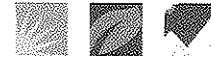




# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

SEP 30 2015



## HEALTHY AIR LIVING™

Roger Hoffdahl  
Ingredion Incorporated  
P O Box 6129  
Stockton, CA 95206-6129

**RE: Notice of Final Action - Authority to Construct**  
**Facility Number: N-238, Project Number: N-1150704**

Dear Mr. Hoffdahl:

The Air Pollution Control Officer has issued the Authority to Construct permits to Ingredion Incorporated for the installation of a new 7.3 MW combined heat and power (CHP) system consisting of a gas turbine and duct burner, and to establish Specific Limiting Conditions for the new CHP system and the existing boilers under permits N-238-41, '42, '44 and '45, at 1021 Industrial Dr, Stockton, California. 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 August 4, 2015. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on July 30, 2015. 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.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Nick Peirce at (209) 557-6400.

Sincerely,

Arnaud Marjollet  
Director of Permit Services  
AM: jk

Enclosures

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

Seyed Sadredin  
Executive Director/Air Pollution Control Officer

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

Central Region (Main Office)  
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-238-41-3

**ISSUANCE DATE:** 09/24/2015

**LEGAL OWNER OR OPERATOR:** INGREDION INCORPORATED  
**MAILING ADDRESS:** PO BOX 6129  
STOCKTON, CA 95206-6129

**LOCATION:** 1021 INDUSTRIAL DR  
STOCKTON, CA 95206

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 185 MMBTU/HR ZURN MODEL 22M KEYSTONE AUXILIARY BOILER WITH A TODD MODEL RMB ULTRA LOW NOX BURNER AND A FLUE GAS RECIRCULATION (FGR) SYSTEM: TO RE-ESTABLISH COMBINED ANNUAL FUEL HEAT INPUT RATE FOR UNITS N-238-41, '-42, '-44, '-45 AND '-46

### CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, or 0.1 grain/dscf calculated to 12% CO2 or 10 lb/hr. [District Rules 4201 and 4301] Federally Enforceable Through Title V Permit
6. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [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-238-41-3 Sep 24 2015 8:45AM - KAHLDON Joint Inspection NOT Required

7. A fuel flow meter dedicated to this boiler shall be utilized to monitor the quantity of natural gas fuel burned by the boiler on an hourly basis whenever the boiler is operating. Monitoring shall not be required if the unit is not in operation. [District Rule 2201] Federally Enforceable Through Title V Permit
8. This boiler shall be fired exclusively on PUC-regulated natural gas fuel. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
9. The heat input rate to this unit shall not exceed 178 MMBtu during any one-hour period. [District Rule 2201] Federally Enforceable Through Title V Permit
10. NOx emissions shall not exceed 7 ppmvd @ 3% O2 (0.008 lb/MMBtu) referenced as NO2. [District Rules 2201, 4301, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
11. CO emissions shall not exceed 50 ppmvd @ 3% O2 (0.037 lb/MMBtu). [District Rule 2201] Federally Enforceable Through Title V Permit
12. VOC emissions shall not exceed 10 ppmvd @ 3% O2 (0.004 lb/MMBtu) referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
13. PM10 emissions shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
14. SOx emissions shall not exceed 0.0029 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NOx (as NO2): 131.0 lb/day, SOx: 15.8 lb/day, PM10: 55.4 lb/day, CO: 1,383.2 lb/day, VOC: 88.7 lb/day and NH3: 75.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NOx (as NO2): 20,616 lb/yr, SOx: 5,767 lb/yr, PM10: 20,236 lb/yr, CO: 59,841 lb/yr, VOC: 7,119 lb/yr and NH3: 27,520 lb/yr. The annual limits are on 12 consecutive month rolling period basis. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit
18. All emission 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 4320. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit
19. Operator shall ensure that all required source testing conforms with the compliance testing procedures described in District Rule 1081. [District Rule 1081] Federally Enforceable Through Title V Permit
20. Source testing to measure NOx and CO emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 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 12 months. [District Rules 4305, 4306, 4320 and 4351] Federally Enforceable Through Title V Permit
21. During the 36-month source testing interval, the owner or operator shall have this unit tuned at least twice each calendar year, from four to eight months apart, in which it operates, by a technician that is qualified, to the satisfaction of the APCO, in accordance with the procedure described in Rule 4304 (Equipment Tuning Procedure for Boilers, Steam Generators, and Process Heaters). [District Rules 4306 and 4320] Federally Enforceable Through Title V Permit
22. If the unit does not operate throughout a continuous six-month period within a calendar year, only one tune-up is required for that calendar year. No tune-up is required for any unit that is not operated during that calendar year. This unit may be test fired to verify availability of the unit for its intended use, but once the test firing is completed the unit shall be shutdown. [District Rules 4306 and 4320] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. 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
24. 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
25. 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
26. 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
27. 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
28. 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
29. The permittee shall either: a.) perform fuel analysis to determine the following parameters: methane content (%), heating value (Btu/dscf), and sulfur content (gr-S/100 dscf); or b.) obtain and maintain a copy of valid purchase contracts, supplier certifications, tariff sheets, or transportation contacts that contains methane content (%), heating value (Btu/dscf), and sulfur content (gr-S/100 dscf) to verify compliance with the SOx emission limits in this permit. If the permittee decide to conduct fuel analysis, the fuel sample shall be collected within 60 days of startup under this permit and weekly thereafter. Upon successful compliance demonstration on eight consecutive weeks testing, the monitoring frequency shall be every quarter. If the result of any quarterly monitoring fails to demonstrate compliance with SOx emissions, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rules 2201 and 4320, 40 CFR 60.45b] Federally Enforceable Through Title V Permit
30. The flue gas recirculation rate shall be determined at least on an hourly basis by measuring the stack O2% by volume (Os), and windbox O2% by volume (Ow) using the following equation:  $FGR \text{ rate} = \{Ow - 20.9\} / \{Os - 20.9\} \times 100\%$ . Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4305, 4306 and 4320 and 40 CFR 64] Federally Enforceable Through Title V Permit
31. The minimum flue gas recirculation rate shall be established by source testing this unit or other representative units per Rule 4305 and as approved by the District. The normal range/level shall be no lower than the minimum flue gas recirculation rate with which compliance with applicable NOx and CO emission limits has been demonstrated through source testing at a similar firing rate. [District Rules 4305, 4306 and 4320 and 40 CFR 64] Federally Enforceable Through Title V Permit
32. If the flue gas recirculation rate is less than the normal range/level, the permittee shall return the flue gas recirculation rate to the normal range/level as soon as possible, but no longer than 1 hour of operation after detection. If the flue gas recirculation rate is not returned to the normal range/level within 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a source test within 60 days of the first exceedance, to demonstrate compliance with the applicable emission limits at the new flue gas recirculation rate. A District-approved portable analyzer may be used in lieu of a source test to demonstrate compliance. 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 and 40 CFR 64] Federally Enforceable Through Title V Permit
33. The permittee shall maintain records of the date and time of oxygen concentration measurements, the measured oxygen concentrations, the calculated flue gas recirculation rate, and the firing rate at the time of the oxygen concentration measurements. The records shall also include a description of any corrective action taken to maintain the flue gas recirculation rate within the acceptable range. [District Rules 4305, 4306 and 4320 and 40 CFR 64] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

