



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE OFFICE

APPLICATION PROCESSING AND CALCULATIONS

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Minor Title V Permit Revision
Section H (PC)
Oven Burner Upgrades

Legal Owner
or Operator: TRIUMPH PROCESSING, INC.
2605 INDUSTRY WAY
LYNWOOD, CA 90262

ID 800267

Equipment
Location: 2588 & 2605 INDUSTRY WAY, LYNWOOD, CA 90262

Equipment Description:
A/N 514319
Minor Title V Permit Revision (non RECLAIM)

SECTION H

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: SPRAY COATING AND DRYING					
OVEN, CURING, NO. 4, BEATTIE, NATURAL GAS, 1.15 MMBTU/HR, MAXON, CYCLOMAX, LOW NOX. A/N: 302733-514316	D6			CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008] PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D323.1, D182.3, H23.7.
OVEN, CURING, NO. 1, BEATTIE, NATURAL GAS, 1.5 MMBTU/HR, MAXON, CYCLOMAX, LOW NOX. A/N: C27475-514317	D7			CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008] PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D323.1, D182.3, H23.7.
OVEN, CURING, NO. 2, BEATTIE, NATURAL GAS, 1 MMBTU/HR, MAXON, CYCLOMAX, LOW NOX. A/N: C27926-514318	D9			CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 30 PPMV (5) [RULE 1147, 12-5-2008] PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D323.1, D182.3, H23.7.

History

The above pending applications were submitted as Class I to upgrade natural gas burners used in dryers to low-NO_x, emitting less than 30 ppmv at 3% O₂, in compliance with Rule 1147. The replaced burners will also be rated the same MMBTU/hr ratings as the existing burners. Reductions of NO_x emissions are expected from this project.



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Therefore, this project is considered a Minor Title V permit revision.

A review of District compliance records indicates that there are no Citizen complaints or Notices of Violation issued to this facility during the last two years. However, the facility was issued a Notice to Comply on 6/25/10 requiring the applicant to provide proof of submittal of compliance plan and test result required by rule 1469.1. The applicant provided the requested information and is currently operating in compliance with the permit conditions, and applicable rules and regulations.

Emission Calculations

The proposed burners are guaranteed by MAXON to emit less than 30 ppmv NOx at 3% O2, in compliance with Rule 1147 limit. Therefore, emission reductions of all NOx emissions are expected from the proposed burner upgrade.

The following equation is used to compute the hourly emissions:

Emissions of ith compound from the combustion of natural gas (lb/hr) =

$$\frac{\text{Max. Heat Input Rating } (10^6 \frac{\text{BTU}}{\text{hr}}) \cdot \text{Emission Factor of } i^{\text{th}} \text{ compound } (\frac{\text{lb}}{10^6 \text{ ft}^3})}{\text{Gross Heating Value} (\frac{\text{BTU}}{\text{ft}^3})}$$

Criteria pollutant emission factors are taken from AP-42, section 1.4, revised 10/96, except for NOx factor, which is based on the Rule 1147 limit of 30 ppmv at 3% O2.

Please see the attached Excel worksheets for detailed calculations. The following table summarizes the calculated results:

EMISSION SUMMARY (lb/dy)

A/Ns	Device Nos.	ROG	NOx	SOx	CO	PM10
514316	D6 Previous	0.18	3.41	0.02	0.92	0.20
	D6 New	0.18	1.03	0.02	0.92	0.20
514317	D7 Previous	0.24	4.457	0.03	1.2	0.26
	D7 New	0.24	1.34	0.03	1.2	0.26
514318	D9 Previous	0.16	2.97	0.02	0.8	0.17
	D9 New	0.16	0.89	0.02	0.8	0.17



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Rule Evaluation

Rule 212(c)(1): This section requires a public notice for all new or modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school.

Since this project will result in emission decreases, a public notice will not be required.

Rule 212(c)(2): This section requires a public notice for all new or modified facilities that have on-site emission increases exceeding any of the daily maximums as specified by Rule 212(g).

