



San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT



DEC 23 2013

Mr. Mark Kulick
QG, LLC
2201 Cooper Avenue
Merced, CA 95348

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # N-1646
Project # N-1131851

Dear Mr. Kulick:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The applicant proposes to convert the current daily VOC specifically limiting condition (SLC) of 235.6 lb-VOC/day to an annual SLC of 85,994 lb-VOC/year based on operating 365 days/year. In addition, the daily VOC emission limits from the printing inks and solvents will be increased for permit units N-1646-16 (from 27.5 to 37.5 lb/day), N-1646-27 (from 37.5 to 50 lb/day), N-1646-36 through N-1646-38 (from 95.5 to 105 lb/day), N-1646-39 (from 27.5 to 40.0 lb/day), and N-1646-45 (from 74.1 to 105 lb/day).

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Ruphi Gill, Permit Services Manager, at (209) 557-6400.

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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
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Southern Region

34946 Flyover Court
Bakersfield, CA 93308-9725

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Mr. Mark Kulick
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Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Warner", with a long horizontal flourish extending to the right.

David Warner
Director of Permit Services

Enclosures

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

Authority to Construct Application Review

Heatset Offset Lithographic Printing Operations
served by Regenerative Thermal Oxidizers

Date: November 22, 2013

Facility Name: QG, LLC
Mailing Address: 2201 Cooper Avenue
Merced, CA 95348-4307

Contact Name: Michael Hauptman
Phone: (209) 354-5223
Email: mike.hauptman@qg.com

Engineer: Kai Chan
Lead Engineer: Nick Peirce
Project Number: N-1131851
Permit Numbers: N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1

Deemed Complete: August 14, 2013

I. Proposal

QG, LLC is requesting Authority to Construct (ATC) permits to convert the current daily VOC specifically limiting condition (SLC) of 235.6 lb-VOC/day to an annual SLC of 85,994 lb-VOC/year based on operating 365 days/year. In addition, to allow for daily operational flexibility the facility is proposing to increase the daily VOC emission limit from the printing inks, coatings, fountain solutions, wash primers, and solvents on seven graphic arts printing operations (Permit Units N-1646-16, '-23, '-36, '-37, '-38, '-39, & '-45). The applicant is not proposing any other changes to the existing graphic arts printing operations due to this proposed project. The following table summarizes the proposed daily VOC emission increases:

Proposed Daily Emission Limit (DEL) VOC Emission Increases			
ATC Permit Number	Pre-Project DEL (lb-VOC/day)	Post-Project DEL (lb-VOC/day)	Daily Increase (lb-VOC/day)
N-1646-6-7	37.5	37.5	0
N-1646-16-7	27.0	37.5	10.5
N-1646-23-7	37.5	50.0	12.5
N-1646-36-6	95.5	105.0	9.5
N-1646-37-5	95.5	105.0	9.5
N-1646-38-7	95.5	105.0	9.5
N-1646-39-8	27.5	40.0	12.5
N-1646-45-1	74.1	105.0	30.9

QC, LLC is an existing major stationary source and has received their Title V permit. Per Rule 2520, Section 3.20, this proposed project constitutes a significant modification to the facility's Title V permit and may be processed with a Certificate of Conformity (COC). The facility requests that the ATC permit be issued **with** a COC and has submitted a Compliance Certification form (see Appendix C). Therefore, QG, LLC will be required to submit a Title V administrative amendment application prior to operating under these Authority to Construct (ATC) permits issued under this proposed project.

II. Applicable Rules

Rule 2010: Permits Required (12/17/92)
Rule 2201: New and Modified Stationary Source Review Rule (4/21/11)
Rule 2410: Prevention of Significant Deterioration (6/16/11, Effective 11/26/12)
Rule 2520: Federally Mandated Operating Permits (6/21/01)
Rule 4001: New Source Performance Standards (4/14/99)
Rule 4002: National Emission Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101: Visible Emissions (2/17/05)
Rule 4102: Nuisance (12/17/92)
Rule 4201: Particulate Matter Concentration (12/17/92)
Rule 4301: Fuel Burning Equipment (12/17/92)
Rule 4309: Dryers, Dehydrators, and Ovens (12/15/05)
Rule 4607: Graphic Arts and Paper, Film, Foil, and Fabric Coatings (12/18/08)
Rule 4801: Sulfur Compounds (12/17/92)
California Health & Safety Code 41700 - Health Risk Assessment
California Health & Safety Code 42301.6 - School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The equipment will be operated at 2201 Cooper Avenue in Merced, CA. This facility and its associated equipment are not located within 1,000 feet of a K-12 School. Therefore, the public noticing requirement of California Health and Safety Code 42301.6 is not required for this project.

IV. Process Description

QG, LLC is a publication printing facility. The facility utilizes heatset offset lithographic printing presses to print magazines and pamphlets.

The permit units modified under this project are heatset offset lithographic web-fed printing presses. Heatset offset printing utilizes a rotary press to print an image on a continuous web of paper. These printing presses will utilize separate printing units to transfer color images onto the web. Each printing unit has a series of vertically arranged rollers and cylinders above and below the web of paper. Rollers transfer the fountain solution and the ink to the plate cylinder. The image is then transferred from the plate to a rubber covered blanket cylinder and then to the web. Typically, each printing unit simultaneously applies a single color to both sides of the web. Together all printing units can overlay colors for a full color image without drying between printing units. After the last printing unit, the printed web enters a drying oven. Heated air in the dryer is used to dry the ink. The printed web

then passes over a series of chilled rollers, which cools the printed web prior to being slit, folded, cut, and stacked for delivery to the printed material binders.

Operating Schedule, Emission Rates, & Fuel Combustion Rates:

This equipment may operate up to 24 hours per day and 365 hours/year at the following proposed emission limits and fuel combustion rates:

ATC Permit No.	Description	Emission Limits & Fuel Usage Rates
N-1646-6-7	Proposed Daily VOC Emissions Limit (DEL):	37.5 lb-VOC/day
	Proposed Facility-Wide Annual VOC Emission Limit (Annual SLC _{VOC}):	85,994 lb-VOC/year ⁽¹⁾
	Current Facility-Wide Daily NOx Emissions Limit (Daily SLC _{NOx}):	150 lb-NOx/day ⁽¹⁾
	Maximum Oven Heat Input Rate	1.366 MMBtu/hour
N-1646-16-7	Proposed Daily VOC Emissions Limit (DEL):	37.5 lb VOC/day
	Proposed Facility-Wide Annual VOC Emission Limit (Annual SLC _{VOC}):	85,994 lb VOC/year ⁽¹⁾
	Current Facility-Wide Daily NOx Emissions Limit (Daily SLC _{NOx}):	150 lb NOx/day ⁽¹⁾
	Maximum Oven Heat Input Rate:	1.366 MMBtu/hour
N-1646-23-7	Proposed Daily VOC Emissions Limit (DEL):	50.0 lb VOC/day
	Proposed Facility-Wide Annual VOC Emission Limit (Annual SLC _{VOC}):	85,994 lb VOC/year ⁽¹⁾
	Current Facility-Wide Daily NOx Emissions Limit (Daily SLC _{NOx}):	150 lb NOx/day ⁽¹⁾
	Maximum Oven Heat Input Rate	9.2 MMBtu/hour
N-1646-36-6	Proposed Daily VOC Emissions Limit (DEL):	105 lb-VOC/day
	Proposed Facility-Wide Annual VOC Emission Limit (Annual SLC _{VOC}):	85,994 lb VOC/year ⁽¹⁾
	Current Facility-Wide Daily NOx Emissions Limit (Daily SLC _{NOx}):	150 lb NOx/day ⁽¹⁾
	Maximum Oven Heat Input Rate:	19.8 MMBtu/hour
	Proposed Annual Heat Input Limit for each Oven:	18,700 MMBtu/year
N-1646-37-5	Proposed Daily VOC Emissions Limit (DEL):	105.0 lb VOC/day
	Proposed Facility-Wide Annual VOC Emission Limit (Annual SLC _{VOC}):	85,994 lb VOC/year ⁽¹⁾
	Current Facility-Wide Daily NOx Emissions Limit (Daily SLC _{NOx}):	150 lb NOx/day ⁽¹⁾
	Maximum Oven Heat Input Rate:	18.4 MMBtu/hour
	Proposed Annual Heat Input Limit for the Ovens:	50,000 MMBtu/year
	Proposed Annual Heat Input Limit for the RTO	25,000 MMBtu/year

¹ Excluding emissions from permit N-1646-34-0 per permit condition on current permit N-1646-0-2 and as proposed by the applicant.

ATC Permit No.	Description	Emission Limits & Fuel Usage Rates
N-1646-38-7	Proposed Daily VOC Emissions Limit (DEL):	105.0 lb VOC/day
	Proposed Facility-Wide Annual VOC Emission Limit (Annual SLC _{VOC}):	85,994 lb VOC/year ⁽¹⁾
	Current Facility-Wide Daily NOx Emissions Limit (Daily SLC _{NOx}):	150 lb NOx/day ⁽¹⁾
	Maximum Oven Heat Input Rate:	18.4 MMBtu/hour
	Proposed Annual Heat Input Limit for the Ovens:	50,000 MMBtu/year
N-1646-39-8	Proposed Daily VOC Emissions Limit (DEL):	40.0 lb VOC/day
	Proposed Facility-Wide Annual VOC Emission Limit (Annual SLC _{VOC}):	85,994 lb VOC/year ⁽¹⁾
	Current Facility-Wide Daily NOx Emissions Limit (Daily SLC _{NOx}):	150 lb NOx/day ⁽¹⁾
	Maximum Oven Heat Input Rate:	4.587 MMBtu/hour
	Proposed Annual Heat Input Limit for the Ovens:	11,651 MMBtu/year
	Proposed Annual Heat Input Limit for the RTO	25,000 MMBtu/year
N-1646-45-1	Proposed Daily VOC Emissions Limit (DEL):	105.0 lb VOC/day
	Proposed Facility-Wide Annual VOC Emission Limit (Annual SLC _{VOC}):	85,994 lb VOC/year ⁽¹⁾
	Current Facility-Wide Daily NOx Emissions Limit (Daily SLC _{NOx}):	150 lb NOx/day ⁽¹⁾
	Maximum Oven Heat Input Rate	27.4 MMBtu/hour
	Proposed Annual Heat Input Limit for each Oven	95,900 MMBtu/year/Oven

V. Equipment Listing

Pre and Post-Project Permit Description:

N-1646-6-7: Graphic arts printing operation consisting of one Harris Model 1000B heatset offset lithographic printing press #514 served by two Tec natural gas fired drying ovens (Total of 1.4 MMBtu/hr) all vented to the shared 9.5 MMBtu/hr Megtec Enterprise II or the 18 MMBtu/hr Reeco Retherm Model E regenerative thermal oxidizers.

Pre and Post-Project Permit Description:

N-1646-16-7: Graphic arts printing operation consisting of one Harris Model 1000B heatset offset lithographic printing press #517 served by two Tec natural gas fired drying ovens (Total of 1.366 MMBtu/hr) all vented to the shared 9.5 MMBtu/hr Megtec Enterprise II or 18 MMBtu/hr Reeco Retherm Model E regenerative thermal oxidizers.

Pre and Post-Project Permit Description:

N-1646-23-7: Graphic arts printing operation consisting of one Heidelberg Harris Model M-1000B heatset offset lithographic printing press #519 served by one 9.2 MMBtu/hr Thermal Electron Model A3406E drying oven vented to the 9.5 MMBtu/hr Megtec Enterprise II or 18 MMBtu/hr Reeco Retherm Model E regenerative thermal oxidizers.

Pre and Post-Project Permit Description:

N-1646-36-6: Graphic arts printing operation consisting of one Man Roland Model Rotoman S 57.5" wide 8-color heatset offset lithographic printing press (Press #520) and two 9.9 MMBtu/hr natural gas fired Megtec Model DD III-135 drying ovens (each consists of an 8.4 MMBtu/hr Maxon Ovenpak 400 burner and a 1.5 MMBtu/hr Maxon APX burner) served by the shared 9.5 MMBtu/hr Megtec Enterprise II or 18 MMBtu/hr Reeco Retherm Model E regenerative thermal oxidizers.

Pre and Post-Project Permit Description:

N-1646-37-5: Graphic arts printing operation consisting of one Man Roland Model Rotoman S 64" wide 8-color heatset offset lithographic printing press (Press #522) with one 9.4 MMBtu/hr natural gas fired Megtec Model DD III-135-2080 drying oven #1 and one 9.0 MMBtu/hr natural gas fired Megtec Model DD III-135-2080 drying oven #2 each vented to the shared 5.728 MMBtu/hr Megtec Cleanswitch Model CS-300-95 natural gas fired regenerative thermal oxidizer.

Pre and Post-Project Permit Description:

N-1646-38-7: Graphic arts printing operation consisting of one Man Roland Model Rotoman S 64" wide 8-color heatset offset lithographic printing press (Press #523) with one 9.4 MMBtu/hr natural gas fired Megtec Model DD III-135-2080 drying oven #1 (with Maxon low NOx burners) and one 9.0 MMBtu/hr natural gas fired Megtec Model DD III-135-2080 drying oven #2 (with Maxon low NOx burners) each served by the shared 9.5 MMBtu/hr Megtec Enterprise II or 18 MMBtu/hr Reeco Retherm Model E natural gas fired regenerative thermal oxidizers.

Pre-Project Permit Description:

N-1646-39-8: Graphic arts printing operation consisting of one Man Roland Model Rotoman N 38" wide 5-color heatset offset lithographic printing press (Press #524) with one 4.587 MMBtu/hr natural gas fired Thermo Wisconsin Model Apollo A3100 drying oven served by the shared 5.728 MMBtu/hr Megtec Cleanswitch Model CS-300-95 natural gas fired regenerative thermal oxidizer, and one World Wide Graphics Model WWG DAF-1500 aqueous/UV coater with a radiant curing unit and Prime UV 6-lamp curing system.

Pre-Project Permit Description:

N-1646-45-1: Graphic arts printing operation consisting of one Man Roland Model Rotoman S 72" wide web-fed 8 printing units heatset offset lithographic printing press (Press #MR516) and two 13.7 MMBtu/hr natural gas fired Megtec Model DDIII-153-2083-1830 drying ovens (each consists of one 10.5 MMBtu/hr Maxon Optima SLS ultra-low NOx burner and two 1.6 MMBtu/hr Maxon Cyclomax low NOx burner burners) served by the shared 9.5 MMBtu/hr Megtec Enterprise II or 18 MMBtu/hr Reeco Retherm Model E natural gas fired regenerative thermal oxidizers.

VI. Emission Control Technology Evaluation

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

VOCs will be emitted from the application and heat drying of the printing inks utilized in the heatset offset lithographic printing press. The applicant will continue to capture and control these VOCs with the facility shared regenerative thermal oxidizers (RTOs). There will not be a change to the VOC emission control method due to this proposed project. The applicant will be retaining the originally proposed minimum VOC capture efficiency of 90% and VOC destruction efficiency of 98%.

Products of combustion will be emitted from the combustion of a natural gas in the drying ovens and shared RTOs. The drying ovens and shared RTOs will be continue to be fired exclusively on natural gas and utilize the existing low NO_x burner systems to minimize NO_x and CO emissions. The applicant is not proposing any changes to the current emission rates from the drying ovens and shared RTOs due to this proposed project.

VII. General Calculations

A. Assumptions

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, & '-45-1:

1. VOCs will be emitted from the application and heat drying of the printing inks. VOCs will also be emitted from the usage of the fountain solution, blanket wash primer, and metering roller cleaning solvent.
2. NO_x, CO, VOC, SO_x, and PM₁₀ will be emitted from the combustion of natural gas in the associated drying ovens and RTOs.
3. Natural gas heating value of 1,000 Btu/ft³ (District Practice).
4. EPA F-Factor for natural gas of 8,578 dscf/MMBtu at 60°F.
5. 20% substrate retention factor (Rule 4607, Section 6.3 for heatset lithographic inks).
6. 90% overall capture and control efficiency (Rule 4607, Section 5.6.1.1).
7. 98% RTO destruction efficiency (Permit condition requirement).
8. Only the ink emissions are controlled by the RTO. The ink is applied to the paper web. As the paper web passes through the drying oven, the VOCs are flashed off of the paper and captured into the drying oven exhaust, which is sent to the RTO.
9. The fountain solution is applied to the print heads and emissions from this don't get controlled by the oxidizer as the fountain solution is generally not transferred to the substrate.
10. The blank washes and metering roller cleaner solvents are applied to clean the printing equipment and uncontrolled.

B. Emission Factors

1. There will not be any changes to the current inks, fountain solutions, blank washes, solvents, or adhesives utilized at these graphic arts printing operations.
2. For each curing oven the applicant is not proposing any changes to the following existing emission factors. Therefore: EF2 = EF1

Drying Ovens		
Pollutant	EF2	Source
NOx	4.3 ppmvd @ 19% O ₂ or 0.048 lb/MMBtu	Current Permit
CO	25 ppmvd @ 19% O ₂ or 0.174 lb/MMBtu	Current Permit
	20 ppmvd @ 19% O ₂ or 0.136 lb/MMBtu (only for ATC permit N-1646-45-1)	Current Permit
VOC	0.0055 lb/MMBtu	AP-42, Table 1.4-2 (7/98)
PM ₁₀	0.0076 lb/MMBtu	AP-42, Table 1.4-2 (7/98)
SOx	0.00285 lb/MMBtu	District Policy APR-1720

3. For the shared 9.5 MMBtu/hr Megtec Enterprise II natural gas fired regenerative thermal oxidizer (RTO) the applicant is not proposing any changes to the current emission factors. Therefore: EF2 = EF1

Shared 9.5 MMBtu/hr Megtec Enterprise II RTO		
Pollutant	EF2	Source
NOx	4.3 ppmv @ 19% O ₂ (equivalent to 0.048 lb/MMBtu)	Current Permit
CO	25 ppmv @ 19% O ₂ (equivalent to 0.17 lb/MMBtu)	Current Permit
VOC	0.0055 lb/MMBtu	AP-42, Table 1.4-2 (7/98)
PM ₁₀	0.0076 lb/MMBtu	AP-42, Table 1.4-2 (7/98)
SOx	0.00285 lb/MMBtu	District Policy APR-1720

4. For the shared 18.0 MMBtu/hr Reeco Retherm Model E natural gas-fired regenerative thermal oxidizer (RTO) the applicant is not proposing any changes to the current emission factors. Therefore: EF2 = EF1

Shared 18.0 MMBtu/hr Reeco Retherm Model E RTO		
Pollutant	EF2	Source
NOx	4.3 ppmv @ 19% O ₂ (equivalent to 0.048 lb/MMBtu)	Current Permit
CO	25 ppmv @ 19% O ₂ (equivalent to 0.17 lb/MMBtu)	Current Permit
VOC	0.0055 lb/MMBtu	AP-42, Table 1.4-2 (7/98)
PM ₁₀	0.0076 lb/MMBtu	AP-42, Table 1.4-2 (7/98)
SOx	0.00285 lb/MMBtu	District Policy APR-1720

5. For the shared 5.728 MMBtu/hr Megtec Cleanswitch Model CS-250-95 natural gas-fired regenerative thermal oxidizer (RTO) the applicant is not proposing any changes to the current emission factors. Therefore: EF2 = EF1

Shared 5.728 MMBtu/hr Megtec Cleanswitch RTO		
Pollutant	EF2	Source
NOx	4.3 ppmv @ 19% O ₂ (equivalent to 0.048 lb/MMBtu)	Current Permit
CO	25 ppmv @ 19% O ₂ (equivalent to 0.174 lb/MMBtu)	Current Permit
VOC	0.02 lb/MMBtu	Current Permit
PM ₁₀	0.01 lb/MMBtu	Current Permit
SOx	0.00285 lb/MMBtu	District Policy APR-1720

C. Potential to Emit Calculations (PE):

1. Pre-Project Potential Emissions (PE1)

Daily and Annual PE1 for Permit N-1646-6-6:

The daily and annual PE1 were obtained from project #N-1122453:

Pollutant	Daily PE1 _{N-1646-6-6} (lb/day)	Annual PE1 _{N-1646-6-6} (lb/year)
NOx	1.6	584
CO	5.7	2,081
VOC	37.7 (37.5 for Inks & Solvents)	13,761
PM ₁₀	0.2	73
SOx	0.1	37

Daily and Annual PE1 for Permit N-1646-16-6:

The daily and annual PE1 were obtained from project #N-1122453:

Pollutant	Daily PE1 _{N-1646-16-6} (lb/day)	Annual PE1 _{N-1646-16-6} (lb/year)
NOx	1.6	584
CO	5.7	2,081
VOC	27.2 (27.0 for Inks & Solvents)	9,928
PM ₁₀	0.2	73
SOx	0.1	37

Daily and Annual PE1 for Permit N-1646-23-6:

The daily and annual PE1 were obtained from project #N-1122453:

Pollutant	Daily PE1 _{N-1646-23-6} (lb/day)	Annual PE1 _{N-1646-23-6} (lb/year)
NOx	10.9	3,979
CO	38.4	14,016
VOC	38.7 (37.5 for Inks & Solvents)	14,126
PM ₁₀	1.7	621
SOx	0.6	219

