

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION Large Coating, Printing, Aerospace & Metal Finishing Operations Team APPLICATION PROCESSING AND CALCULATIONS	PAGE	1 of 12
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	PROCESSED BY	SMP
	REVIEWED BY	SMKE
	DATE	12/8/2009

PERMIT TO CONSTRUCT EVALUATION
New Regenerative Thermal Oxidizer (RTO)

Applicant's Name	ARMORCAST PRODUCTS COMPANY
Company I.D.	110577
Mailing Address	13230 SATICOY, NORTH HOLLYWOOD, CA 91605
Equipment Address	13230-13246 SATICOY, NORTH HOLLYWOOD, CA 91605
Equipment Description	

Application No. 487178 (Previous A/Ns 322198, 322199, 322200)

MODIFICATION TO AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

- 1) SPRAY BOOTH NO. 1, FLOOR TYPE, BLEEKER BROTHERS, MODEL NO. F-20-10-12-HV, 20' - 0" W. X 12' - 0" D. X 10' - 0" H. WITH FIFTY-FIVE 20" X 20" EXHAUST FILTERS AND TWO 5 H. P. EXHAUST FANS, UNDER A/N 322198, P/O R-F5933.
- 2) SPRAY BOOTH NO. 2, FLOOR TYPE, BLEEKER BROTHERS, MODEL NO. F-20-10-12-HV, 20' - 0" W. X 12' - 0" D. X 10' - 0" H. WITH FIFTY-FIVE 20" X 20" EXHAUST FILTERS AND ONE 7.5 H. P. EXHAUST FAN, UNDER A/N 322199, P/O R-F5934.
- 3) SPRAY BOOTH NO. 3, FLOOR TYPE, BLEEKER BROTHERS, MODEL NO. F-20-10-12-HV, 20' - 0" W. X 12' - 0" D. X 10' - 0" H. WITH FIFTY-FIVE 20" X 20" EXHAUST FILTERS AND TWO 5 H. P. EXHAUST FANS, UNDER A/N 322200, P/O R-F5945.

BY THE ADDITION OF:

- 1) REGENERATIVE THERMAL OXIDIZER, ADWEST TECHNOLOGIES INC., MODEL NO. RETOX 15.0 RTO95, 15,000 CFM, 18' - 6" W X 25' - 6" L X 10' - 9" H, DUAL CHAMBER MULTI LAYERED CERAMIC MEDIA, WITH A 4,335,000 BTU/HR MAXON NATURAL GAS-FIRED BURNER, MODEL KINEMAX-4G, A 7.5 H.P. COMBUSTION BLOWER , AND A NATURAL GAS INJECTION SYSTEM UP TO 2,250,000 BTU/HR.

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- 2) EXHAUST SYSTEM WITH A 60 H. P. FAN @ 15000 CFM, WITH NINE 24" X 24" X 11.5" HEPA FILTERS, VENTING PERMANENT TOTAL ENCLOSURES NOs. 1 and 2.
- 3) PERMANENT TOTAL ENCLOSURE NO. 1 WITH THREE SPRAY BOOTHS NOs. 1, 2, AND 3.
- 4) PERMANENT TOTAL ENCLOSURE NO. 2 , RESIN MIXING AND POURING ROOM CONTAINING RULE 219 EXEMPT MIXERS.

APPLICATION NO. 503993

TITLE V PERMIT REVISION – DEMINIMIS SIGNIFICANT

HISTORY

Armorcast submitted the above permit application with AQMD to modify three spray booths by adding a new regenerative thermal oxidizer (RTO) unit. The thermal oxidizer will control VOC emissions from the three spray booths and a resin mixing/pouring room. The company manufactures polymer concrete-resin utility boxes at this location and has active permits from the District to operate three spray booths and a polymer concrete casting manufacturing process. The company initially submitted an application (A/N 472263) for a Ship & Shore manufactured RTO, for which a Permit to Construct was issued in March 2008. They have now decided to install the above described RTO instead, and submitted this new application. A/N 472263 for the Ship & Shore RTO was canceled in November 2008.

Armorcast has a VOC emission cap of 1500 lbs/month (50 lbs/day) for permitted equipment and associated operations. In addition, the three permitted spray booths have a total combined VOC emission cap of 1170 pounds per month. This spray booth group VOC emission limit will be removed under this project as the applicant will comply with the BACT requirements by venting the booths to a RTO. The applicant has not requested any VOC emission increase under this project on the permitted equipment and the associated operations cap. The company is proposing to install HEPA filters with 99.97% particulate control efficiency, so that there will be no increase in the particulate emissions under this project. Rules 1162 and 1171 apply to this facility and the above described equipment.

