



DEC 1 1 2019

Mr. Mac McCullough Pacific Southwest Container 4530 Leckron Road Modesto, CA 95357

Re: Proposed ATC / Certificate of Conformity (Significant Mod)

Facility Number: N-3606 Project Number: N-1193364

Dear Mr. McCullough:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project is to install a new lithographic printing press, and to keep the facility-wide VOC emissions unchanged.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authority to Construct with a Certificate 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 Authority 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. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Mr. Mac McCullough Page 2

Thank you for your cooperation in this matter.

Arnaud Marjollet Director of Permit Services

Enclosures

Courtney Graham, CARB (w/enclosure) via email CC:

Gerardo C. Rios, EPA (w/enclosure) via EPS CC:

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Offset Lithographic Printing Operation

Facility Name: Pacific Southwest Container Date: December 5, 2019

Mailing Address: 4530 Leckron Road Engineer: Wai-Man So

Modesto, CA 95357 Lead Engineer: James Harader

Contact Person: Mac McCullough

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Application #(s): N-3606-37-0

Project #: N-1193364

Deemed Complete: October 24, 2019

I. Proposal

Pacific Southwest Container (hereinafter PSC) is requesting an Authority to Construct (ATC) for the installation of a new printing press and keep the facility-wide SLC of 73,403 pounds of VOC per year unchanged. The draft ATC is included in Appendix A.

PSC received their Renewal Title V Permit on May 15, 2014. This modification can be classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. PSC must apply to administratively amend their Title V permit.

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4607	Graphic Arts and Paper, Film, Foil and Fabric Coatings (12/18/08)
Rule 4663	Organic Solvent Cleaning, Storage, and Disposal (09/20/07)
CH&SC 41700	Health Risk Assessment
CH&SC 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

This facility is located at 4530 Leckron Road, Modesto in California. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

PSC is in the business of manufacturing corrugated cardboard and corrugated cardboard containers. The proposed new printing press is a non-heatset offset lithographic sheet-fed printing press equipped with LED UV curing system. Sheet-fed offset lithographic printing utilizes a rotary press to print an image on a sheet of paper. The proposed press utilizes several printing units. Each printing unit has a series of vertically arranged rollers and cylinders above and below the sheet of paper. Rollers transfer the fountain solution and ink to the plate cylinder. The image is then transferred from the plate to a rubber covered blanket cylinder and then to the sheet of paper. Typically, each printing unit simultaneously applies a single color to both sides of the sheet. Together all printing units can overlay colors for a full color image without heated drying between printing units. The proposed new printing press is equipped with an electrical heater. The function of the electrical heater is to pre-heat the paper to enhance the printing process and is not for inks drying.

V. Equipment Listing

N-3606-37-0: GRAPHIC ARTS PRINTING OPERATION CONSISTING OF A KOENIG & BAUER MODEL RA164-8+LTT+1 ALV3 OFFSET LITHOGRAPHIC PRINTING PRESS WITH A KOENIG & BAUER MODEL VARIDRY UV LED CURING SYSTEM

VI. Emission Control Technology Evaluation

Volatile Organic Compounds (VOC) is emitted from the printing process. PSC is proposing to operate the printing operation with inks/coatings, fountain solutions, and solvents that comply with the VOC content limits specified in District Rule 4607, *Graphic Arts and Paper, Film, Foil and Fabric Coatings*. The amount of VOC emitted from the new press is limited by utilize the low VOC content materials.

VII. General Calculations

A. Assumptions

· Assumption will be stated as each is made.

B. Emission Factors

The VOC emissions from this operation will be determined based on the VOC content of the materials and their respective usages; and therefore, a separate emission factor will not be listed on the permit.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since this is a new emissions unit, PE1 = 0 for all pollutants.

2. Post-Project Potential to Emit (PE2)

The applicant proposes daily and annual VOC emissions limits for the new press as follows:

	PE2	
Pollutant	Daily Emissions (Ib/day)	Annual Emissions (lb/year)
VOC	35.0	8,750

In addition, the facility currently has a SLC of 73,403 lb-VOC/year for the entire facility, and the applicant is not proposing any changes to this limit.

