



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING & COMPLIANCE

APPLICATION PROCESSING AND CALCULATIONS

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**PERMIT TO CONSTRUCT EVALUATION FOR
NEW RTO & ADHESIVE SPRAY BOOTH**

Facility ID: 800113

Owner or Operator: ROHR, INC. OPERATING AS GOODRICH AEROSTRUCTURES

Mailing Address: 8200 ARLINGTON AVE., RIVERSIDE, CA 92503

Equipment Location: SAME AS ABOVE

Equipment Description:

A/N 525917

Title V/ RECLAIM "De Minimis Significant Permit Revision"

**SECTION H: PERMITS TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE
EQUIPMENT DESCRIPTION:**

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 4: SURFACE COATING					P2.1
SPRAY COATING OPERATION, GLOBAL FINISHING, AUTOMOTIVE TYPE, 21 FT W X 21FT L X 12 FT 6 IN H, EIGHT 20 W X 20 L IN. POCKET FILTER AND ONE 2-HP EXHAUST FAN. A/N: 523904	D265	C266		HAP: (10) [40 CFR 63 Subpart GG, 12-8-2000]; PM: (9) [RULE 404, 2-7-1986], ROG: (9) [RULE 1124, 9-21-2001]; RULE 1171, 11-7-2003 ; [RULE 1171, 5-1-2009]	A63.22, B59.4, C1.25, C6.24, D322.1, E175.8, E193.2, H23.17, K67.1, K67.2, K67.6
AFTERBURNER, ADWEST TECHNOLOGIES, MODEL RETOX 3000, WITH ONE 450,000 BTU PER HOUR NGI, ONE 3-HP COMBUSTION, EXHAUST SYSTEM WITH A 15 HP BLOWER @ 3000 SCFM Reference: A/N 525293	C266	D265	NOX: Process Unit**	CO: 2000 PPMV (5A) [RULE 407, 4-2-1982]; CO: 50PPMV(5), NOX: 130 PPMV NATURAL GAS (3) [RULE 2012, 1-7-2005]; NOX: 30 PPMV NATURAL GAS (4) [RULE 2005, 5-6-2005]; [RULE 2005, 6-3-2011]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	A72.1, A72.2, D28.1, D29.2, E193.2, E193.3
BURNER, NATURAL GAS, KINEDIZER LE 3", WITH LOW NOX BURNER, 867,000 BTU/HR.	B269				



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Spray booth Conditions:

P2.1: The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
VOC	Less than 1179 LBS IN ANY ONE DAY

For the purposes of this condition, the emission limit(s) shall be based on the total combined emissions from process 1(Ovens) and 4(Surface Coating)

[Rule 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset,12-6-2002]

A63.22The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
VOC	LESS THAN 10 TONS IN ANY 12-MONTH PERIOD

This limit is based on the total of all VOC emissions from the spray booth prior to the venting to the thermal oxidizer.

B59.4 The operator shall not use the following materials in this device:

Materials containing any toxic air contaminants (TAC) listed in Table 1 of Rule 1401 except methyl ethyl ketone (CAS# 78-93-3), with an effective date of September 10, 2010, or earlier.

[RULE 1401, 9-10-2010]

C1.25: The operator shall limit the coating and solvent usage to no more than 1200 gallon(s) in any one calendar month.

C6.24: The operator shall use this equipment in such a manner that the differential pressure being monitored, as indicated below, does not exceed 1 inches water column.

To comply with this condition, the operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the pocket type filters.

[Rule 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT,12-6-2002]

D322.1: The operator shall perform a weekly inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

[Rule 3004(a)(4)-Periodic Monitoring, 12-12-1997]

E.175.8: The operator shall not use this equipment unless all exhaust air passes through the following: Pocket type particulate dry filters and through the regenerative thermal oxidizer (RTO).

[Rule 1303(a)(1)-BACT, 5-10-1996; Rule 1303(a)(1)-BACT, 12-6-2002]

E.193.2: The operator shall construct this equipment according to the following requirements:



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This permit shall expire if the construction of this equipment is not completed within one year from the date of the issuance of this permit unless an extension of time has been approved in writing by a District representative.