This facility is not located within 1000 feet from any school and there will not be any emission increases exceeding Rule 212 thresholds from this project, hence, this application will not require a public notice.

The district database shows one notice to comply issued to provide usage records. No other notices or complaints on file in the last two years against this facility. Armorcast is now a Title V facility. An initial Title V permit was issued to this facility with an effective date of January

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12, 2009. This is the first revision to the Title V permit. A Title V revision A/N 503993 was filed on 12/4/09 to include these changes to their Title V permit. The proposed permit revision is considered as a “de-minimis permit revision”, as described in the Regulation XXX evaluation.

PROCESS DESCRIPTION

As discussed above this company manufactures utility boxes. The material used to manufacture these boxes is mixed in two small closed continuous mixing units (Rule 219 exempt). Polyester resin, limestone and sand are mixed (25%, 50%, and 25% respectively) to make a batch. One mixer is used for catalyzed material and another is used for non-catalyzed product. The catalyzed mixed product is directly casted into medium to large composite molds. The non-catalyzed product is then transferred to small mixers to be used at different locations in the facility. Negligible VOC emissions are expected from the mixing operations. Source tests were performed to determine the emission factors for different operations. Please see the report in the folder for more details. Some of the products are manufactured by spraying resin and fiberglass (using chopper-guns) in the spray booths. VOC emissions from the polyester resins are expected from the spray booth and the pouring operations.

OPERATING HOURS

Average: 16 hr/day, 7 day/week, 52 weeks/year
Maximum: 24 hr/day, 7 day/week, 52weeks/year

OXIDIZER DESIGN

Total maximum contaminated process flow rate:	15000 cfm
Design capacity of the control equipment:	15000 cfm
Inlet operating temperature	70° F
Outlet operating temperature from combustion chamber	1500° F
Heat exchanger efficiency:	95%
Heat Input Rating of the burner for initial heating of the media	4.335 mm BTU/HR
Heat required during the normal working load	nil
Volume of the combustion zone	848 ft ³

Heat required to heat air from 70 °F to 1600 °F(worst case)

$$M = 15000 \text{ scfm} \times 0.075 \text{ lb/scf} \times 60 \text{ min/hr} = 67,500 \text{ lb/hr}$$

$$C_{p \ 70} = 0.240 \text{ Btu/lb } ^\circ\text{F} \quad C_{p \ 1600} = 0.275 \text{ Btu/lb } ^\circ\text{F}$$

$$C_{p \ \text{avg}} = 0.258 \text{ Btu/lb } ^\circ\text{F}$$

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$$\begin{aligned}
Q &= MC_p \Delta T \\
&= 67500 \times 0.258 \times (1600 - 70) \\
&= 26.6 \text{ MM Btu/hr}
\end{aligned}$$

After 95% heat recovery

$$Q = 26.6 \times 0.05 = 1.3 \text{ MM Btu/hr}$$

Heat input needed: $1.3 \times 1050/615 = 2.2 \text{ mm BTU/HR.}$ (Table D7, Page 948, AP 40.)

This being a RTO, no excess air is necessary for most of the time during the oxidation of the VOC. Contaminated airflow is sufficient to provide the necessary air. The applicant will use the burner to start-up the RTO only. The natural gas injection and the VOCs will maintain the temperature in the combustion chamber. The RTO will have a burner rated at 4.335×10^6 Btu/hr for start-up, which is sufficient to fire-up the RTO. The permit condition will require a source test upon completion of the installation, which will prove the design capacity. A permit condition will also limit the use of the burner for start-up operation only.