Daily and Annual PE1 for Permit N-1646-36-5:

The daily and annual PE1 were obtained from project #N-1122453:

Pollutant	Daily PE1 _{N-1646-36-5} (lb/day)	Annual PE1 _{N-1646-36-5} (lb/year)
NOx	23.4	920
CO	82.7	3,255
VOC	98.1 (95.5 for inks & Solvents)	34,961
PM ₁₀	3.6	142
SOx	1.4	53

Daily and Annual PE1 for Permit N-1646-37-4:

The daily and annual PE1 were obtained from project #N-1122453:

Pollutant	Daily PE1 _{N-1646-37-4} (lb/day)	Annual PE1 _{N-1646-37-4} (lb/year)
NOx	6.7	2,460
CO	23.8	8,700
VOC	96.3 (95.5 for Inks & Solvents)	35,133
PM ₁₀	1.0	380
SOx	0.4	143

Daily and Annual PE1 for Permit N-1646-38-6:

The daily and annual PE1 were obtained from project #N-1122453:

Pollutant	Daily PE1 _{N-1646-38-6} (lb/day)	Annual PE1 _{N-1646-38-6} (lb/year)
NOx	6.7	2,460
CO	23.8	8,700
VOC	96.3 (95.5 for Inks & Solvents)	35,133
PM ₁₀	1.0	380
SOx	0.4	143

Daily and Annual PE1 for Permit N-1646-39-7:

The daily and annual PE1 were obtained from project #N-1122453:

Pollutant	Daily PE1 _{N-1646-39-7} (lb/day)	Annual PE1 _{N-1646-39-7} (lb/year)
NOx	5.4	573
CO	19.2	2,027
VOC	29.7 (27.5 for Inks & Solvents)	10,271
PM ₁₀	1.1	117
SOx	0.3	33

Daily and Annual PE1 for Permit N-1646-45-0:

The daily and annual PE1 were obtained from project #N-1123782:

Pollutant	Daily PE1 _{N-1646-45-0} (lb/day)	Annual PE1 _{N-1646-45-0} (lb/year)
NOx	31.6	9,213
CO	89.7	26,083
VOC	77.7 (74.1 for Inks & Solvents)	28,102
PM ₁₀	5.0	1,458
SOx	1.9	547

Daily and Annual PE1 from the shared Regenerative Thermal Oxidizers (RTOs):

The daily and annual PE1 were obtained from project #N-1122453:

Pollutant	Daily PE1 _{Megtec Enterprise II RTO} (lb/day)	Annual PE1 _{Megtec Enterprise II RTO} (lb/year)
NOx	11.2	4,088
CO	39.7	14,491
VOC	1.3	475
PM ₁₀	1.7	621
SOx	0.6	219

Pollutant	Daily PE1 _{Reeco Retherm RTO} (lb/day)	Annual PE1 _{Reeco Retherm RTO} (lb/year)
NOx	21.2	7,738
CO	73.4	27,448
VOC	2.4	876
PM ₁₀	3.3	1,205
SOx	1.2	438

Pollutant	Daily PE1 _{Megtec Cleanswitch RTO} (lb/day)	Annual PE1 _{Megtec Cleanswitch RTO} (lb/year)
NOx	6.8	1,230
CO	23.9	4,351
VOC	2.7	500
PM ₁₀	1.4	250
SOx	0.4	71

2. Post-Project Potential Emissions (PE2)

Daily and Annual PE2:

The applicant is proposing to remove the current daily facility-wide SLC for VOC emissions (excluding permit unit N-1646-34) and instead utilize an annual SLC, which is equivalent to the current daily emission limits operating at 365 days/year. The applicant is also proposing to increase the currently daily VOC emission limits from the printing inks and solvents on seven printing presses (Permit Units N-1646-16, '-23, '-36, '-37, '-38, '-39, & '-45). The daily and annual PE2 for the associated curing ovens and RTOs will be unchanged from the previously

calculated PE1 values determined in Section VII.C.1. of this document.
Therefore:

$$\text{Daily PE2}_{\text{VOC/Inks \& Solvents}} = \text{Proposed New DEL}_{\text{VOC/Inks \& Solvents}}$$

$$\text{Annual PE2}_{\text{VOC/Inks \& Solvents}} = \text{Daily PE2}_{\text{VOC/Inks \& Solvents}} \times 365 \text{ days/year}$$

$$\text{Daily PE2}_{\text{Ovens}} = \text{Daily PE1}_{\text{Ovens}}$$

$$\text{Annual PE2}_{\text{Ovens}} = \text{Annual PE1}_{\text{Ovens}}$$

$$\text{Daily PE2}_{\text{RTOs}} = \text{Daily PE1}_{\text{RTOs}}$$

$$\text{Annual PE2}_{\text{RTOs}} = \text{Annual PE1}_{\text{RTOs}}$$

$$\begin{aligned} \text{Annual PE2}_{\text{VOC/SLC}} &= \text{Daily PE2}_{\text{VOC/SLC}} \times 365 \text{ days/year} \\ &= 235.6 \text{ lb-VOC/day} \times 365 \text{ days/year} \\ &= \mathbf{85,994 \text{ lb-VOC/year}} \end{aligned}$$

$$\begin{aligned} \text{Annual PE2}_{\text{NOx/SLC}} &= \text{Daily PE2}_{\text{NOx/SLC}} \times 365 \text{ days/year} \\ &= 150.0 \text{ lb-NOx/day} \times 365 \text{ days/year} \\ &= \mathbf{54,750 \text{ lb-NOx/year}} \end{aligned}$$

Post-Project Emissions for ATC Permit N-1646-6-7		
Pollutant	Daily PE2 _{N-1646-6-7} (lb/day)	Annual PE2 _{N-1646-6-7} (lb/year)
NOx	1.6	584
CO	5.7	2,081
VOC	37.7 (37.5 for Inks & Solvents)	13,761
PM ₁₀	0.2	73
SOx	0.1	37

Post-Project Emissions for ATC Permit N-1646-16-7		
Pollutant	Daily PE2 _{N-1646-16-7} (lb/day)	Annual PE2 _{N-1646-16-7} (lb/year)
NOx	1.6	584
CO	5.7	2,081
VOC	37.7 (37.5 for Inks & Solvents)	13,761
PM ₁₀	0.2	73
SOx	0.1	37

Post-Project Emissions for ATC Permit N-1646-23-7		
Pollutant	Daily PE2 _{N-1646-23-7} (lb/day)	Annual PE2 _{N-1646-23-7} (lb/year)
NOx	10.9	3,979
CO	38.4	14,016
VOC	51.2 (50.0 for Inks & Solvents)	18,688
PM ₁₀	1.7	621
SOx	0.6	219

Post-Project Emissions for ATC Permit N-1646-36-6		
Pollutant	Daily PE _{2N-1646-36-6} (lb/day)	Annual PE _{2N-1646-36-6} (lb/year)
NOx	23.4	920
CO	82.7	3,255
VOC	107.6 (105.0 for Inks & Solvents)	38,428
PM ₁₀	3.6	142
SOx	1.4	53

Post-Project Emissions for ATC Permit N-1646-37-5		
Pollutant	Daily PE _{2N-1646-37-5} (lb/day)	Annual PE _{2N-1646-37-5} (lb/year)
NOx	6.7	2,460
CO	23.8	8,700
VOC	105.8 (105.0 for Inks & Solvents)	38,600
PM ₁₀	1.0	380
SOx	0.4	143

Post-Project Emissions for ATC Permit N-1646-38-7		
Pollutant	Daily PE _{2N-1646-38-7} (lb/day)	Annual PE _{2N-1646-38-7} (lb/year)
NOx	6.7	2,460
CO	23.8	8,700
VOC	105.8 (105.0 for Inks & Solvents)	38,600
PM ₁₀	1.0	380
SOx	0.4	143

Post-Project Emissions for ATC Permit N-1646-39-8		
Pollutant	Daily PE _{2N-1646-39-8} (lb/day)	Annual PE _{2N-1646-39-8} (lb/year)
NOx	5.4	573
CO	19.2	2,027
VOC	42.2 (40.0 for Inks & Solvents)	14,833
PM ₁₀	1.1	117
SOx	0.3	33

Post-Project Emissions for ATC Permit N-1646-45-1		
Pollutant	Daily PE _{1N-1646-45-1} (lb/day)	Annual PE _{1N-1646-45-1} (lb/year)
NOx	31.6	9,213
CO	89.7	26,083
VOC	108.6 (105.0 for Inks & Solvents)	39,380
PM ₁₀	5.0	1,458
SOx	1.9	547

Post-Project Emissions for the Megtec Enterprise II RTO		
Pollutant	Daily PE2 _{Megtec Enterprise II RTO} (lb/day)	Annual PE2 _{Megtec Enterprise II RTO} (lb/year)
NOx	11.2	4,088
CO	39.7	14,491
VOC	1.3	475
PM ₁₀	1.7	621
SOx	0.6	219

Post-Project Emissions for the Reeco Retherm RTO		
Pollutant	Daily PE2 _{Reeco Retherm RTO} (lb/day)	Annual PE2 _{Reeco Retherm RTO} (lb/year)
NOx	21.2	7,738
CO	73.4	27,448
VOC	2.4	876
PM ₁₀	3.3	1,205
SOx	1.2	438

Post-Project Emissions for the Megtec Cleanswitch RTO		
Pollutant	Daily PE1 _{Megtec Cleanswitch RTO} (lb/day)	Annual PE1 _{Megtec Cleanswitch RTO} (lb/year)
NOx	6.8	1,230
CO	23.9	4,351
VOC	2.7	500
PM ₁₀	1.4	250
SOx	0.4	71

D. Increase in Permitted Emissions (IPE):

1. Quarterly Net Emissions Change (QNEC):

The Quarterly Net Emissions Change (QNEC) is used to complete the emissions profile for the District's PAS database. It is assumed that the unit's annual emissions are evenly distributed throughout the year. Therefore, for the proposed project the QNEC is calculated as follows:

$$\text{QNEC} = (\text{Annual PE2} - \text{Annual PE1}) \div 4 \text{ Quarters/year}$$

The applicant is not proposing to change the current annual printing operation facility-wide VOC and NOx emission limits of 85,994 lb-VOC/year and 54,750 lb-NOx/year. Therefore:

$$\text{Annual PE2}_{\text{SLC/VOC \& NOx}} = \text{Annual PE1}_{\text{VOC \& NOx}}$$

$$\begin{aligned} \text{QNEC}_{\text{SLC/VOC \& NOx}} &= (\text{Annual PE2}_{\text{SLC/VOC \& NOx}} - \text{Annual PE1}_{\text{VOC \& NOx}}) \\ &\quad \div 4 \text{ Quarters/year} \\ &= 0 \text{ lb/quarter} \end{aligned}$$

The only source of CO, PM₁₀, and SO_x emissions from the modified printing operations are due to the combustion of natural gas in the associated curing ovens and RTOs. The applicant is not proposing an increase to the current operating schedule or fuel usage limits of the associated curing ovens and RTOs due to this proposed project. Therefore:

$$\text{Annual PE2}_{\text{CO, PM10, \& SOx}} = \text{Annual PE1}_{\text{CO, PM10, \& NOx}}$$

$$\begin{aligned} \text{QNEC}_{\text{CO, PM10, \& SOx}} &= (\text{Annual PE2}_{\text{CO, PM10, \& SOx}} - \text{Annual PE1}_{\text{CO, PM10, \& SOx}}) \\ &\quad \div 4 \text{ Quarters/year} \\ &= 0 \text{ lb/quarter} \end{aligned}$$

2. Adjusted Increase in Permitted Emissions (AIPE):

The AIPE is used to determine if BACT is required for emission units that are being modified. AIPE will be calculated utilizing the following equations (Ref. Rule 2201, Section 4.3 & 4.4):

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

Where, AIPE = Adjusted Increase in Permitted Emissions (lb/day)

PE2 = The emissions units post project potential to emit (lb/day)

HAPE = The emissions units Historically Adjusted Potential to Emit (lb/day)

$$\text{HAPE} = \text{PE1} \times (\text{EF2}/\text{EF1})$$

Where, PE1 = The emission unit's Potential to Emit prior to modification.

EF2 = The emission unit's permitted emission factor for the pollutant after modification. If EF2 is greater than EF1 then EF2/EF1 shall be set equal to 1.

EF1 = The emission unit's permitted emission factor for the pollutant before the modification.

Printing Operation under ATC Permit N-1646-6-7:

For this printing operation, the applicant is not proposing a change to the emission rates, control efficiency, or control method. The pre and post-project emission factor for the printing operation will not change. Therefore:

$$\text{EF2} = \text{EF1} \text{ and } \text{EF2} / \text{EF1} = 1$$

$$\text{HAPE} = \text{PE1} \text{ and } \text{PE2} = \text{PE1}$$

$$\text{AIPE}_{\text{N-1646-6-7}} = \text{PE2} - \text{PE1} = 0 \text{ lb/day (for all pollutants)}$$

Printing Operation under ATC Permits N-1646-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, \& '-45-1:

For these printing operations, the applicant is only proposing an increase in VOC emissions rate from the printing inks and solvents without proposing a change to the printing press, control efficiency, or control method. Therefore:

$$\text{EF2}_{\text{VOC}} > \text{EF1}_{\text{VOC}} \text{ and } \text{EF2}_{\text{VOC}} / \text{EF1}_{\text{VOC}} = 1.0$$

$$\text{AIPE}_{\text{VOC}} = \text{PE2}_{\text{VOC}} - \text{HAPE}_{\text{VOC}}$$

ATC Permit Number	PE2 (lb/day)	PE1 (lb/day)	EF2 / EF1	HAPE (lb/day)	AIPE _{VOC} (lb-VOC/day)
N-1646-16-7	37.5	27.0	1.0	27.0	10.5
N-1646-23-7	50.0	37.5	1.0	37.5	12.5
N-1646-36-6	105.0	95.5	1.0	95.5	9.5
N-1646-37-5	105.0	95.5	1.0	95.5	9.5
N-1646-38-7	105.0	95.5	1.0	95.5	9.5
N-1646-39-8	40.0	27.5	1.0	27.5	12.5
N-1646-45-1	105.0	74.1	1.0	74.1	30.9

For NO_x, CO, PM₁₀, and SO_x, the applicant is not proposing a change to the emission rates, control efficiency, or control method. The pre and post-project emission factor for these pollutants will not change. Therefore:

$$\begin{aligned} \text{EF2}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} &= \text{EF1}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} \text{ and} \\ \text{EF2}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} / \text{EF1}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} &= 1 \end{aligned}$$

$$\begin{aligned} \text{HAPE}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} &= \text{PE1}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} \text{ and} \\ \text{PE2}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} &= \text{PE1}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} \end{aligned}$$

$$\begin{aligned} \text{AIPE}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} &= \text{PE2}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} - \text{PE1}_{\text{NO}_x, \text{CO}, \text{PM}_{10}, \text{SO}_x} \\ &= 0 \text{ lb/day (for NO}_x, \text{CO, PM}_{10} \text{ \& SO}_x) \end{aligned}$$

E. Facility Emissions:

1. Pre-Project Stationary Source Potential to Emit (SSPE1):

Pursuant to District Rule 2201 Section 4.9, the SSPE1 is the potential to emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the stationary source and the quantity of Emission Reduction Credits (ERC) that have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site. There are no ERCs listed for this facility.

Pre-Project Stationary Source Potential to Emit (SSPE1) ⁽²⁾ (lb/year)					
Permit No.	NO _x	CO	VOC	PM ₁₀	SO _x
N-1646-2-5	0	0	0	37	0
N-1646-6-6 ⁽³⁾	54,750	2,081	85,994	73	37
N-1646-16-6 ⁽³⁾	0	2,081	0	73	37
N-1646-19-6	0	0	0	0	0
N-1646-23-6 ⁽³⁾	0	14,016	0	621	219
N-1646-25-5 ⁽⁴⁾	0	0	0	0	0
N-1646-34-2	1,658	549	40	39	18
N-1646-36-5 ⁽³⁾	0	3,255	0	142	53
N-1646-37-4 ⁽³⁾	0	8,700	0	380	143

² Unless otherwise noted, the pre-project annual emissions from the permit units at this facility were obtained from Project #N-1123782 and N-1122453.

³ VOC and NO_x emissions are included in the facility wide SLC as quantified under permit N-1646-6-6.

⁴ This PTO will be deleted prior to or at the same time the ATC permit N-1646-45-0 is implemented. Therefore, the annual PE for this unit is equal to zero for all pollutants.

N-1646-38-6 ⁽³⁾	0	8,700	0	380	143
N-1646-39-7 ⁽³⁾	0	2,027	0	117	33
N-1646-45-0 (ATC Permit) ⁽³⁾	0	26,083	0	1,458	547
18 MMBtu/hr Reeco Retherm RTO ⁽³⁾	0	27,448	0	1,205	438
9.5 MMBtu/hr Megtec Enterprise II RTO ⁽³⁾	0	14,491	0	621	219
5.728 MMBtu/hr Megtec Cleanswitch RTO ⁽³⁾	0	4,351	0	250	71
Total	56,408	113,782	86,034	5,396	1,958

2. Post-Project Stationary Source Potential to Emit (SSPE2):

Pursuant to District Rule 2201 Section 4.10, the SSPE2 is calculated on a pollutant by pollutant basis and is the potential to emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the stationary source and the quantity of Emission Reduction Credits (ERC) that have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site. There are no ERCs listed for this facility.

Post-Project Stationary Source Potential to Emit (SSPE2) (lb/year)					
Permit No.	NOx	CO	VOC	PM ₁₀	SOx
N-1646-2-5	0	0	0	37	0
N-1646-6-7 ⁽⁵⁾ (ATC Permit)	54,750	2,081	85,994	73	37
N-1646-16-7 ⁽⁵⁾ (ATC Permit)	0	2,081	0	73	37
N-1646-19-6	0	0	0	0	0
N-1646-23-7 ⁽⁵⁾ (ATC Permit)	0	14,016	0	621	219
N-1646-25-5 ⁽⁶⁾	0	0	0	0	0
N-1646-34-2	1,658	549	40	39	18
N-1646-36-6 ⁽⁵⁾	0	3,255	0	142	53
N-1646-37-5 ⁽⁵⁾ (ATC Permit)	0	8,700	0	380	143
N-1646-38-7 ⁽⁵⁾ (ATC Permit)	0	8,700	0	380	143
N-1646-39-8 ⁽⁵⁾ (ATC Permit)	0	2,027	0	117	33
N-1646-45-1 ⁽⁵⁾ (ATC Permit)	0	26,083	0	1,458	547
18 MMBtu/hr Reeco Retherm RTO ⁽⁵⁾	0	27,448	0	1,205	438
9.5 MMBtu/hr Megtec Enterprise II RTO ⁽⁵⁾	0	14,491	0	621	219
5.728 MMBtu/hr Megtec Cleanswitch RTO ⁽⁵⁾	0	4,351	0	250	71
Total	56,408	113,782	86,034	5,396	1,958

3. Major Source Determination:

A. Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source

⁵ VOC and NOx emissions are included in the facility wide SLC as quantified under permit N-1646-6-7.

⁶ This PTO will be deleted prior to or at the same time the ATC permit N-1646-45-0 is implemented. Therefore, the annual PE for this unit is equal to zero for all pollutants.

- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

There are no ERCs listed for this facility.

Major Source Determination (lb/year)					
	NOx	CO	VOC	PM ₁₀	SOx
Facility Emissions Pre-Project (SSPE1)	56,408	113,782	86,034	5,396	1,958
Facility Emissions Post-Project (SSPE2)	56,408	113,782	86,034	5,396	1,958
Major Source Determination SSPE2	56,408	113,782	86,034	5,396	1,958
Major Source Threshold	20,000	200,000	20,000	140,000	140,000
Major Source	YES	NO	YES	NO	NO

As seen in the table above, the facility is an existing and will continue to be a Major Source for NOx and VOC.

B. Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

PSD Major Source Determination (tons/year)							
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀	CO _{2e}
Estimated Facility PE before Project Increase ⁽⁷⁾	28.2	43.0	0.98	56.9	2.7	2.7	40,536.1
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
PSD Major Source ? (Y/N)	N	N	N	N	N	N	N

As shown above, the facility is not an existing major source for PSD for at least one pollutant. Therefore the facility is not an existing major source for PSD.

4. Baseline Emissions:

Pursuant to Rule 2201, Section 3.7, the Baseline Emissions (BE) for a given pollutant is the sum of the following:

BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

⁷ The estimated facility annual PE for NO₂ (calculated as NOx), VOC, SO₂ (calculated as SOx), CO, PM (assumed to be equal to PM₁₀), and PM₁₀ are based on the SSPE1 totals as determined above in Section VII.E.1. The facility annual PE for CO_{2e} is calculated in Appendix C.

Otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Rule 2201, Section 3.22

Based on the SSPE1 and SSPE2 calculations in the above section, the facility is a major source for VOC and NOx.