The operator shall notify a District representative when construction has been completed.

[Rule 204, 10-8-1993]

H23.17: This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	109
PM	District Rule	481
VOC	District Rule	1124
VOC	District Rule	1171
VOC	District Rule	1168
HAPs	District Rule	GG

[RULE 109, 5-2-2003; RULE 481, 1-11-2002, RULE 1124, 9-21-2001; RULE 1168, 1-7-2005; RULE 1171, 11-7-2003; RULE 1171, 5-1-2009; RULE 481, 1-11-2002; 40 CFR 63 SUBPART GG, 4-20-2006]

K67.1: The operator shall keep records, in a manner approved by the district, for the following parameter(s) or item(s):

the name of the person performing the inspection and/or maintenance of the filter media

the date, time and results of the inspection

the date, time and description of any maintenance or repairs resulting from the inspection

[Rule 3004(a)(4)-Periodic Monitoring, 12-12-1997]

K67.2: The operator shall keep records, in a manner approved by the district, for the following parameter(s) or item(s):

Weekly record of pressure drop across the filter media

[Rule 3004(a)(4)-Periodic Monitoring, 12-12-1997]

K67.6: The operator shall keep records, in a manner approved by the district, for the following parameter(s) or item(s):

daily usage and volatile organic compound emissions in a manner approved by the Executive Officer

[RULE 109, 5-2-2003; RULE 1303(B)(2)-Offset, 5-10-1996; rule 1303(b)(2)-Offset, 12-6-2002]

Thermal Oxidizer Conditions:

A72.1: The operator shall maintain this equipment to achieve a minimum destruction efficiency of 95 percent for ROG during the normal operation of the equipment it vents.

A72.2: The operator shall maintain this equipment to achieve a minimum overall control efficiency of 95 percent for ROG during the normal operation of the equipment it vents.

D28.1 The operator shall conduct source test(s) in accordance with the following specifications:



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The test shall be conducted at least once every five years.

The test shall be conducted no later than July 5, 2014 unless otherwise approved in writing by the District.

The test shall be conducted to determine the VOC emissions using an approved district method to demonstrate compliance with all applicable permit condition(s), rules and regulations.

The test shall be conducted while the oxidizer is operating at a temperature of not less than the minimum operating temperature specified in this permit. If the operating temperature during the source test is greater than the minimum operating temperature specified in this permit, the minimum operating temperature specified in this permit may be increased to reflect the operating temperature during the source test.

D29.2

The operator shall conduct source test(s) for the pollutant(s) identified below:

Pollutant(s) to be tested	Required Test Method (s)	Averaging Time	Test Location
VOC	Approved District Method	District-approved averaging time	Simultaneous inlet and outlet
NOx Emissions	Approved District Method	District-approved averaging time	Outlet only
CO Emissions	Approved District Method	District-approved averaging time	Outlet only

A speciated analysis shall be conducted for organic compounds using GC/MS.

The speciated analysis shall be conducted for the inlet and outlet.

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.

Two complete copies of source test protocol shall be submitted to the District engineer 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.

The test protocol shall include, but not limited to, the proposed operating conditions of the equipment during the test, the identity of the testing laboratory, a statement from the testing laboratory certifying it meets the criteria in District Rule 304(k), and a description of the sampling and analytical procedures to be used.

A written notice of the source tests shall be submitted to the District engineer at least 14 days prior to source testing date so that an observer from the District may be present.

Two complete copies of source test reports shall be submitted to the District engineer within 45 days after the source testing date.



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The source test shall consist of, but may not be limited to, testing at the inlet and the exhaust of the afterburner for:

- 1) Volatile organic compound (VOC) in ppmv and lbs/hr
- 2) Oxides of nitrogen in ppmv and lbs/hr at start-up while the start-up burner is in operation (Afterburner exhaust only)
- 3) Oxides of nitrogen in ppmv and lbs/hr during normal operation while the start-up burner being off (Afterburner exhaust only)
- 4) Carbon monoxide in ppmv and lbs/hr at start-up (Afterburner exhaust only)
- 5) Carbon monoxide in ppmv and lbs/hr during normal operation (Afterburner exhaust only)
- 6) VOC Destruction efficiency
- 7) VOC Collection efficiency
- 8) Usage of all VOC-containing materials (Coatings, adhesives, solvent, etc.) during the test
- 9) Oxygen content
- 10) Moisture content
- 11) Flow rate
- 12) Temperature
- 13) VOC collection efficiency permanent total enclosure (PTE) as specified under USEPA Method 204, capture efficiency.

