San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JUL 02 2015

Shamim Reza
Linn Operating Inc
5201 Truxtun Ave
Bakersfield, CA 93309

RE: Final - Authority to Construct / Certificate of Conformity (Significant Modification)
Facility Number: S-1246
Project Number: S-1144247

Dear Mr. Reza:

The Air Pollution Control Officer has issued the Authority to Construct permits to Linn Operating Inc for one steam generator, in western Kern County, CA. Enclosed are the Authority to Construct permits 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 permits was published on March 30, 2015. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on March 25, 2015. All comments received following the District's preliminary decision on this project were considered. The comments and District responses to comments are included as an enclosure.

Comments received by the District during the public notice period resulted in no changes to the preliminary decision.

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

www.valleyair.org www.healthyairliving.com

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Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura at (661) 392-5500.

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:rue

Enclosures

cc: Mike Tollstrup, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via email
cc: Noah Garrison, Climate Change Law Foundation,
548 Market Street, #11200, San Francisco, CA 94104

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

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Facility # S-1246
LINN OPERATING, INC
5201 TRUXTUN AVE, SUITE 100
BAKERSFIELD, CA 93309

AUTHORITY TO CONSTRUCT (ATC)

QUICK START GUIDE

1. **Pay Invoice**. Please pay enclosed invoice before due date.
2. **Fully Understand ATC**. Make sure you understand ALL conditions in the ATC prior to construction, modification and/or operation.
3. **Follow ATC**. You must construct, modify and/or operate your equipment as specified on the ATC. Any unspecified changes may require a new ATC.
4. **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.
5. **Source Test.** Schedule and perform any required source testing. See http://www.valleyair.org/busind/comply/source_testing.htm for source testing resources.
6. **Maintain Records.** Maintain all records required by ATC. Records are reviewed during every inspection (or upon request) and must be retained for 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.

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AUTHORITY TO CONSTRUCT

PERMIT NO: S-1246-406-0 **ISSUANCE DATE:** 06/17/2015

LEGAL OWNER OR OPERATOR: LINN OPERATING, INC
MAILING ADDRESS: 5201 TRUXTUN AVE, SUITE 100
BAKERSFIELD, CA 93309

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

SECTION: SE 36 **TOWNSHIP:** 12N **RANGE:** 24W

EQUIPMENT DESCRIPTION:
85 MMBTU/HR NATURAL/TEOR/ETHANE-RICH NATURAL GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MAGNA FLAME LE ULTRA LOW NOX BURNER, FLUE GAS RECIRCULATION (FGR) AND AN O2 CONTROLLER (ETHYL D LEASE)

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOX emission reduction credits for the following quantity of emissions: 1st quarter - 2234 lb, 2nd quarter - 2234 lb, 3rd quarter - 2234 lb, and fourth quarter - 2234 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of emissions: 1st quarter - 1395 lb, 2nd quarter - 1396 lb, 3rd quarter - 1396 lb, and fourth quarter - 1396 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 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
S-1246-406-0 : Jun 17 2015 10:19AM -- EDGEHILX : Joint Inspection NOT Required

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 2122 lb, 2nd quarter - 2122 lb, 3rd quarter - 2122 lb, and fourth quarter - 2123 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

6. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 1536 lb, 2nd quarter - 1536 lb, 3rd quarter - 1536 lb, and fourth quarter - 1537 lb.. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

7. ERC Certificate Numbers S-4407-1, N-1198-2, N-1198-4, and N-1198-5 (or certificates split from these certificates) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

8. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

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

10. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit

11. 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

12. This unit shall be fired on PUC quality natural gas, but not solely PUC quality natural gas; or gaseous fuel treated to remove 95% by weight of sulfur compounds, or gaseous fuel treated such that the sulfur content of all fuel streams combined does not exceed 1 gr of sulfur compounds (as S) per 100 dscf. [District Rule 2201] Federally Enforceable Through Title V Permit

13. The unit shall only be fired on natural/TEOR/ethane-rich gas with a maximum sulfur content of 1.75 gr S/100scf. [District Rules 2201, 4301, and 4320] Federally Enforceable Through Title V Permit