Pursuant to Rule 2201, Section 3.7.1.4, for a major source, the Baseline Emissions (BE) for a given pollutant is equal to the sum of the pre-project Potential to Emit for any Clean Emissions Unit, provided that if the unit has a Specific Limiting Condition (SLC), all units combined under the SLC also qualify as Clean Emission Units. Section 3.12.2 defines a clean emissions unit as a unit equipped with emissions control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application. To demonstrate that an emission unit qualifies as a clean unit, the emissions unit must be using a control method that has been accepted as BACT within the last five years for the same class and category of source. The emission units, which emit VOC are the facility's existing printing presses, drying ovens, regenerative thermal oxidizers, and a 235 hp diesel-fired emergency IC engine powering a fire pump.

For high-end graphics printing using a heatset offset lithographic printing press with a drying oven, the District's current BACT Clearinghouse Guideline 4.7.1. (See Appendix D), lists the achieved-in-practice BACT for VOC emissions to be the use of low VOC fountain solutions and inks compliant with District Rule 4607 (Graphic Arts and Paper, Film, Foil and Fabric Coatings).

According to the referenced BACT Guideline 4.7.1, the most stringent control technique for VOC emissions is VOC capture and incineration using high-end graphics heatset inks with a VOC content < 45% by weight (less water & exempt compounds) and fountain solutions with a VOC content of < 15% by volume. All printing presses at this facility are heatset offset lithographic printing presses, which are utilizing the most stringent control technique under BACT Guideline 4.7.1. Therefore, all printing presses at this facility are Clean Emission Units for VOC.

The regenerative thermal oxidizers are utilized as a control device to reduce the VOC emissions from the printing operation and would not need to qualify as a clean emissions unit.

According to project #N-1031702, the 235 hp diesel-fired emergency IC engine powering a fire pump was installed in 1981 and exempt from air pollution permits at that time. This emissions unit was not issued a District Permit to Operate until 11/20/03, which was after the establishment of the SLCs for VOC and NOx, and its emissions were not included as part of the facility's SLC for VOC and NOx emissions. Furthermore, emergency standby IC engines are exempt from offsets and the BE is used to determine the offset quantity requirements. Therefore, the IC engine will not be included in this determination of a Clean Emissions Unit.

The emission units under the SLC are Clean Emission Units for VOC and the BE for VOC will be equal to the sum of the pre-project PE for all emission units effected by this proposed project.

The emission units, which emit NOx are the facility's existing drying ovens, regenerative thermal oxidizers, and a 235 hp diesel-fired emergency IC engine powering a fire pump. However, as discussed above the 235 hp diesel-fired IC engine is not included in the determination of Clean Emissions Unit.

For high-end graphics printing using a heatset offset lithographic printing press with a drying oven, the District's current BACT Clearinghouse Guideline 4.7.1. (See Appendix D), lists the achieved-in-practice BACT for NOx emissions to be the use of natural gas fuel in the drying ovens. A BACT analysis for NOx emissions was performed on 1/26/13 under District project number N-1123782 to install a heat-set offset lithographic printing press served by a drying oven (ATC Permit N-1646-45-0). According to the referenced BACT analysis, the drying ovens at this facility meet the achieved-in-practice BACT requirements for NOx emissions as identified under BACT Guideline 4.7.1. All drying ovens are therefore Clean Emission Units for NOx.

The regenerative thermal oxidizers are utilized as a control device to reduce the VOC emissions from the printing operation and would not need to qualify as a clean emissions unit.

As discussed above, the emissions from the 235 hp diesel-fired emergency standby IC engine powering a fire pump were not included in the facility's SLC for NOx and VOC emissions. Furthermore, emergency standby IC engines are exempt from offsets and the BE is used to determine the offset quantity requirements. Therefore, the IC engine will not be included in this determination of a Clean Emissions Unit.

The emission units under the SLC are Clean Emission Units for NOx and the BE for NOx will be equal to the sum of the pre-project PE for all emission units effected by this proposed project.

Pursuant to Rule 2201, Section 3.7.1.1, for a non-major source, the Baseline Emissions (BE) for a given pollutant is equal to the sum of the pre-project Potential to Emit for all emission units. Since this facility is a non-major source for CO, PM₁₀ and SOx, the BE for these pollutants will be equal to the sum of the pre-project PE for all emission units effected by this proposed project.

5. Stationary Source Project Increase in Permitted Emissions (SSIPE):

SSIPE is used to determine if a project triggers public notification (District Rule 2201, Section 5.4.5). For the proposed project:

SSIPE (for any one pollutant) = SSPE2 – SSPE1

SSIPE			
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)
NOx	56,408	56,408	0
CO	113,782	113,782	0
VOC	86,034	86,034	0
PM ₁₀	5,396	5,396	0
SOx	1,958	1,958	0

F. SB-288 Major Modification:

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

As determined above in Sections VII.E.3.A., this facility is a Major Source for NOx and VOC emissions. Therefore, the project's annual PE2 is compared to the SB-288 Major Modification Thresholds in the following table in order to determine if the SB-288 Major Modification calculations are required.

SB 288 Major Modification Thresholds			
Pollutant	Project Annual PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NOx	33,829 ⁽⁸⁾	50,000	No
VOC	85,994 ⁽⁹⁾	50,000	Yes

Since the project's annual PE2 surpasses the SB 288 Major Modification Thresholds for VOC, the Net Emissions Increase (NEI) will be compared to the SB 288 Major Modification thresholds in order to determine if this project constitutes an SB 288 Major Modification for this pollutant.

The NEI is the total of emission increases for every permit unit addressed in this project and is calculated as follows:

$$NEI = PE2 - BAE$$

Where: PE2 = the sum of all the PE2s for each permit unit in this project

BAE = for units that are fully offset, the BAE = the PE1 for every unit, otherwise, the BAE is the actual annual emissions averaged over the baseline period for every unit.

⁸ Project Annual PE2_{NOx} = Annual PE2_{NOx} (Printing Operation) + Annual PE2_{NOx} (Shared RTOs) = Annual SLC (NOx) = (584 + 584 + 3,979 + 920 + 2,460 + 2,460 + 573 + 9,213) lb-NOx/year + (4,088 + 7,738 + 1,230) lb-NOx/year = 33,829 lb-NOx/year

⁹ Project Annual PE2_{VOC} = Annual PE2_{VOC} (Printing Operation) + Annual PE2_{VOC} (Shared RTOs) = Proposed Annual SLC (VOC) = 85,994 lb-VOC/year

The baseline period is the two year period preceding the application (April 1, 2011 through March 31, 2013). The applicant has supplied the historical operating and emissions data for the units in this project, and the total BAE is calculated in Appendix E.

The BAE is used to calculate the NEI and make the SB 288 Major Modification determination in the following table.

SB 288 Major Modification Calculation and Determination					
Pollutant	PE2 (lb/year)	BAE (lb/year)	NEI (lb/year)	Thresholds (lb/year)	SB 288 Major Modification
VOC	85,994	42,119	43,875	50,000	No

As demonstrated in the preceding table, this project does not constitute an SB 288 Major Modification.

G. Federal Major Modification:

Rule 2201, Section 3.18 defines Federal Major Modification the same as "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. Emission decreases may not cancel out the increases for this determination.

Step 1:

All of the units in this project are existing emission units. For existing emission units, the Net Emissions Increase (NEI) is calculated as follows:

$$\text{NEI} = \text{PAE} - \text{BAE} - \text{UBC}$$

Where: NEI = Net Emissions Increase
 PAE = Projected Actual Emissions
 BAE = Baseline Actual Emissions
 UBC = Unused baseline capacity

If there is no increase in design capacity or potential to emit, the PAE is equal to the annual emission rate at which the unit is projected to emit in any one year, selected by the operator, within 5 years after the unit resumes normal operation (10 years for existing units with an increase in design capacity or potential to emit). If detailed PAE are not provided, the PAE is equal to the PE2 for each permit unit.

The BAE is calculated based on historical emissions and operating records for any 24 month period, selected by the operator, within the previous 10 year period (5 years for electric utility steam generating units). The BAE must be adjusted to exclude any non-compliant operation emissions and emissions that are no longer allowed due to lower applicable emission limits that were in effect when this application was deemed complete.

UBC for NOx:

The applicant is not proposing an increase in the fuel usage limits or any changes to the daily and annual NOx emission limits on the current permits due to this project. Since this project does not result in an increase in design capacity or potential to emit for NOx emissions, and it does not impact the ability of the emission unit to operate at a higher utilization rate, the UBC is the portion of PAE that the emission units could have accommodated during the baseline period. Therefore, for NOx emissions:

$$\begin{aligned} \text{UBC}_{\text{NOx}} &= \text{PE1}_{\text{NOx}} (\text{lb-NOx/year}) - \text{BAE}_{\text{NOx}} (\text{lb-NOx/year})^{(10)} \\ &= 54,750 \text{ lb-NOx/year} - 3,841 \text{ lb-NOx/year} \\ &= 50,909 \text{ lb-NOx/year} \end{aligned}$$

UBC for VOC:

The applicant is proposing a daily increase in VOC emission limits due to the usage of the inks and solvents for ATC permits N-1646-16-7, '-23-7, '-36-6, '- 37-5, '-38-7, '-39-8, and '-45-1. Therefore, $\text{UBC}_{\text{VOC}} = 0 \text{ lb-VOC/year}$

NEI Calculations:

The applicant has provided the required historical operation data (Refer to Appendix E) and the PAE will be equal to the PE2 for this project. The following table shows the NEI calculations according to the following equation:

$$\text{NEI} = \text{PE2} - \text{BAE} - \text{UBC}$$

NEI Calculations				
Pollutant	PE2 (lb/year)	BAE (lb/year)	UBC (lb/year)	NEI (lb/year)
NOx	54,750	3,841	50,909	0
VOC	85,994	42,119	0	43,875

The project's combined total net emission increases (NEI) are calculated above and compared to the Federal Major Modification Thresholds in the following table:

Federal Major Modification Thresholds for Emission Increases			
Pollutant	NEI (lb/year)	Thresholds (lb/year)	Federal Major Modification?
NOx	0	0	No
VOC	43,875	0	Yes

If there is any emission increases in NOx and VOC, this project is a Federal Major Modification and no further analysis is required.

Since there is an increase in VOC emissions, this project is a Federal Major Modification, and no further analysis is required.

¹⁰ As calculated in Appendix E of this document.

H. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination:

Rule 2410 applies to pollutants for which the District is in attainment or for unclassified, pollutants. The pollutants addressed in the PSD applicability determination are listed as follows:

- NO₂ (as a primary pollutant)
- SO₂ (as a primary pollutant)
- CO
- PM
- PM₁₀
- Greenhouse gases (GHG): CO₂, N₂O, CH₄, HFCs, PFCs, and SF₆

The first step of this PSD evaluation consists of determining whether the facility is an existing PSD Major Source. As determined in Section VII.E.3 above in this document, the facility is NOT an existing PSD Major Source.

In the case the facility is NOT an existing PSD Major Source but is an existing source, the second step of the PSD evaluation is to determine if the project, by itself, would be a PSD major source.

Potential to Emit for New or Modified Emission Units vs PSD Major Source Thresholds:

As a screening tool, the project potential to emit from all new and modified units is compared to the PSD major source threshold, and if total project potential to emit from all new and modified units is below this threshold, no further analysis will be needed.

The facility or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). Therefore the following PSD Major Source thresholds are applicable.

Project PSD Major Source Determination (tons/year)							
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀	CO _{2e}
Total PE from New and Modified Units ⁽¹¹⁾	16.9	43.0	0.97	56.6	2.7	2.7	40,521.9
PSD Major Source Thresholds	250	250	250	250	250	250	100,000
PSD Major Source	N	N	N	N	N	N	N

As shown in the table above, the project potential to emit, by itself, does not exceed any of the PSD major source thresholds. Therefore Rule 2410 is not applicable and no further discussion is required.

¹¹ The estimated facility annual PE for NO₂ (calculated as NO_x), VOC, SO₂ (calculated as SO_x), CO, PM (assumed to be equal to PM₁₀), and PM₁₀ are based on the Annual PE₂ totals as determined above in Section VII.C.2. The facility annual PE for CO_{2e} is calculated in Appendix C.

VIII. Compliance

Rule 2201 - New and Modified Stationary Source Review Rule

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

A. Best Available Control Technology (BACT):

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless exempted pursuant to Section 4.2, BACT is required for the following actions: (1) Any new emissions unit with a potential to emit exceeding 2.0 pounds in any one day, (2) The relocation of an existing emissions unit from one stationary source to another with a potential to emit exceeding 2.0 pounds in any one day, (3) Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding 2.0 pounds in any one day, and (4) Any new or modified emissions unit, in a stationary source project, which results in an SB-288 Major Modification or Federal Major Modification as defined in this rule. If the post project Stationary Source Potential to Emit (SSPE2) for Carbon Monoxide is less than 200,000 pounds per year, BACT is not required for Carbon Monoxide.

Best Available Control Technology (BACT) for Permit Unit N-1646-6-7:

1. BACT Applicability:

As shown in Section VII.D.2. of this document, the applicant is proposing to modify this graphic arts printing operation with an AIPE of less than 2.0 lb/day for all criteria pollutant from the graphic arts printing operation. In addition, as determined above in Section VII.F. the proposed project will not trigger an SB-288 Major Modification. However, as determined above in Section VII.G. the proposed project will trigger a Federal Major Modification only for VOC emissions. Therefore, BACT will only be triggered for VOC emissions from this permit unit.

2. BACT Guidance:

Per District Policy APR 1305, Section IX, "A top-down BACT analysis shall be performed as a part of the Application Review for each application subject to the BACT requirements pursuant to the District's NSR Rule." For source categories or classes covered in the BACT Clearinghouse, relevant information under each of the steps may be simply cited from the Clearinghouse without further analysis.

The District's current BACT Clearinghouse Guideline 4.7.1, covers high-end graphics printing using a heatset offset lithographic printing press with a drying oven for all equipment ratings (see Appendix D). Therefore, relevant information will be cited from the referenced BACT Guideline without further analysis.

3. BACT Analysis:

VOC Emissions:

According to the referenced BACT Guideline 4.7.1, the most stringent control technique for VOC emissions is VOC capture and incineration using high-end graphics heatset inks with a VOC content < 45% by weight (less water & exempt compounds) and fountain solutions with a VOC content of < 15% by volume. The applicant is proposing the use of the most stringent control technique, therefore, BACT is being proposed and no further analysis is required for VOC emissions.

Best Available Control Technology (BACT) for Permit Unit N-1646-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

1. BACT Applicability:

As shown in Section VII.D.2. of this document, the applicant is proposing to modify these graphic arts printing operations with an AIPE of greater than 2.0 lb/day for VOC emissions. In addition, as determined above in Section VII.F. the proposed project will not trigger an SB-288 Major Modification. However, as determined above in Section VII.G. the proposed project will trigger a Federal Major Modification only for VOC emissions. Therefore, BACT will only be triggered for VOC emissions from these permit units.

2. BACT Guidance:

Per District Policy APR 1305, Section IX, "A top-down BACT analysis shall be performed as a part of the Application Review for each application subject to the BACT requirements pursuant to the District's NSR Rule." For source categories or classes covered in the BACT Clearinghouse, relevant information under each of the steps may be simply cited from the Clearinghouse without further analysis.

The District's current BACT Clearinghouse Guideline 4.7.1, covers high-end graphics printing using a heatset offset lithographic printing press with a drying oven for all equipment ratings (see Appendix D). Therefore, relevant information will be cited from the referenced BACT Guideline without further analysis.

3. BACT Analysis:

VOC Emissions:

According to the referenced BACT Guideline 4.7.1, the most stringent control technique for VOC emissions is VOC capture and incineration using high-end graphics heatset inks with a VOC content < 45% by weight (less water & exempt compounds) and fountain solutions with a VOC content of < 15% by volume. The applicant is proposing the use of the most stringent control technique, therefore, BACT is being proposed and no further analysis is required for VOC emissions.

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant-by-pollutant basis, unless exempt per Section 4.6. Offsets are required if the post-project SSPE2 totals equals or exceeds the following offset thresholds for any pollutant:

Pollutant	Offset Thresholds (lb/year)	SSPE2 (lb/year)	SSPE1 (lb/year)	Offsets Triggered
NOx	20,000	56,408	56,408	Yes
CO	200,000	113,782	113,782	No
VOC	20,000	86,034	86,034	Yes
PM ₁₀	29,200	5,396	5,396	No
SOx	54,750	1,958	1,958	No

2. Quantity of Offsets Required

The SSPE2 for NOx and VOC emissions exceed the offset threshold and offsets are triggered only for NOx and VOC. According to Section 4.7.1 and 4.7.3, for pollutants with a pre-project Stationary Source Potential to Emit (SSPE1) greater than the emission offset threshold levels, the quantity of emission offsets is calculated as follows:

$$\text{Offset Quantity (lb/year)} = [\Sigma(\text{PE2} - \text{BE})] \times \text{Offset Ratio}$$

where, Offset Ratio = Distance or interpollutant ratio of Sections 4.8 and 4.13.3

As indicated in Section VII.E.4 of this document, the BE for the existing emission units are equal to the pre-project PE (PE1). Therefore, for this stationary source project:

$$\text{Offset Quantity (lb/year)} = \Sigma(\text{PE2}_{\text{SLC}} - \text{BE}_{\text{SLC}}) = \text{Annual PE2}_{\text{SLC}} - \text{Annual PE1}_{\text{SLC}}$$

Pollutant	Annual PE2 _{SLC} (lb/year)	Annual PE1 _{SLC} (lb/year)	Offset Quantity (lb/year)
NOx	54,750	54,750	0
VOC	85,994	85,994	0

The offset trigger level for NOx and VOC are exceeded, but offsets are not required.

C. Public Notification

1. Applicability

District Rule 2201, section 5.4, requires a public notification for the affected pollutants from the following types of projects:

- New Major Sources
- SB-288 and Federal Major Modifications

- New emission units with a PE > 100 lb/day of any one pollutant
- Modifications with SSPE1 below an offset threshold and SSPE2 above an offset threshold on a pollutant by pollutant basis (Existing Facility Offset Threshold Exceedance Notification)
- New stationary sources with SSPE2 exceeding offset thresholds (New Facility Offset Threshold Exceedance Notification)
- Any permitting action with a SSIPE exceeding 20,000 lb/yr for any one pollutant. (SSIPE Notice)

a. New Major Source Notice Determination:

A New Major Source is a new facility, which is also a major source. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

b. SB-288 and Federal Major Modification Notice Determination:

As determined in Sections VII.F. of this document, this project does not trigger an SB-288 Major Modification. However, as determined in Section VII.G. of this document, this project triggers a Federal Major Modification. Therefore, public notice **is required** for Federal Major Modification purposes.

c. PE > 100 lb/day Notification:

As determined in Section VII.C.2., the proposed project will not result in the installation of new emission units with a Potential to Emit (PE) greater than 100 lb/day for any pollutant. Therefore, public noticing will not be required for PE > 100 lb/day purposes.

d. Existing Facility - Offset Threshold Notification

Existing facilities with the SSPE1 below the offset threshold resulting in an SSPE2 exceeding the offset threshold due to the proposed project for one or more pollutants will require public noticing. As shown in Section VII.E.1. of this document, the SSPE1 for NO_x and VOC was above the offset threshold levels prior to this project. There were no thresholds surpassed with this project; therefore, public noticing is not required for offset threshold exceedance purposes.

e. New Facility - Offset Threshold Notification

This is an existing facility. This section does not require a public notification.

f. SSIPE Notification:

A notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/yr of any affected pollutant. As determined in Section VII.E.5. above, the SSIPE for any affected pollutant will be less than 20,000 pounds per year. Therefore, SSIPE notification is not required.

2. Public Notice Action

As indicated above the public noticing requirements are triggered for this project for Federal Major Modification purposes. Therefore, public notification and publication requirements as indicated in Section 5.5 of this rule **are required** for this project.

