condensate tank and wet cake process shall not exceed 0.0636 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NOx/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM10/MMBtu; or 0.00285 lb-SOx/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NOx/year, 4,654 lb-SOx/year, 4,899 lb-PM10/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
16. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Fugitive VOC emissions from equipment leaks associated with the beerwell process tank shall not exceed 0.6 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. VOC content in the fluid handled through the chiller system (shared with permit N-7365-7) shall be less than or equal to 10% by weight. Compliance with this condition shall be verified by sampling fluid from chilled water tank, as well as, the sump of the CO2 scrubber within 60 days of startup under this permit and whenever required by the District, ARB, or EPA. [District Rules 2201 and 4455 and 40 CFR 60.480a (d)(5)] Federally Enforceable Through Title V Permit
20. The owner or operator shall keep records of the following items for VOC content testing: a.) the date, b.) vessel or location from where fluid is sampled, c.) name of the person taking and analyzing samples and company affiliation, d.) VOC content (% by wt.) in the sample, and e.) report of the test results. [District Rules 2201 and 4455, 40 CFR 60.486a (i)(3)] Federally Enforceable Through Title V Permit
21. The permittee shall include in the Operator Management Plan all components exclusively handling liquid streams with VOC content less than 10% by weight. [District Rule 4455] Federally Enforceable Through Title V Permit
22. The results of any laboratory testing or other pertinent information to demonstrate compliance with the exemption criteria for components exclusively handling liquid streams with VOC content less than 10% by weight shall be submitted with the Operator Management Plan. [District Rule 4455] Federally Enforceable Through Title V Permit
23. VOC content shall be determined using South Coast Air Quality Management District (SCAQMD) Method 304-91 for liquids, or EPA Method 8260B, or other alternative test methods approved by the District prior to their use. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit
24. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
25. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
26. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
27. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
28. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 months from the date of the proposed source test. Source testing shall be conducted within 60 days of this exceedance. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 month period. Source testing shall be conducted within 60 days of exceedance of the 100 hour limit. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO2 scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 and the vent gas scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 shall all be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - (\text{RTO Outlet and power oxidizer outlet})] / [\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]\} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

33. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
34. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
35. During source testing, permittee shall maintain records of ethanol produced, in gal-ethanol/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
36. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
37. The CO₂ scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
38. The water flow rate through the CO₂ scrubber shall not be less than 33 gal/minute. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
39. The permittee shall monitor and record the water flow rate through the CO₂ scrubber at least once every day. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
40. If the water flow rate through the CO₂ scrubber is less than 33 gal/minute, the permittee shall correct the water flow rate to exceed 33 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the CO₂ scrubber continues to be less than 33 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
41. The permittee shall maintain daily records of (1) the date of water flow rate measurements, (2) the water flow rate through the CO₂ scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 33 gal/minute limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
42. The RTO shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
43. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
44. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
46. The permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 °F limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
47. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
48. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

49. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
50. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
51. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit N-7365-0. [District Rule 4455] Federally Enforceable Through Title V Permit
52. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit N-7365-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
53. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
54. Monthly hours of operation of the RTO shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
55. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
56. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
57. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-9-4

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF DISTILLATION PROCESS CONSISTING OF ONE DE-GAS VESSEL, ONE BEER STRIPPER, ONE SIDE STRIPPER, ONE RECTIFIER, TWO MOLECULAR SIEVES AND ONE 200 PROOF ETHANOL CONDENSER, ALL SERVED BY KOCH GLICH VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-7365-4, '-5, '-6, '-10 AND '-11) WHICH IS VENTED TO A 2.4 MMBTU/HR A.H. LUNDBERG ASSOCIATES, INC. REGENERATIVE THERMAL OXIDIZER WITH A MAXON MODEL KINEDIZER LE LOW NOX BURNER (RTO SHARED WITH PERMITS N-7365-4, '-5, '-6, '-7, '-8, '-10 AND '-11); ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36 AND ALLOW AN OPTION TO DISCHARGE THE EXHAUST FROM THE VENT GAS SCRUBBER TO THE POWER OXIDIZERS OF THE COGENERATION SYSTEMS UNDER PERMITS N-7365-35 AND '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) N-7365-9-3 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-8-7, '-10-5, '-11-9, '-20-5, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

for 
Arnaud Marjollet, Director of Permit Services
N-7365-9-4 Jun 21 2016 3:30PM -- GARCIAJ Job Inspection Required with GARCIAJ