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

Pursuant to District Rule 2201, 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) which 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.

SSPE1 values are taken from engineering evaluation under project N-1173600.

	SSPE1 (lb/year)							
Permit Unit	NOx	SOx	PM ₁₀	CO	VOC			
N-3606-4-6	0	0	183	0				
N-3606-11-9	0	0	0	0				
N-3606-13-7	0	0	0	0				
N-3606-14-7	0	0	0	0				
N-3606-16-7	0	0	0	0				
N-3606-19-5	0	0	0	0				
N-3606-21-5	0	0	0	0				
N-3606-23-6	0	0	0	0	73,403			
N-3606-24-5	0	0	0	0	73,403			
N-3606-25-3	0	0	0	0				
N-3606-26-6	0	0	0	0				
N-3606-27-4	0	0	0	0				
N-3606-32-1	0	0	0	0				
N-3606-33-0	0	0	0	0				
N-3606-34-0	0	0	0	0				
N-3606-36-0	0	0	0	0				
ERC	0	0	0	0	0			
SSPE1	0	0	183	0	73,403			

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

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

	SSPE2 (lb/year)						
Permit Unit	NOx	SOx	PM ₁₀	CO	VOC		
N-3606-4-6	0	0	183	0			
N-3606-11-9	0	0	0	0			
N-3606-13-7	0	0	0	0			
N-3606-14-7	0	0	0	0			
N-3606-16-7	0	0	0	0			
N-3606-19-5	0	0	0	0			
N-3606-21-5	0	0	0	0			
N-3606-23-6	0	0	0	0			
N-3606-24-5	0	0	0	0	73,403		
N-3606-25-3	0	0	0	0			
N-3606-26-6	0	0	0	0			
N-3606-27-4	0	0	0	0			
N-3606-32-1	0	0	0	0			
N-3606-33-0	0	0	0	0			
N-3606-34-0	0	0	0	0			
N-3606-36-0	0	0	0	0			
N-3606-37-0 (project)	0	0	0	0	-		
ERC	0	0	0	0	0		
SSPE2	0	0	183	0	73,403		

5. Major Source Determination

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
- 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

Rule 2201 Major Source Determination (Ib/year)							
	NOx	SOx	PM ₁₀	PM _{2.5}	co	VOC	
SSPE1	0	0	183	183	0	73,403	
SSPE2	0	0	183	183	0	73,403	
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000	
Major Source?	No	No	No	No	No	Yes	

Note: PM2.5 assumed to be equal to PM10

This source is an existing Major Source for VOC emissions and will remain a Major Source for VOC. No change in other pollutants are proposed or expected as a result of this project.

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)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)							
NO ₂ VOC SO ₂ CO PM PM ₁₀							
Estimated Facility PE before Project Increase	0	36.7	0	0	0.1	0.1	
PSD Major Source Thresholds	250	250	250	250	250	250	
PSD Major Source?	No	No	No	No	No	No	

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 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.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

Since permits include a facility-wide limit for VOC emissions, a clean emission unit analysis for all of the existing units must be performed for VOC emissions.

The following table shows the applicable BACT guideline number, the Achieved-in-Practice BACT requirement and whether or not the unit is a Clean Emission Unit (Achieved-in-Practice BACT was met).

Permit	Description	BACT Guideline	Achieved-in- Practice BACT Requirement	Permit Limit	Clean Emission Unit
N-3606-11-9 N-3606-19-5 N-3606-21-5 N-3606-25-3 N-3606-27-4 N-3606-36-0	Corrugated Box Gluer	4.9.12	Adhesive with 0.021 lb VOC/gal or less	VOC = 0.021 lb/gal VOC = 0.021 lb/gal	Yes Yes Yes Yes Yes Yes
	Corrugated Box Gluer	4.9.12	Adhesive with 0.021 lb VOC/gal or less	VOC = 0.021 lb/gal	
N-3606-4-6	And Cardboard Box Laminator	4.11.3	Adhesive with 0.021 lb VOC/gal or less	VOC = 0.021 lb/gal	Yes
N-3606-13-7	Flexographic Printer (low- end graphics)	4.7.15	Ink with 0.3 lb VOC/gal or less	VOC = 0.3 lb/gal	Yes
N-3606-14-7	And Corrugated Box Gluer	4.9.12	Adhesive with 0.021 lb VOC/gal or less	VOC = 0.021 lb/gal	Yes