D. Daily Emissions Limits

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

The daily emission limits from these graphic arts printing operations will be equal to the above calculated daily PE2 for each pollutant. In addition, the applicant is proposing to utilize SLCs on the permit units. The daily emission limits from the drying oven and thermal oxidizer will be based on the emission rate or emission concentration of each pollutant due to the combustion of natural gas. The following limits will be placed on the Authority to Construct (ATC) permits and Permits to Operate (PTOs) to enforce the requirements of this section:

DEL for the Printing Inks and Solvents under ATC Permits N-1646-6-7 and '-16-7		
Pollutant	DEL _{Printing}	SLCs
VOC	37.5 lb-VOC/day	85,994 lb-VOC/year
NOx	See DEL for the Ovens	150 lb-NOx/day

DEL for the Printing Inks and Solvents under ATC Permit N-1646-23-7		
Pollutant	DEL _{Printing}	SLCs
VOC	50.0 lb-VOC/day	85,994 lb-VOC/year
NOx	See DEL for the Ovens	150 lb-NOx/day

DEL for the Printing Inks and Solvents under ATC Permits N-1646-36-6, '-37-5, '-38-7, and '-45-1		
Pollutant	DEL _{Printing}	SLCs
VOC	105.0 lb-VOC/day	85,994 lb-VOC/year
NOx	See DEL for the Ovens	150 lb-NOx/day

DEL for the Printing Inks and Solvents under ATC Permits N-1646-39-8		
Pollutant	DEL _{Printing}	SLCs
VOC	40.0 lb-VOC/day	85,994 lb-VOC/year
NOx	See DEL for the Ovens	150 lb-NOx/day

DEL for the Drying Oven under ATC Permits N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, & '-45-1	
Pollutant	DEL _{Drying Ovens}
NOx	4.3 ppmvd @ 19% O ₂ or 0.0492 lb/MMBtu
CO	25.0 ppmvd @ 19% O ₂ or 0.174 lb/MMBtu 20.0 ppmvd @ 19% O ₂ or 0.136 lb/MMBtu (only for ATC permit N-1646-45-1)
VOC	0.0055 lb/MMBtu
PM ₁₀	0.0076 lb/MMBtu
SOx	0.00285 lb/MMBtu

DEL for the Shared 9.5 MMBtu/hr Megtec Enterprise II RTO	
Pollutant	DEL _{Megtec Enterprise II RTO}
NOx	4.3 ppmvd @ 19% O ₂ or 0.0492 lb/MMBtu
CO	25.0 ppmvd @ 19% O ₂ or 0.174 lb/MMBtu
VOC	0.0055 lb/MMBtu
PM ₁₀	0.0076 lb/MMBtu
SOx	0.00285 lb/MMBtu

DEL for the Shared 18.0 MMBtu/hr Reeco Retherm Model E RTO	
Pollutant	DEL _{Reeco Retherm RTO}
NOx	4.3 ppmvd @ 19% O ₂ or 0.0492 lb/MMBtu
CO	25.0 ppmvd @ 19% O ₂ or 0.174 lb/MMBtu
VOC	0.0055 lb/MMBtu
PM ₁₀	0.0076 lb/MMBtu
SOx	0.00285 lb/MMBtu

DEL for the Shared 5.728 MMBtu/hr Megtec Cleanswitch RTO	
Pollutant	DEL _{Megtec Cleanswitch RTO}
NOx	4.3 ppmvd @ 19% O ₂ or 0.0492 lb/MMBtu
CO	25.0 ppmvd @ 19% O ₂ or 0.174 lb/MMBtu
VOC	0.02 lb/MMBtu
PM ₁₀	0.01 lb/MMBtu
SOx	0.00285 lb/MMBtu

E. Compliance Assurance

The following measures shall be taken to ensure continued compliance with District Rules.

1. Source Testing & Monitoring

Pursuant to District Policy APR 1705 (Source Testing Frequency), units equipped with an afterburner, thermal incinerator, or catalytic incinerator for controlling VOC must be tested annually. The drying ovens serving the heatset offset lithographic printing presses are vented to the shared RTOs for VOC control. The applicant is proposing a minimum VOC destruction efficiency of 98% from the facility shared RTOs. Therefore, source testing to verify the control efficiency and VOC emissions from the each shared RTO will be required annually.

The drying ovens will be subject to the source testing and monitoring requirements of District Rule 4309 (Dryers, Dehydrators, and Ovens). Refer to Section VIII, Rule 4309, for a discussion of these source testing and monitoring requirements.

The proposed regenerative thermal oxidizer is not subject to any District Rule monitoring requirements. However, monitoring of the regenerative thermal oxidizers utilizing a continuous temperature indicator and recorder will be required to verify proper operation of the oxidizer.

2. Record Keeping

Daily record keeping will be required to verify compliance with the permitted daily emission limits. The applicant is proposing to limit the combined facility wide NO_x and VOC emissions to not exceed 150 lb NO_x/day and 85,994 lb-VOC/year, respectively. Therefore, a permit condition requiring a daily record of the quantity of natural gas utilized by each facility drying oven and thermal oxidizer will be required to verify compliance with the daily NO_x emission limit. In addition, a permit condition requiring a cumulative annual record of the combined facility-wide annual VOC emissions will be required to verify compliance with the annual VOC emissions limit.

The drying ovens will be subject to the record keeping requirements of District Rule 4309 (Dryers, Dehydrators, and Ovens). Refer to Section VIII, Rule 4309, for a discussion of these record keeping requirements.

The graphic arts printing operation will be subject to the record keeping requirements of District Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings). Refer to the conditions on the draft ATC permit for these record keeping requirements.

3. Reporting

No applicable District rule or policy requires reporting for the graphic arts printing operations.

F. Ambient Air Quality Analysis (AAQA)

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether the operation of the proposed equipment will cause or make worse a violation of an ambient air quality standard. However, since this project will only result in an increase in daily VOC emissions and no ambient air quality standard exists for VOC emissions, an AAQA is not required for this project.

G. Compliance Certification

Compliance certification is required for any project, which constitutes a New Major Source or a Federal Major Modification.

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Federal Major Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As determined in Section VII.G. of this document, this project is a Federal Major Modification, therefore this requirement is applicable.

Included in Appendix F is QG, LLC's compliance certification.

H. Alternate Siting Analysis

Alternative siting analysis is required for any project, which constitutes a New Major Source or a Federal Major Modification. As determined in Section VII.G. of this document, this project is a Federal Major Modification, therefore an alternate siting analysis is required.

The proposed project occurs at an existing facility. The applicant is proposing to modify the existing graphic arts printing operations to increase the daily VOC emission limits for operational flexibility without an increase to the current annual facility-wide VOC emissions.

Since the project will provide graphic arts printing operations at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures on a much greater scale, and would therefore, result in a much greater impact.

Rule 2410 – Prevention of Significant Deterioration (PSD)

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

As determined above in Section VII.E.3.B., this facility is not an existing major source for PSD for any one pollutant. In addition, as determined above in Section VII.H., the project potential to emit, by itself, does not exceed any of the PSD major source thresholds. Therefore, Rule 2410 is not applicable and no further discussion is required.

Rule 2520 - Federally Mandated Operating Permits

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

This facility is subject to this Rule, and has received their Title V Operating Permit. Section 3.29 defines a significant permit modification as a "permit amendment that does not qualify as a minor permit modification or administrative amendment."

Section 3.20.5 states that a minor permit modification are not Title I modifications (i.e. Federal Major Modification) as defined in this rule, modifications as defined in Section 111 or 112 of the Federal Clean Air Act, or major modifications under the prevention of significant deterioration (PSD) provisions of Title I of the CAA or under EPA PSD regulations. Since this project is a Title I modification (i.e. Federal Major Modification), the proposed project constitutes a Significant Modification to the Title V permit pursuant to Section 3.29.

The facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Per section 5.3.2 of this rule, the applicant must submit an application for a Title V permit modification prior to implementing the requested changes. The following federally enforceable conditions will be placed on each of these ATC permits to ensure compliance with this rule:

- {1830} *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 2520] Y*
- {1831} *Prior to operating with the 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] Y*

Compliance with this rule is expected.

Rule 4001 - New Source Performance Standards (NSPS)

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

40 CFR Part 60, Subpart QQ - Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing

Subpart QQ applies to publication rotogravure printing presses, except for proof presses which construction, modification, or reconstruction has commenced after October 28, 1980. This facility does not perform any publication rotogravure printing, therefore, this rule is not applicable.

Rule 4002 – National Emissions Standards for Hazardous Air Pollutants

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

40 CFR Part 63, Subpart KK – National Emissions Standard for the Printing and Publishing Industry

According to §63.820(a)(1) (Applicability), Subpart KK applies to each new and existing facility that is a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.2, at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated.

This facility is not a major source of HAPs and does not operate publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses. Therefore, this subpart is not applicable.

40 CFR Part 63, Subpart OOOO - National Emission Standard for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles

Subpart OOOO applies to the printing, coating, slashing, dyeing, or finishing of fabric and other textiles. This facility does not perform any printing, coating slashing, dyeing, or finishing of fabric and other textiles. Therefore, this subpart is not applicable.

Rule 4101 - Visible Emissions

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

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 or darker than Ringelmann 1 or equivalent to 20% opacity. Opacity is expected to be less than 20% provided that the equipment is maintained and operated properly. Therefore, the following condition will be listed on the ATC permit and PTO to ensure compliance:

- *{15} 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]*

Therefore, compliance with this rule is expected.

Rule 4102 - Nuisance

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

As long as the equipment is properly maintained and operated the emission unit will not discharge any air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or public or which cause or have a natural tendency to cause injury or damage to business or property. The following condition will be listed on the ATC permit and PTO to ensure compliance:

- *{98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]*

Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources (dated 3/2/01) specifies that for an increase in emissions associated with a proposed new source or modification to an existing emissions unit, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (Appendix G), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The HRA summary for this project is shown below in the following table:

HRA Summary					
Categories	Printing Press VOC Increase (Unit 16-7)	Printing Press VOC Increase (Unit 23-7)	Printing Press VOC Increase (Unit 36-6)	Printing Press VOC Increase (Unit 37-5)	
Prioritization Score	0.00	0.00	0.00	0.00	
Acute Hazard Index	0.00	0.01	0.00	0.00	
Chronic Hazard Index	N/A*	N/A*	N/A*	N/A*	
Maximum Individual Cancer Risk	N/A*	N/A*	N/A*	N/A*	
T-BACT Required?	No	No	No	No	
Special Permit Conditions?	No	No	No	No	
Categories	Printing Press VOC Increase (Unit 38-7)	Printing Press VOC Increase (Unit 39-8)	Printing Press VOC Increase (Unit 45-1)	Project Totals	Facility Totals
Prioritization Score	0.00	0.00	0.00	0.01	>1.0
Acute Hazard Index	0.00	0.00	0.00	0.03	0.14
Chronic Hazard Index	N/A*	N/A*	N/A*	N/A*	0.29
Maximum Individual Cancer Risk	N/A*	N/A*	N/A*	N/A*	1.37E-06
T-BACT Required?	No	No	No		
Special Permit Conditions?	No	No	No		

*The Chronic Hazard Index and Maximum Individual Cancer Risk were not calculated because the annual VOC emission limits were not changing or increasing.

The Acute Hazard Index for the project was below 1.0; and there was no Chronic Hazard Index or Maximum Individual Cancer Risk associated with this project. In accordance with the District's Risk Management Policy, the project is approved **without** Toxic Best Available Control Technology (T-BACT).

Therefore, compliance with this rule is expected.

Rule 4201 - Particulate Matter Concentration

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

This rule defines the maximum allowable concentration of particulates in the exhaust as 0.1 gr/dscf. According to AP 42 (Table 1.4-2, footnote c), all PM emissions from natural gas combustion are less than 1 μ m in diameter. Since the drying ovens and associated RTOs will be fired exclusively on natural gas fuel, it is reasonable to assume the PM emissions will be the same as the PM₁₀ emissions. Thus, the particulate concentration in the exhaust of the RTO serving the drying ovens may be calculated as follows:

$$\begin{aligned}\text{PM Concentration} &= 0.0076 \text{ lb-PM}_{10}/\text{MMBtu} \times \text{MMBtu}/8,578 \text{ dscf} \times 7,000 \text{ gr/lb} \\ &= 0.006 \text{ gr/dscf} < 0.1 \text{ gr/dscf}\end{aligned}$$

Therefore, as long as the equipment is properly maintained and operated, compliance with District Rule 4201 requirements is expected. Therefore, the following condition will be listed on each ATC permit and PTO to ensure compliance:

- {14} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]

Rule 4301 – Fuel Burning Equipment

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

Pursuant to Section 3.1 of this rule, this rule applies only to units that produce heat or power via indirect heat transfer. The drying ovens and associated regenerative thermal oxidizers are direct-fired units. Thus, this rule does not apply.

Rule 4309 – Dryers, Dehydrators, and Ovens

N-1646-6-7, '-16-7, and '-39-8:

These drying ovens are natural gas-fired with a total heat input of 1.4 MMBtu/hr for the drying ovens serving permit units N-1646-6 and N-1646-16; and 4.587 MMBtu/hr for permit unit N-1646-39. Pursuant to Section 2.0 of District Rule 4309, these drying ovens are not subject to District Rule 4309 and no further discussion is necessary.

N-1646-23-7, '-36-6, '-37-5, '-38-7, and '-45-1:

These drying ovens are natural gas-fired with a total heat input of 9.5 MMBtu/hr for the drying oven serving permit unit N-1646-23, 9.9 MMBtu/hr for the drying ovens under permit unit N-1646-36, 9.4 MMBtu/hr and 9.0 MMBtu/hr for the drying ovens under permit units N-1646-37 and N-1646-38, and 13.7 MMBtu/hr for the drying ovens under permit unit N-1646-45. Pursuant to Section 2.0 of District Rule 4309, these drying ovens are subject to District Rule 4309.

Section 5.0 (Requirements):

Section 5.2 requires that, except for dehydrators, NO_x and carbon monoxide (CO) emissions shall not exceed the limits specified in the following table. All ppmv emission limits specified in this section are referenced at dry stack gas conditions and 19.00 percent by volume stack gas oxygen. Emission concentrations shall be corrected to 19.00 percent oxygen in accordance with Section 8.1.

Section 5.2, Table 1, from District Rule 4309, list the following requirements:

Rule 4309 NO_x and CO Emissions Limits		
Category	Operated on gaseous fuel	
	NO _x Limit	CO Limit
Other processes, which are not Asphalt/Concrete Plants or Milk, Cheese, or Dairy Processing Facilities	4.3 ppmv	42 ppmv

The drying ovens under permit units N-1646-23, N-1646-36, N-1646-37, and N-1646-38 will operate with the following emission limits:

NO_x: 4.3 ppmvd @ 19% O₂ and CO: 25 ppmvd @ 19% O₂

The drying ovens under permit unit N-1646-45 will operate with the following emission limits:

NO_x: 4.3 ppmvd @ 19% O₂ and CO: 20 ppmvd @ 19% O₂

Therefore, continued compliance with Section 5.2 of District Rule 4309 is expected.

Section 5.4 (Monitoring Requirements):

Section 5.4.1 requires each unit subject to section 5.2 to either install a continuous emissions monitoring system (CEMS) for NO_x, CO, and oxygen or implement an APCO-approved Alternate Monitoring System. The applicant utilizes the latter option, and will continue to use Option A (periodic monitoring using District-approved portable analyzer) from the District's pre-approved Alternate Monitoring Schemes contained in District Policy SSP 3005 (4/28/2008). The following conditions will be incorporated into the permit in order to ensure compliance with the requirements of the proposed alternate monitoring plan:

- {3741} *The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]*
- {3742} *If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rule 4309]*
- {3743} *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 Rule 4309]*
- {3744} *The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309]*

Section 5.5 (Compliance Determination):

Section 5.5.1 requires that 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. Section 5.5.2 requires that 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. Therefore, the following permit condition will be listed on the permit as follows:

- *{3713} 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 4309. [District Rule 4309]*

Section 5.5.5 requires that for emissions monitoring pursuant to Sections 5.4.1.2.2.1, emission readings 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.

The applicant will continue to use a portable analyzer to satisfy the monitoring requirements of District Rule 4309, the following permit condition will be listed on the permit as follows:

- *{3743} 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 Rule 4309]*

Section 5.5.6 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. Therefore, the following permit condition will be listed on the permit as follows:

- *{3715} 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 Rule 4309]*

Section 6.1 (Record Keeping):

Section 6.1.6 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO upon request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule. A permit condition will be listed on the permit as follows:

- *{Modified 2983} All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309]*

Section 6.2 (Test Methods):

Section 6.2 identifies the following test methods as District-approved source testing methods for the pollutants listed:

Pollutant	Units	Test Method Required
Fuel hhv	Fuel hhv shall be certified by third party fuel supplier or:	
	Liquid fuels	ASTM D 240-87 or D 2382-88
	Gaseous fuels	ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89
NO _x	ppmv	EPA Method 7E or ARB Method 100
CO	ppmv	EPA Method 10 or ARB Method 100
Stack Gas O ₂	%	EPA Method 3 or 3A, or ARB Method 100
Stack Gas Velocities	ft/min	EPA Method 2
Stack Gas Moisture Content	%	EPA Method 4

The following permit conditions will be listed on the permit as follows:

- *{109} 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]*
- *{3718} NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]*
- *{3719} CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]*
- *{3720} Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]*

Section 6.3 (Compliance Demonstration):

Section 6.3.2 requires the permittee to perform initial source test to determine compliance with NO_x and CO emission limits. Furthermore, the unit is required to be tested every 24 months. The applicant will be required to perform a source test to satisfy the requirements of this section. Since the initial source testing was previously performed, only the reoccurring testing will be required. The exhaust of the drying ovens is vented through the associated RTOs and the applicant will continue to demonstrate compliance with the NO_x and CO emission limits of this rule at the exhaust of the RTOs.

The following conditions will be included in the permit to verify compliance with the proposed NO_x and CO emission limits:

- *Source testing to measure NO_x and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every twenty four (24) months thereafter. [District Rules 2201 and 4309]*
- *{3722} All test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309]*
- *{110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]*

Conclusion:

Conditions will be incorporated into the permit in order to ensure compliance with each section of this rule. Therefore, compliance with District Rule 4309 requirements is expected.

Rule 4607 – Graphic Arts and Paper, Film, Foil, and Fabric Coatings

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1:

This rule is applicable to any graphic arts printing operation, to digital printing operations, and to any paper, film, foil, or fabric coating operation and to the organic solvent cleaning materials and processes associated with such operations. The applicant will be operating graphic arts printing operations (heatset offset lithographic printing). Therefore, these permit units are subject to the provisions of this rule.

Section 5.0 of this rule specifies the requirements for operations subject to this rule. This unit includes an offset lithographic printing operation, which would normally be subject to the VOC content limits in Section 5.1; however, the facility will continue to utilize the District approved VOC emission control system as specified in Section 5.6.1.1. Therefore, the inks are not subject to any VOC content limit. Section 5.6.1.1 of the rule requires that a control device installed prior to December 31, 2008 shall have an overall capture control efficiency of 90%. The following condition will be included on the permit to ensure compliance:

- *The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607]*

Sections 5.9 and 5.10 of the rule specify work practice standards to which a graphic arts operation is subject even if it is served by a VOC emission control system. The following condition will be included on the permit to ensure compliance:

- *Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607]*
- *The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607]*

Section 6.1 specifies the record keeping requirements for demonstrating compliance with this rule. In particular, Section 6.1.3 requires that daily records of ink, coating, and solvent use be maintained if the operation complies with Section 5.6 of the rule. The following conditions will be included on the permit to ensure proper records are maintained:

- *Permittee shall maintain a current file of coatings, inks, and solvents in use and in storage. The file shall include a material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, specific mixing instructions, and density. [District Rule 4607]*
- *The permittee shall record on a daily basis, the type and amount of each ink, coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607]*
- *The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3) Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201] N*
- *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, and 4607, and 4309]*

Section 6.4 of the rule specifies the test methods used for demonstrating compliance with various rule requirements. The following condition will be included on the permit:

- *Source testing to measure the thermal oxidizer VOC destruction efficiency shall be conducted using the following test methods: EPA Method 2, 2A, or 2D for flow rate and Method 25 or 25A for measuring total gaseous organic concentrations at the inlet and outlet of the control device. Should it be determined that another set of test methods is more appropriate for use in demonstrating compliance with the minimum control efficiency requirements, such test methods shall be approved by the District prior to initial source testing. [District Rules 1081, 2201, and 4607]*

Therefore, continued compliance with all applicable requirements of Rule 4607 is expected.

Rule 4801 - Sulfur Compounds

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, & '-45-1:

Section 3.1 prohibits emissions of sulfur compounds as SO₂ in excess of 0.2% by volume (2,000 ppmv) averaged over 15 minutes.

From Section VII.B. of this document, the SO₂ emissions from the drying ovens and thermal oxidizer are calculated based on an emission factor of 0.00285 lb-SO_x/MMBtu.

$$\begin{aligned}\text{lb-SO}_2/\text{exhaust vol.} &= (\text{lb-SO}_2/\text{MMBtu}) \div (\text{F factor}) \\ &= (0.00285 \text{ lb-SO}_2/\text{MMBtu}) \div (8,578 \text{ dscf/MMBtu}) \\ &= 3.32 \times 10^{-7} \text{ lb-SO}_2/\text{dscf}\end{aligned}$$

$$\text{Volume SO}_2/\text{exhaust vol.} = nRT/P$$

$$\begin{aligned}\text{Where, } n &= \text{moles SO}_x = (3.32 \times 10^{-7} \text{ lb-SO}_2/\text{dscf}) \div (64 \text{ lb-SO}_2/\text{lb-mol}) \\ &= 5.0 \times 10^{-9} \text{ lb-mol/dscf}\end{aligned}$$

$$R = \text{Universal gas constant} = 10.73 \text{ psi-ft}^3/\text{lb-mol-}^\circ\text{R}$$

$$T = 60^\circ\text{F standard temperature} = 520^\circ\text{R}$$

$$P = \text{Standard atmospheric pressure} = 14.7 \text{ psi}$$

$$\begin{aligned}\text{Volume SO}_2/\text{exhaust vol.} &= [(5.0 \times 10^{-9} \text{ lb-mol/dscf}) \times (10.73 \text{ psi-ft}^3/\text{lb-mol-}^\circ\text{R}) \times \\ &\quad (520^\circ\text{R})] \div 14.7 \text{ psi} \\ &= 1.9 \times 10^{-6} \text{ dscf-SO}_2/\text{dscf-exhaust} \\ &= 1.9 \text{ ppmv} \ll 2,000 \text{ ppmv}\end{aligned}$$

Continued compliance with this rule is expected.

California Health & Safety Code 42301.6 (School Notice)

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, & '-45-1:

This facility will not be operated within 1,000 feet of a K-12 school site boundary. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not required for this project.