5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 360,000 gallon/day or 70,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
7. All vapors from the distillation process shall be vented through the vent gas scrubber and then through the RTO or power oxidizer(s) listed on permits N-7365-35 and '-36. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The overall control efficiency for the vent gas scrubber vented to the RTO and the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Total combined controlled VOC emissions rate from the slurry tank served by the vent gas scrubber vented to the RTO and from the slurry tank served by the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total combined controlled emissions rate from the vent gas scrubber vented to the RTO and from the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total combined controlled VOC emissions rate from the exhaust of the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, fermentation process, beerwell process tank, distillation process, process condensate tank and wet cake process shall not exceed 0.0636 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NOx/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM10/MMBtu; or 0.00285 lb-SOX/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NOx/year, 4,654 lb-SOx/year, 4,899 lb-PM10/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
15. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Fugitive VOC emissions from equipment leaks associated with the distillation process shall not exceed 3.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
19. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 month period. Source testing shall be conducted within 60 days of exceedance of the 100 hour limit. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to the RTO and the vent gas scrubber vented to the RTO shall be conducted at least once every twelve (12) months with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 and the vent gas scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 shall all be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - (\text{RTO Outlet and power oxidizer outlet})] / [\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]\} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
26. During source testing, permittee shall maintain records of ethanol produced, in gal-ethanol/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
27. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
28. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
29. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
30. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
31. If the water flow rate through the vent gas scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the vent gas scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
32. The permittee shall maintain records of (1) the date of water flow rate measurements, (2) the water flow rate through the vent gas scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 25 gal/minute limit. [District Rule 2201 and 40 CFR Part 64]
33. The RTO shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
34. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
35. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
37. The permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 °F limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
38. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
39. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
40. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
41. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
42. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit N-7365-0. [District Rule 4455] Federally Enforceable Through Title V Permit
43. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit N-7365-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
44. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
45. Monthly hours of operation of the RTO shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
46. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-10-5

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF ONE 190,400 GALLON PROCESS CONDENSATE TANK, COLLECTING WATER FROM THE CO₂ AND VENT GAS SCRUBBERS, SERVED BY A KOTCH GLICH VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-7365-4, '-5, '-6, '-9 AND '-11) WHICH IS VENTED TO A 2.4 MMBTU/HR A.H. LUNDBERG ASSOCIATES, INC. REGENERATIVE THERMAL OXIDIZER WITH A MAXON MODEL KINEDIZER LE LOW NOX BURNER (RTO SHARED WITH PERMITS N-7365-4, '-5, '-6, '-7, '-8, '-9 AND '-11): ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36 AND ALLOW AN OPTION TO DISCHARGE THE EXHAUST FROM THE VENT GAS SCRUBBER TO THE POWER OXIDIZERS OF THE COGENERATION SYSTEMS UNDER PERMITS N-7365-35 AND '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) N-7365-10-4 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-8-7, '-9-4, '-11-9, '-20-5, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

for 

Arnaud Marjollet, Director of Permit Services
N-7365-10-5 Jun 21 2016 3:30PM - GARCIAJ Joint Inspection Required with GARCIAJ

6. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
7. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 360,000 gallon/day or 70,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All vapors from the process condensate tank shall be vented through the vent gas scrubber and then through the RTO or oxidizer(s) listed on permits N-7365-35 and '-36. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The overall control efficiency for the vent gas scrubber vented to the RTO and the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total combined controlled VOC emissions rate from the slurry tank served by the vent gas scrubber vented to the RTO and from the slurry tank served by the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total combined controlled emissions rate from the vent gas scrubber vented to the RTO and from the vent gas scrubber vented to the power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, distillation process, process condensate tank and wet cake process shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Total combined controlled VOC emissions rate from the exhaust of the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, fermentation process, beerwell process tank, distillation process, process condensate tank and wet cake process shall not exceed 0.0636 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NO_x/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM₁₀/MMBtu; or 0.00285 lb-SO_x/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NO_x/year, 4,654 lb-SO_x/year, 4,899 lb-PM₁₀/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
16. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Fugitive VOC emissions from equipment leaks associated with this process condensate tank shall not exceed 0.2 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. Tank shall be equipped with a vapor recovery system consisting of a closed vent system that collects all VOCs from the storage tank and a VOC control device. The vapor recovery system shall be APCO-approved and maintained in leak-free condition. Collected vapors shall be directed to approved control devices having a destruction efficiency of at least 95% by weight as determined by the test method specified in Section 6.4.7. [District Rule 4623] Federally Enforceable Through Title V Permit
21. Any tank gauging or sampling device on a tank vented to the vapor recovery system shall be equipped with a leak-free cover which shall be closed at all times except during gauging or sampling. [District Rule 4623] Federally Enforceable Through Title V Permit
22. Except as otherwise provided in this permit, all piping, valves, and fittings shall be constructed and maintained in a leak-free condition. [District Rule 4623] Federally Enforceable Through Title V Permit
23. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 month period. Source testing shall be conducted within 60 days of exceedance of the 100 hour limit. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to the RTO and the vent gas scrubber vented to the RTO shall be conducted at least once every twelve (12) months with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 and the vent gas scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 shall all be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - (\text{RTO Outlet and power oxidizer outlet})] / [\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]\} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
30. During source testing, permittee shall maintain records of ethanol produced, in gal-ethanol/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
32. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
33. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
34. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. If the water flow rate through the vent gas scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the vent gas scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
36. The permittee shall maintain records of (1) the date of water flow rate measurements, (2) the water flow rate through the vent gas scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 25 gal/minute limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
37. The RTO shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
38. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
39. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
40. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
41. The permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 °F limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
42. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
43. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
44. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
45. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455, 5.1.4] Federally Enforceable Through Title V Permit
46. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit N-7365-0. [District Rule 4455] Federally Enforceable Through Title V Permit
47. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit N-7365-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
48. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

49. Monthly hours of operation of the RTO shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
50. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
51. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
52. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-11-9

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF WET CAKE PROCESS CONSISTING OF ONE 194,400 GALLON WHOLE STILLAGE TANK, ONE CENTRIFUGE SYSTEM WITH FIVE CENTRIFUGES, ONE 127,000 GALLON THIN STILLAGE TANK, THREE EVAPORATORS, ONE 129,600 GALLON SYRUP TANK, CORN OIL EXTRACTION SYSTEM CONSISTING OF ONE 36,000 GALLON HEAT SOAK TANK, THREE CENTRIFUGES, ONE 800 GALLON BUFFER TANK, ONE 1,285 GALLON FINAL PRODUCT TANK, TWO 10,500 GALLON CORN OIL LOADOUT STORAGE TANKS ALL SERVED BY AN KOTCH GLICH VENT GAS SCRUBBER (SCRUBBER SHARED WITH PERMITS N-7365-4, '-5, '-6, '-9 AND '-10) WHICH IS VENTED TO A 2.4 MMBTU/HR A.H. LUNDBERG ASSOCIATES, INC. REGENERATIVE THERMAL OXIDIZER WITH A MAXON MODEL KINEDIZER LE LOW NOX BURNER (RTO SHARED WITH PERMITS N-7365-4, '-5, '-6, '-7, '-8, '-9 AND '-10) AND A TRUCK LOADOUT SYSTEM: ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36 AND ALLOW AN OPTION TO DISCHARGE THE EXHAUST FROM THE VENT GAS SCRUBBER TO THE POWER OXIDIZERS OF THE COGENERATION SYSTEMS UNDER PERMITS N-7365-35 AND '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Authority to Construct (ATC) N-7365-11-7 shall be implemented concurrently, or prior to the modification and startup of the equipment authorized by this ATC. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

for 

Arnaud Marjollet, Director of Permit Services
N-7365-11-9 Jun 21 2016 3:30PM -- GARCIA/J. Joint Inspection Required with GARCIA/J

4. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-8-7, '-9-4, '-10-5, '-20-5, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. Wet cake conveyors between each tank or each emissions unit at the wet cake process unit shall be fully enclosed. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The maximum amount of ethanol produced at this facility shall not exceed either of the following limits: 360,000 gallon/day or 70,000,000 gallon/year. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All vapors from the wet cake process shall be vented through the vent gas scrubber and then through the RTO or power oxidizer(s) listed on permits N-7365-35 and '-36. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The RTO shall only be fired on PUC-regulated natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The overall control efficiency for the vent gas scrubber vented to the RTO and power oxidizer(s) listed on permits N-7365-35 and '-36 shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Total controlled VOC emissions rate from the wet cake process served by the vent gas scrubber vented to the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Total controlled VOC emissions rate from the slurry tank, yeast tank, liquefaction tank, distillation process, process condensate tank and wet cake process all served by the vent gas scrubber vented to the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 shall not exceed 0.00995 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Total controlled VOC emissions rate from the exhaust of the RTO and power oxidizer(s) listed on permits N-7265-35 and '-36 while serving the slurry tank, yeast tank, liquefaction tank, fermentation process, beerwell process tank, distillation process, process condensate tank and wet cake process shall not exceed 0.0636 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Emissions rates from the combustion of natural gas in the RTO burner shall not exceed any of the following limits: 0.05 lb-NO_x/MMBtu; 0.084 lb-CO/MMBtu; 0.0055 lb-VOC/MMBtu; 0.0076 lb-PM₁₀/MMBtu; or 0.00285 lb-SO_x/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NO_x/year, 4,654 lb-SO_x/year, 4,899 lb-PM₁₀/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
16. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Loading losses from the distiller's syrup loadout operation shall not exceed 0.526 lb-VOC/1,000 gallons. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Loading losses from the distiller's corn oil loadout operation shall not exceed 0.000175 lb-VOC/1,000 gallons. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The maximum throughput of distiller's syrup loaded shall not exceed any of the following: 67,371 gallons per day or 24,590,415 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

20. The maximum throughput of corn oil loaded shall not exceed any of the following: 26,000 gallons per day or 5,000,000 gallons per year. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Fugitive VOC emissions from equipment leaks associated with the wet cake process shall not exceed 2.5 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Fugitive VOC emissions from equipment leaks associated with the corn oil operation shall not exceed 0.03 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Fugitive VOC emissions from equipment leaks associated with the distiller's syrup operation shall not exceed 2.9 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Fugitive VOC emissions shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-1, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Fugitive VOC emissions from equipment leaks associated with the corn oil operation shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-9, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Leak Rate/Screening Value Correlations Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Fugitive VOC emissions from equipment leaks associated with the distiller's syrup operation shall be calculated using the EPA "1995 Protocol for equipment Leak Emissions Estimates" (EPA-453/R-95-017), Table 2-9, Synthetic Organic Chemical Manufacturing Industry (SOCMI) Leak Rate/Screening Value Correlations Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
27. The permittee shall maintain daily and annual records, in gallons, of the quantity of distiller's syrup and corn oil loaded at this facility. [District Rule 2201] Federally Enforceable Through Title V Permit
28. The permittee shall maintain daily and annual records, in gallons, of the quantity of ethanol produced at this facility. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
29. Permittee shall maintain accurate component count and shall update such records when new components are approved and installed. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Source testing requirements as stated in this permit for the RTO shall only be required when operation of the RTO exceeds 100 hours of operation during the previous 12 month period. Source testing shall be conducted within 60 days of exceedance of the 100 hour limit. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to the RTO and the vent gas scrubber vented to the RTO shall be conducted at least once every twelve (12) months with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the RTO shall be conducted at least once every twelve (12) months, with equipment in operational condition. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 and the vent gas scrubber vented to each power oxidizer listed under permits N-7365-35 and '-36 shall all be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
34. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\frac{\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - (\text{RTO Outlet and power oxidizer outlet})]\}}{[\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]}$ x 100%. [District Rule 2201] Federally Enforceable Through Title V Permit
35. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

36. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
37. During source testing, permittee shall maintain records of ethanol produced, in gal-ethanol/hour. [District Rule 2201] Federally Enforceable Through Title V Permit
38. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
39. The vent gas scrubber shall be equipped with a water flow meter, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
40. The water flow rate through the vent gas scrubber shall not be less than 25 gal/minute. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
41. The permittee shall monitor and record the water flow rate through the vent gas scrubber at least once every day. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
42. If the water flow rate through the vent gas scrubber is less than 25 gal/minute, the permittee shall correct the water flow rate to exceed 25 gal/minute, as soon as possible, but no longer than 1 hour of operation after detection. If the water flow rate through the vent gas scrubber continues to be less than 25 gal/minute after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
43. The permittee shall maintain records of (1) the date of water flow rate measurements, (2) the water flow rate through the vent gas scrubber at the time of measure, and (3) a description of any corrective action taken to maintain the water flow rate above the 25 gal/minute limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
44. The RTO shall be operated at a temperature of no less than 1,400 øF. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
45. The RTO shall be equipped with a continuous temperature monitoring and recording device, in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
46. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule and 40 CFR Part 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
48. The permittee shall maintain daily records of (1) the date of RTO temperature measurements, (2) the temperature of the RTO at the time of measure, and (3) a description of any corrective action taken to maintain the temperature above the 1,400 øF limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
49. Valves, threaded connections, and flanges shall not leak VOCs in excess of 100 ppmv above background when measured in accordance with EPA Method 21, provided the total number of leaking tagged components of any component type does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit
50. Pressure relief valves (PRVs) shall not leak VOC's in excess of 100 ppmv above background when measured in the plane at the centroid of any atmospheric vent with an instrument calibrated with methane, provided the total number of leaking PRVs does not exceed 0.5 percent of the total number of components of that type inspected. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit
51. Process drains shall not leak VOC's in excess of 100 ppmv above background when measured at a distance of one (1) centimeter of the potential source with an instrument calibrated with methane, provided the total number of leaking process drains does not exceed 0.5 percent of the total number of components inspected. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