[Rule 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

E193.2 The operator shall construct this equipment according to the following requirements; This permit shall expire if the construction of this equipment is not complete within one year from the date of the issuance of this permit unless an extension of time has been approved in writing by a District representative.

The operator shall notify a District representative when construction has been completed.

E193.3

The operator shall operate and maintain this equipment according to the following requirements:

The combustion chamber temperature shall be maintained at a minimum of 1,500 degrees Fahrenheit whenever the equipment it serves is in operation

The operator shall operate and maintain a temperature measuring and recording system to continuously measure and record the combustion chamber temperature pursuant to the operation and maintenance requirements specified in 40 CFR Part 64.7. Such a system shall have an accuracy of within 1% of the temperature being monitored and shall be inspected, maintained, and calibrated on an annual basis in accordance with the manufacturer's specifications

For the purpose of this condition, a deviation shall be defined as when a combustion chamber temperature of less than 1,500 degrees Fahrenheit occurs whenever the equipment it serves is in operation. The operator shall review the records of the combustion chamber temperature on a daily basis to determine if a deviation occurs or shall install an alarm system to alert the operator when a deviation occurs

Whenever a deviation occurs, the operator shall inspect this equipment to identify the cause of such a deviation, take immediate corrective action to maintain the combustion chamber temperature at or above



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1,500 degrees Fahrenheit, and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective action taken

All deviations shall be reported to the AQMD pursuant to the requirements specified in 40 CFR Part 64.9 and Condition Nos. 22 and 23 in Section K of this permit. The report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period specified in Condition No. 23 in Section K of this permit

The operator shall submit an application with a Quality Improvement Plan (QIP) in accordance with 40 CFR Part 64.8 to the AQMD if an accumulation of deviations exceeds 5 percent duration of this equipment's total operating time for any semi-annual reporting period specified in Condition No. 23 in Section K of this permit. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report

The operator shall inspect and maintain all components of this equipment on an annual basis in accordance with the manufacturer's specifications

The operator shall keep adequate records in a format that is acceptable to the AQMD to demonstrate compliance with all applicable requirements specified in this condition and 40 CFR Part 64.9 for a minimum of five years

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR Part 64, 10-22-1997]

BACKGROUND:

The A/Ns: 525293 & 523904 were submitted on 06/21/11 & 07/20/11 for expedited permit processing as Class I applications. The facility submitted A/N 525917 (Title V/RECLAIM Revision) on 08/12/11. The applicant is proposing to install a new Regenerative Thermal Oxidizer (RTO), venting a new enclosed spray booth which will be used to apply adhesives on air plane structures. The spray booth will be using VOC containing adhesive and will be vented to the RTO to control and reduce the quantity of VOC emissions to the atmosphere. The control system is expected to meet a minimum of 95% overall VOC control efficiency.

This is a Title V/RECLAIM facility and the Title V renewal permit was issued to the facility on July 6, 2010. This project is the second permit revision since the issuance of the Title renewal V permit. There are no records of complaints or Notices of Violation issued to the facility during the last two years. However, the facility was issued a Notice to Comply on 03/03/10 requiring the facility to comply with all aspects of the requirements of Rule 109 recordkeeping. The facility has complied with above notice and is currently operating in compliance with all applicable rules and regulations.

PROCESS DESCRIPTION:

Rohr manufactures aerospace components for commercial and military aircraft. They perform metal and composite material processing, structural bonding and assembly operations. Manufacturing processes conducted at this location include composite bonding, resin curing, core stabilizing, primer and topcoat spray painting, roller coating, degreasing, solvent cleaning, metal surface preparation, abrasive blasting and tooling preparation.