	Controlled Emissions (lb/dy)					
	ROG	NO _x	PM ₁₀	SO ₂	CO	Pb
Increase from Facility	0	<0	0	0	0	0
MAX Limit	30	40	30	60	220	3
Required Public Notice	No	No	No	No	No	No

The above table summarizes the emission limits and increases. Since emission increases are less than the limits, a public notice will not be required.

Rule 212(c)(3): Since this project will not result in emission increases of TACs, a public notice will not be required.

Rule 212(g): This section requires a public notice for all new or modified sources that have emission increases exceeding any of the daily maximums as specified by Rule 212(g).

The following table summarizes the limit and Potential-to-Emit (PTE) emissions from the project:

	Controlled Emissions (lb/dy)					
	ROG	NO _x	PM ₁₀	SO ₂	CO	Pb
Increase from Project	0	<0	0	0	0	0
MAX Limit	30	40	30	60	220	3
Required Public Notice	No	No	No	No	No	No



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Thus, this section will not trigger a public notice requirement.

- Rule 401: Visible emissions are not expected with the proper operation and maintenance of the equipment.
- Rule 402: Nuisance is not expected with the proper operation and maintenance of the equipment.
- Rule 1147: The installation of low-NO_x burners that have been guaranteed to emit less than 30 ppmv NO_x at 3% O₂ is in compliance with Rule 1147 requirements.
- Rule 1401: Since this project will not result in any emission increases of TACs, continuance of compliance with Rule 1401 is expected.
- Reg XIII: The proposed project will not result in any emission increases of criteria pollutants. Therefore, compliance with this regulation is expected.
- Reg XXX: The proposed project is considered as a Minor Title V Permit Revision pursuant to Rule 3000(b)(12) (A)(vi) since this project does not result in any increases in criteria pollutant emissions that are subject to Regulation XIII - New Source Review or a hazardous air pollutant (HAP).

Recommendation

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a "minor permit revision", it is exempt from the public participation requirements under Rule 3006(b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V permit will be



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issued to this facility with the following proposed conditions in addition to the existing condition D323.1:

H23.7

This equipment is subject to the applicable requirement of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
NOX	District Rule	1147

[D6, D7, D9]

D182.3

The operator shall test this equipment in accordance with the following specifications:

- A. The source test shall be conducted no later than 180 days after the initial start-up of this equipment unless otherwise approved in writing by the District.
- B. A source test protocol shall be submitted to the District no later than 60 days after the initial start-up of this equipment unless otherwise approved in writing by the District. The test protocol shall be approved in writing by the District before the test commences.
- C. The test protocol shall include the proposed operating conditions of the equipment during the test, the identity of the testing laboratory, a statement from the testing laboratory certifying that it meets the criteria in District Rule 304(k), and a description of the sampling and analytical procedures to be used.
- D. The source tests shall consist of, but may not be limited to, testing of the dryer NO_x and CO emissions, referenced at 3 percent volume stack gas oxygen on a dry basis, during as-found operating conditions of each dryer.
- E. The source tests shall consist of, but may not be limited to, testing of the dryer NO_x and CO emissions, referenced at 3 percent volume stack gas oxygen on a dry basis, while the dryer is operated below 25% of the maximum rated input heat capacity.
- F. NO_x and CO Emission determination shall be averaged over a period of at least 15 and no more than 60 consecutive minutes, and at least 15 minutes after unit start-up.
- G. A written notice of the source tests shall be submitted to the District at least 14 days prior to the source testing date so that an observer from the District may be present.



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- H. Two complete copies of the source test report shall be submitted to the District within 45 days after source testing date unless otherwise approved in writing by the District. The source test report shall include, but may not be limited to, all testing data required by this condition.
- I. A testing laboratory certified by the California Air Resources Board in the required test methods for the criteria pollutants to be measured, and in compliance with District Rule 304 (no conflict of interest) shall conduct the test.
- J. Sampling facilities shall comply with the District guidelines for construction of sampling and testing facilities, pursuant to Rule 217.
- K. The results of all tests (including preliminary tests) that are conducted on this equipment for informational purposes shall be submitted to the District within 45 days after the testing date unless otherwise approved in writing by the District.
- [D6, D7, D9]