34. The FGR rate shall be maintained at a level equal to or greater than 0.1% FGR. [District Rule 2520, 9.3.2 and 40 CFR 64] Federally Enforceable Through Title V Permit
35. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7. [40 CFR 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 64] Federally Enforceable Through Title V Permit
37. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR 64] Federally Enforceable Through Title V Permit
38. The owner or operator shall keep records of hourly heat input rate (MMBtu) to this unit. [District Rule 2201] Federally Enforceable Through Title V Permit
39. The owner or operator shall monitor and record the higher heating value (HHV) of the fuel combusted in this unit. The HHV shall be certified by thirty party fuel supplier or determined annually using ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 4351] Federally Enforceable Through Title V Permit
40. The owner or operator shall keep daily and monthly records of the natural gas usage for this unit. [District Rules 2201, 4305, 4306, 2520, 9.4.2 and 4351] Federally Enforceable Through Title V Permit
41. The owner or operator shall keep daily records of total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. [District Rule 2201] Federally Enforceable Through Title V Permit
42. The owner or operator shall maintain records of the cumulative annual use of the fuel combusted in this unit. [District Rule 4351] Federally Enforceable Through Title V Permit
43. The owner or operator shall keep monthly records of the total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. These records shall be used to determine the total emissions for each pollutant during 12 consecutive month period on a rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
44. 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; 2520, 9.4.2; 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
45. This boiler shall be in compliance with Title 40, Code of Federal Regulations, Part 60, Subparts A and Db. The owner or operator shall comply with the terms of the plan submitted under the provisions of section 60.48b(g)(2); specifically: i.) The owner or operator shall demonstrate compliance with the applicable standard for nitrogen oxides by hourly monitoring the flue gas recirculation rate as established by this unit's source test, and ii.) The owner or operator shall maintain records of the auxiliary boiler's fuel usage for at least five years and make these records available to EPA upon request. [40 CFR Part 60, Subpart Db] Federally Enforceable Through Title V Permit
46. Authority to Construct N-238-41-2 shall be implemented prior to, or concurrently with the implementation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-238-42-2

**ISSUANCE DATE:** 09/24/2015

**LEGAL OWNER OR OPERATOR:** INGREDION INCORPORATED

**MAILING ADDRESS:** PO BOX 6129  
STOCKTON, CA 95206-6129

**LOCATION:** 1021 INDUSTRIAL DR  
STOCKTON, CA 95206

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF: 28.8 MMBTU/HR HURST MODEL S2X-G-650-250 (OR EQUIVALENT MANUFACTURER AND MODEL) BOILER WITH ALZETA MODEL CSB 22-2SO-30/30 (OR EQUIVALENT MANUFACTURER OR MODEL) BURNER SYSTEM TO: RE-ESTABLISH COMBINED ANNUAL FUEL HEAT INPUT RATE FOR UNITS N-238-41, '42, '44, '45 AND '46

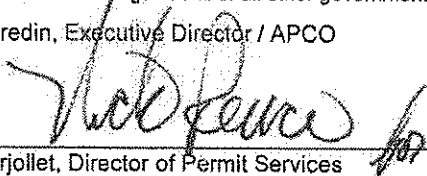
### CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. The unit shall only be fired on PUC-quality natural gas. [District Rules 2201 and 4320] 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-238-42-2 Sep 24 2015 8:45AM - KAH/LONJ Joint Inspection NOT Required