Residence time calculation

$$\begin{aligned}
\text{Flow rate} &= 15000 \text{ cfm} \\
\text{Flow rate per minute} &= 15000 \text{ cfm} / 60 \text{ sec/min} = 250 \text{ cfs} \\
\text{Corrected volume} &= 250 \text{ cfs} \times 1960/530 = 925 \text{ cfs} \text{ (1500 }^\circ\text{F to 70 }^\circ\text{F)} \\
\text{Combustion zone volume} &= 848 \text{ cubic feet} \\
\text{Residence time} &= 848 / 925 = 0.92 \text{ sec} \quad (\text{greater than 0.3 sec recommended - OK})
\end{aligned}$$

EMISSION CALCULATIONS

The RTO must be at temperature before the coating operation can begin (takes up to 90 minutes to heat up from a cold start). The gas injection will maintain the temperature after start-up if the VOC does not provide enough Btu's. Previous source test data for a similar unit indicated no additional NOx emission spike during gas injection. For calculation of combustion emissions from the burner, a limit of 124 minutes of burner operation for start-up operations will be used, and imposed as a permit condition limit to maintain NOx emissions from the burner below 1 lb/day. The RTO will be equipped with a Maxon Kinemax 4G burner with 90 ppm NOx emissions @ 3% O₂. Please see the following table for combustion emission calculations.

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A/N 487178

Adwest RTO

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	<u>maximum</u>	<u>normal</u>		
<u>hr/dy</u>	2.07	1	<u>max heat input</u>	4.34E+06 (BTU/hr)
<u>dy/wk</u>	7	7	<u>gross heating value</u>	1050 (BTU/scf)
<u>wk/yr</u>	52	52		
<u>load</u>	100%	100%		

	<u>Emission</u>	<u>MAX</u>	<u>AVE</u>	<u>MAX</u>	<u>30-DAY</u>	<u>MAX</u>	<u>MAX</u>
	<u>Factors</u>	(lb/hr)	(lb/hr)	(lb/dy)	(lb/dy)	(lb/yr)	(ton/yr)
SO ₂ (R1)	0.6	0.002	0.002	0.005	NA	2	0.001
SO ₂ (R2)	0.6	0.002	0.002	0.005	0.005	2	0.001
NO ₂ (R1)	130	0.537	0.537	1.111	NA	404	0.202
NO ₂ (R2)	116.82	0.482	0.482	0.998	0.998	363	0.182
CO (R1)	39.5	0.163	0.163	0.338	NA	123	0.061
CO (R2)	39.5	0.163	0.163	0.338	0.338	123	0.061
N ₂ O (R1)	2.2	0.009	0.009	0.019	NA	7	0.003
N ₂ O (R2)	2.2	0.009	0.009	0.019	0.019	7	0.003
PM, PM ₁₀ (R1=R2)	7.5	0.031	0.031	0.064	0.064	23	0.012
CO ₂ (R1=R2)	0.000012	0.000	0.000	0.000	0.000	0	0.000
TOC(R1=R2)	7	0.029	0.029	0.060	0.060	22	0.011
ethyl benzene	0.0095	3.9E-05	3.9E-05	8.1E-05	NA	2.96E-2	1.48E-5
acetaldehyde	0.0043	1.8E-05	1.8E-05	3.7E-05	NA	1.34E-2	6.69E-6
acrolein	0.0027	1.1E-05	1.1E-05	2.3E-05	NA	8.40E-3	4.20E-6
benzene	0.008	3.3E-05	3.3E-05	6.8E-05	NA	2.49E-2	1.24E-5
formaldehyde	0.017	7.0E-05	7.0E-05	1.5E-04	NA	5.29E-2	2.64E-5
naphthalene	0.0003	1.2E-06	1.2E-06	2.6E-06	NA	9.33E-4	4.67E-7
PAH's	0.0001	4.1E-07	4.1E-07	8.5E-07	NA	3.11E-4	1.56E-7
toluene	0.0366	1.5E-04	1.5E-04	3.1E-04	NA	1.14E-1	5.69E-5
xylene	0.0272	1.1E-04	1.1E-04	2.3E-04	NA	8.46E-2	4.23E-5

NO ₂ @ 3% excess O ₂ ----->>>	90.00	(ppmv)	SO ₂ @ 3% excess O ₂ ----->>>	0.33	(ppmv)
CO @ 3% excess O ₂ ----->>>	49.98	(ppmv)	PM @ 12% CO ₂ ----->>>	5.5E-09	(grain/ft ³)

Ver. 1.3

Please refer to the attached spreadsheet for HIA, HIC and MICR calculations, which indicates compliance with Rule 1401 requirements.

The applicant has accepted a usage limit of less than 124 minutes/hour on the burner to limit the NOx emissions to <1 lb/day for BACT compliance. A monitor and recorder will be installed to verify start-up burner operating time. A permit condition for this usage limit and records will be imposed to ensure this emission level is maintained.