California Environmental Quality Act (CEQA)

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, & '-45-1:

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus, the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, & '-45-1:

Compliance with all applicable rules and regulations is expected. Issue Authority to Construct permits N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8, and '-45-1 subject to the conditions on the attached draft Authority to Construct permits in Appendix A.

X. Billing Information

The 9.5 MMBtu/hr Megtec Enterprise II and 18 MMBtu/hr Reeco Retherm Model E RTOs are shared between six permit units (N-1646-6, N-1646-16, N-1646-23, N-1646-36, N-1646-38, and N-1646-45). Therefore, only 1/6 or 4.6 MMBtu/hr of the heat input rating of the shared RTOs will be included in the determination of the fee schedule.

The 5.728 MMBtu/hr Megtec Cleanswitch RTO is shared between two permit units (N-1646-37 and N-1646-39). Therefore, only 1/2 or 2.9 MMBtu/hr of the heat input rating of the shared RTO will be included in the determination of the feed schedule.

For ATC Permits N-1646-6-7 and -16-7:

Total Combined Drying Oven Burner Ratings: 1.4 MMBtu/hr
 Shared RTOs Burner Rating: 4.6 MMBtu/hr
 Total Fee Schedule Burner Rating: 6.0 MMBtu/hr

For ATC Permit N-1646-23-7:

Total Combined Drying Oven Burner Ratings: 9.2 MMBtu/hr
 Shared RTOs Burner Rating: 4.6 MMBtu/hr
 Total Fee Schedule Burner Rating: 13.8 MMBtu/hr

For ATC Permit N-1646-36-6:

Total Combined Drying Oven Burner Ratings: 19.8 MMBtu/hr
 Shared RTOs Burner Rating: 4.6 MMBtu/hr
 Total Fee Schedule Burner Rating: 24.4 MMBtu/hr

For ATC Permit N-1646-37-5:

Total Combined Drying Oven Burner Ratings: 18.4 MMBtu/hr
 Shared RTOs Burner Rating: 2.9 MMBtu/hr
 Total Fee Schedule Burner Rating: 21.3 MMBtu/hr

For ATC Permit N-1646-38-7:

Total Combined Drying Oven Burner Ratings: 18.4 MMBtu/hr
 Shared RTOs Burner Rating: 4.6 MMBtu/hr
 Total Fee Schedule Burner Rating: 23.0 MMBtu/hr

For ATC Permit N-1646-39-8:

Total Combined Drying Oven Burner Ratings: 4.6 MMBtu/hr
 Shared RTOs Burner Rating: 2.9 MMBtu/hr
 Total Fee Schedule Burner Rating: 7.5 MMBtu/hr

For ATC Permit N-1646-45-1:

Total Combined Drying Oven Burner Ratings: 27.4 MMBtu/hr
 Shared RTOs Burner Rating: 4.6 MMBtu/hr
 Total Fee Schedule Burner Rating: 32.0 MMBtu/hr

Permit Number	Fee Schedule	Fee Description	Previous Fee Schedule
N-1646-6-7	3020-02-G	Total Heat Input: 6.0 MMBtu/hr	3020-02-G
N-1646-16-7	3020-02-G	Total Heat Input: 6.0 MMBtu/hr	3020-02-G
N-1646-23-7	3020-02-G	Total Heat Input: 13.8 MMBtu/hr	3020-02-G
N-1646-36-6	3020-02-H	Total Heat Input: 24.4 MMBtu/hr	3020-02-H
N-1646-37-5	3020-02-H	Total Heat Input: 21.3 MMBtu/hr	3020-02-H
N-1646-38-7	3020-02-H	Total Heat Input: 23.0 MMBtu/hr	3020-02-H
N-1646-39-8	3020-02-G	Total Heat Input: 7.5 MMBtu/hr	3020-02-G
N-1646-45-1	3020-02-H	Total Heat Input: 32.0 MMBtu/hr	3020-02-H

XI. Appendices

- Appendix A: Draft ATC Permits N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-8, '-39-8, and '-45-1
- Appendix B: Current Permits to Operate (PTOs) N-1646-6-6, '-16-6, '-23-6, '-36-5, '-37-4, '-38-6 and '-39-7, and ATC permit N-1646-45-0
- Appendix C: Facility and Project Annual PE for CO₂e Emissions
- Appendix D: District BACT Clearinghouse Guideline 4.7.1
- Appendix E: Baseline Actual Emissions (BAE) Calculations
- Appendix F: Compliance Certification
- Appendix G: Risk Management Review Summary

APPENDIX A

**Draft ATC Permits N-1646-6-7, '-16-7, '-23-7, '-36-6, '-37-5, '-38-7, '-39-8,
and '-45-1**

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-1646-6-7

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

MODIFICATION OF GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE HARRIS MODEL 1000B HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS #514 SERVED BY TWO TEC NATURAL GAS FIRED DRYING OVENS (TOTAL OF 1.4 MMBTU/HR) ALL VENTED TO THE 9.5 MMBTU/HR MEG TEC ENTERPRISE II OR 18 MMBTU/HR REECO RETHERM MODEL E REGENERATIVE THERMAL OXIDIZERS TO CONVERT THE CURRENT DAILY SPECIFIC LIMITING CONDITION (SLC) FROM 235.6 LB-VOC/DAY TO AN ANNUAL SLC OF 85,994 LB-VOC/YEAR.

CONDITIONS

1. {1830} 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. {1831} 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. {15} 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]
6. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 85,994 pounds in any rolling 12 consecutive month period. [District Rule 2201]

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

DAVID WARNER, Director of Permit Services

N-1646-6-7 Oct 3 2013 9:48AM -- CHANK Joint Inspection NOT Required

7. Total NOx emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. A daily log of fuel usage for each dryer and for each regenerative thermal oxidizer shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The drying oven serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the thermal oxidizer at all times except during periods of start-up while the dryer is being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The collection system for the dryer exhaust and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
12. Each thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
13. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
14. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
15. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
16. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
17. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
18. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. The Volatile Organic Compound (VOC) content of the printing inks as applied (excluding water and exempt compounds) shall be less than 45% by weight and the VOC content of the fountain solutions shall be less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
20. VOC emissions from the printing inks and solvents shall not exceed 37.5 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
21. NO_x emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
22. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Emissions from the drying oven shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. NO_x emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
25. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
28. 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, 7.1] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
30. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
31. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
32. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
33. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
34. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
35. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
36. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3). Operational temperature of the regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the total VOC emissions from the entire stationary source (excluding permit unit N-1646-34). These records shall be used to determine compliance with the rolling 12 consecutive month VOC limit. [District Rules 1070 and 2201]
38. 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, and 4607] Federally Enforceable Through Title V Permit
39. Each regenerative thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District , Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
40. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
41. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
42. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
43. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-1646-16-7

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

MODIFICATION OF GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE HARRIS MODEL 1000 HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS #517 SERVED BY TWO TEC NATURAL GAS FIRED DRYING OVENS (TOTAL OF 1.366 MMBTU/HR) ALL VENTED TO THE 9.5 MMBTU/HR MEG TEC ENTERPRISE II OR 18 MMBTU/HR REECO RETHERM MODEL E REGENERATIVE THERMAL OXIDIZERS TO CONVERT THE CURRENT DAILY SPECIFIC LIMITING CONDITION (SLC) FROM 235.6 LB-VOC/DAY TO AN ANNUAL SLC OF 85,994 LB-VOC/YEAR. IN ADDITION, THE CURRENT DAILY EMISSIONS LIMIT WILL BE INCREASED FROM 27 LB-VOC/DAY TO 37.5 LB-VOC/DAY.

CONDITIONS

1. {1830} 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. {1831} 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. {15} 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]

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

DAVID WARNER, Director of Permit Services

N-1646-16-7: Oct 3 2013 8:48AM -- CHANK Joint Inspection NOT Required

6. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 85,994 pounds in any rolling 12 consecutive month period. [District Rule 2201]
7. Total NOx emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. [District Rule 2201]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The drying oven serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the thermal oxidizer at all times except during periods of start-up while the dryer is being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The collection system for the dryer exhaust and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
12. Each thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
13. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
14. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
15. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
16. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
17. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
18. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. The Volatile Organic Compound (VOC) content of the printing inks as applied (excluding water and exempt compounds) shall be less than 45% by weight and the VOC content of the fountain solutions shall be less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
20. VOC emissions from the printing inks and solvents shall not exceed 37.5 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
21. NO_x emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
22. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Emissions from the drying oven shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. NO_x emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
25. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
28. 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, 7.1] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
30. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
31. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
32. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
33. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
34. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
35. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
36. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3). Operational temperature of the regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

37. The permittee shall maintain monthly records of the total VOC emissions from the entire stationary source (excluding permit unit N-1646-34). These records shall be used to determine compliance with the rolling 12 consecutive month VOC limit. [District Rules 1070 and 2201]
38. 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, and 4607] Federally Enforceable Through Title V Permit
39. Each regenerative thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District , Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
40. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
41. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
42. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
43. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1646-23-7

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

MODIFICATION OF GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE HEIDELBERG HARRIS MODEL M-1000B HEATSET OFFSET PRINTING PRESS #519 SERVED BY ONE 9.5 MMBTU/HR THERMAL ELECTRON MODEL A3406E DRYING OVEN VENTED TO THE 9.5 MMBTU/HR MEG TEC ENTERPRISE II OR 18 MMBTU/HR REECO RETHERM MODEL E REGENERATIVE THERMAL OXIDIZERS TO CONVERT THE CURRENT DAILY SPECIFIC LIMITING CONDITIONS (SLC) FROM 235.6 LB-VOC/DAY TO AN ANNUAL SLC OF 85,994 LB-VOC/YEAR. IN ADDITION, THE CURRENT DAILY EMISSIONS LIMIT WILL BE INCREASED FROM 37.5 LB-VOC/DAY TO 50 LB-VOC/DAY.

CONDITIONS

1. {1830} 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. {1831} 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. {15} 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]

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

DAVID WARNER, Director of Permit Services

N-1646-23-7 : Oct 3 2013 9:48AM - CHANK Joint Inspection NOT Required

6. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 85,994 pounds in any rolling 12 consecutive month period. [District Rule 2201]
7. Total NOx emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. [District Rule 2201]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the regenerative thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
12. Each regenerative thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
13. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
14. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
15. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
16. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
17. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
18. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. The Volatile Organic Compound (VOC) content of the printing inks as applied (excluding water and exempt compounds) shall be less than 45% by weight and the VOC content of the fountain solutions shall be less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
20. VOC emissions from the printing inks and solvents shall not exceed 50.0 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
21. NO_x emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
22. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O₂. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
23. Emissions from the drying oven shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. NO_x emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
25. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O₂. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
26. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
29. Source testing to measure NO_x and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309, 6.3.2] Federally Enforceable Through Title V Permit
30. All test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309, 6.3.7] Federally Enforceable Through Title V Permit
31. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
32. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
33. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
34. 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 4309. [District Rule 4309, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
35. 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 Rule 4309, 5.5.6] Federally Enforceable Through Title V Permit
36. 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

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CONDITIONS CONTINUE ON NEXT PAGE

37. 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
38. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
39. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
40. 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
41. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
42. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
43. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
44. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
45. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
46. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
47. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3). Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
48. The permittee shall maintain monthly records of the total VOC emissions from the entire stationary source (excluding permit unit N-1646-34). These records shall be used to determine compliance with the rolling 12 consecutive month VOC limit. [District Rules 1070 and 2201]

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CONDITIONS CONTINUE ON NEXT PAGE

49. 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, and 4607, and 4309] Federally Enforceable Through Title V Permit
50. Each regenerative thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District , Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
51. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
52. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
53. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
54. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

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ISSUANCE DATE: DRAFT

PERMIT NO: N-1646-36-6

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

MODIFICATION OF GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN S 57.5" WIDE 8-COLOR HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #520) AND TWO 9.9 MMBTU/HR NATURAL GAS FIRED MEGTEC MODEL DD III-135 DRYING OVENS (EACH CONSISTS OF AN 8.4 MMBTU/HR MAXON OVENPAK 400 BURNER AND A 1.5 MMBTU/HR MAXON APX BURNER) SERVED BY THE SHARED 9.5 MMBTU/HR MEGTEC ENTERPRISE II OR THE 18 MMBTU/HR REECO RETHERM MODEL E NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZERS TO CONVERT THE CURRENT DAILY SPECIFIC LIMITING CONDITION (SLC) FROM 235.6 LB-VOC/DAY TO AN ANNUAL SLC OF 85,994 LB-VOC/YEAR. IN ADDITION, THE CURRENT DAILY EMISSIONS LIMIT WILL BE INCREASED FROM 95.5 LB-VOC/DAY TO 105 LB-VOC/DAY.

CONDITIONS

1. {1830} 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. {1831} 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. {15} 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]

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.

Sayed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services

N-1646-36-6 Oct 3 2013 9:49AM -- CHANK Joint Inspection NOT Required

Northern Regional Office • 4800 Enterprise Way • Modesto, CA 95356-8718 • (209) 557-6400 • Fax (209) 557-6475

6. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 85,994 pounds in any rolling 12 consecutive month period. [District Rule 2201]
7. Total NOx emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. [District Rule 2201]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the regenerative thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]
12. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the drying ovens shall be installed, utilized and maintained. [District Rules 2201] Federally Enforceable Through Title V Permit
13. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
14. Each regenerative thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
15. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
16. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
17. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
18. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
20. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
21. The Volatile Organic Compound (VOC) content of the printing inks as applied (excluding water and exempt compounds) shall be less than 45% by weight and the VOC content of the fountain solutions shall be less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
22. VOC emissions from the printing inks and solvents shall not exceed 105.0 pounds in any one day. [District Rule 2201]
23. Emissions from the drying ovens shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
24. NOx emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
25. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O2. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
26. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
27. NOx emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
28. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O2. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
29. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 18.7 million cubic feet in any rolling 12 consecutive month period. [District Rule 2201]
30. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
32. Source testing to measure NOx and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309, 6.3.2] Federally Enforceable Through Title V Permit
33. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309, 6.3.7] Federally Enforceable Through Title V Permit
34. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
35. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
36. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

37. 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 4309. [District Rule 4309, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
38. 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 Rule 4309, 5.5.6] Federally Enforceable Through Title V Permit
39. 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
40. 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
41. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
42. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
43. 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 Rule 4309, 5.4] Federally Enforceable Through Title V Permit
44. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
45. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
46. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
47. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
48. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit

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49. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
50. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3). Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
51. The permittee shall maintain monthly records of the quantity of natural gas used (in cubic feet) by the drying ovens under this permit. These records shall be used to determine compliance with the rolling 12 consecutive month natural gas usage limit. [District Rules 1070 and 2201]
52. The permittee shall maintain monthly records of the total VOC emissions from the entire stationary source (excluding permit unit N-1646-34). These records shall be used to determine compliance with the rolling 12 consecutive month VOC limit. [District Rules 1070 and 2201]
53. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2520, and 4607, and 4309] Federally Enforceable Through Title V Permit
54. Each regenerative thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District , Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
55. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
56. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
57. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
58. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-1646-37-5

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

MODIFICATION OF GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN S 64" WIDE 8-COLOR HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #522) WITH ONE 9.4 MMBTU/HR NATURAL GAS MEGTEC MODEL DD III-135-2080 DRYING OVEN #1 AND ONE 9.0 MMBTU/HR NATURAL GAS FIRED MODEL DD III-135-2080 DRYING OVEN #2 EACH VENTED TO THE SHARED 5.728 MMBTU/HR MEGTEC CLEANSWITCH MODEL CS-300-95 NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZER TO CONVERT THE CURRENT DAILY SPECIFIC LIMITING CONDITION (SLC) FROM 235.6 LB-VOC/DAY TO AN ANNUAL SLC OF 85,994 LB-VOC/YEAR. IN ADDITION, THE CURRENT DAILY EMISSIONS LIMIT WILL BE INCREASED FROM 95.5 LB-VOC/DAY TO 105 LB-VOC/DAY.

CONDITIONS

1. {1830} 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. {1831} 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. {15} 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]

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.

Sayed Sadredin, Executive Director, APCO

DAVID WARNER, Director of Permit Services

N-1646-37-5 Oct 3 2013 9:49AM - CHANK Joint Inspection NOT Required

6. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 85,994 pounds in any rolling 12 consecutive month period. [District Rule 2201]
7. Total NOx emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. [District Rule 2201]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The drying ovens and regenerative thermal oxidizer shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the drying ovens shall be installed, utilized and maintained. [District Rules 2201] Federally Enforceable Through Title V Permit
11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the regenerative thermal oxidizer shall be installed, utilized and maintained. [District Rules 2201] Federally Enforceable Through Title V Permit
12. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the regenerative thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
14. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The regenerative thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rule 2201] Federally Enforceable Through Title V Permit
16. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607] Federally Enforceable Through Title V Permit
17. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607] Federally Enforceable Through Title V Permit
18. Solvents shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607] Federally Enforceable Through Title V Permit
19. The permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607] Federally Enforceable Through Title V Permit
21. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607] Federally Enforceable Through Title V Permit
22. The VOC content of the materials shall not exceed the following: inks less than 45% VOC by weight (less water and exempt compounds) and fountain solutions less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
23. VOC emissions from the printing inks and solvents shall not exceed 105.0 pounds in any one day. [District Rule 2201]
24. NOx emissions from the drying ovens shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2) or 0.0492 lb-NOx/MMBtu. [District Rules 2201 & 4309] Federally Enforceable Through Title V Permit
25. VOC emission from the drying ovens shall not exceed 0.0055 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Emissions from the drying ovens shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
27. NOx emissions from the regenerative thermal oxidizer shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2) or 0.0492 lb-NOx/MMBtu. [District Rules 2201 & 4309] Federally Enforceable Through Title V Permit
28. CO emissions from the regenerative thermal oxidizer shall not exceed 25.0 ppmvd @ 19% O2 or 0.174 lb-CO/MMBtu. [District Rules 2201 & 4309] Federally Enforceable Through Title V Permit
29. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 137,000 cubic feet in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 50.0 million cubic feet in any rolling 12 consecutive month period. [District Rule 2201] Federally Enforceable Through Title V Permit
32. The total quantity of natural gas used in the regenerative thermal oxidizer shall not exceed 25.0 million cubic feet in any rolling 12 consecutive month period. [District Rule 2201] Federally Enforceable Through Title V Permit
33. Source testing to demonstrate compliance with the VOC destruction efficiency of the regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
34. Source testing to determine the destruction efficiency of the regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607] Federally Enforceable Through Title V Permit
35. Source testing to measure NOx and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
36. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309] Federally Enforceable Through Title V Permit
37. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309] Federally Enforceable Through Title V Permit
38. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
39. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit

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40. 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 4309. [District Rule 4309] Federally Enforceable Through Title V Permit
41. 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 Rule 4309] Federally Enforceable Through Title V Permit
42. 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
43. 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
44. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309] Federally Enforceable Through Title V Permit
45. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309] Federally Enforceable Through Title V Permit
46. 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 Rule 4309] Federally Enforceable Through Title V Permit
47. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309] Federally Enforceable Through Title V Permit
48. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607] Federally Enforceable Through Title V Permit
49. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 2201 & 4607] Federally Enforceable Through Title V Permit
50. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607] Federally Enforceable Through Title V Permit
51. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

52. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607] Federally Enforceable Through Title V Permit
53. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3). Operational temperature of each thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
54. The permittee shall maintain monthly records of the quantity of natural gas used (in cubic feet) by the drying ovens under this permit and the regenerative thermal oxidizer serving this permit. These records shall be used to determine compliance with the rolling 12 consecutive month natural gas usage limits. [District Rules 1070 and 2201]
55. The permittee shall maintain monthly records of the total VOC emissions from the entire stationary source (excluding permit unit N-1646-34). These records shall be used to determine compliance with the rolling 12 consecutive month VOC limit. [District Rules 1070 and 2201]
56. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309] Federally Enforceable Through Title V Permit
57. The regenerative thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District , Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
58. The regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
59. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
60. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
61. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-1646-38-7

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

MODIFICATION OF GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN S 64" WIDE 8-COLOR HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #523) WITH ONE 9.4 MMBTU/HR NATURAL GAS FIRED MEGTEC MODEL DD III-135-2080 DRYING OVEN #1 (WITH MAXON LOW NOX BURNERS) AND ONE 9.0 MMBTU/HR NATURAL GAS FIRED MEGTEC MODEL DD III-135-2080 DRYING OVEN #2 (WITH MAXON LOW NOX BURNERS) EACH SERVED BY THE SHARED 9.5 MMBTU/HR MEGTEC ENTERPRISE II OR THE 18 MMBTU/HR REECO RETHERM MODEL E NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZERS TO CONVERT THE CURRENT DAILY SPECIFIC LIMITING CONDITION (SLC) FROM 235.6 LB-VOC/DAY AN ANNUAL SLC OF 85,994 LB-VOC/YEAR. IN ADDITION, THE CURRENT DAILY EMISSIONS LIMIT WILL BE INCREASED FROM 95.5 LB-VOC/DAY TO 105 LB-VOC/DAY.