7. 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 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
8. NOx emissions shall not exceed 7 ppmvd @ 3% O2 (0.008 lb/MMBtu) referenced as NO2. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
9. CO emissions shall not exceed 50 ppmvd @ 3% O2 (0.037 lb/MMBtu). [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
10. SOx emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
11. PM10 emissions shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. VOC emissions shall not exceed 10 ppmvd @ 3% O2 (0.004 lb/MMBtu) referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
13. 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
14. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NOx (as NO2): 131.0 lb/day, SOx: 15.8 lb/day, PM10: 55.4 lb/day, CO: 1,383.2 lb/day, VOC: 88.7 lb/day and NH3: 75.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NOx (as NO2): 20,616 lb/yr, SOx: 5,767 lb/yr, PM10: 20,236 lb/yr, CO: 59,841 lb/yr, VOC: 7,119 lb/yr and NH3: 27,520 lb/yr. The annual limits are on 12 consecutive month rolling period basis. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. The results of the initial test conducted under permit N-238-42-1 may be substituted instead of conducting a separate initial source test. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
17. Source testing to measure NOx 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
18. 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
19. 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
20. 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
21. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
22. 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

CONDITIONS CONTINUE ON NEXT PAGE

23. 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 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
24. 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
25. 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
26. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> 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
27. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, 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
28. 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
29. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (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
30. 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
31. The owner or operator shall maintain daily and monthly records of the type and quantity of the fuel combusted by the boiler. [District Rules 2201 and 4351, and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
32. The owner or operator shall monitor and record the higher heating value (HHV) of the fuel combusted in this unit. The HHV shall be certified by thirty party fuel supplier or determined annually using ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 4351] Federally Enforceable Through Title V Permit
33. The owner or operator shall keep daily records of total emissions for each pollutant from permit units N-238-41, -42, -44, -45 and -46. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE



34. The owner or operator shall keep monthly records of the total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. These records shall be used to determine the total emissions for each pollutant during 12 consecutive month period on a rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
35. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 4306 and 4320, and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit
36. Authority to Construct N-238-42-1 shall be implemented prior to, or concurrently with the implementation of this permit. [District Rule 2201] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-238-44-1

**ISSUANCE DATE:** 09/24/2015

**LEGAL OWNER OR OPERATOR:** INGREDION INCORPORATED

**MAILING ADDRESS:** PO BOX 6129  
STOCKTON, CA 95206-6129

**LOCATION:** 1021 INDUSTRIAL DR  
STOCKTON, CA 95206

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF: 99.9 MMBTU/HR NEBRASKA MODEL NOS-2A/S-64 (OR EQUIVALENT MANUFACTURER AND MODEL) BOILER WITH TODD OR JOHN ZINK VARIFLAME (OR EQUIVALENT MANUFACTURER AND MODEL) LOW-NOX BURNER SYSTEM WITH A CADASTACK (OR EQUIVALENT MANUFACTURER) SELECTIVE CATALYTIC REDUCTION SYSTEM: TO RE-ESTABLISH COMBINED ANNUAL FUEL HEAT INPUT RATE FOR UNITS N-238-41, '42, '44, '45 AND '46

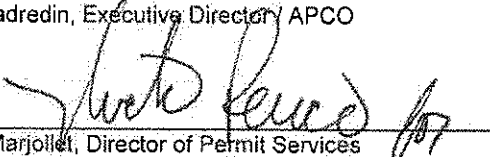
### CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. 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]

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-238-44-1 Sep 24 2015 8:45AM - KAH/LOU Joint Inspection NOT Required

7. The unit shall only be fired on PUC-quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
9. During start-up or shutdown, the emissions control systems shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
10. Startup/shutdown shall not exceed any of the following items: startup - 2.0 hours/event, 2.0 hours/day and 200 hours/year; shutdown - 1.0 hour/event, 1.0 hour/day and 100 hours/year. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
11. During startup and shutdown, NO<sub>x</sub> emissions shall not exceed 25 ppmvd @ 3% O<sub>2</sub> or 0.030 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Except during startup and shutdown, NO<sub>x</sub> emissions shall not exceed 5 ppmvd @ 3% O<sub>2</sub> or 0.0062 lb/MMBtu, referenced as NO<sub>2</sub> [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
13. CO emissions shall not exceed 50 ppmvd @ 3% O<sub>2</sub> (0.037 lb/MMBtu). [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
14. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. PM<sub>10</sub> emissions shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
16. VOC emissions shall not exceed 10 ppmvd @ 3% O<sub>2</sub> (0.004 lb/MMBtu) referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
17. NH<sub>3</sub> emissions from the SCR shall not exceed 10.0 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>): 131.0 lb/day, SO<sub>x</sub>: 15.8 lb/day, PM<sub>10</sub>: 55.4 lb/day, CO: 1,383.2 lb/day, VOC: 88.7 lb/day and NH<sub>3</sub>: 75.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>): 20,616 lb/yr, SO<sub>x</sub>: 5,767 lb/yr, PM<sub>10</sub>: 20,236 lb/yr, CO: 59,841 lb/yr, VOC: 7,119 lb/yr and NH<sub>3</sub>: 27,520 lb/yr. The annual limits are on 12 consecutive month rolling period basis. [District Rule 2201] Federally Enforceable Through Title V Permit
20. 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
21. Source testing to measure steady state NO<sub>x</sub>, CO, VOC and NH<sub>3</sub> emissions shall be conducted within 60-days of the initial startup. The results of the initial test conducted under permit N-238-44-0 may be substituted instead of conducting a separate initial source test. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
22. Source testing to measure NO<sub>x</sub>, CO and NH<sub>3</sub> emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 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 12 months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. NO<sub>x</sub> 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