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There will be a very small quantity of additional process NO_x emissions from this operation. According to Adwest Technologies (RTO manufacturer), there will be a maximum of 2 ppm NO_x emissions from the oxidation of the VOC contaminated air inflow. The NO_x emissions are calculated as follows.

MW NO_x = 46

$$\begin{aligned}
\text{NO}_x \text{ lbs/hr} &= \text{NO}_x \text{ ppm} \times 10^{-6} \times \text{MW} \times 60 \text{ min/hr} \times \text{SCF} / 379 \\
&= 2 \text{ ppm} \times 10^{-6} \times 46 \times 60 \times 15,000 / 379 \\
&= 0.218 \text{ lb/hr}
\end{aligned}$$

The start-up burner will be operated a maximum of 124 minutes (2.07 hrs) per day for 1 lb/day NO_x emission (no BACT trigger). Hence, 24 – 2.07 = 21.93 hrs for the process NO_x emissions @ 0.218 lb/hr.

Maximum NO_x emission in a day = [0.218 x 21.93] + 1 = 5.78 lbs/day.

Maximum NO_x lb/hr = 0.48 lb/hr (during start-up, for no more than 2.07 hours in any one day)

Emissions from the Polyester Resin Spray Booths

No increase in the VOC emissions from the spray booths and the associated operations are expected from the installation of the RTO. They will continue to operate under the existing VOC cap of 1500 lbs/month. Overall control efficiency of the VOC control device is assumed to be 95% for these calculations and the RTO will be conditioned as such. The applicant will use the appropriate UEF factor to calculate VOC emissions from the spray booths based on the amount of virgin resin applied in the spray booths. Currently they use virgin resin with 35% styrene monomer, so the UEF is 77 lb VOC/ton virgin resin.

VOC emissions:

Max. Uncontrolled (R₁) = 1000 lb-VOC/day (41.7 lb/hr)

Max. Controlled (R₂) = 50 lb-VOC/day (2.1 lb/hr)

Avg. Uncontrolled (R₁) = 320 lb-VOC/day (20 lb/hr)

Avg. Controlled (R₂) = 16 lb-VOC/day (1 lb/hr)

The following table shows previous NSR emission entries.

Application No.	30 Day Average	
	ROG	PM10
322198	17	4
322199	17	4
322200	16	4
TOTAL	50	12

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VOC emissions

The following emission factors will be used for calculating VOC emissions from the spray booths and casting and compression molding

Equipment/Operation	VOC Emission Factor lb VOC/lb virgin resin	
	Current	After APC system is installed
Spray Booths	Appropriate UEF factor based on % styrene in resin and method of application: For mechanical non-atomized spray @ 35% styrene UEF = 77 lb/ton virgin resin (3.85%)	Current Resin Usage x UEF x (1-APC overall efficiency)
Casting	0.0073 for all other (non-pad) casting	[0.005 x resin usage lbs x (1-APC overall efficiency)] + 0.0023 x resin usage lbs
Casting – Pads	0.0097 for Pad casting	[0.005 x resin usage lbs x (1-APC overall efficiency)] + 0.0047 x resin usage lbs
Compression Molding	0.0014	0.0014

- All factors are for virgin resin usage
- Assume mixing emission factor for casting of pads or other parts is the same because the polymer concrete formulation used for all casting (pads or other) is the same. Mixing EF is by difference of data from two tests:

$$\text{Mixing EF} = 0.0073 \text{ lb VOC/lb resin} - 0.0023 \text{ lb VOC/lb resin} = 0.005 \text{ lb VOC/lb resin}$$
- Fugitive emissions from casting of pads is then $0.0097 \text{ (total)} - 0.005 \text{ (mixing)} = 0.0047 \text{ lb VOC/lb resin}$

PM/PM10 emissions:

Pre-modification

Particulate emissions are expected from the spraying operation by chopper gun. The applicant can spray up to 1299 lb/day resin if VOC emissions are at the maximum 50 lb/day. Based on historical resin usage, actual maximum resin sprayed in the spray booths is about 650 lb/day.