14. At least quarterly, the permittee shall monitor using the methods specified in this permit the higher heating value of each non-certified fuel supplied to this unit, or, alternatively, have the higher heating value certified by the fuel supplier. The records of higher heating value and quantity of fuel combusted shall be used to demonstrate that the rated heat input capacity of this unit, as averaged over a calendar quarter, is not exceeded. [District Rules 2201] Federally Enforceable Through Title V Permit

15. The higher heating value of each non-certified fuel shall be certified by a third party fuel supplier or determined by ASTM D1826 or D1945 in conjunction with ASTM D 3588. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit

16. Except for periods of startup and shutdown, emissions from the natural gas-fired unit shall not exceed any of the following limits: 7 ppmvd NOx @ 3% O2 or 0.008 lb-NOx/MMBtu, 0.0076 lb-PM10/MMBtu, 25 ppmvd CO @ 3% O2 or 0.0185 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201, 4201, 4301, 4305, 4306, 4320, and 4801] Federally Enforceable Through Title V Permit

17. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

18. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

19. Source testing to measure natural gas-combustion NOx and CO emissions from this unit shall be conducted within 60 days of initial startup and at least once every twelve (12) months thereafter. 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 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

20. 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

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. NOx 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

24. 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

25. 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

26. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit

27. 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

28. 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

29. The permittee shall monitor and record the stack concentration of NOx, 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

30. If either the NOx 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 the performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

31. 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

32. If the steam generator is not fired on PUC-regulated natural gas and compliance is achieved through fuel sulfur content limitations, then the sulfur content of the fuel shall be determined by testing sulfur content at a location after all fuel sources are combined prior to incineration, or by performing mass balance calculations based on monitoring the sulfur content and volume of each fuel source. The sulfur content of the fuel shall be determined using the test methods referenced in this permit. [District Rule 4320] Federally Enforceable Through Title V Permit

33. When complying with sulfur emission limits by fuel analysis or by a combination of source testing and fuel analysis, permittee shall demonstrate compliance at least annually. [District Rule 4320] Federally Enforceable Through Title V Permit

34. If the unit is fired on PUC-regulated natural gas, valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy the fuel sulfur content analysis, provided they establish the fuel sulfur concentration and higher heating value. [District Rule 4320] Federally Enforceable Through Title V Permit

35. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx 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

36. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

Enclosure

Comments and Responses
Project S-1246, 1144247

Public comments were received from Climate Change Law Foundation on 4/29/15. No other public comments or comments from CARB or EPA were received.

The comments and District response follow.

Comment 1:

The Air District proposes to offset the project's NOx and VOC emissions with ERC N-1198-2 and ERC S-4407-1. However, Air District Rule 2201 § 4.13.1 requires that "Major Source shutdowns or permanent curtailments in production or operating hours of a Major Source may not be used as offsets for emissions from . . . a Federal Major Modification . . . unless the ERC, or the emissions from which the ERC are derived, has been included in an EPA approved attainment plan." The San Joaquin Valley air basin is currently designated as being in extreme nonattainment with the 8 - hour standard for ozone, for which NOx and VOC emissions are precursors. At this time, the Air District does not have a U.S. Environmental Protection Agency ("U.S.EPA") approved attainment plan for the 8-hour ozone (or 1-hour ozone) standard. As a result, the Air District may not approve or issue the Authority to Construct in reliance on these NOx or VOC offsets until a requisite ozone plan for the basin is approved by EPA.

Response 1:

ERC N-1198-2 represents emission reductions that occurred in 2014 as a result of the shutdown the Pilkington glass plant (a major stationary source) in Lathrop, CA. The emissions from which the ERC were derived were included in the emissions inventory when the facility was in operation. This emissions inventory was relied upon in the 2007 ozone plan (addressing the 1997 8-hour ozone Federal ambient air quality standard). This ozone plan was approved by EPA on 3/1/12 (see 77 FR 12652).

Additionally, ERC N-1198-2 is being used to provide NOx offsets for a Federal Major Modification. Because the emissions upon which this ERC were derived were included in the emissions inventory that was incorporated into the 2007 EPA approved 8 hour ozone plan, this ERC is valid for use for a Federal Major Modification.

ERC S-4407-1 did not correspond to shutdown of a major stationary source or permanent curtailments in production or operating hours. Rather, this emission reduction is due to incineration of coker exhaust in a CO boiler. The refinery continued to operate normally after this change. As the emission reduction did not result from a major source shutdown or a permanent curtailment of operation, this ERC is valid to provide offsets for a Federal Major Modification.