CONDITIONS CONTINUE ON NEXT PAGE

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 (O<sub>2</sub>) 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. VOC emissions for source test purpose shall be determined using EPA Method 18, 25A, or other District approved alternative method. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
28. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
29. 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
30. 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 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. 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
32. 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
33. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, NH<sub>3</sub> and O<sub>2</sub> at least once during each month in which source testing is not performed. NO<sub>x</sub>, CO and O<sub>2</sub> monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH<sub>3</sub> monitoring shall be conducted utilizing gas detection tubes (Draeger brand or District approved equivalent). 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 it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. If either the NO<sub>x</sub>, CO or NH<sub>3</sub> concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. All NO<sub>x</sub>, CO, O<sub>2</sub> and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NO<sub>x</sub>, CO and O<sub>2</sub> analyzer as well as the NH<sub>3</sub> emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Ammonia emissions readings shall be conducted at the time the NO<sub>x</sub>, CO and O<sub>2</sub> readings are taken. The readings shall be converted to ppmvd @ 3% O<sub>2</sub>. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

37. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, NH<sub>3</sub> and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent by volume and the measured NO<sub>x</sub>, CO and NH<sub>3</sub> concentrations corrected to 3% O<sub>2</sub>, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH<sub>3</sub> emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
38. 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
39. The owner or operator shall maintain daily and monthly records of the type and quantity of the fuel combusted by the boiler. [District Rules 2201 and 4351, and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
40. The owner or operator shall monitor and record the higher heating value (HHV) of the fuel combusted in this unit. The HHV shall be certified by thirty party fuel supplier or determined annually using ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 4351] Federally Enforceable Through Title V Permit
41. The owner or operator shall keep daily records of total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. [District Rule 2201] Federally Enforceable Through Title V Permit
42. The owner or operator shall keep monthly records of the total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. These records shall be used to determine the total emissions for each pollutant during 12 consecutive month period on a rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
43. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 4306 and 4320, and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit
44. The permittee shall obtain APCO approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of an equivalent equipment shall only be made after the APCO's determination that the submitted design and performance data for the proposed alternate equipment are equivalent to the approved equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
45. The permittee's request for approval of an equivalent equipment shall include, at minimum, the following information: burner manufacturer and model number, maximum heat input rating, and manufacturer's guaranteed NO<sub>x</sub> and CO emission concentrations. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee's request for approval of an equivalent equipment shall be submitted to the District at least 30 days prior to the planned installation date. The permittee shall also notify the District at least 15 days prior to the actual installation of the District approved equivalent equipment. [District Rule 2201] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-238-45-1

**ISSUANCE DATE:** 09/24/2015

**LEGAL OWNER OR OPERATOR:** INGREDION INCORPORATED

**MAILING ADDRESS:** PO BOX 6129  
STOCKTON, CA 95206-6129

**LOCATION:** 1021 INDUSTRIAL DR  
STOCKTON, CA 95206

**EQUIPMENT DESCRIPTION:**

MODIFICATION OF 99.9 MMBTU/HR NEBRASKA MODEL NOS-2A/S-64 (OR EQUIVALENT MANUFACTURER AND MODEL) BOILER WITH TODD OR JOHN ZINK VARIFLAME (OR EQUIVALENT MANUFACTURER AND MODEL) LOW-NOX BURNER SYSTEM WITH A CADASTACK (OR EQUIVALENT MANUFACTURER) SELECTIVE CATALYTIC REDUCTION SYSTEM: TO RE-ESTABLISH COMBINED ANNUAL FUEL HEAT INPUT RATE FOR UNITS N-238-41, '-42, '-44, '-45 AND '-46

### CONDITIONS

1. The facility shall submit an application to modify the Title V permit in accordance with the timeframes and procedures of District Rule 2520. [District Rule 2520] Federally Enforceable Through Title V Permit
2. 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
3. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. 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
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
6. 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]

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-238-45-1 Sep 24 2015 5:45AM - KAH/LONJ : Joint Inspection NOT Required

7. The unit shall only be fired on PUC-quality natural gas. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
8. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted in the unit shall be installed, utilized and maintained. [District Rule 2201 and 40 CFR 60.48c(g)] Federally Enforceable Through Title V Permit
9. During start-up or shutdown, the emissions control systems shall be in operation, and emissions shall be minimized insofar as technologically possible. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
10. Startup/shutdown shall not exceed any of the following items: startup - 2.0 hours/event, 2.0 hours/day and 200 hours/year; shutdown - 1.0 hour/event, 1.0 hour/day and 100 hours/year. [District Rules 2201, 4306 and 4320] Federally Enforceable Through Title V Permit
11. During startup and shutdown, NO<sub>x</sub> emissions shall not exceed 25 ppmvd @ 3% O<sub>2</sub> or 0.030 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Except during startup and shutdown, NO<sub>x</sub> emissions shall not exceed 5 ppmvd @ 3% O<sub>2</sub> or 0.0062 lb/MMBtu, referenced as NO<sub>2</sub> [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
13. CO emissions shall not exceed 50 ppmvd @ 3% O<sub>2</sub> (0.037 lb/MMBtu). [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
14. SO<sub>x</sub> emissions shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
15. PM<sub>10</sub> emissions shall not exceed 0.0076 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
16. VOC emissions shall not exceed 10 ppmvd @ 3% O<sub>2</sub> (0.004 lb/MMBtu) referenced as methane. [District Rule 2201] Federally Enforceable Through Title V Permit
17. NH<sub>3</sub> emissions from the SCR shall not exceed 10.0 ppmvd @ 3% O<sub>2</sub>. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>): 131.0 lb/day, SO<sub>x</sub>: 15.8 lb/day, PM<sub>10</sub>: 55.4 lb/day, CO: 1,383.2 lb/day, VOC: 88.7 lb/day and NH<sub>3</sub>: 75.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>): 20,616 lb/yr, SO<sub>x</sub>: 5,767 lb/yr, PM<sub>10</sub>: 20,236 lb/yr, CO: 59,841 lb/yr, VOC: 7,119 lb/yr and NH<sub>3</sub>: 27,520 lb/yr. The annual limits are on 12 consecutive month rolling period basis. [District Rule 2201] Federally Enforceable Through Title V Permit
20. 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
21. Source testing to measure steady state NO<sub>x</sub>, CO, VOC and NH<sub>3</sub> emissions shall be conducted within 60-days of the initial startup. The results of the initial test conducted under permit N-238-44-0 may be substituted instead of conducting a separate initial source test. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
22. Source testing to measure NO<sub>x</sub>, CO and NH<sub>3</sub> emissions during steady state operation shall be conducted at least once every 12 months. After demonstrating compliance on 2 consecutive annual source tests, the unit shall be tested not less than once every 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 12 months. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
23. NO<sub>x</sub> 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