52. Pumps or compressors which handle a VOC or any associated seal fluid system which circulates a fluid through or between seals on process pumps or compressors shall not leak in excess of 500 ppmv above background when measured in accordance with EPA Method 21. [District Rules 2201 and 4455] Federally Enforceable Through Title V Permit
53. This operation shall comply with the requirements of District Rule 4455, Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants, as specified on facility wide permit N-7365-0. [District Rule 4455] Federally Enforceable Through Title V Permit
54. This operation shall comply with the requirements of 40 CFR 60, Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, as specified on facility wide permit N-7365-0. [40 CFR 60.480 and 60.481] Federally Enforceable Through Title V Permit
55. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
56. Monthly hours of operation of the RTO shall be maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
57. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
58. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
59. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-20-5

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF 75.6 MMBTU/HR SUPERIOR BOILER WORKS NATURAL GAS-FIRED BOILER WITH A JOHN ZINK MODEL RMBU 32-G-2500 ULTRA LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (BOILER #1):
ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-8-7, '-9-4, '-10-5, '-11-9, '-21-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack of this boiler shall have the following parameters: stack height from ground level - 50 feet; stack diameter - 32 inches; and gas exit flowrate - 13,000 cfm. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

for 
Arnaud Marjollet, Director of Permit Services
N-7365-20-5 Jun 21 2016 3:30PM -- GARCIA/J Joint Inspection Required with GARCIA/J

7. The unit shall only be fired on PUC-quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit.
8. Emissions shall not exceed any of the following limits: 7 ppmvd NO_x @ 3% O₂ or 0.008 lb-NO_x/MMBtu; 50 ppmvd CO @ 3% O₂ or 0.037 lb-CO/MMBtu; 0.0013 lb-VOC/MMBtu (equivalent to 3 ppmvd VOC @ 3% O₂); 0.003 lb-PM₁₀/MMBtu; or 0.00285 lb-SO_x/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. The combined maximum amount of fuel burned by the boilers operating under permits N-7365-20, N-7365-21 and N-7365-22 shall not exceed 1,392.84 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NO_x/year, 4,654 lb-SO_x/year, 4,899 lb-PM₁₀/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
11. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
13. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
17. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. The permittee shall record monthly fuel consumption. [District Rule 1070 and 40 CFR 60.48c(g)(2)] Federally Enforceable Through Title V Permit
28. The permittee shall maintain annual records, in standard cubic feet, of the combined quantity of natural gas burned in the boilers operating under permits N-7365-20, N-7365-21 and N-7365-22. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
29. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
30. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320 and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-21-5

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF 75.6 MMBTU/HR SUPERIOR BOILER WORKS NATURAL GAS-FIRED BOILER WITH A JOHN ZINK MODEL RMBU 32-G-2500 ULTRA LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (BOILER #2): ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-8-7, '-9-4, '-10-5, '-11-9, '-20-5, '-22-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack of this boiler shall have the following parameters: stack height from ground level - 50 feet; stack diameter - 32 inches; and gas exit flowrate - 13,000 cfm. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services