Assume 50% solids, 65% transfer efficiency, 90% filter efficiency for spray booth filters and $PM_{10} = 50\% \text{ PM}$

$$\begin{aligned} \text{PM Max. } R_1 &= (1299 \text{ lb/day resin})(50\% \text{ lb solids/lb resin})(1-0.65) \\ &= 227.3 \text{ lb-PM/day } (9.5 \text{ lb/hr}) \end{aligned}$$

$$\text{PM Max. } R_2 = 227.3 (1-0.90) = 22.73 \text{ lb-PM/day } (0.95 \text{ lb/hr})$$

$$\text{PM}_{10} \text{ Max } R_1 = 227.3 \text{ lb PM/day} \times 50\% = 113.7 \text{ lb/day} (4.74 \text{ lb/hr})$$

$$\text{PM}_{10} \text{ Max } R_2 = 22.73 \text{ lb PM/day} \times 50\% = 11.4 \text{ lb/day} (0.47 \text{ lb/hr})$$

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Post-modification

With the RTO expected to reducing VOC by at least 95%, the resin usage could increase up to $1299/(1-.095) = 25,980$ lb resin/day

Same assumptions, and HEPA filter efficiency of 99.97%

$$\begin{aligned} \text{PM Max. } R_1 &= (25,980 \text{ lb/day resin})(50\% \text{ lb solids/lb resin})(1-0.65) \\ &= 4546.5 \text{ lb-PM/day } (189 \text{ lb/hr}) \end{aligned}$$

$$\text{PM Max. } R_2 = 4546.5 (1-0.9997) = 1.36 \text{ lb-PM/day } (0.06 \text{ lb/hr})$$

$$\text{PM}_{10} \text{ Max } R1 = 4546.5 \text{ lb PM/day} \times 50\% = 2273 \text{ lb/day } (95 \text{ lb/hr})$$

$$\text{PM}_{10} \text{ Max } R2 = 1.36 \text{ lb PM/day} \times 50\% = 0.68 \text{ lb/day } (0.028 \text{ lb/hr})$$

Post modification PM_{10} emissions to atmosphere are significantly lower than pre-modification emissions since the HEPA filter reduces PM_{10} emissions by a much higher efficiency than the RTO VOC efficiency of 95%.

There will be no emission increase in VOC or PM_{10} emissions as a result of this modification. There will be an increase in NO_x and CO emission from the combustion of natural gas in the RTO.

Post modification emission summary for all pollutants

VOC				PM_{10}				NO_x		CO	
Lb/day		Lb/hr		Lb/day		Lb/hr		Lb/day	Lb/hr	Lb/day	Lb/hr
R1	R2	R1	R2	R1	R2	R1	R2				
1000	50	41.7	2.1	2273	0.68	95	0.028	5.78	0.48	0.34	0.16

RULES/REGULATION EVALUATION

▫ *RULE 212, PUBLIC NOTIFICATION*

▫ *SECTION 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. This source is not located within 1,000 feet from the outer boundary of a school. Therefore, public notice will not be required by this section.

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▼ **SECTION 212(c)(2):**

This section requires a public notice for all new or modified facilities which have on-site emission increases exceeding any of the daily maximums as specified in subdivision (g). As shown in the following table, the emission increases from this facility are below the daily maximum limits specified by Rule 212(g). Therefore, this application will not be subject to this section.

LB/DAY	CO	NOX	PM₁₀	ROG	Lead	SOX
MAX. LIMIT	220	40	30	30	3	60
INCREASES	0	6	0	0	0	0

▼ **SECTION 212(c)(3):**

Please, see Rule 1401 evaluation section. Public notice is not required by this section. There is no toxic emission increase from the use of polyester resin and materials used in this equipment since the VOC cap will remain the same. The small quantity of toxics from the combustion of natural gas in the start-up burner results in MICR below 1 in a million and HIA/HIC below one.

▼

SECTION 212(g):

This section requires a public notice for all new or modified sources which undergo construction or modifications resulting in an emissions increase exceeding any of the daily maximum specified in the table below. As shown in the following table, the emission increases from this project are below the daily maximum limits specified by Rule 212(g). Therefore, public notice will not be required by this section.

LB/DAY	CO	NOX	PM₁₀	ROG	Lead	SOX
MAX. LIMIT	220	40	30	30	3	60
INCREASES	0	6	0	0	0	0

▫ **RULES 401 & 402, VISIBLE EMISSIONS & NUISANCE**

AQMD database has no records of any visible emissions or nuisance violations against this company in the last two years.