CONDITIONS CONTINUE ON NEXT PAGE

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 (O<sub>2</sub>) 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. VOC emissions for source test purpose shall be determined using EPA Method 18, 25A, or other District approved alternative method. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Source testing for ammonia slip shall be conducted utilizing BAAQMD Method ST-1B. [District Rule 1081] Federally Enforceable Through Title V Permit
28. Fuel sulfur content shall be determined using EPA Method 11 or Method 15. [District Rule 4320] Federally Enforceable Through Title V Permit
29. 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
30. 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 4320. [District Rules 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
31. 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
32. 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
33. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, NH<sub>3</sub> and O<sub>2</sub> at least once during each month in which source testing is not performed. NO<sub>x</sub>, CO and O<sub>2</sub> monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH<sub>3</sub> monitoring shall be conducted utilizing gas detection tubes (Draeger brand or District approved equivalent). 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 it has been performed within the last month. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
34. If either the NO<sub>x</sub>, CO or NH<sub>3</sub> concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the permittee shall return the emissions to compliant levels as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after 1 hour of operation following 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 that is subject to enforcement action has occurred. 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 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
35. All NO<sub>x</sub>, CO, O<sub>2</sub> and ammonia emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NO<sub>x</sub>, CO and O<sub>2</sub> analyzer as well as the NH<sub>3</sub> emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
36. Ammonia emissions readings shall be conducted at the time the NO<sub>x</sub>, CO and O<sub>2</sub> readings are taken. The readings shall be converted to ppmvd @ 3% O<sub>2</sub>. [District Rules 2201, 4305 and 4306] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE



37. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, NH<sub>3</sub> and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent by volume and the measured NO<sub>x</sub>, CO and NH<sub>3</sub> concentrations corrected to 3% O<sub>2</sub>, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH<sub>3</sub> emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 2201, 4305, 4306 and 4320] Federally Enforceable Through Title V Permit
38. 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
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40. The owner or operator shall monitor and record the higher heating value (HHV) of the fuel combusted in this unit. The HHV shall be certified by third party fuel supplier or determined annually using ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 4351] Federally Enforceable Through Title V Permit
41. The owner or operator shall keep daily records of total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. [District Rule 2201] Federally Enforceable Through Title V Permit
42. The owner or operator shall keep monthly records of the total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. These records shall be used to determine the total emissions for each pollutant during 12 consecutive month period on a rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
43. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 2201, 4305, 4306 and 4320, and 40 CFR 60.48c(i)] Federally Enforceable Through Title V Permit
44. The permittee shall obtain APCO approval for the use of any equivalent equipment not specifically approved by this Authority to Construct. Approval of an equivalent equipment shall only be made after the APCO's determination that the submitted design and performance data for the proposed alternate equipment are equivalent to the approved equipment. [District Rule 2201] Federally Enforceable Through Title V Permit
45. The permittee's request for approval of an equivalent equipment shall include, at minimum, the following information: burner manufacturer and model number, maximum heat input rating, and manufacturer's guaranteed NO<sub>x</sub> and CO emission concentrations. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee's request for approval of an equivalent equipment shall be submitted to the District at least 30 days prior to the planned installation date. The permittee shall also notify the District at least 15 days prior to the actual installation of the District approved equivalent equipment. [District Rule 2201] Federally Enforceable Through Title V Permit



## AUTHORITY TO CONSTRUCT

**PERMIT NO:** N-238-46-0

**ISSUANCE DATE:** 09/24/2015

**LEGAL OWNER OR OPERATOR:** INGREDION INCORPORATED

**MAILING ADDRESS:** PO BOX 6129  
STOCKTON, CA 95206-6129

**LOCATION:** 1021 INDUSTRIAL DR  
STOCKTON, CA 95206

**EQUIPMENT DESCRIPTION:**

7.3 MW (ISO RATING) COMBINED HEAT AND POWER (CHP) GENERATION PLANT CONSISTING OF A SOLAR TURBINES TAURUS 70 NATURAL GAS-FIRED TURBINE ENGINE WITH 87.5 MMBTU/HR DRY LOW-NOX COMBUSTORS, A CLEAVER BROOKS DUCT BURNER EQUIPPED WITH 190 MMBTU/HOUR NATURAL GAS-FIRED NATCOM DB-209-G-5 LOW-NOX BURNER, AND AN UNFIRED HEAT RECOVERY STEAM GENERATOR, ALL SERVED BY A SELECTIVE CATALYTIC REDUCTION WITH AMMONIA INJECTION AND AN OXIDIZATION CATALYST