Permit	Description	BACT Guideline	Achieved-in- Practice BACT Requirement	Permit Limit	Clean Emission Unit
N-3606-16-7 N-3606-23-6 N-3606-26-6 N-3606-32-1 N-3606-33-0	Offset lithographic printing operation (non- heat set)	4.7.2	Inks: <5% by wt. or 30% by weight for high end graphics Fountain Solution: <5% by vol. for coldest offset lithographic and sheet-fed lithographic greater than 11 x 17 inches Or <8% by volume for high end graphics	Inks with <5% VOC by wt. Fountain solutions with <5% VOC by vol. for high-end graphics and <5% by vol. for non- high-end graphics	Yes Yes Yes Yes
N-3606-24-5	Offset lithographic printing operation (non- heat set)	4.7.2	Inks: <5% by wt. or 30% by weight for high end graphics Fountain Solution: <5% by vol. for coldest offset lithographic and sheet-fed lithographic greater than 11 x 17 inches Or <8% by volume for high end graphics	Inks with <5% VOC by wt. <6% by volume for high-end graphics and <5% by volume for non-high-end graphics	Yes
N-3606-34-0	Folder/Gluer	4.9.6	Adhesive with a VOC content of ≤ 5.7 lb/gal (excluding water and exempt compounds)	VOC content of 2% (or less) by wt., equivalent to 0.18 lb-VOC/gal, less water and exempt compounds	Yes

As shown above, all of the existing units at the facility are clean for VOC emissions, BE = PE1 for each existing unit.

7. 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."

Since this facility is a major source for VOC, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

	SB 288 Major Modification Thresholds						
Pollutant	Pollutant Project PE2 (lb/year)		SB 288 Major Modification Calculation Required?				
VOC	8,750	50,000	No				

Since the SB 288 Major Modification Threshold is not surpassed with this project, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "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

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project. Therefore,

PE2 = 8,750 lb-VOC/yr

Since there is an increase in VOC emissions, this project constitutes a Federal Major Modification. Federal Offset quantities are calculated below.

Federal Offset Quantities:

The Federal offset quantity is only calculated only for the pollutants for which the project is a Federal Major Modification. The Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) during the baseline period for each emission unit multiplied by the applicable federal offset ratio. There are no special calculations performed for units covered by an SLC.

VOC		rederal Offset Ratio	1.5
Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
N-3606-37-0	0	8,750	8,750
	N	et Emission Change (lb/year):	8,750
	Federal	Offset Quantity: (NEC * 1.5)	13,125

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9. Rule 2410 - Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

The equipment associated with this project emits only VOC.

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

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)(iii). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)							
	NO₂	voc	SO ₂	co	PM	PM ₁₀	
Total PE from New and Modified Units	0.0	4.4	0.0	0.0	0.0	0.0	
PSD Major Source threshold	250	250	250	250	250	250	
New PSD Major Source?	No	No	No	No	No	No	

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

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. Detailed QNEC calculations are included in Appendix F.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

a. New emissions units - PE > 2 lb/day

As discussed in Section I above, PSC is proposing to install a new printing press with a PE greater than 2.0 lb/day for VOC. Therefore, BACT for new units with PE > 2 lb/day purposes is triggered.

b. Relocation of emissions units - PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units - AIPE > 2 lb/day

As discussed in Section I above, there are no modified emissions units associated with this project. Therefore BACT is not triggered.

d. SB 288/Federal Major Modification

As discussed in Section VII.C.8 above, this project does constitute a Federal Major Modification for VOC emissions. Therefore BACT is triggered for VOC for all emissions units in the project for which there is an emission increase.

^{*}Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

2. BACT Guideline

BACT Guideline 4.7.2 applies to offset lithographic printing with non-heatset press. (See **Appendix B**)

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, 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.