▫ **RULE 1162, POLYESTER RESIN OPERATIONS**

(c)(2) MATERIAL REQUIREMENTS

The following material information submitted by the applicant shows compliance with the rule requirements. Also, the applicant will be in compliance with these requirements by using an air pollution control equipment with a sufficient VOC control efficiency (100% collection and 95% destruction).

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Resin Material	Rule Limit (Monomer Content)	Monomer Content As Received	Compliance
Laminating Resin	35%	33.5%	Yes

▫ **RULE 1162, POLYESTER RESIN OPERATIONS**

(c)(1) APPLICATION TECHNIQUE

The applicant uses hand lay-up and manual pouring methods in the manufacturing of some products. In the spray booths, non-atomized spray guns are used. Also, the applicant will be in compliance with these requirements by using an air pollution control equipment with a sufficient VOC control efficiency (100% collection and 95% destruction).

▫ **RULE 1171, SOLVENT CLEANING OPERATIONS**

The applicant uses acetone (exempt solvent) for the equipment clean-up operations, which will comply with these requirements.

REGULATION XIII

▫ **RULE 1303(a), BEST AVAILABLE CONTROL TECHNOLOGY (BACT)**

(a) VOC EMISSIONS

VOC emissions from the spray booths will be vented to an air pollution control system consisting of an RTO with a sufficient VOC control efficiency (at least 100% collection and 95% destruction). This will comply with the provisions of the current BACT requirements for spray booths.

(b) NO_x EMISSIONS

The RTO burner will be used for start-up operation only to get the bed up to 1500 degrees F. The applicant has requested a time limit on operation of the start-up burner of < 124 minutes/day. Thus, NO_x emissions are expected to be <1 lb/day from the start-up burner so BACT is not triggered. A permit condition to automatically monitor and record the burner usage time will demonstrate compliance with this time limit.

(c) PM₁₀ EMISSIONS

The use of HEPA filters will provide compliance with the current BACT requirements. In addition, under this project there will be reduction in the PM₁₀ emissions with usage of 99.97% efficient HEPA filters.

▫ **RULE 1303(b)(1), MODELING**

After HEPA filters, PM₁₀ emissions are 0.028 lb/hr, which is well below the Table A-1 allowable emissions of 0.41 lb/hr. Modeling is not required for PM₁₀.

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Screening modeling analysis was performed for the NO_x emissions since the maximum hourly emissions during start-up of 0.48 lb/hr exceeds the Table A-1 allowable emissions of 0.31 lb/hr. Results indicated compliance with the rule requirements. See copy of the screening analysis in the folder.

CO emissions from combustion of natural gas in the start-up burner are 0.16 lb/hr, which is well below the Table A-1 allowable emissions of 17.1 lb/hr. Modeling is not required for CO.

▫ **RULE 1303 (b)(2), EMISSION OFFSETS**

Emission offsets are not required for this project. There will be no increase in potential VOC emissions under this project since the VOC emission cap will remain the same at 1500 lb/month from permitted equipment and associated operations. There will not be any increases in the PM10 emissions under this proposal since HEPA filters will be installed in conjunction with the RTO. The NO_x emissions from the RTO are exempt from offsets since the facility's NO_x emissions are below 4 tpy. This is the only permitted NO_x emission source at the facility.

▫ **RULE 1401, NEW SOURCE REVIEW OF CARCINOGENIC AIR CONTAMINANTS**

As discussed in this evaluation report, this equipment is expected to comply with the rule requirements. (MICR from the combustion of the natural gas is expected to be less than 1×10^{-6} and HIA & HIC are below 1.)

REGULATION XXX

This facility is not in the RECLAIM program. The proposed project is considered as a “de minimis significant permit revision” to the Title V permit for this facility.

Rule 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 (HAPs) 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	40
PM10	30
SO _x	60
CO	220

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	REVIEWED BY	
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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 1st permit revision to the initial Title V permit issued to this facility on January 12, 2009. The following table summarizes the cumulative emission increases resulting from all permit revisions since the initial Title V permit was issued:

Revision	HAP	VOC	NO_x	PM₁₀	SO_x	CO
1 st Revision. Install new RTO to vent 2 PTEs with 3 spray booths and mixing/pouring room (A/N 487178)	0	0	6	0	0	0
Total	0	0	6	0	0	0
Maximum Daily	30	30	40	30	60	220

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a “de minimis significant permit revision”.

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”, 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 issued to this facility with a Permit to Construct included for this equipment in Section D.