### 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 under ATC N-238-46-0, the owner or operator shall mitigate the following quantities of NOx: 1st quarter: 3,053 lb, 2nd quarter: 3,053 lb, 3rd quarter: 3,053 lb, and 4th quarter: 3,054 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC N-1278-2 (or a certificate split from this certificate) shall be used to supply the required NOx offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201] Federally Enforceable Through Title V Permit

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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-238-46-0 Sep 24 2015 8:45AM - KAH/LOU Joint Inspection NOT Required

5. Prior to operating under ATC N-238-46-0, the owner or operator shall mitigate the following quantities of VOC: 1st quarter: 330 lb, 2nd quarter: 331 lb, 3rd quarter: 331 lb, and 4th quarter: 331 lb. The quarterly amounts already include the applicable distance offset ratio per section 4.8.1 of Rule 2201 (4/21/11). [District Rule 2201] Federally Enforceable Through Title V Permit
6. ERC S-4428-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets, unless a revised offsetting proposal is received and approved by the District. Following the revisions, this Authority to Construct permit shall be re-issued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to re-issuance of this Authority to Construct permit. [District Rule 2201] Federally Enforceable Through Title V Permit
7. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
8. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
9. 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
10. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
11. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]
12. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown period. [District Rule 4703] Federally Enforceable Through Title V Permit
13. The owner or operator shall operate and maintain stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction [40 CFR 60.4333(a)] Federally Enforceable Through Title V Permit
14. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the CHP system shall be installed, utilized and maintained. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
15. The CHP system shall be fired on PUC quality natural gas with a sulfur content no greater than 1.0 grain of sulfur compounds (as S) per 100 dscf of natural gas. [District Rule 2201 and 40 CFR 60.4330(a)(2)] Federally Enforceable Through Title V Permit
16. The startup for the CHP system shall not exceed 1.0 hour/event, 2 events/day and 50 hours/year. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
17. The total startup emissions from the CHP system shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>): 29.125 lb/hr, SO<sub>x</sub>: 0.658 lb/hr, PM<sub>10</sub>: 2.31 lb/hr, CO: 427.52 lb/hr, and VOC: 24.774 lb/hr, and NH<sub>3</sub>: 3.142 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Startup 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. [District Rule 4703] Federally Enforceable Through Title V Permit
19. The shutdown for the CHP system shall not exceed 0.5 hour/event, 2 events/day and 25 hours/year. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
20. The total shutdown emissions from the CHP system shall not exceed any of the following limits: NO<sub>x</sub> (as NO<sub>2</sub>): 28.126 lb/hr, SO<sub>x</sub>: 0.658 lb/hr, PM<sub>10</sub>: 2.31 lb/hr, CO: 463.22 lb/hr, VOC: 26.574 lb/hr and NH<sub>3</sub>: 3.142 lb/hr. [District Rule 2201] Federally Enforceable Through Title V Permit

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21. 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 Rule 4703] Federally Enforceable Through Title V Permit
22. Except during startup and shutdown, emissions from the CHP system shall not exceed any of the following limits: NOx (as NO<sub>2</sub>): 2.125 lb/hr and 2.5 ppmvd @ 15% O<sub>2</sub>, SOx: 0.658 lb/hr, PM<sub>10</sub>: 2.310 lb/hr, CO: 3.095 lb/hr and 6.0 ppmvd @ 15% O<sub>2</sub>, VOC: 0.601 lb/hr and 2.0 ppmvd @ 15% O<sub>2</sub>, and NH<sub>3</sub>: 3.142 lb/hr and 10.0 ppmvd @ 15% O<sub>2</sub>. All emission limits are based on 3-hour rolling averaging period. [District Rules 2201 and 4703 and 40 CFR Part 60.4320(a)] Federally Enforceable Through Title V Permit
23. Heat input rate to the CHP system (gas turbine and duct burner) shall not exceed 231 MMBtu per hour. [District Rule 2201 and 4102] Federally Enforceable Through Title V Permit
24. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NOx (as NO<sub>2</sub>): 131.0 lb/day, SOx: 15.8 lb/day, PM<sub>10</sub>: 55.4 lb/day, CO: 1,383.2 lb/day, VOC: 88.7 lb/day and NH<sub>3</sub>: 75.4 lb/day. [District Rule 2201] Federally Enforceable Through Title V Permit
25. The total emissions from permit units N-238-41, '-42, '-44, '-45 and '-46 shall not exceed any of the following limits: NOx (as NO<sub>2</sub>): 20,616 lb/yr, SOx: 5,767 lb/yr, PM<sub>10</sub>: 20,236 lb/yr, CO: 59,841 lb/yr, VOC: 7,119 lb/yr and NH<sub>3</sub>: 27,520 lb/yr. The annual limits are on 12 consecutive month rolling period basis. [District Rule 2201] Federally Enforceable Through Title V Permit
26. The gas turbine system shall be equipped with an air inlet cooler and lube oil vent coalescer or equivalent technology sufficient to limit the visible emissions from the lube oil vents to not exceed 5% opacity, except for a period not exceeding three minutes in any one hour. [District Rule 2201] Federally Enforceable Through Title V Permit
27. 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
28. Source testing shall be witnessed or authorized by District personnel and samples shall be collected by a California Air Resources Board (CARB) certified testing laboratory or a CARB certified source testing firm. [District Rule 1081] Federally Enforceable Through Title V Permit
29. Source testing to measure startup and shutdown NOx, CO, and VOC mass emission rates shall be conducted within 60-days of initial startup and at least once every seven years thereafter. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Source testing to determine compliance with the steady state NOx, CO, NH<sub>3</sub> (lb/hr and ppmvd @ 15% O<sub>2</sub>) and PM<sub>10</sub> (lb/hr) shall be conducted within 60-days of initial startup and annually thereafter both with the duct burner ON and OFF. [District Rules 2201 and 4703, 40 CFR 60.4400(a)] Federally Enforceable Through Title V Permit
31. The following test methods shall be used: NOx - EPA Method 7E or 20 or CARB Method 100; CO - EPA Method 10 or 10B or CARB Method 100; VOC - EPA Method 18 or 25; PM<sub>10</sub> - EPA Method 5 (front half and back half) or 201 and 202a; ammonia - BAAQMD ST-1B; and O<sub>2</sub> - EPA Method 3, 3A, or 20 or CARB Method 100. EPA approved alternative test methods as approved by the District may also be used to address the source testing requirements of this permit. [District Rules 1081 and 4703 and 40 CFR 60.4400(a)] Federally Enforceable Through Title V Permit
32. When valid purchase contracts, tariff sheets or transportation contracts showing the fuel sulfur content are not available, fuel sulfur content shall be monitored using one of the following methods: ASTM Methods D1072, D3246, D4084, D4468, D4810, D6228, D6667 or Gas Processors Association Standard 2377. [40 CFR 60.4415(a)(1)(i)] Federally Enforceable Through Title V Permit
33. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081 and 40 CFR 60.4375(b)] Federally Enforceable Through Title V Permit
34. During all types of operations, including startup and shutdown periods, ammonia injection into the SCR system shall occur once the minimum temperature at the catalyst face has been reached to ensure NOx emission reductions can occur with a reasonable level of ammonia slip. The minimum catalyst face temperature shall be determined during final design phase of the project and shall be submitted to the District at least 30 days prior to commencement of construction. [District Rule 2201] Federally Enforceable Through Title V Permit