N-7365-21-5 Jun 21 2016 3:30PM - GARCIAJ Joint Inspection Required with GARCIAJ

7. The unit shall only be fired on PUC-quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. Emissions shall not exceed any of the following limits: 7 ppmvd NO_x @ 3% O₂ or 0.008 lb-NO_x/MMBtu; 50 ppmvd CO @ 3% O₂ or 0.037 lb-CO/MMBtu; 0.0013 lb-VOC/MMBtu (equivalent to 3 ppmvd VOC @ 3% O₂); 0.003 lb-PM₁₀/MMBtu; or 0.00285 lb-SO_x/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. The combined maximum amount of fuel burned by the boilers operating under permits N-7365-20, N-7365-21 and N-7365-22 shall not exceed 1,392.84 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any one rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NO_x/year, 4,654 lb-SO_x/year, 4,899 lb-PM₁₀/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
11. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{rolling 12 month heat input from boilers} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
13. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
17. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. The permittee shall record monthly fuel consumption. [District Rule 1070 and 40 CFR 60.48c(g)(2)] Federally Enforceable Through Title V Permit
28. The permittee shall maintain annual records, in standard cubic feet, of the combined quantity of natural gas burned in the boilers operating under permits N-7365-20, N-7365-21 and N-7365-22. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
29. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
30. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320 and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit



AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-22-5

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF 75.6 MMBTU/HR SUPERIOR BOILER WORKS NATURAL GAS-FIRED BOILER WITH A JOHN ZINK MODEL RMBU 32-G-2500 ULTRA LOW NOX BURNER AND A FLUE GAS RECIRCULATION SYSTEM (BOILER #3): ESTABLISH A SPECIFIC LIMITING CONDITION FOR VOC EMISSIONS FROM UNITS N-7365-4 THROUGH '-11, '-20, '-21, '-22, '-35, '-36

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-8-7, '-9-4, '-10-5, '-11-9, '-20-5, '-21-5, '-35-0 and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO₂, nor 10 lb/hr [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit
5. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The exhaust stack of this boiler shall have the following parameters: stack height from ground level - 50 feet; stack diameter - 32 inches; and gas exit flowrate - 13,000 cfm. [District Rule 4102]

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

Arnaud Marjollet
Arnaud Marjollet, Director of Permit Services

N-7365-22-5 Jun 21 2016 3:31PM - GARCIAJ - Joint Inspection Required with GARCIAJ

7. The unit shall only be fired on PUC-quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. Emissions shall not exceed any of the following limits: 7 ppmvd NO_x @ 3% O₂ or 0.008 lb-NO_x/MMBtu; 50 ppmvd CO @ 3% O₂ or 0.037 lb-CO/MMBtu; 0.0013 lb-VOC/MMBtu (equivalent to 3 ppmvd VOC @ 3% O₂); 0.003 lb-PM₁₀/MMBtu; or 0.00285 lb-SO_x/MMBtu. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. The combined maximum amount of fuel burned by the boilers operating under permits N-7365-20, N-7365-21 and N-7365-22 shall not exceed 1,392.84 MMscf/year. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any one 12 month period, shall not exceed any of the following limits: 12,194 lb-NO_x/year, 4,654 lb-SO_x/year, 4,899 lb-PM₁₀/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
11. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{combined rolling 12 month heat input from boilers (MMBtu)} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production (1,000 gal)} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1081 and 4320] Federally Enforceable Through Title V Permit
13. Source testing to measure NO_x and CO emissions from this unit while fired on natural gas shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
14. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
15. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
16. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
17. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
18. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
19. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
22. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
23. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. If either the NO_x or CO concentrations corrected to 3% O₂, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
25. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
26. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 3% O₂, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
27. The permittee shall record monthly fuel consumption. [District Rule 1070 and 40 CFR 60.48c(g)(2)] Federally Enforceable Through Title V Permit
28. The permittee shall maintain annual records, in standard cubic feet, of the combined quantity of natural gas burned in the boilers operating under permits N-7365-20, N-7365-21 and N-7365-22. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
29. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
30. All records shall be maintained and retained on-site for a minimum of five years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320 and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-35-0

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

COGENERATION SYSTEM #1 CONSISTING OF A 25 MMBTU/HR ENER-CORE MODEL ECT-DR-S-NB1-21-KG2 POWER OXIDIZER DRIVING A DRESSER-RAND MODEL KG2-3G/EF/GO TURBINE AND ELECTRIC GENERATOR SYSTEM, AND A SUPERIOR BOILER HEAT RECOVERY STEAM GENERATOR