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The new RTO will be installed to control VOC emissions from a new enclosed spray booth to control high VOC emissions from adhesive applications. The adhesive RMR-00 is a high MEK containing material. The thermal oxidizer has dual chambers filled with ceramic heat exchanger. The VOC-laden process gas enters one of the chambers to raise the temperature of the process gas before it enters the combustion chamber of the thermal oxidizer where the VOC is destroyed. The hot exhaust gas then pass through the second chamber where the heat is transferred to the second chamber and the exhaust gas is vented to the atmosphere. The oxidizer is equipped with an automatic poppet valve flow switching mechanism that switches the process gas flow direction from bed 1 to bed 2 and vice versa to maintain an even temperature profile between the two beds.

Due to the high concentration of VOC in the exhaust from the spray booth, sufficient heat is expected to sustain the temperature in the afterburner at or above 1500 oF. Natural gas injection is utilized to maintain the temperature at or above 1500 oF when the temperature of the beds reached a certain point.

RTO DESIGN:

RTO Heat Requirement:

Burner Capacity:

Inlet CFM: 3000 SCFM

Inlet temp: 70 °F

Outlet temp: 275 °F

Combustion temp: 1500 °F

% Heat Recovery = $(1500-275)/(1500-70) = 85.6\%$

Inlet Air Temp = $1500 (0.856) = 1284^{\circ}\text{F}$

Enthalpy @ 1500°F = 28.24 BTU/scf

Enthalpy @ 1284°F = 23.75 BTU/scf

$Q_{net} = (3000 \text{ SCF})(60 \text{ min})(28.24-23.75) = 808,200 \text{ BTU/hr}$

The size of the burner is 867,000 BTU/hr, it meets the heat requirement.

The heat supplied by the natural gas will be supplemented by the VOC in the exhaust stream.

Velocity and Retention Time:

RTO Size = 3000 cfm

Natural gas required $(867,000 \text{ BTU/hr})/(1050 \text{ BTU/cu. Ft}) = 825.71 \text{ ft}^3/\text{hr}$

Combustion air required would be:

Air required = 10.36 ft³/ft³ natural gas
= $(825.71 \text{ ft}^3) \times (10.36 \text{ ft}^3/\text{ft}^3 \text{ natural gas}) = 8,554.4 \text{ ft}^3/\text{hr}$

Volume of Gases at 70F (1960°R) = $(3000 \text{ ft}^3/\text{min} \times 60 \text{ min/hr}) + 8,554.4 \text{ ft}^3/\text{hr} + 825.71$
= 189,380.1 ft³/hr

Volume of Gases at 1500F (1960°R) = $(189,380.1)(1500+460)/(70+460)(60)=11,673\text{cf}/\text{min}$
= 194.5 ft³/sec



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Volume of Combustion Chamber = 110 cubic Ft

Estimated Retention time = $(110 \text{ ft}^3) / (194.5 \text{ ft}^3/\text{sec}) = 0.56 \text{ Sec}$

The minimum retention time of 0.5 sec is met.

RTO Size:

The RTO is sized for 3000 scfm and the flow rate of the spray booth vented to the RTO is 2500 scfm. Therefore, the RTO is adequately designed.

EPA Method 204 (PTE) Evaluation

The Adhesive application booth meets the criteria for a total enclosure as specified in EPA Method 204. The determination is based on the following findings:

1. Any NDO shall be at least four equivalent opening diameters from each VOC emitting point.

Diameter of Paint booth inlet NDO (NDO #1) = 1'6"
 Thus, minimum distance = 1'6" X 4 = 6'
 The VOC emitting point distance from NDO #1 = 12'1"

There is only one NDO which is the inlet to the adhesive application chamber. The doors and panels are sealed closed during the application and drying of the adhesive.

2. The exhaust point has to be at a distance at least equivalent to four times the diameters of the exhaust duct or hood from each NDO.

Exhaust diameter = 1'6"
 Minimum distance = 1'6" X 4 = 6'
 The NDO #1 is located at least 12' from the exhaust point.