CONDITIONS

1. {1830} 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. {1831} 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. {15} 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]

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

DAVID WARNER, Director of Permit Services

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6. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 85,994 pounds in any rolling 12 consecutive month period. [District Rule 2201]
7. Total NO_x emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. [District Rule 2201]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in each drying oven shall be installed, utilized and maintained. [District Rules 2201] Federally Enforceable Through Title V Permit
11. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]
13. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
14. Each thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
15. The VOC content of organic solvents used to perform surface preparation or solvent cleaning shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
16. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
17. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
18. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
20. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
21. The VOC content of the materials shall not exceed the following: inks less than 45% VOC by weight (less water and exempt compounds) and fountain solutions less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
22. VOC emissions from the printing inks and solvents shall not exceed 105.0 pounds in any one day. [District Rule 2201]
23. NOx emissions from the drying ovens shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
24. CO emissions from the drying ovens shall not exceed 25.0 ppmvd @ 19% O2. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
25. Emissions from the drying ovens shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
26. NOx emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
27. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O2. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
28. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
29. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 137,000 cubic feet in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 50.0 million cubic feet in any 12 consecutive month period. [District Rule 2201]
31. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District NSR Rule] Federally Enforceable Through Title V Permit
32. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
33. Source testing to measure NOx and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309, 6.3.2] Federally Enforceable Through Title V Permit
34. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309, 6.3.7] Federally Enforceable Through Title V Permit
35. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
36. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
37. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

38. 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 4309. [District Rule 4309, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
39. 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 Rule 4309, 5.5.6] Federally Enforceable Through Title V Permit
40. 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
41. 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
42. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
43. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
44. 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
45. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
46. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
47. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
48. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
49. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

50. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
51. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3). Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201]
52. The permittee shall maintain monthly records of the quantity of natural gas used (in cubic feet) by the drying ovens under this permit. These records shall be used to determine compliance with the rolling 12 consecutive month natural gas usage limit. [District Rules 1070 and 2201]
53. The permittee shall maintain monthly records of the total VOC emissions from the entire stationary source (excluding permit unit N-1646-34). These records shall be used to determine compliance with the rolling 12 consecutive month VOC limit. [District Rules 1070 and 2201]
54. 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, and 4607, and 4309] Federally Enforceable Through Title V Permit
55. Each regenerative thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District , Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
56. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
57. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
58. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
59. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1646-39-8

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

MODIFICATION OF GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN N 38" WIDE 5-COLOR HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #524) WITH ONE 4.587 MMBTU/HR NATURAL GAS FIRED THERMO WISCONSIN MODEL APOLLO A3100 DRYING OVEN SERVED BY THE SHARED 5.728 MMBTU/HR MEGTEC CLEANSWITCH MODEL CS-300-95 NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZER, AND ONE WORLD WIDE GRAPHICS MODEL WWG DAF-1500 AQUEOUS/UV COATER WITH A RADIANT CURING UNIT AND PRIME UV 6-LAMP CURING SYSTEM TO CONVERT THE CURRENT DAILY SPECIFIC LIMITING CONDITION (SLC) FROM 235.6 LB-VOC/DAY TO AN ANNUAL SLC OF 85,994 LB-VOC/YEAR. IN ADDITION, THE CURRENT DAILY EMISSIONS LIMIT WILL BE INCREASED FROM 27.5 LB-VOC/DAY TO 40 LB-VOC/DAY.

CONDITIONS

1. {1830} 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. {1831} 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. {15} 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]

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

DAVID WARNER, Director of Permit Services

N-1646-39-8: Oct 3 2013 9:45AM -- CHANK Joint Inspection NOT Required

6. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 85,994 pounds in any rolling 12 consecutive month period. [District Rule 2201]
7. Total NOx emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. [District Rule 2201]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The drying oven and thermal oxidizer shall be fired exclusively on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the drying oven shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
11. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the thermal oxidizer shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. [District Rule 4102]
14. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District NSR Rule and 4607, 5.6] Federally Enforceable Through Title V Permit
15. The thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District NSR Rule and 4607, 5.6] Federally Enforceable Through Title V Permit
16. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
17. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
18. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
19. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
21. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
22. The VOC content of the materials shall not exceed the following: inks less than 45% VOC by weight (less water and exempt compounds) and fountain solutions less than 15% by volume. [District NSR Rule] Federally Enforceable Through Title V Permit
23. VOC emissions from the printing inks and solvents shall not exceed 40.0 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
24. NO_x emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
25. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Emissions from the drying oven shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
27. NO_x emissions from the regenerative thermal oxidizer shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
28. CO emissions from the regenerative thermal oxidizer shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Emissions from the regenerative thermal oxidizer shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
30. The total quantity of natural gas used in the drying oven under this permit unit shall not exceed 11.651 million cubic feet in any 12 consecutive month period. [District Rule 2201] Federally Enforceable Through Title V Permit
31. The total quantity of natural gas used in the thermal oxidizer shall not exceed 25.0 million cubic feet in any 12 consecutive month period. [District Rule 2201] Federally Enforceable Through Title V Permit
32. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
33. 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, 7.1] Federally Enforceable Through Title V Permit
34. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
35. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
36. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
37. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

38. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
39. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
40. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
41. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3). Operational temperature of the regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
42. The permittee shall maintain monthly records of the quantity of natural gas used (in cubic feet) by the drying ovens under this permit and the regenerative thermal oxidizer serving this permit. These records shall be used to determine compliance with the rolling 12 consecutive month natural gas usage limits. [District Rules 1070 and 2201]
43. The permittee shall maintain monthly records of the total VOC emissions from the entire stationary source (excluding permit unit N-1646-34). These records shall be used to determine compliance with the rolling 12 consecutive month VOC limit. [District Rules 1070 and 2201]
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, and 4607] Federally Enforceable Through Title V Permit
45. The regenerative thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District , Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
46. The regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
47. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
48. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
49. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: N-1646-45-1

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

MODIFICATION OF GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN S 72" WIDE WEB-FED 8 PRINTING UNITS HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #MR516) AND TWO 13.7 MMBTU/HR NATURAL GAS FIRED MEGTEC MODEL DDIII-153-2083-1830 DRYING OVENS (EACH CONSISTS OF ONE 10.5 MMBTU/HR MAXON OPTIMA SLS ULTRA LOW NOX BURNER AND TWO 1.6 MMBTU/HR MAXON CYCLOMAX LOW NOX BURNERS) SERVED BY THE SHARED 9.5 MMBTU/HR MEGTEC ENTERPRISE II OR THE 18 MMBTU/HR REECO RETHERM MODEL E NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZERS TO CONVERT THE CURRENT DAILY SPECIFIC LIMITING CONDITIONS (SLC) FROM 235.6 LB-VOC/DAY TO AN ANNUAL SLC OF 85,994 LB-VOC/YEAR. IN ADDITION, THE CURRENT DAILY EMISSIONS LIMIT WILL BE INCREASED FROM 74.1 LB-VOC/DAY TO 105 LB-VOC/DAY.

CONDITIONS

1. {1830} 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. {1831} 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. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. {15} 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]

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.

Sayed Sadredin, Executive Director APCO

DAVID WARNER, Director of Permit Services

N-1646-45-1 - Oct 3 2013 9:48AM -- CHANK Joint Inspection NOT Required

6. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 85,994 pounds in any rolling 12 consecutive month period. [District Rule 2201]
7. Total NOx emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. [District Rule 2201]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in each drying oven shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the regenerative thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The exhaust stack of the regenerative thermal oxidizer shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]
13. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607] Federally Enforceable Through Title V Permit
14. Each regenerative thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607] Federally Enforceable Through Title V Permit
15. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings). [District Rule 4607] Federally Enforceable Through Title V Permit
16. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607] Federally Enforceable Through Title V Permit
17. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607] Federally Enforceable Through Title V Permit
18. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

19. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607] Federally Enforceable Through Title V Permit
20. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607] Federally Enforceable Through Title V Permit
21. The VOC content of the materials shall not exceed any of the following: High-end graphics heatset inks shall have a VOC content less than 45 percent by weight (less water and exempt compounds) and fountain solutions shall have a VOC content less than 15 percent by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
22. VOC emissions from the printing inks and solvents shall not exceed 105.0 pounds in any one day. [District Rule 2201]
23. NOx emissions from the drying ovens shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201 & 4309] Federally Enforceable Through Title V Permit
24. CO emissions from the drying ovens shall not exceed 20.0 ppmvd @ 19% O2. [District Rules 2201 & 4309] Federally Enforceable Through Title V Permit
25. Emissions from the drying ovens shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
26. NOx emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201] Federally Enforceable Through Title V Permit
27. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O2. [District Rules 2201] Federally Enforceable Through Title V Permit
28. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
29. The total quantity of natural gas used in each drying oven shall not exceed 95.9 million cubic feet in any rolling 12 consecutive month period. [District Rule 2201] Federally Enforceable Through Title V Permit
30. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
31. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607] Federally Enforceable Through Title V Permit
32. Source testing to measure NOx and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309]
33. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309] Federally Enforceable Through Title V Permit
34. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309] Federally Enforceable Through Title V Permit
35. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
36. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
37. 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 4309. [District Rule 4309] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

38. 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 Rule 4309] Federally Enforceable Through Title V Permit
39. 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
40. 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
41. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309] Federally Enforceable Through Title V Permit
42. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309] Federally Enforceable Through Title V Permit
43. 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309] Federally Enforceable Through Title V Permit
44. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309] Federally Enforceable Through Title V Permit
45. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607] Federally Enforceable Through Title V Permit
46. The permittee shall record on a daily basis, the type, amount, and VOC content of each ink, coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607] Federally Enforceable Through Title V Permit
47. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (3). Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
48. The permittee shall maintain monthly records of the quantity of natural gas used (in cubic feet) by each drying oven under this permit. These records shall be used to determine compliance with the rolling 12 consecutive month natural gas usage limit. [District Rules 1070 and 2201]
49. The permittee shall maintain monthly records of the total VOC emissions from the entire stationary source (excluding permit unit N-1646-34). These records shall be used to determine compliance with the rolling 12 consecutive month VOC limit. [District Rules 1070 and 2201]

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CONDITIONS CONTINUE ON NEXT PAGE

50. 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, 4607, and 4309] Federally Enforceable Through Title V Permit
51. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
52. Each regenerative thermal incinerator shall be equipped with a continuous temperature monitoring and recording instrument. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
53. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
54. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
55. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

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APPENDIX B

**Current Permits to Operate N-1646-6-5, '-16-5, '-23-5, '-36-4, '-37-3, '-38-5,
'-39-6, and ATC Permit N-1646-45-0**

San Joaquin Valley Air Pollution Control District

FACILITY: N-1646-0-3

EXPIRATION DATE: 09/30/2018

FACILITY-WIDE REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. Total Volatile Organic Compound (VOC) emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 235.6 pounds in any single day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. Total NOx emissions from the entire stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds during any one day. A daily log of fuel usage for each dryer and for each regenerative thermal oxidizer shall be maintained on the premises. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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, 6.1 and Merced County Rule 109] Federally Enforceable Through Title V Permit
6. 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, 7.0 and Merced County Rule 109] Federally Enforceable Through Title V Permit
7. The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
8. Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
9. The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.8.1 and 9.12.1] Federally Enforceable Through Title V Permit
10. A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
11. Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

Facility Name: QG, LLC
Location: 2201 COOPER AVE, MERCED, CA 95348
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12. The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
13. The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
14. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
15. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V Permit
16. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
17. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
18. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
19. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
20. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
21. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
22. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
23. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
24. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
26. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (2/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and Merced County Rule 401]] Federally Enforceable Through Title V Permit
27. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating within the District with a VOC content in excess of the corresponding limit specified in the Table of Standards 1 (effective through 12/31/2010) or the Table of Standards 2 (effective on and after 1/1/2011) of District Rule 4601 (12/17/09). [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
28. All VOC-containing materials for architectural coatings subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
29. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
30. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
31. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
32. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR 82, Subpart B. [40 CFR 82, Subpart B] Federally Enforceable Through Title V Permit
33. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
34. Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
35. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
36. Whenever open areas are disturbed or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
37. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/04) or Rule 8011 (8/19/04). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

38. Any unpaved vehicle/equipment area that anticipates more than 75 vehicle trips per day shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 100 vehicle trips per day shall comply with the requirements of Section 5.1.2 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/04) or Rule 8011 (8/19/04). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
39. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit
40. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
41. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
42. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
43. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following outdated SIP requirements: Merced County Rule 401 and Merced County Rule 109. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
44. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601, sections 5.1, 5.2, 5.3 and 5.8 (12/17/09); 8021 (8/19/04); 8031 (8/19/04); 8041 (8/19/04); 8051 (8/19/04); 8061 (8/19/04); and 8071 (9/16/04). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
45. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin August 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1646-6-6

EXPIRATION DATE: 09/30/2018

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE HARRIS MODEL 1000B HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS #514 SERVED BY TWO TEC NATURAL GAS FIRED DRYING OVENS (TOTAL OF 1.4 MMBTU/HR) ALL VENTED TO THE 9.5 MMBTU/HR MEG TEC ENTERPRISE II OR 18 MMBTU/HR REECO RETHERM MODEL E REGENERATIVE THERMAL OXIDIZERS

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The drying oven serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the thermal oxidizer at all times except during periods of start-up while the dryer is being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The collection system for the dryer exhaust and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
5. Each thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
6. Each thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District , Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
7. Each thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The incinerator shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. [District Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
8. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
9. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

10. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
11. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
12. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
13. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
14. The Volatile Organic Compound (VOC) content of the printing inks as applied (excluding water and exempt compounds) shall be less than 45% by weight and the VOC content of the fountain solutions shall be less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
15. VOC emissions from the printing inks and solvents shall not exceed 37.5 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. NO_x emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
17. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Emissions from the drying oven shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. NO_x emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
20. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
23. 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, 7.1] Federally Enforceable Through Title V Permit
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
26. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
27. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
28. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
29. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
30. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
31. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Cumulative quantity of VOC emitted (in pounds) from all graphic arts printing operations at the facility; (3) Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (4) Operational temperature of the regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
32. 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, and 4607] Federally Enforceable Through Title V Permit
33. Each thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2520, 9.3.2 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
34. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
35. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
36. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1646-16-6

EXPIRATION DATE: 09/30/2018

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE HARRIS MODEL 1000 HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS #517 SERVED BY TWO TEC NATURAL GAS FIRED DRYING OVENS (TOTAL OF 1,366 MMBTU/HR) ALL VENTED TO THE 9.5 MMBTU/HR MEG TEC ENTERPRISE II OR 18 MMBTU/HR REECO RETHERM MODEL E REGENERATIVE THERMAL OXIDIZERS

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The drying oven serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the thermal oxidizer at all times except during periods of start-up while the dryer is being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The collection system for the dryer exhaust and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
5. Each thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
6. Each thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District, Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
7. Each thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The incinerator shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. [District Rules 2201, 2520, 9.3.2, and 40 CFR Part 64] Federally Enforceable Through Title V Permit
8. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
9. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: QG, LLC
Location: 2201 COOPER AVE, MERCED, CA 95348
N-1646-16-6: Sep 28 2013 11:11AM - CHANK

10. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
11. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment that is proven to be equally effective at controlling adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
12. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
13. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
14. The Volatile Organic Compound (VOC) content of the printing inks as applied (excluding water and exempt compounds) shall be less than 45% by weight and the VOC content of the fountain solutions shall be less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
15. VOC emissions from the printing inks and solvents shall not exceed 27 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. NOx emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
17. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Emissions from the drying oven shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. NOx emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
20. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
23. 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, 7.1] Federally Enforceable Through Title V Permit
24. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
26. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
27. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
28. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
29. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
30. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
31. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Cumulative quantity of VOC emitted (in pounds) from all graphic arts printing operations at the facility; (3) Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (4) Operational temperature of the regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
32. 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, and 4607] Federally Enforceable Through Title V Permit
33. Each thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2520, 9.3.2 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
34. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
35. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
36. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR part 64] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1646-23-6

EXPIRATION DATE: 09/30/2018

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE HEIDELBERG HARRIS MODEL M-1000B HEATSET OFFSET PRINTING PRESS #519 SERVED BY ONE 9.2 MMBTU/HR THERMAL ELECTRON MODEL A3406E DRYING OVEN VENTED TO THE 9.5 MMBTU/HR MEG TEC ENTERPRISE II OR 18 MMBTU/HR REECO RETHERM MODEL E REGENERATIVE THERMAL OXIDIZERS

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the regenerative thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
5. Each regenerative thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
6. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. [District Rules 2201 and 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
7. Each regenerative thermal incinerator shall be equipped with a continuous temperature monitoring and recording instrument. [District Rules 2201 and 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
8. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit
9. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

10. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
11. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
12. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
13. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
14. The Volatile Organic Compound (VOC) content of the printing inks as applied (excluding water and exempt compounds) shall be less than 45% by weight and the VOC content of the fountain solutions shall be less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
15. VOC emissions from the printing inks and solvents shall not exceed 37.5 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
16. NO_x emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
17. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O₂. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
18. Emissions from the drying oven shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. NO_x emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
20. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O₂. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
21. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
22. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
23. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
24. Source testing to measure NO_x and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309, 6.3.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

25. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309, 6.3.7] 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. [District Rule 4309, 6.2] 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 Rule 4309, 6.2] 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 Rule 4309, 6.2] Federally Enforceable Through Title V Permit
29. 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 4309. [District Rule 4309, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
30. 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 Rule 4309, 5.5.6] Federally Enforceable Through Title V Permit
31. 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
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 NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
34. If either the NOx or CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
35. 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
36. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 19% O2 (or no correction if measured above 19% O2), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

37. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
38. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
39. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
40. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
41. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
42. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Cumulative quantity of VOC emitted (in pounds) from all graphic arts printing operations at the facility; (3) Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (4) Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
43. 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, and 4607, and 4309] Federally Enforceable Through Title V Permit
44. Each thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
45. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
46. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
47. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1646-36-5

EXPIRATION DATE: 09/30/2018

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN S 57.5" WIDE 8-COLOR HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #520) AND TWO 9.9 MMBTU/HR NATURAL GAS FIRED MEGTEC MODEL DD III-135 DRYING OVENS (EACH CONSISTS OF AN 8.4 MMBTU/HR MAXON OVENPAK 400 BURNER AND A 1.5 MMBTU/HR MAXON APX BURNER) SERVED BY THE SHARED 9.5 MMBTU/HR MEGTEC ENTERPRISE II OR THE 18 MMBTU/HR REECO RETHERM MODEL E NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZERS

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the regenerative thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]
5. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the drying ovens shall be installed, utilized and maintained. [District Rules 2201] Federally Enforceable Through Title V Permit
6. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
7. Each regenerative thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
8. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. [District Rules 2201 and 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
9. Each regenerative thermal incinerator shall be equipped with a continuous temperature monitoring and recording instrument. [District Rules 2201 and 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
10. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

11. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
12. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
13. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
14. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
15. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
16. The Volatile Organic Compound (VOC) content of the printing inks as applied (excluding water and exempt compounds) shall be less than 45% by weight and the VOC content of the fountain solutions shall be less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
17. VOC emissions from the printing inks and solvents shall not exceed 95.5 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Emissions from the drying ovens shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. NOx emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
20. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O2. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
21. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
22. NOx emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
23. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O2. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

24. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 18.7 million cubic feet in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
26. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
27. Source testing to measure NO_x and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309, 6.3.2] Federally Enforceable Through Title V Permit
28. All test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309, 6.3.7] Federally Enforceable Through Title V Permit
29. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
30. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
31. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
32. 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 4309. [District Rule 4309, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
33. 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 Rule 4309, 5.5.6] Federally Enforceable Through Title V Permit
34. 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
35. 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
36. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
37. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

38. 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 Rule 4309, 5.4] Federally Enforceable Through Title V Permit
39. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
40. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
41. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
42. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
43. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
44. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
45. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Cumulative quantity of VOC emitted (in pounds) from all graphic arts printing operations at the facility; (3) Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (4) Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
46. The permittee shall maintain a record of the cumulative annual quantity of natural gas used (in cubic feet) by the drying ovens under this permit. The cumulative total quantity of natural gas used shall be updated monthly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
47. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2520, and 4607, and 4309] Federally Enforceable Through Title V Permit
48. The regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
49. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
50. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
51. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1646-37-4

EXPIRATION DATE: 09/30/2018

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN S 64" WIDE 8-COLOR HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #522) WITH ONE 9.4 MMBTU/HR NATURAL GAS FIRED MEG TEC MODEL DD III-135-2080 DRYING OVEN #1 AND ONE 9.0 MMBTU/HR NATURAL GAS FIRED MEG TEC MODEL DD III-135-2080 DRYING OVEN #2 EACH VENTED TO THE SHARED 5.728 MMBTU/HR MEGTEC CLEANSWITCH MODEL CS-300-95 NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZER.