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-8-7, '-9-4, '-10-5, '-11-9, '-20-5, '-21-5, '-22-5, and '-36-0. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction [District Rule 4102]
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU **MUST** NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO


for Arnaud Marjollet, Director of Permit Services

N-7365-35-0 Jun 17 2016 1:22PM - GARCIAJ Joint Inspection Required with GARCIAJ

7. The unit shall only be fired on PUC-regulated natural gas or a mixture of PUC-regulated natural gas and waste gas from the ethanol production operations listed under permits N-7365-4, through '-11. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The maximum heat input, including startup, shall be limited to 620 MMBtu/day and 219,020 MMBtu/year (equivalent to 0.62 MMscf/day and 219.02 MMscf/year of natural gas). [District Rule 2201] Federally Enforceable Through Title V Permit
9. The overall control efficiency for the scrubbers listed under permits N-7365-4, through '-11 vented to the power oxidizer shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
11. Emissions rates from combustion in the power oxidizer shall not exceed any of the following limits: 0.0062 lb-NOx/MMBtu (0.8 ppmv @ 15% O₂); 0.0226 lb-CO/MMBtu (4.8 ppmv @ 15% O₂); 0.003 lb-PM₁₀/MMBtu; or 0.00285 lb-SOx/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emission rate from the combustion of natural gas in the power oxidizer shall not exceed 0.0055 lb-VOC/MMBtu (4.3 ppmv @ 15% O₂). [District Rule 2201] Federally Enforceable Through Title V Permit
13. VOC emissions from ethanol production, the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 and the power oxidizers listed under permit N-7365-35 and -36 shall not exceed 0.0653 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any one rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NOx/year, 4,654 lb-SOx/year, 4,899 lb-PM₁₀/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
15. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{rolling 12 month heat input from boilers} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to the power oxidizer and the vent gas scrubber vented to the power oxidizer shall be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the power oxidizer shall be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - \text{Power Oxidizer Outlet}] / [\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]\} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Source testing to measure NO_x and CO emissions from this unit shall be conducted within 90 days of initial start-up and at least once every twelve (12) months thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Source testing for NO_x emissions shall be conducted using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100 [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
23. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. During source testing, permittee shall maintain record of ethanol production rate measured in gal-ethanol/hour. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
28. The power oxidizer shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
29. The power oxidizer shall be equipped with a continuous temperature monitoring and recording device, and shall be in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
30. The owner or operator shall maintain an operating log that includes, on a daily basis, total heat input (in either MMBtu or MMscf), date of power oxidizer temperature measurements, temperature at the time of measure and a description of any corrective action taken to maintain the temperature above the 1,400 °F limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
31. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit
32. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
33. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
34. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit

AUTHORITY TO CONSTRUCT

PERMIT NO: N-7365-36-0

ISSUANCE DATE: 06/17/2016

LEGAL OWNER OR OPERATOR: PACIFIC ETHANOL STOCKTON LLC

MAILING ADDRESS: 400 CAPITOL MALL, STE 2060
SACRAMENTO, CA 95814

LOCATION: 3028 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

COGENERATION SYSTEM #2 CONSISTING OF A 25 MMBTU/HR ENER-CORE MODEL ECT-DR-S-NB1-21-KG2 POWER OXIDIZER DRIVING A DRESSER-RAND MODEL KG2-3G/EF/GO TURBINE AND ELECTRIC GENERATOR SYSTEM, AND A SUPERIOR BOILER HEAT RECOVERY STEAM GENERATOR

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. This Authority to Construct (ATC) shall be implemented concurrently with ATCs N-7365-4-7, '-5-6, '-6-5, '-7-6, '-8-7, '-9-4, '-10-5, '-11-9, '-20-5, '-21-5, '-22-5 and '-35-0. [District Rule 2201] Federally Enforceable Through Title V Permit
4. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction [District Rule 4102]
6. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the unit shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Seyed Sadredin, Executive Director / APCO