3. Total area of all NDOs shall not exceed 5% of the surface area of the enclosure's four walls, floor and ceiling.

NDO #1 = 1.8 square feet
 Dimensions of the adhesive application chamber:
 Width 20 Feet
 Length 20 Feet
 Height 12 Feet

Surface Area of Drying Enclosure = 1758.2 square feet (less NDO)
 $(1.8)/(1758.2) = 0.1\%$

4. The average facial velocity of air through all NDO's shall be at least 200 fpm. The direction of air flow through all NDO's shall be into the enclosure.

Volumetric flow rate at RTO inlet = 3,000 CFM (minimum)



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Thus, $FV = 3,000 \text{ CFM} / (1.8 \text{ F}_2) = 1698.5 \text{ fpm}$

- All access doors and windows whose areas are not included in #2 and not included in the calculation in #3 shall be closed during routine operation of the process.
- All exhaust must be vented to a control device.

No.5 and 6 requirements are part of the equipment conditions.

EMISSIONS:

Spray booth

OPERATING HOURS:

Average: 20 hrs/day, 7 days/week, 52 weeks/year.

Maximum: 24 hrs/day, 7 days/week, 52 weeks/year.

Process condition P2-1 limits the VOC emissions from all surface coatings and drying ovens to 1179 lbs/day. The applicant is proposing to bubble the emissions from the new spray booth under this limit. In addition, the applicant is proposing permit condition be placed on the spray booth to limit the VOC emissions to less than 30 lbs/day to avoid public notice under Rule 212 (g).

The spray booth is an enclosed system that meets a permanent total enclosure requirement under Method 204. Therefore a 100% of VOC is captured and vented to the RTO. The RTO will be conditioned to minimum 95% destruction and overall VOC control efficiency. The emissions from spray booth are as follows:

Adhesive Information:

The company will be using a MEK based adhesive in the spray booth. The analyses will be based on using the adhesive since VOC is the major concern, and it is the only product that will be used inside the spray booth.

RMS-070 (Rohr)

- Wt/Gal = 6.93 lb/gal
- VOC_{Coating} = 6.2 lb/gal
- Solids = 6.93 (10 %) = 0.693 lb/gal
- Max. daily usage= 40 gals (applicant data)
- RTO Efficiency = 95% (permit condition)

ROG (Maximum):

- Uncontrolled (R₁) = 40 gals x 6.2 lbs/gal = 248 lb /day (10.33 lb/hr)
- Controlled (R₂) = 248 x (1 - 0.95) = 12.4 lb/day (0.516 lb/hr)

PM: (35% over spray, 90% spray booth filter efficiency)



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PM:

Maximum:

Based on 10% solid content:

40 gallons @ 0.693 lb-solid/gal = 27.72 lb-PM/day

Uncontrolled (R1) = 27.72 x 0.35 = 9.702 lb-PM/day (0.4 lb/hr)

Controlled (R2) = 3.6 x (1 - 0.9) = 0.97 lb-PM/day (0.04 lb/hr)

(PM10 = 50% PM)

Exhaust Gas PM Concentration = 0.04 lb PM/hr x 7,000 gr/lb / (3000 cfm x 60min) = 0.0015 gr/dscf

Some criteria pollutants will be emitted as a result of the products of combustion from the start-up burner in the RTO (See App. A). The startup burner will typically run for 60-90 minutes from a cold start to get up to temperature (1500-1700 -degrees F).

Combustion Emissions

Table with 7 columns: Fuel Rate, Emission Factor, Org, Nox, Sox, CO, PM. Values include 0.000825, 7.0, 36*, 0.83, 35, 7.6, 0.006, 0.033, .00068, 0.029, 0.006.

*Actual Emissions to be determined by source test.

Additional NOx and CO emissions are generated during normal operation of the afterburner. Based on experience with similar equipment the emissions are:

2 ppm NOx ft^3/ ft^3 x 3,000 ft^3/min x 60 min/hr x 46 lbNO2/mole x 1 mole/379 ft^3 = 0.043 lb/hr

2 ppm CO ft^3/ ft^3 x 3,000 ft^3/min x 60 min/hr x 28 lbNO2/mole x 1 mole/379 ft^3 = 0.026 lb/hr

The maximum emissions would be when the RTO starts from a cold start, assume 3 hrs/day, with the remaining 21 hrs/day @ 2 ppm NOx. Normally, starting from a cold start will not occur daily, or even weekly.