Comment 2:

ERC S-4407-1, for VOC reduction, states that it was issued for "[i]ncineration of the Fluid Coker exhaust in the CO boiler." The authority to construct for the identified CO boiler was issued on January 12, 1976, and operation of the CO boiler began in May 1977. However, under 40 C.F.R. § 51.165(a)(3)(ii)(C)(*1*)(*ii*), "in no event may credit be given for shutdowns that occurred before August 7, 1977." As the U.S. EPA explained in comments on the proposed banking credit application in 1987: The reductions occurred prior to August 7, 1977 and are therefore too old to be granted credit. EPA has previously advised the District that banking credit may not be awarded for any reductions which occurred prior to the Clean Air Act Amendments of August 7, 1977 . . . EPA will not recognize these reductions as valid offsets for any source wishing to purchase these ERCs for offsetting purpose.
Further, both the U.S. EPA and the California Air Resources Board ("CARB") pointed out in comments on the original application for banking credit that the credit was invalid because the application was submitted beyond the required time limits—a completed application for the banking credit was not submitted until October 1985, almost ten years after the reduction occurred.

To this end, the proposed emissions credit comes from a shutdown or curtailment that occurred nearly four decades ago. Under District Rule 2201 and 2301, emission reductions used as ERCs must be "real, enforceable, quantifiable, surplus, and permanent." (Air District Rule 2201 § 3.2.1; Rule 2301 § 4.1.2.) Given the many changes that have occurred at the refinery since 1977, this decades-old reduction is no longer "real" and will not actually offset projected air emissions. As U.S. EPA noted even ten years after the event:

> the reductions from the installation of the CO boiler are quite old. The burden is on the District to verify in its analysis that these reductions have not been assumed elsewhere (in the emissions inventory, the latest [air quality management plan], the attainment demonstration) and therefore are indeed surplus. In all likelihood, these reductions are not surplus since they occurred so long ago and probably are already reflected in the District's records and plans. The District must verify that these reductions are not credited elsewhere.

However, the Air District did not provide U.S. EPA with verification that these reductions had not been credited elsewhere. U.S. EPA previously warned that "any source which attempts to use these emission reductions as an offset may be subject to federal enforcement action."[6] Because ERC S-4407-1 is invalid and "subject to federal enforcement action" if used, the Air District may not employ it to offset the project's VOC emissions here.

Response 2:

As stated above, ERC S-4407-1 represents emission reductions due to control of coker exhaust in a CO boiler and does not represent emission reductions due to a shutdown.

As such, the restriction in 40 CFR 51.165 for emission reductions due to shutdowns that occurred prior to 8/7/77 is not applicable.

Please note that when the emission reduction occurred the Kern County APCD did not have an ERC banking rule. Kern County APCD adopted their ERC banking rule, Rule 210.3, in 1983. When adopted, this rule provided for a one year period to file applications to bank emission reductions that previously occurred. Therefore, the application submitted to the Kern County APCD in 1984 met the application submittal deadline requirements for such emission reductions.

The emission reduction represented by ERC S-4407-1 is a "real" emission reduction. This ERC represents emission reductions that occurred due to incineration of a coker exhaust stream in a CO boiler. Subsequent operational changes at the refinery do not invalidate that this actual emission reduction did in fact occur. This emission reduction was made enforceable by permit to operate conditions. If the refinery had proposed to remove the controls that generated the emission reduction (they did not), such an emission increase would have been subject to New Source Review, including the requirement to provide emission offsets.

Finally, ERC S-4407-1 is incorporated in the District's growth factors as being available to provide offsets for growth in emissions in attainment plans, including the EPA approved 2007 ozone plan. Thus, these emissions are included in future year emissions calculations and modeling of future air quality. The attainment plans then provide for real-time mitigation to ensure contemporaneous air quality benefit, regardless of the date the credits were banked. ERC S-4407-1 (listed as previously issued ERC S-2333-1) is included in the EPA approved 2007 ozone attainment plan in Appendix D, see http://www.valleyair.org/Air_Quality_Plans/AQ_Final_Adopted_Ozone2007.htm. The inclusion of this ERC in the 2007 ozone attainment plan verifies that this emission reduction is not being "credited elsewhere".