Arnaud Marjollet, Director of Permit Services

N-7365-36-0 Jun 17 2016 1:22PM - GARCIAJ Joint Inspection Required with GARCIAJ

7. The unit shall only be fired on PUC-regulated natural gas or a mixture of PUC-regulated natural gas and waste gas from the ethanol production operations listed under permits N-7365-4, through '-11. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The maximum heat input, including startup, shall be limited to 620 MMBtu/day and 219,020 MMBtu/year (equivalent to 0.62 MMscf/day and 219.02 MMscf/year of natural gas). [District Rule 2201] Federally Enforceable Through Title V Permit
9. The overall control efficiency for the scrubbers listed under permits N-7365-4, through '-11 vented to the power oxidizer shall be a minimum of 99.5% for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
10. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
11. Emissions rates from combustion in the power oxidizer shall not exceed any of the following limits: 0.0062 lb-NOx/MMBtu (0.8 ppmv @ 15% O₂); 0.0226 lb-CO/MMBtu (4.8 ppmv @ 15% O₂); 0.003 lb-PM₁₀/MMBtu; or 0.00285 lb-SOx/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Emission rate from the combustion of natural gas in the power oxidizer shall not exceed 0.0055 lb-VOC/MMBtu (4.3 ppmv @ 15% O₂). [District Rule 2201] Federally Enforceable Through Title V Permit
13. VOC emissions from ethanol production, the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 and the power oxidizers listed under permit N-7365-35 and -36 shall not exceed 0.0653 lb/1,000 gal-ethanol produced at the facility. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36, during any one rolling 12 month period, shall not exceed any of the following limits: 12,194 lb-NOx/year, 4,654 lb-SOx/year, 4,899 lb-PM₁₀/year, 53,301 lb-CO/year, and 6,379 lb-VOC/year (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations). [District Rule 2201] Federally Enforceable Through Title V Permit
15. Compliance with the combined 12 month rolling average limit for VOC emissions from the boilers listed under permits N-7365-20, '-21 and '-22, the power oxidizers listed under permits N-7365-35 and '-36, from ethanol production and the RTO listed under permits N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10 and '-11 shall be determined with the following equation and updated monthly: $PE = \text{rolling 12 month heat input from boilers} \times 0.0013 \text{ lb/MMBtu (or emission factor established by most recent source test)} + \text{rolling 12 month ethanol production} \times 0.0653 \text{ lb/1,000 gal-ethanol produced at the facility (or the lb/1,000 gal-ethanol produced emission factor established at most recent source test)}$. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Source testing to demonstrate compliance with the 99.5% overall control efficiency of the CO₂ scrubber vented to the power oxidizer and the vent gas scrubber vented to the power oxidizer shall be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Source testing to demonstrate compliance with the overall VOC emissions rate from the exhaust of the power oxidizer shall be conducted within 90 days after initial start-up and at least once every twelve (12) months thereafter, with conditions representative of normal operation. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Compliance with the 99.5% overall VOC control efficiency shall be determined as follows: Overall VOC Control Efficiency (%) = $\{[(\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}) - \text{Power Oxidizer Outlet}] / [\text{CO}_2 \text{ Scrubber Inlet} + \text{Vent Gas Scrubber Inlet}]\} \times 100\%$. [District Rule 2201] Federally Enforceable Through Title V Permit
19. Source testing to measure NOx and CO emissions from this unit shall be conducted within 90 days of initial start-up and at least once every twelve (12) months thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit
20. Source testing for VOC emissions shall be conducted using EPA Method 18, 25 or 25A. Source testing shall also be conducted in accordance with EPA's Midwest Scaling Protocol for the Measurement of "VOC Mass Emissions" at Ethanol Production Facilities and/or any other testing methodology that has been previously approved by the District, CARB, and EPA. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

21. Source testing for NO_x emissions shall be conducted using EPA Method 7E or ARB Method 100 on a ppmv basis, or EPA Method 19 on a heat input basis. [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
22. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100 [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
23. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rules 1080 and 2201] Federally Enforceable Through Title V Permit
24. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
25. During source testing, permittee shall maintain record of ethanol production rate measured in gal-ethanol/hour. [District Rules 1081 and 2201] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081] Federally Enforceable Through Title V Permit
28. The power oxidizer shall be operated at a temperature of no less than 1,400 °F. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
29. The power oxidizer shall be equipped with a continuous temperature monitoring and recording device, and shall be in operation at all times. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
30. The owner or operator shall maintain an operating log that includes, on a daily basis, total heat input (in either MMBtu or MMscf), date of power oxidizer temperature measurements, temperature at the time of measure and a description of any corrective action taken to maintain the temperature above the 1,400 °F limit. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
31. Upon detecting any excursion from the acceptable temperature readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable. [40 CFR Part 64] Federally Enforceable Through Title V Permit
32. The permittee shall comply with the compliance assurance monitoring and maintenance requirements of 40 CFR Part 64.7. [40 CFR Part 64] Federally Enforceable Through Title V Permit
33. Records of the combined annual emissions from units N-7365-4, '-5, '-6, '-7, '-8, '-9, '-10, '-11, '-20, '-21, '-22, '-35 and '-36 (excluding VOCs from fugitive emissions and from the distiller's corn and syrup loadout operations) shall be maintained and updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
34. All records shall be retained on site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 1070 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
35. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR Part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit
36. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9. [40 CFR Part 64] Federally Enforceable Through Title V Permit