NOx R2 max lb/day = (3 hr/day x 0.033 lb/hr) + (21 hr/day x 0.043lb/hr) = 0.99 lb/day (0.041 lb/hr)

CO R2 max lb/day = (3 hr/day x 0.029 lb/hr) + (21 hr/day x 0.026lb/hr) = 0.63 lb/day (0.026 lb/hr)

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 there is no school located within 1,000 ft, a public notice is not required.

Rule 212(c)(2) &(g): These sections require a public notice for all new or modified facilities or sources that have on-site emission increases exceeding any of the daily maximums as



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specified by Rule 212(g). A condition will be placed on the permit to limit the daily VOC emissions from the spray booth to less than 30 lbs/day. The emission increases from the burning of natural gas in the RTO start-up burner and the small amount during normal operation are below the daily maximum, therefore, public notice is not required.

	Maximum Daily Emissions					
	<u>ROG</u>	<u>NO_x</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>CO</u>	<u>Pb</u>
Emission increase	<30	1	0	0	1	0
MAX Limit (lb/day)	30	40	30	60	220	3
Compliance Status	Yes	Yes	Yes	Yes	Yes	Yes

Rule 212(c)(3): Public notice is not required - increase in toxics is negligible. MICR is less than 1 in a million, HIA/HIC less than one.

Rule 401: Compliance is expected. Visible emissions are not expected with the proper operation of the equipment.

Rule 402: Compliance is expected. Nuisance is not expected with the proper operation of the equipment, no complaints on file.

Rule 404: Table 404(a) specifies limits of PM concentrations in an effluent gas stream at standard conditions, of which 0.01 grain/ft³ is the most stringent limit. The total PM concentration from the proposed equipment has been estimated to be 0.0015 grain/ft³, which is well below the limit. Therefore, compliance is expected.

Rule 407: Compliance is expected.

	Rule 407 Limit	Calculated Value	Compliance Status
CO (ppmv)	2000	44	Yes

Rule 409: Compliance is expected.

	Rule 409 Limit	Calculated Value	Compliance Status
PM (grain/ft ³)	0.1	0.0015	Yes

Rule 1171: The company will be using acetone for spray gun cleaning. Acetone is defined as an exempt compound under Rule 102. Compliance with this rule is expected.

Rule 1124: The facility will be complying with this rule by installing a thermal oxidizer(APC) venting the spray booth. The APC is required to meet an overall control efficiency of 95%. Compliance with this rule is expected.



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Rule 1303(a): The RTO will control VOC emissions with an overall efficiency of at least 95%, and is considered BACT. The RTO is equipped with a start-up burner that is a Low-NOx burner guaranteed by the manufacturer to meet 30 ppmv NOx. Compliance with rule is expected.

Rule 1303(b)(1): Modeling is not required for VOC. Emissions from the RTO due to start-up (worst case hour) and normal operation are below Table A-1 values. Therefore further modeling analysis is not required.

Lb/hr	NOx	CO	PM ₁₀
Calculated	0.041	0.029	0.014
Rule 1303 Table A-1	0.2	11	1.2

Rule 1303(b)(2): The VOC emissions from the spray booth operation are bubbled under process condition P2.1 which limits the VOC emissions to less than 1179 pounds per day. Therefore, no VOC emission offsets are required.

The operation of the RTO will result in CO emission increase of 1 lb/day. However, CO is an attainment air contaminant and no offsets are required.

Rule 1303(b)(4): The facility is expected to be in full compliance with all applicable rules and regulations of the District.

Rule 1303(b)(5)(A) & 1303(b)(5)(D): The proposed project does not qualify as a major modification at a major polluting facility. Further, the proposed project is exempt from CEQA according to the responses Rohr provided on Form 400-CEQA for this project. Their responses in "Review of Impacts Which May Trigger CEQA" on Form 400-CEQA were all marked "No".

Rule 1303(b)(5)(B): The Increase in emissions associated with the addition of the spray booth and RTO does not qualify as a major modification at an existing major polluting facility.

Rule 1303(b)(5)(C): A modeling analysis for plume visibility is not required since the net emission increase from the project does not exceed 15 ton/yr of PM10 or 40 ton/yr of NOx.