Pursuant to the attached Top-Down BACT Analysis (see **Appendix C**), BACT has been satisfied with the following:

VOC: Using materials with the following VOC contents:

- Inks: less than 5% VOC by weight (less water and exempt compounds) or less than 30% VOC by weight (less water and exempt compounds) for high end graphics
- Fountain Solutions: less than 5% by volume for coldest web offset lithographic, less than 5% by volume for sheet-fed offset lithographic with maximum sheet size greater than 11 x 17 inches, and less than 8% by volume for high end graphics

B. Offsets

1. Offset Applicability

Pursuant to District Rule 2201, Section 4.5, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)								
	NOx	SO _x	PM ₁₀	со	voc			
SSPE2	0	0	183	0	73,403			
Offset Thresholds	20,000	54,750	29,200	200,000	20,000			
Offsets triggered?	No	No	No	No	Yes			

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for VOC. Therefore offset calculations will be required for this project.

The quantity of offsets in pounds per year for VOC is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

PE2 = Post-Project Potential to Emit, (lb/year)

BE = Baseline Emissions, (lb/year)

ICCE = Increase in Cargo Carrier Emissions, (lb/year)

DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 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.

otherwise,

BE = HAE

Pursuant to District Policy APR 1420, NSR Calculations for Units with Specific Limiting Conditions (3/12/07), the quantity of ERCs for a project will be determined by comparing the post project PE, which is the SLC, to the pre project BE for the SLC.

Additionally, the policy states that if the SLC is for a pollutant exceeding the Major Source threshold and any single unit under the SLC is not a Highly-Utilized, Fully-Offset, or Clean Emissions Units, then the sum of the actual emissions from all units in SLC will be used to determine the pre project BE.

There are no increases in Cargo Carrier emissions as a result of this project. Thus,

Offsets Required = Σ (PE2 – BE) x DOR

For projects with unit in an SLC, the equation becomes:

Offsets Required = Σ (PE2_{SLC} – BE_{SLC}) x DOR

As shown in Section VII.C.6 of this document, all permit units at this facility meet the District's determination of achieved-in-practice BACT (and are thus Clean Emission Units). Therefore the pre project BE emissions are equal to the pre project PE emissions (BE_{SLC} = PE1_{SLC}).

For this project, PE2_{SLC} is equal to PE1_{SLC}. Thus,

Offsets Required = (PE2_{SLC} – PE1_{SLC}) x DOR = (73,403 lb-VOC/yr – 73,403 lb-VOC/yr) x DOR = 0 lb-VOC/yr

As indicated above, offsets are not required for this project.

C. Public Notification

1. Applicability

Pursuant to District Rule 2201, Section 5.4, public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed,
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
- e. Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Section VII.C.8, this project triggers Federal Major Modification. Therefore, public noticing for Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

Public notification is required if the pre-project Stationary Source Potential to Emit (SSPE1) is increased to a level exceeding the offset threshold levels. The following table compares the SSPE1 with the SSPE2 in order to determine if any offset thresholds have been surpassed with this project.

Offset Thresholds					
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?	
NO _x	0	0	20,000 lb/year	No	
SOx	0	0	54,750 lb/year	No	
PM ₁₀	183	183	29,200 lb/year	No	
СО	0	0	200,000 lb/year	No	
VOC	73,403	73,403	20,000 lb/year	No	

As demonstrated above, there were no new thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table.

SSIPE Public Notice Thresholds					
Pollutant	SSIPE Public Notice Threshold	Public Notice Required?			
NO _x	0	0	0	20,000 lb/year	No
SO _x	0	0	0	20,000 lb/year	No
PM ₁₀	183	183	0	20,000 lb/year	No
СО	0	0	0	20,000 lb/year	No
VOC	73,403	73,403	0	20,000 lb/year	No

As demonstrated above, the SSIPEs for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPE purposes is not required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public notice is required for this project for triggering Federal Major Modification. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and US Environmental Protection Agency (US EPA), and a

public notice will be electronically published on the District's website prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. 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.