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The drying ovens and regenerative thermal oxidizer shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the drying ovens shall be installed, utilized and maintained. [District Rules 2201] Federally Enforceable Through Title V Permit
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the regenerative thermal oxidizer shall be installed, utilized and maintained. [District Rules 2201] Federally Enforceable Through Title V Permit
5. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the regenerative thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] 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 is acceptable), roof overhang, or any other obstruction. [District Rule 4102] Federally Enforceable Through Title V Permit
7. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The regenerative thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rules 2201 and 2520, and 40 CFR Part 64]
10. The regenerative thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District Rule 2201 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
11. The VOC content of the materials shall not exceed the following: inks less than 45% VOC by weight (less water and exempt compounds) and fountain solutions less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607] Federally Enforceable Through Title V Permit
13. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607] Federally Enforceable Through Title V Permit
14. Solvents shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607] Federally Enforceable Through Title V Permit
15. The permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607] Federally Enforceable Through Title V Permit
16. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607] Federally Enforceable Through Title V Permit
17. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607] Federally Enforceable Through Title V Permit
18. VOC emissions from the printing inks and solvents shall not exceed 95.5 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. NOx emissions from the drying ovens shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2) or 0.0492 lb-NOx/MMBtu. [District Rules 2201 & 4309] Federally Enforceable Through Title V Permit
20. VOC emission from the drying ovens shall not exceed 0.0055 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emissions from the drying ovens shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
22. NOx emissions from the regenerative thermal oxidizer shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2) or 0.0492 lb-NOx/MMBtu. [District Rules 2201 & 4309] Federally Enforceable Through Title V Permit
23. CO emissions from the regenerative thermal oxidizer shall not exceed 25.0 ppmvd @ 19% O2 or 0.174 lb-CO/MMBtu. [District Rules 2201 & 4309] Federally Enforceable Through Title V Permit
24. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
25. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 137,000 cubic feet in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 50.0 million cubic feet in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
27. The total quantity of natural gas used in the regenerative thermal oxidizer shall not exceed 25.0 million cubic feet in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
28. Source testing to demonstrate compliance with the VOC destruction efficiency of the regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
29. Source testing to determine the destruction efficiency of the regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607] Federally Enforceable Through Title V Permit
30. Source testing to measure NO_x and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309] Federally Enforceable Through Title V Permit
31. All test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309] Federally Enforceable Through Title V Permit
32. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309] Federally Enforceable Through Title V Permit
33. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
34. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309] Federally Enforceable Through Title V Permit
35. 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 4309. [District Rule 4309] Federally Enforceable Through Title V Permit
36. 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 Rule 4309] Federally Enforceable Through Title V Permit
37. 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
38. 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
39. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

40. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309] Federally Enforceable Through Title V Permit
41. 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 Rule 4309] Federally Enforceable Through Title V Permit
42. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309] Federally Enforceable Through Title V Permit
43. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607] Federally Enforceable Through Title V Permit
44. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 2201 & 4607] Federally Enforceable Through Title V Permit
45. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607] Federally Enforceable Through Title V Permit
46. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607] Federally Enforceable Through Title V Permit
47. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607] Federally Enforceable Through Title V Permit
48. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Cumulative quantity of VOC emitted (in pounds) from all graphic arts printing operations at the facility; (3) Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (4) Operational temperature of each thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
49. The permittee shall maintain a record of the cumulative annual quantity of natural gas used (in cubic feet) by the drying ovens under this permit. The cumulative total quantity of natural gas used shall be updated monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
50. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4309] Federally Enforceable Through Title V Permit
51. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
52. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

53. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1646-38-6

EXPIRATION DATE: 09/30/2018

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN S 64" WIDE 8-COLOR HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #523) WITH ONE 9.4 MMBTU/HR NATURAL GAS FIRED MEGTEC MODEL DD III-135-2080 DRYING OVEN #1 (WITH MAXON LOW NOX BURNERS) AND ONE 9.0 MMBTU/HR NATURAL GAS FIRED MEGTEC MODEL DD III-135-2080 DRYING OVEN #2 (WITH MAXON LOW NOX BURNERS) EACH SERVED BY THE SHARED 9.5 MMBTU/HR MEGTEC ENTERPRISE II OR THE 18 MMBTU/HR REECO RETHERM MODEL E NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZERS.

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in each drying oven shall be installed, utilized and maintained. [District Rules 2201] Federally Enforceable Through Title V Permit
4. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]
6. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
7. Each thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607, 5.6] Federally Enforceable Through Title V Permit
8. Each thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The VOC content of the materials shall not exceed the following: inks less than 45% VOC by weight (less water and exempt compounds) and fountain solutions less than 15% by volume. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The VOC content of organic solvents used to perform surface preparation or solvent cleaning shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

11. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
12. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
13. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
14. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
15. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
16. VOC emissions from the printing inks and solvents shall not exceed 95.5 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
17. NO_x emissions from the drying ovens shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
18. CO emissions from the drying ovens shall not exceed 25.0 ppmvd @ 19% O₂. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
19. Emissions from the drying ovens shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
20. NO_x emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
21. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O₂. [District Rules 2201 & 4309, 5.2] Federally Enforceable Through Title V Permit
22. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
23. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 137,000 cubic feet in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

24. The total quantity of natural gas used in the drying ovens under this permit unit shall not exceed 50.0 million cubic feet in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
25. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District NSR Rule] Federally Enforceable Through Title V Permit
26. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
27. Source testing to measure NO_x and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer at least once every 24 months. [District Rules 2201 and 4309, 6.3.2] Federally Enforceable Through Title V Permit
28. All test results for NO_x and CO shall be reported in ppmv @ 19% O₂ (or no correction if measured above 19% O₂), corrected to dry stack conditions. [District Rule 4309, 6.3.7] Federally Enforceable Through Title V Permit
29. NO_x emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
30. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
31. Stack gas oxygen (O₂) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309, 6.2] Federally Enforceable Through Title V Permit
32. 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 4309. [District Rule 4309, 5.5.1 & 5.5.2] Federally Enforceable Through Title V Permit
33. 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 Rule 4309, 5.5.6] Federally Enforceable Through Title V Permit
34. 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
35. 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
36. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
37. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

38. 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
39. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309, 5.4] Federally Enforceable Through Title V Permit
40. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
41. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
42. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
43. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
44. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
45. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Cumulative quantity of VOC emitted (in pounds) from all graphic arts printing operations at the facility; (3) Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (4) Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
46. The permittee shall maintain a record of the cumulative annual quantity of natural gas used (in cubic feet) by the drying ovens under this permit. The cumulative total quantity of natural gas used shall be updated monthly. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
47. 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, and 4607, and 4309] Federally Enforceable Through Title V Permit
48. The regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. [District Rules 2201 and 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
49. The regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
50. The regenerative thermal incinerator shall be equipped with a continuous temperature monitoring and recording instrument. [District Rules 2201 and 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
51. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

52. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
53. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: N-1646-39-7

EXPIRATION DATE: 09/30/2018

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN N 38" WIDE 5-COLOR HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #524) WITH ONE 4.587 MMBTU/HR NATURAL GAS FIRED THERMO WISCONSIN MODEL APOLLO A3100 DRYING OVEN SERVED BY THE SHARED 5.728 MMBTU/HR MEGTEC CLEANSWITCH MODEL CS-300-95 NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZER, AND ONE WORLD WIDE GRAPHICS MODEL WWG DAF-1500 AQUEOUS/UV COATER WITH A RADIANT CURING UNIT AND PRIME UV 6-LAMP CURING SYSTEM.

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201] Federally Enforceable Through Title V Permit
2. The drying oven and thermal oxidizer shall be fired exclusively on natural gas. [District NSR Rule] Federally Enforceable Through Title V Permit
3. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the drying oven shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
4. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in the thermal oxidizer shall be installed, utilized and maintained. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201] 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, roof overhang, or any other obstruction. [District Rule 4102]
7. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District NSR Rule and 4607, 5.6] Federally Enforceable Through Title V Permit
8. The thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District NSR Rule and 4607, 5.6] Federally Enforceable Through Title V Permit
9. The thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The incinerator shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. [District Rule 2201] Federally Enforceable Through Title V Permit
10. The thermal oxidizer shall be equipped with an operational continuous temperature monitoring and recording instrument. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings - 12/18/08 version). [District Rule 4607, 5.8.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607, 5.8.3] Federally Enforceable Through Title V Permit
13. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607, 5.8.4] Federally Enforceable Through Title V Permit
14. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607, 5.8.5] Federally Enforceable Through Title V Permit
15. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607, 5.9] Federally Enforceable Through Title V Permit
16. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607, 5.10] Federally Enforceable Through Title V Permit
17. The VOC content of the materials shall not exceed the following: inks less than 45% VOC by weight (less water and exempt compounds) and fountain solutions less than 15% by volume. [District NSR Rule] Federally Enforceable Through Title V Permit
18. VOC emissions from the printing inks and solvents shall not exceed 27.5 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
19. NO_x emissions from the drying oven shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
20. CO emissions from the drying oven shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
21. Emissions from the drying oven shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
22. NO_x emissions from the regenerative thermal oxidizer shall not exceed 4.3 ppmvd @ 19% O₂ (referenced as NO₂). [District Rule 2201] Federally Enforceable Through Title V Permit
23. CO emissions from the regenerative thermal oxidizer shall not exceed 25.0 ppmvd @ 19% O₂. [District Rule 2201] Federally Enforceable Through Title V Permit
24. Emissions from the regenerative thermal oxidizer shall not exceed any of the following limits: 0.00285 lb-SO_x/MMBtu, 0.0076 lb-PM₁₀/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

25. The total quantity of natural gas used in the drying oven under this permit unit shall not exceed 11.651 million cubic feet in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
26. The total quantity of natural gas used in the thermal oxidizer shall not exceed 25.0 million cubic feet in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
27. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201] Federally Enforceable Through Title V Permit
28. 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, 7.1] Federally Enforceable Through Title V Permit
29. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081, 7.3] Federally Enforceable Through Title V Permit
30. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607, 6.4.7] Federally Enforceable Through Title V Permit
31. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607, 6.1.1] Federally Enforceable Through Title V Permit
32. The permittee shall record on a daily basis, the type and amount of each coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607, 6.1.3] Federally Enforceable Through Title V Permit
33. The permittee shall record on a monthly basis, the type and amount of all inks used and their VOC content and densities, using one of the methods listed in Rule 4607, Section 6.1.2.1 (12/18/08 version of Rule 4607). [District Rule 4607, 6.1.2.1] Federally Enforceable Through Title V Permit
34. The permittee shall record on a monthly basis, the type and amount of each ink, coating, adhesive, wash primer, and solvent used. [District Rule 4607, 6.1.2.2] Federally Enforceable Through Title V Permit
35. The permittee shall record on a monthly basis, the type, amount and percent VOC by volume of each fountain solution used. [District Rule 4607, 6.1.2.3] Federally Enforceable Through Title V Permit
36. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Cumulative quantity of VOC emitted (in pounds) from all graphic arts printing operations at the facility; (3) Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (4) Operational temperature of the regenerative thermal oxidizer. [District Rules 1070 and 2201] Federally Enforceable Through Title V Permit
37. The permittee shall maintain a record of the cumulative annual quantity of natural gas used (in cubic feet) by the drying oven and thermal oxidizer under this permit. The cumulative total quantity of natural gas used shall be updated monthly. [District NSR Rule] Federally Enforceable Through Title V Permit
38. 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, and 4607] Federally Enforceable Through Title V Permit
39. The regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. [District Rules 2201 and 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
40. The regenerative thermal incinerator shall be equipped with a continuous temperature monitoring and recording instrument. [District Rules 2201 and 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE
These terms and conditions are part of the Facility-wide Permit to Operate.

41. The regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2520 and 40 CFR Part 64] Federally Enforceable Through Title V Permit
42. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64] Federally Enforceable Through Title V Permit
43. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64] Federally Enforceable Through Title V Permit
44. If the District or EPA determine that a Quality improvement plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR Part 64.8. [40 CFR Part 64] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.



San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT


HEALTHY AIR LIVING™

AUTHORITY TO CONSTRUCT

PERMIT NO: N-1646-45-0

ISSUANCE DATE: 02/21/2013

LEGAL OWNER OR OPERATOR: QG, LLC
MAILING ADDRESS: N61 W23044 HARRY'S WAY
SUSSEX, WI 53089-3995

LOCATION: 2201 COOPER AVE
MERCED, CA 95348

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF ONE MAN ROLAND MODEL ROTOMAN S 72" WIDE WEB-FED 8 PRINTING UNITS HEATSET OFFSET LITHOGRAPHIC PRINTING PRESS (PRESS #MR516) AND TWO 13.7 MMBTU/HR NATURAL GAS FIRED MEGTEC MODEL DDIII-153-2083-1830 DRYING OVENS (EACH CONSISTS OF ONE 10.5 MMBTU/HR MAXON OPTIMA SLS ULTRA LOW NOX BURNER AND TWO 1.6 MMBTU/HR MAXON CYCLOMAX LOW NOX BURNERS) SERVED BY THE SHARED 9.5 MMBTU/HR MEGTEC ENTERPRISE II OR THE 18 MMBTU/HR REECO RETHERM MODEL E NATURAL GAS FIRED REGENERATIVE THERMAL OXIDIZERS

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. Permit to Operate (PTO) N-1646-25-3 shall be cancelled prior to or upon implementation of this Authority to Construct (ATC) permit into a Permit to Operate. [District Rule 2201]
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]
5. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
6. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
7. The drying ovens and regenerative thermal oxidizers shall be fired exclusively on natural gas. [District Rule 2201]

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.

Sayed Sapredji, Executive Director, APCO


DAVID WARNER, Director of Permit Services

K:1646-45-0 Feb 21 2013 p 4/4 - CHANK : Joint Inspection NOT Required

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8. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of natural gas combusted in each drying oven shall be installed, utilized and maintained. [District Rule 2201]
9. The drying ovens serving the heatset offset printing press shall be maintained under negative pressure and shall be vented through the regenerative thermal oxidizer at all times except during periods of start-up while the dryers are being air purged. [District Rule 2201]
10. The exhaust stack of the regenerative thermal oxidizer shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper is acceptable), roof overhang, or any other obstruction. [District Rule 4102]
11. The collection system for the dryer exhausts and for all fugitive VOC emissions shall have a minimum capture efficiency of 90%. [District Rules 2201 and 4607]
12. Each regenerative thermal oxidizer shall be operated with a minimum VOC destruction efficiency of 98%. [District Rules 2201 and 4607]
13. Each regenerative thermal oxidizer shall be operated at a minimum temp. of 1400 deg. F. The regenerative thermal oxidizer shall be preheated to 1400 deg. F prior to the start-up of the heatset offset printing operation. Upon determining an excursion from this requirement, the permittee shall investigate the excursion and take corrective action to minimize emissions and prevent recurrence of the excursion as expeditiously as practicable. [District Rule 2201 and 40 CFR Part 64]
14. Each regenerative thermal incinerator shall be equipped with a continuous temperature monitoring and recording instrument. [District Rule 2201 and 40 CFR Part 64]
15. The VOC content of the materials shall not exceed any of the following: High-end graphics heatset inks shall have a VOC content less than 45 percent by weight (less water and exempt compounds) and fountain solutions shall have a VOC content less than 15 percent by volume. [District Rule 2201]
16. The VOC content of organic solvents used to perform surface preparation or cleanup shall not exceed the VOC content limits specified in Table 7 of Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings). [District Rule 4607]
17. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: (1) wipe cleaning; or (2) application of solvent from hand-held spray bottles from which solvents are dispensed without a propellant-induced force; or (3) non-atomized solvent flow method in which the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container; or (4) solvent flushing method in which the cleaning solvent is discharged into a container that is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. The discharged solvent from the equipment must be collected into containers without atomizing into the open air. The solvent may be flushed through the system by air or hydraulic pressure, or by pumping. [District Rule 4607]
18. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, solvent shall not be atomized into the open air unless it is vented to a VOC control device. This provision shall not apply to operations where roller or blanket wash is applied automatically and the cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems, and cleaning with nonpropellant-induced, hand-held spray bottles or containers which solvents are dispensed without a propellant-induced force. [District Rule 4607]
19. For a permittee using any solvent containing more than 25 g/L (0.21 lb/gal) of VOC for organic solvent cleaning, the permittee shall not use VOC-containing material to clean spray equipment used for the application of coatings, adhesives, or ink, unless an enclosed system or equipment that is proven to be equally effective at controlling emissions is used for cleaning. If an enclosed system is used, it must totally enclose spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, draining procedures, and it must be used according to manufacturer's recommendations and must be closed when not in use. [District Rule 4607]
20. Permittee shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, thinners, and inks in closed, non-absorbent, non-leaking containers. The containers shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. [District Rule 4607]

CONDITIONS CONTINUE ON NEXT PAGE

21. The permittee shall properly use and operate all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts material. [District Rule 4607]
22. VOC emissions from the printing inks and solvents shall not exceed 74.1 pounds in any one day. [District Rule 2201]
23. NOx emissions from the drying ovens shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201 & 4309]
24. CO emissions from the drying ovens shall not exceed 20.0 ppmvd @ 19% O2. [District Rules 2201 & 4309]
25. Emissions from the drying ovens shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201]
26. NOx emissions from the regenerative thermal oxidizers shall not exceed 4.3 ppmvd @ 19% O2 (referenced as NO2). [District Rules 2201]
27. CO emissions from the regenerative thermal oxidizers shall not exceed 25.0 ppmvd @ 19% O2. [District Rules 2201]
28. Emissions from the regenerative thermal oxidizers shall not exceed any of the following limits: 0.00285 lb-SOx/MMBtu, 0.0076 lb-PM10/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rule 2201]
29. Total VOC emissions from the stationary source (excluding permit unit N-1646-34) shall not exceed 235.6 pounds in any one day. [District Rule 2201]
30. Total NOx emissions from the stationary source (excluding permit unit N-1646-34) shall not exceed 150 pounds in any one day. [District Rule 2201]
31. The total quantity of natural gas used in each drying oven shall not exceed 95.9 million cubic feet in any one calendar year. [District Rule 2201]
32. Source testing to demonstrate compliance with the VOC destruction efficiency of each regenerative thermal oxidizer shall be conducted on an annual basis. [District Rule 2201]
33. Source testing to determine the destruction efficiency of each regenerative thermal oxidizer shall be conducted using EPA Methods 2, 2A, or 2D for measuring flow rates and EPA Methods 25, 25A, or 25C for measuring total gaseous organic concentrations at the inlet and outlet of the control device. [District Rule 4607]
34. Source testing to measure NOx and CO emissions from the drying ovens shall be conducted at the exhaust of the associated regenerative thermal oxidizer within 60 days of initial start-up and at least once every 24 months thereafter. [District Rules 2201 and 4309]
35. All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
36. NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
37. CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
38. Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
39. 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 4309. [District Rule 4309]
40. 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 Rule 4309]
41. 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]
42. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]

CONDITIONS CONTINUE ON NEXT PAGE

43. The permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
44. If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
45. 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 readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]
46. The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range [District Rule 4309]
47. Permittee shall maintain a current file of coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include material safety data sheet (MSDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607]
48. The permittee shall record on a daily basis, the type, amount, and VOC content of each ink, coating, adhesive, fountain solution, wash primer, and solvent used. [District Rule 4607]
49. The permittee shall maintain daily records of the following: (1). Quantity of VOC emitted (in pounds) from this printing press; (2). Cumulative quantity of VOC emitted (in pounds) from all graphic arts printing operations at the facility; (3) Quantity of natural gas used (in cubic feet) by each drying oven and each thermal oxidizer at the facility; (4) Operational temperature of each regenerative thermal oxidizer. [District Rules 1070 and 2201]
50. The permittee shall maintain a record of the cumulative annual quantity of natural gas used (in cubic feet) by each drying oven under this permit. The cumulative total quantity of natural gas used shall be updated at least monthly. [District Rule 2201]
51. The permittee shall comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR part 64.7. [40 CFR part 64]
52. The permittee shall comply with the recordkeeping and reporting requirements of 40 CFR part 64.9. [40 CFR part 64]
53. If the District or EPA determine that a Quality Improvement Plan is required under 40 CFR part 64.7(d)(2), the permittee shall develop and implement the Quality Improvement Plan in accordance with 40 CFR part 64.8. [40 CFR Part 64]
54. 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, 4607, and 4309]

APPENDIX C

Facility and Project Annual PE for CO₂e Emissions

Facility Annual PE for CO₂e Emissions Determination:

The following table lists all sources of CO₂e emission sources at this facility along with the potential annual natural gas fuel heat input rates or diesel fuel combustion rates before proposed project increases.