Rule 1401: Rule 1401 contains the following requirements:

- 1) *(d)(1) MICR and Cancer Burden* - The cumulative increase in MICR which is the sum of the calculated MICR values for all toxic air contaminants emitted from the new, relocated or modified permit unit will not result in any of the following:
 - (A) an increased MICR greater than one in one million (1.0×10^{-6}) at any receptor location, if the permit unit is constructed without T-BACT;
 - (B) an increased MICR greater than ten in one million (1.0×10^{-5}) at any receptor location, if the permit unit is constructed with T-BACT;
 - (C) a cancer burden greater than 0.5.



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- 2) **(d)(2) Chronic Hazard Index** - The cumulative increase in total chronic HI for any target organ system due to total emissions from the new, relocated or modified permit unit will not exceed 1.0 at any receptor location.
- 3) **(d)(3) Acute Hazard Index** - The cumulative increase in total acute HI for any target organ system due to total emissions from the new, relocated or modified permit unit will not exceed 1.0 at any receptor location.

Based on the Risk assessment performed using the Risk Assessment Module, the emissions from the equipment passed Tier 2 modeling. The MICR values were determined to be less than one in a million for residential and commercial. The Acute and Chronic values for all target organs did not exceed 1.0. The values are presented in the Risk Assessment in the appendix.

Regulation XX: Regional Clean Air Incentive Market (RECLAIM)

Rohr is a NOx cycle 2 RECLAIM facility. The RTO is classified as a NOx process unit. The RTO is equipped with a low nox burner.

RULE 2005(c)(1)(A): The RTO is equipped with a low-NOx natural-gas fired burner. The burner is designed to operate at 30 ppm of NOx. BACT for this RTO is defined as use of a low-NOx burner emitting no more than 30 ppm.

RULE 2005(c)(1)(B): Modeling is not required since the estimated hourly NOx emissions of 0.041 lb/hr does not exceed the allowable limit of 0.2 lb/hr. The project will not result in a significant increase in the air quality concentration for NO₂.

RULE 2005(c)(2): Rohr holds sufficient RTCs to offset the NOx emission increase of 365 lb/yr.

RULE 2005(g)(1): Statewide compliance certification is not required since the project will not result in an increase of 1 pound or more of NOx or VOC emissions and therefore does not qualify as a major modification at major polluting facility.

RULES 2005(g)(2) & 2005(g)(3): The project does not qualify as a major modification at a major polluting facility. Further, the project is exempt from CEQA according to the responses Rohr provided on Form 400-CEQA for this project. Their responses in "Review of Impacts Which May Trigger CEQA" on Form 400-CEQA were all marked "No".

RULE 2005(g)(4): A modeling analysis for plume visibility is not required since the net emission increase from the project does not exceed 40 ton/yr of NOx.

REG. XXX:

The proposed project is considered as a "de minimis significant permit revision" to the Title V renewal permit issued to this facility on July 6, 2010 and this is the second revision since the renewal. Rule



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3000(b)(6) defines a “de minimis significant permit revision” as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAP) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NO _x	30
PM10	30
SO _x	60
CO	220

To determine if a project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the Title V renewal permit shall be accumulated and compared to the above threshold levels. This proposed project is the 2nd permit revision to the Title V renewal permit issued to this facility on July 6, 2010. The following table summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued:

Revision	HAP	VOC	NO _x *	PM10	SO _x	CO
First Permit Revision: Addition of laser cutter (D260), Dust collector (C261)	0	0	0	0	0	0
Second permit revision: Addition of a spray booth A/N 523904 (D265), Venting after burner 525293(D266)	0	0	1	0	0	1
Cumulative Total	0	0	1	0	0	1
Maximum Daily	30	30	40*	30	60	220

Since the cumulative emissions after this project will be less than the limits, the proposed permit revision is “de minimis significant permit revision”.

CONCLUSION/RECOMMENDATION:

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants and hazardous air pollutants, and a “minor permit revision” for RECLAIM pollutants, 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 raise any objections within the review period, a revised Title V/RECLAIM permit with conditions (as specified in the sample facility permit) will be issued to this facility.