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35. The District shall administratively add the minimum temperature limitation established pursuant to the above condition in the final Permit to Operate. [District Rule 2201] Federally Enforceable Through Title V Permit
36. The SCR system shall be equipped with a continuous temperature monitoring system to measure and record the temperature at the catalyst face. [District Rule 2201] Federally Enforceable Through Title V Permit
37. The owner or operator shall establish minimum ammonia injection rate (pounds per hour) into the SCR system during each test run of the initial source test while demonstrating compliance with the NOx limit in this permit. The established minimum ammonia injection rate will be included in the Permit to Operate. The ammonia injection rate may be administrative revised should source testing determines that another value is more appropriate than the previously established ammonia injection rate. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
38. The owner or operator shall monitor and record ammonia injection rate (pounds per hour) into the SCR system at least once every 15-minute period. This data shall be used to determine average ammonia injection rate over 1-hour period. The hourly data shall be averaged over 3-hour period on a rolling basis. The obtained value shall be compared with the minimum ammonia injection rate established in the permit to determine compliance with the NOx emission limit in this permit. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
39. If the ammonia injection rate is less than the minimum ammonia injection rate specified in the permit, the owner or operator shall return the ammonia injection rate above the minimum ammonia injection rate established as soon as possible, but no longer than eight hours after detection. If the ammonia injection rate is not returned above the minimum ammonia injection rate established during compliance testing within eight hours, the owner or operator shall notify the District within the following one hour and conduct a source test within 60 days of the first exceedance to demonstrate compliance with the applicable emission limits at the reduced ammonia injection rate. In lieu of conducting a source test, the owner or operator may stipulate a violation has occurred, subject to enforcement action. The owner or operator must 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 owner or operator may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
40. The oxidation catalyst system shall be equipped with a continuous temperature monitoring system to measure the temperature at the catalyst face. [District Rule 2201] Federally Enforceable Through Title V Permit
41. The owner or operator shall establish minimum temperature (°F) of the oxidation catalyst during each test run of the initial source test while demonstrating compliance the CO and VOC limits in this permit. The established minimum temperature will be included in the Permit to Operate. The minimum temperature may be administrative revised should source testing determines that another value is more appropriate that the previously established minimum temperature. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
42. The owner or operator shall monitor and record temperature (°F) of the oxidation catalyst at least once every 15-minute period. This data shall be used to determine the average temperature of the oxidation catalyst over a 1-hour period. The hourly data shall be averaged over 3-hour period on a rolling basis. The obtained value shall be compared with the minimum temperature established in the permit to determine compliance with the CO and VOC emission limits in this permit. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
43. If the temperature of the oxidation catalyst is below the minimum temperature specified in the permit, the owner or operator shall adjust CHP system controls to maintain the minimum temperature as soon as possible, but no longer than eight hours after detection. If the oxidation catalyst temperature is not returned above the minimum temperature established during compliance testing within eight hours, the owner or operator shall notify the District within the following one hour and conduct a source test within 60 days of the first exceedance to demonstrate compliance with the applicable emission limits at the reduced oxidation catalyst temperature. In lieu of conducting a source test, the owner or operator may stipulate a violation has occurred, subject to enforcement action. The owner or operator must 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 owner or operator may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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44. NO<sub>x</sub> (as NO<sub>2</sub>), CO, O<sub>2</sub> and NH<sub>3</sub> emission readings shall be taken with the unit operating at conditions representative of normal operation or under the conditions specified in the Permit to Operate. The NO<sub>x</sub>, CO and O<sub>2</sub> analyzer as well as the NH<sub>3</sub> emission monitoring equipment shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Analyzer 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
45. The owner or operator shall monitor and record the stack concentration of NO<sub>x</sub> (as NO<sub>2</sub>), CO, NH<sub>3</sub> and O<sub>2</sub> on a weekly basis. NO<sub>x</sub>, CO and O<sub>2</sub> monitoring shall be conducted utilizing a portable analyzer that meets District specifications. NH<sub>3</sub> monitoring shall be conducted utilizing gas detection tubes (Draeger brand or District approved equivalent). If compliance with the NO<sub>x</sub>, CO and NH<sub>3</sub> emissions is demonstrated for eight consecutive weeks, then the monitoring frequency will be reduced to monthly. If deviations are observed in two consecutive months, monitoring shall revert to weekly until eight consecutive weeks show no deviations. 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 one day of restarting the unit unless monitoring has been performed within the last month if on a monthly monitoring schedule, or within the week if on a weekly monitoring schedule. Weekly or monthly monitoring is not required for the week or month in which source testing is performed. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
46. If either the NO<sub>x</sub> (as NO<sub>2</sub>), CO or NH<sub>3</sub> concentrations, as measured by the portable analyzer or the District approved ammonia monitoring equipment, exceed the permitted levels the owner or operator shall return the emissions to compliant levels as soon as possible, but no longer than eight hours of operation after detection. If the portable analyzer or the ammonia monitoring equipment continue to show emission limit violations after eight hours of operation following detection, the owner or operator shall notify the District within the following one hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the owner or operator may stipulate a violation that is subject to enforcement action has occurred. The owner or operator 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 owner or operator may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
47. The sulfur content of each fuel source shall be: (i) documented in a valid purchase contract, a supplier certification, a tariff sheet or transportation contract, or (ii) monitored within 60 days of initial startup and weekly thereafter. If the sulfur content is less than or equal to 1.0 gr/100 dscf for eight consecutive weeks, then the monitoring frequency shall be every six months. If the result of any six month monitoring demonstrates that the fuel does not meet the fuel sulfur content limit, weekly monitoring shall resume until compliance is demonstrated for eight consecutive weeks. [District Rule 2201 and 40 CFR 60.4360, 60.4365(a) and 60.4370(c)] Federally Enforceable Through Title V Permit
48. The owner or operator shall keep hourly records of total heat input (MMBtu/hr) to the CHP system. [District Rule 2201] Federally Enforceable Through Title V Permit
49. The owner or operator shall keep daily records of total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. [District Rule 2201] Federally Enforceable Through Title V Permit
50. The owner or operator shall keep monthly records of the total emissions for each pollutant from permit units N-238-41, '-42, '-44, '-45 and '-46. These records shall be used to determine the total emissions for each pollutant during 12 consecutive month period on a rolling basis. [District Rule 2201] Federally Enforceable Through Title V Permit
51. The owner or operator shall keep records of the following items: (1) SCR system monitor: the date, time, catalyst face temperature and ammonia injection rate, (2) Oxidation catalyst system monitor: the date, time, catalyst face temperature. These records shall be used demonstrate compliance with the minimum SCR catalyst face temperature, minimum ammonia injection rate, and minimum oxidation catalyst face temperature in this permit. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit

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52. The owner or operator shall keep records of the following items: (1) the date and time of NO<sub>x</sub>, CO, NH<sub>3</sub> and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent by volume and the measured NO<sub>x</sub>, CO and NH<sub>3</sub> concentrations corrected to 15% O<sub>2</sub>, (3) make and model of the portable analyzer, (4) portable analyzer calibration records, (5) the method of determining the NH<sub>3</sub> emission concentration, and (6) a description of any corrective action taken to maintain the emissions at or below the acceptable levels. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
53. The owner or operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, the type and quantity of fuel used, duration of start-up, and duration of shutdown. [District Rule 4703] Federally Enforceable Through Title V Permit
54. The owner or operator shall maintain all records of required monitoring data and support information for a period of five years from the date of data entry and shall make such records available to the District upon request. [District Rules 2201 and 4703] Federally Enforceable Through Title V Permit
55. SO<sub>x</sub> excess emissions shall be defined as each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds the sulfur limit specified in this permit, and ends on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit. [40 CFR 60.4385(a)] Federally Enforceable Through Title V Permit
56. SO<sub>x</sub> monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample. [40 CFR 60.4385(b)] Federally Enforceable Through Title V Permit
57. NO<sub>x</sub> excess emissions shall be defined as any 3-hour rolling average ammonia injection rate (pounds per hour) falls below the minimum ammonia injection rate (lb/hr) specified in this permit, except during startup and shutdown. [District Rule 2201] Federally Enforceable Through Title V Permit
58. NO<sub>x</sub> monitor downtime shall be defined as any operating hour during which the ammonia injection rate is either not recorded or is invalid. [District Rule 2201] Federally Enforceable Through Title V Permit
59. The owner or operator shall submit a written report of unit's operation for 6-month period. The report is due on the 30th day following the end of the six-month period and shall include the following: Date, time intervals, data and magnitude of excess emissions, nature and the cause of excess (if known), corrective actions taken and preventive measures adopted; Averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard; Applicable time and date of each period during which the monitoring system(s) was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; A negative declaration when no excess emissions occurred. [District Rule 2201] Federally Enforceable Through Title V Permit