Facility CO₂e Emission Sources	
Permit Unit	Fuel Usage Rates ⁽¹²⁾
N-1646-6-5 (Printing Press #514 with a total of 1.366 MMBtu/hr Drying Ovens)	11,966.2 MMBtu/year
N-1646-16-5 (Printing Press #517 with a total of 1.366 MMBtu/hr Drying Ovens)	11,966.2 MMBtu/year
N-1646-23-5 (Printing Press #519 with a total of 9.2 MMBtu/hr Drying Oven)	80,592 MMBtu/year
N-1646-34-1 (235 hp Diesel-Fired Emergency IC Engine)	1,246 gal/year ⁽¹³⁾
N-1646-36-4 (Printing Press #520 with a total of 19.8 MMBtu/hr Drying Ovens)	18,700 MMBtu/year ⁽¹⁴⁾
N-1646-37-3 (Printing Press #522 with a total of 18.4 MMBtu/hr Drying Ovens)	50,000 MMBtu/year ⁽¹⁵⁾
N-1646-38-5 (Printing Press #523 with a total of 18.4 MMBtu/hr Drying Ovens)	50,000 MMBtu/year ⁽¹¹⁾
N-1646-39-6 (ATC Permit) (Printing Press #524 with a total of 4.587 MMBtu/hr Drying Oven)	11,651 MMBtu/year ⁽¹⁶⁾
N-1646-45-0 (ATC Permit) (Printing Press with a total of 7.7 MMBtu/hr Drying Ovens)	191,800 MMBtu/year
18.0 MMBtu/hr Reeco Retherm RTO	157,680 MMBtu/year
9.5 MMBtu/hr Megtec Enterprise II RTO	83,220 MMBtu/year
5.728 MMBtu/hr Megtec Cleanswitch RTO	25,000 MMBtu/year ⁽¹⁷⁾
Total Natural Gas Usage Rate	692,575.4 MMBtu/year
Total Diesel Fuel Usage Rate	1,246 gal/year

Project Annual PE for CO₂e Emissions Determination:

The applicant is only proposing a daily VOC emissions increase to the existing graphic arts printing operation with no increase in the potential annual natural gas fuel heat input rates. The project annual natural gas usage rate will be equal to the facility natural gas usage rate, therefore:

$$\begin{aligned}\text{Project Annual Natural Gas Usage Rate} &= \text{Facility Annual Natural Gas Usage Rate} \\ &= \mathbf{692,575.4 \text{ MMBtu/year}}\end{aligned}$$

¹² Unless otherwise noted, the annual fuel usage rate is based on operating 24 hrs/day and 365 days/year.

¹³ Engine Fuel Usage Rate = 235 hp × 2,542.5 Btu/hp-hr × 1 gal. diesel fuel/137,000 Btu × 1 hp input/0.35 hp output × 100 hr/year = 1,246 gal/year

¹⁴ Annual fuel usage rate for this permit unit is limited by a permit condition to not exceed 18.7 million cubic feet/year or 18,700 MMBtu/year.

¹⁵ Annual fuel usage rate for these permit units are limited by permit condition to not exceed 50.0 million cubic feet/year or 50,000 MMBtu/year.

¹⁶ Annual fuel usage rate for this permit unit is limited by a permit condition to not exceed 11.651 million cubic feet/year or 11,651 MMBtu/year.

¹⁷ Annual fuel usage rate for this permit unit is limited by a permit condition to not exceed 25.0 million cubic feet/year or 25,000 MMBtu/year.

CO₂ Equivalent (CO₂e) Emission Factor:

The following emission factors and global warming potentials for diesel and natural gas fuel are taken from the California Climate Change Action Registry (CCAR), Version 3.1, January, 2009 (Appendix C, Tables C.1, C.3, C.6, C.7, and C.8):

GHG Emission Factors (EF) and Global Warming Potentials (GWP)			
GHG Pollutant	EF _{Diesel} CO ₂ e	EF _{Natural Gas}	Global Warming Potential
CO ₂	22.3 lb/gal	116.7 lb/MMBtu	1 lb-CO ₂ E/lb-CO ₂
CH ₄	0.006 lb/gal	0.011 lb/MMBtu	23 lb-CO ₂ E/lb-CH ₄
N ₂ O	0.001 lb/gal	0.00022 lb/MMBtu	296 lb-CO ₂ E/lb-N ₂ O

The CO₂E emission factor is calculated below, using the GHG pollutant emission factors and the global warming potentials.

$$\begin{aligned} \text{EF}_{\text{Diesel}} \text{ CO}_2\text{e} &= 22.3 \text{ lb-CO}_2/\text{gal} \times 1 \text{ lb-CO}_2\text{E/lb-CO}_2 + 0.006 \text{ lb/gal} \times 23 \text{ lb-CO}_2\text{E/lb-CH}_4 \\ &\quad + 0.001 \text{ lb/gal} \times 296 \text{ lb-CO}_2\text{E/lb-N}_2\text{O} \\ &= \mathbf{22.734 \text{ lb-CO}_2\text{e/gallon}} \end{aligned}$$

$$\begin{aligned} \text{EF}_{\text{Natural Gas}} \text{ CO}_2\text{e} &= 116.7 \text{ lb/MMBtu} \times 1 \text{ lb-CO}_2\text{E/lb-CO}_2 + 0.011 \text{ lb/MMBtu} \\ &\quad \times 23 \text{ lb-CO}_2\text{E/lb-CH}_4 + 0.00022 \text{ lb/MMBtu} \times 296 \text{ lb-CO}_2\text{E/lb-N}_2\text{O} \\ &= \mathbf{117.018 \text{ lb-CO}_2\text{e/MMBtu}} \end{aligned}$$

Facility GHG Emission Calculations:

$$\begin{aligned} \text{Facility Annual PE}_{\text{Diesel}} &= 1,246 \text{ gal/year} \times 22.734 \text{ lb-CO}_2\text{e/gallon} \times 1 \text{ ton}/2,000 \text{ lb} \\ &= \mathbf{14.2 \text{ short ton-CO}_2\text{e/year}} \end{aligned}$$

$$\begin{aligned} \text{Facility Annual PE}_{\text{Natural Gas}} &= 692,575.4 \text{ MMBtu/year} \times 117.018 \text{ lb-CO}_2\text{e/MMBtu} \\ &\quad \times 1 \text{ ton}/2,000 \text{ lb} \\ &= \mathbf{40,521.9 \text{ short ton-CO}_2\text{e/year}} \end{aligned}$$

$$\begin{aligned} \text{Total Facility Annual PE} &= 14.2 \text{ short ton-CO}_2\text{e/year} + 40,521.9 \text{ short ton-CO}_2\text{e/year} \\ &= \mathbf{40,536.1 \text{ short ton-CO}_2\text{e/year}} \end{aligned}$$

Project GHG Emission Calculations:

$$\begin{aligned} \text{Project Annual PE}_{\text{Natural Gas}} &= 692,575.4 \text{ MMBtu/year} \times 117.018 \text{ lb-CO}_2\text{e/MMBtu} \\ &\quad \times 1 \text{ ton}/2,000 \text{ lb} \\ &= \mathbf{40,521.9 \text{ short ton-CO}_2\text{e/year}} \end{aligned}$$

APPENDIX D

District BACT Clearinghouse Guideline 4.7.1

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 4.7.1*

Last Update 6/25/1999

**Offset Lithographic Printing - Publication Printing, High-end
Graphics, Heatset using with a Drying Oven**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	Natural gas fuel used in the drying oven	Catalytic Oxidation	
NOx	Natural gas fuel used in the drying oven		
VOC	Using low VOC fountain solutions and inks compliant with District Rule 4607 (Graphic Arts) (This control is achieved in practice only for facilities subject to Rule 4607.)	1. VOC capture and incineration using high-end graphics heatset inks with a VOC content < 45% by weight (less water and exempt compounds) and fountain solutions with a VOC content of < 15% by volume 2. VOC capture and carbon adsorption using high-end graphics heatset inks with a VOC content of < 45% by weight (less water and exempt compounds) and fountain solutions with a VOC content of < 15% by volume 3. Using low VOC fountain solutions and inks compliant with District Rule 4607 (Graphic Arts)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

APPENDIX E

Baseline Actual Emissions (BAE) Calculations

BAE Calculations For VOC and NOx

The Baseline Actual Emissions (BAE) are emissions having actually occurred and are calculated from actual sulfuric acid production records, natural gas fuel usage records, or continuous emissions monitoring system (CEMS) records, utilizing established emission factors (EF) or actual source tested emission rates.

The following calculations will be utilized to calculate the Net Emissions Increase (NEI) for VOC and NOx emissions to determine if the proposed project will be a SB-288 Major Modification or a Federal Major Modification as discussed in Section VII.F. and G. of this document.

According to District Rule 2201, Section 3.8.1, the baseline period is a period of time equal to the two consecutive years of operation immediately prior to the submission date of the Complete Application. For this project the two consecutive years immediately prior to the submission date of the complete application is from April 1, 2011 to March 31, 2013 and will be referenced as the baseline period for this project. The quarterly baseline period VOC emission rates and natural gas usages (converted to MMBtu @ 1,000 BTU/scf) were provided by the applicant as listed in the tables below.

VOC Emissions from Ink and Solvent Usage					
Year	1 st Qtr (lb/qtr)	2 nd Qtr (lb/qtr)	3 rd Qtr (lb/qtr)	4 th Qtr (lb/qtr)	Total Annual (lb/yr)
2011	---	11,528	9,738	10,618	---
2012	8,080	9,333	10,010	13,436	---
2013	10,368	---	---	---	---
Average	9,224	10,431	9,874	12,027	41,556

Printing Press 514 (N-1646-6-5) Drying Oven Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	981	954	991	---
2012	833.2	715	635	787	---
2013	688	---	---	---	---
Average	760.6	848	794.5	889	3,292.1

Printing Press 519 (N-1646-23-5) Drying Oven Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	987	923	1,221	---
2012	1,124	1,044	1,227	1,273.8	---
2013	865.9	---	---	---	---
Average	995.0	1,015.5	1,075	1,247.4	4,332.9

Printing Press 508 (N-1646-25-4) Drying Oven Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	2,311	2,445.2	2,798.6	---
2012	2,258	2,158	2,272	2,363.4	---
2013	1,548	---	---	---	---
Average	1,903	2,234.5	2,358.6	2,581	9,077.1

Printing Press 520 (N-1646-36-4) Drying Oven Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	1,715.4	1,826.2	1,687	---
2012	1,614	1,579	1,178.6	1,387.6	---
2013	1,184	---	---	---	---
Average	1,399	1,647.2	1,502.4	1,537.3	6,085.9

Printing Press 522 (N-1646-37-3) Drying Oven Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	2,307	2,217.1	2,294	---
2012	1,761	1,926	1,966	2,377.9	---
2013	1,905.5	---	---	---	---
Average	1,833.3	2,116.5	2,091.6	2,336	8,377.4

Printing Press 523 (N-1646-38-5) Drying Oven Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	2,404	2,038	2,720	---
2012	2,150.9	2,381	1,689	2,456	---
2013	2,073.1	---	---	---	---
Average	2,112	2,392.5	1,863.5	2,588	8,956

Printing Press 524 (N-1646-39-6) Drying Oven Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	2,222.1	1,855.8	2,142.3	---
2012	1,840.4	1,553.6	601.1	719.9	---
2013	527.8	---	---	---	---
Average	1,184.1	1,887.9	1,228.5	1,431.1	5,731.6

Shared 18.0 MMBtu/hr Reeco Retherm RTO Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	3,904.2	4,473.6	4,628.5	---
2012	3,197.1	3,323.6	3,930.2	2,746.4	---
2013	3,156.9	---	---	---	---
Average	3,177	3,613.9	4,201.9	3,687.5	14,680.3

Shared 9.5 MMBtu/hr Megtec Enterprise II RTO Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	2,814.4	2,795.3	3,132	---
2012	3,150.7	2,921	2,731.9	2,326.3	---
2013	2,183.1	---	---	---	---
Average	2,666.9	2,867.7	2,763.6	2,729.2	11,027.4

Shared 5.728 MMBtu/hr Megtec Cleanswitch RTO Natural Gas Usage Rates					
Year	1 st Qtr (MMBtu/qtr)	2 nd Qtr (MMBtu/qtr)	3 rd Qtr (MMBtu/qtr)	4 th Qtr (MMBtu/qtr)	Total Annual (MMBtu/yr)
2011	---	2,089.6	2,853.0	3,034.9	---
2012	2,072.5	1,684.9	1,808.4	1,748.5	---
2013	1,610.6	---	---	---	---
Average	1,841.6	1,887.3	2,330.7	2,391.7	8,451.3

BAE for VOC:

VOC emissions from the printing operations are emitted from the use of the inks and solvents and the combustion of natural gas fuel in the associated drying ovens and RTOs. Therefore:

$$BAE_{Total/VOC} = BAE_{VOC/Inks \& Solvents} + BAE_{VOC/Drying Ovens} + BAE_{VOC/RTOs}$$

$$\begin{aligned} \text{Where, } BAE_{VOC/Inks \& Solvents} &= \text{Annual VOC Emissions (lb/year)} \\ &= 41,556 \text{ lb/year} \end{aligned}$$

$$\begin{aligned} BAE_{VOC/Drying Ovens} &= \sum \text{Drying Ovens Natural Gas Fuel Usage (MMBtu/year)} \\ &\quad \times EF1_{VOC/Drying Ovens} \text{ (lb-VOC/MMBtu)} \\ &= [(3,292.1 + 4,322.9 + 9,077.1 + 6,085.9 + 8,377.4 \\ &\quad + 8,956 + 5,731.6) \text{ lb/MMBtu}] \times 0.0055 \text{ lb-VOC/MMBtu} \\ &= 252.1 \text{ lb-VOC/year} \end{aligned}$$

$$\begin{aligned} BAE_{VOC/RTOs} &= \sum \text{RTO Natural Gas Fuel Usage (MMBtu/year)} \\ &\quad \times EF1_{VOC/RTO} \text{ (lb-VOC/MMBtu)} \\ &= [(14,680.3 + 11,027.4) \text{ MMBtu/year} \times 0.0055 \text{ lb-NOx/MMBtu}] \\ &\quad + [8,451.3 \text{ MMBtu/year} \times 0.02 \text{ lb-NOx/MMBtu}] \\ &= 310.4 \text{ lb-VOC/year} \end{aligned}$$

$$\begin{aligned} BAE_{Total/NOx} &= 41,556 \text{ lb-VOC/year} + 252.1 \text{ lb-VOC/year} + 310.4 \text{ lb-VOC/year} \\ &= 42,119 \text{ lb-VOC/year} \end{aligned}$$

BAE for NOx:

NOx emissions from the printing operations are emitted from the combustion of natural gas in the associated drying ovens and RTOs. Therefore:

$$BAE_{Total/NOx} = BAE_{NOx/Drying Ovens} + BAE_{NOx/RTOs}$$

$$\begin{aligned} \text{Where, } BAE_{NOx/Drying Ovens} &= \sum \text{Drying Ovens Natural Gas Fuel Usage (MMBtu/year)} \\ &\quad \times EF1_{NOx/Drying Ovens} \text{ (lb-NOx/MMBtu)} \\ &= [(3,292.1 + 4,332.9 + 9,077.1 + 6,085.9 + 8,377.4 \\ &\quad + 8,956 + 5,731.6) \text{ MMBtu/year}] \times 0.048 \text{ lb-NOx/MMBtu} \\ &= 2,200.9 \text{ lb-NOx/year} \end{aligned}$$

$$\begin{aligned} BAE_{NOx/RTOs} &= \sum \text{RTO Natural Gas Fuel Usage (MMBtu/year)} \\ &\quad \times EF1_{NOx/RTO} \text{ (lb-NOx/MMBtu)} \\ &= [(14,680.3 + 11,027.4 + 8,451.3) \text{ MMBtu/year}] \\ &\quad \times 0.048 \text{ lb-NOx/MMBtu (0.0492)} \\ &= 1,639.6 \text{ lb-NOx/year} \end{aligned}$$

$$\begin{aligned}\text{BAE}_{\text{Total/NOx}} &= 2,200.9 \text{ lb-NOx/year} + 1,639.6 \text{ lb-NOx/year} \\ &= \mathbf{3,841 \text{ lb-NOx/year}}\end{aligned}$$

APPENDIX F
Compliance Certification

**San Joaquin Valley
Unified Air Pollution Control District**

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

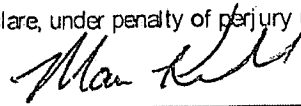
- ☒ SIGNIFICANT PERMIT MODIFICATION ☐ ADMINISTRATIVE
☐ MINOR PERMIT MODIFICATION AMENDMENT

COMPANY NAME: QG, LLC	FACILITY ID: N- 1646
1. Type of Organization: <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Sole Ownership <input type="checkbox"/> Government <input type="checkbox"/> Partnership <input type="checkbox"/> Utility	
2. Owner's Name: QG, LLC	
3. Agent to the Owner: Marc Kulick	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial all circles for confirmation):

- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).
- ☒ Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.
- ☒ Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.
- ☒ Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the foregoing is correct and true:



Signature of Responsible Official

May 31, 2013
Date

Marc Kulick
Name of Responsible Official (please print)

Plant Director
Title of Responsible Official (please print)

APPENDIX G

Risk Management Review Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To: Kai Chan – Permit Services
 From: Cheryl Lawler – Technical Services
 Date: August 15, 2013
 Facility Name: QG, LLC
 Location: 2201 Copper Avenue, Merced
 Application #(s): N-1646-6-7, 16-7, 23-7, 36-6, 37-5, 38-7, 39-8, & 45-1
 Project #: N-1131851

A. RMR SUMMARY

RMR Summary					
Categories	Printing Press VOC Increase (Unit 16-7)	Printing Press VOC Increase (Unit 23-7)	Printing Press VOC Increase (Unit 36-6)	Printing Press VOC Increase (Unit 37-5)	
Prioritization Score	0.00	0.00	0.00	0.00	
Acute Hazard Index	0.00	0.01	0.00	0.00	
Chronic Hazard Index	N/A*	N/A*	N/A*	N/A*	
Maximum Individual Cancer Risk	N/A*	N/A*	N/A*	N/A*	
T-BACT Required?	No	No	No	No	
Special Permit Conditions?	No	No	No	No	
Categories	Printing Press VOC Increase (Unit 38-7)	Printing Press VOC Increase (Unit 39-8)	Printing Press VOC Increase (Unit 45-1)	Project Totals	Facility Totals
Prioritization Score	0.00	0.00	0.00	0.01	>1.0
Acute Hazard Index	0.00	0.00	0.00	0.03	0.14
Chronic Hazard Index	N/A*	N/A*	N/A*	N/A*	0.29
Maximum Individual Cancer Risk	N/A*	N/A*	N/A*	N/A*	1.37E-06
T-BACT Required?	No	No	No		
Special Permit Conditions?	No	No	No		

*The Chronic Hazard Index and Maximum Individual Cancer Risk were not calculated because the annual VOC emission limits were not changing or increasing.

B. RMR REPORT

I. Project Description

Technical Services received a request on August 13, 2013, to perform a Risk Management Review (RMR) for a printing operation consisting of eight printing presses requesting to modify their daily and hourly VOC emission limits. For seven of the presses (Units 16-7,

23-7, 36-6, 37-5, 38-7, 39-8, & 45-1) VOC emissions will be increasing, and for the other press (Unit 6-7) VOC emissions will not be increasing. Therefore, no further review or analysis will be required for Unit 6-7.

Annual emissions will not be increasing for any of the units. There will be no increase in fuel usage for any of the associated drying ovens or regenerative thermal oxidizers.

II. Analysis

For this RMR, only the seven units proposing VOC increases were reviewed and modeled. Technical Services performed a prioritization using the District's HEARTs database. Since the facility's total cumulative prioritization score was greater than one, a refined health risk assessment was required and performed. Previously determined ink products speciations from previously performed facility projects were used for this project, along with the increased hourly VOC emission rates supplied by the processing engineer. AERMOD was used, with point and volume source parameters outlined below, and concatenated 5-year meteorological data from Merced to determine maximum dispersion factors at the nearest residential and business receptors. These dispersion factors were input into the HARP model to calculate the Acute Hazard Index for the project.

The following parameters were used for the review:

Volume Source Analysis Parameters (All Units)			
Source Type	Volume	Number of Windows In Press Room Modeled	2
Roof Vents Release Height (m)	0.76	Windows Release Height (m)	0.61
Roof Vents Length of Side (m)	6.38	Windows Length of Side (m)	3.86 & 6.1
Initial Lateral Dimension (m)	1.48	Initial Lateral Dimension (m)	0.9 & 1.42
Initial Vertical Dimension (m)	5.67	Initial Vertical Dimension (m)	2.84 both
Number of Roof Vents in Warehouse Modeled	3		
Point Source Analysis Parameters (All Units)			
Stack Diameter (m)	1.8 & 0.3	Stack Gas Temperature (K)	450 & 422
Stack Height (m)	13.7 & 11.9	Stack Gas Velocity (m/sec)	7.18 & 15.2
Other Project Parameters (All Units)			
Project Location Type	Rural	Closest Receptor Distance (m)	45.72
Unit 6-7 VOC Increase (lb/hr)	0	Closest Receptor Type	Business
Unit 16-7 VOC Increase (lb/hr)	0.44		
Unit 23-7 VOC Increase (lb/hr)	0.52		
Unit 36-6 VOC Increase (lb/hr)	0.396		
Unit 37-5 VOC Increase (lb/hr)	0.396		
Unit 38-7 VOC Increase (lb/hr)	0.396		
Unit 39-8 VOC Increase (lb/hr)	0.396		
Unit 45-1 VOC Increase (lb/hr)	0.396		

III. Conclusions

The Acute Hazard Index for the project was below 1.0; and there was no Chronic Hazard Index or Maximum Individual Cancer Risk associated with this project. In accordance with the District's Risk Management Policy, the project is approved **without** Toxic Best Available Control Technology (T-BACT).

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

Attachments

RMR Request Form
MSDS for Unit 45-1
Ink Products Speciation Worksheets
Volume Source Calculations
Prioritization
Risk Results
Facility Summary