Proposed Rule 2201 (DEL) Conditions:

- VOC emissions from this unit shall not exceed 35.0 pounds in any one day. [District Rule 2201]
- VOC emissions from this unit shall not exceed 8,750 pounds on a rolling 12-month basis.
 [District Rule 2201]
- Facility-wide VOC emissions shall not exceed 73,403 pounds on a rolling 12-month basis. [District Rule 2201]
- VOC content of the materials shall not exceed any of the following limits: inks less than 5% VOC by weight (less water and exempt compounds), or 2.5 lb/gallon (less water and exempt compounds, as applied); coatings 2.5 lb/gallon (less water and exempt compounds, as applied); inks for high end graphics less than 30% VOC by weight (less water and exempt compounds), or 2.5 lb/gallon (less water and exempt compounds, as applied); fountain solutions less than 5.0% VOC by volume. [District Rules 2201 and 4607]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification, and daily emission limit requirements of Rule 2201. The permittee is required to keep the daily and cumulative annual VOC emissions due to the ink, coating, fountain solution, and cleaning solvents usages. In addition, as required by District Rule 4607, *Graphic Arts*, this

printing press is subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rule 4607, will be discussed in Section VIII, *District Rule 4607*, of this document

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. This project involves only VOCs emissions. Since there is no ambient air quality standard (AAQS) for VOCs; an AAQA is not required for this project.

G. Compliance Certification

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 discussed in Section VIII above, this project does constitute a Federal Major Modification, therefore this requirement is applicable. PSC's compliance certification is included in Appendix D.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install a new printing operation.

Since the project involves only installation of an additional printing press to be used 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.

Compliance with the requirements of this rule is expected.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

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

A minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act.

Since this project involves the installation of a new emission unit with increase of VOC emissions, the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit.

As discussed above, 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. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. 40 CFR Part 60, Subpart QQ applies to Graphic Arts Industry: Publication Rotogravure Printing

Pursuant to §60.430(c), this subpart applies to each rotogravure printing press that commences construction, modification, or reconstruction after October 28, 1980. The proposed new unit, the offset lithographic printing press, is not a rotogravure press; and therefore, this subpart does not apply and no further discussion is required.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

Pursuant to §63.820(a)(1), this subpart 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 packing rotogravure, or wide-web flexographic printing presses are operated. The proposed new unit, the offset lithographic printing press, is not a publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing press; and therefore, this subpart does not apply and no further discussion is required.

Rule 4101 Visible Emissions

District Rule 4101, Section 5.0, indicates that 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 dark or darker than Ringlemann 1 or equivalent to 20% opacity. The following condition is listed on the permit to ensure continuous compliance with the requirement of this rule:

 {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]

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of the printing operation, provided the equipment is well maintained.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, 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 or equal to one. According to the Technical Services Memo for this project (**Appendix E**), the total facility prioritization score including this project was less than or equal to one. Therefore, no further analysis is required to determine the impact from this project and compliance with the District's Risk Management Policy is expected.

The following condition is listed on the permit to ensure compliance with the requirement of this rule:

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

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

The purpose of this rule is to limit VOC emissions from graphic arts printing operations, digital printing operations, and paper, film, foil or fabric costing operations. The rule also specifies the administrative requirements for recording and measuring the emissions, and a compliance schedule.

Section 5.1, requires that an operator of any graphic arts printing operations shall not use graphic arts materials in excess of the VOC content limits, as applied in Table 1 and Table 2 of this Section.

The applicant proposed to install a new sheet-fed offset lithographic printing press with maximum sheet size greater than 11 x 17 inches, and the following limits apply:

	Table 1. VOC Content Limits for Inks, Coating, & Adhesives	
Material Grams of VOC per liter (lb/gal), less water & less exempt compounds		
Inks	300 (2.5)	
Coatings	300 (2.5)	

Table 2. VOC Content Limits for Fountain Solution		
Material Percent VOC by volume		
Sheet-fed Offset Lithographic with max sheet size > 11 x 17 inches	5.0%	

The applicant proposed to use inks, coatings, and fountain solutions with the following VOC contents for the new press:

Product Identification	VOC content, less water & exempts compounds (lb/gal)	Compliant with Rule 4607?
Ink		
INXCURE LED OSF V.2 Process Black	0.11	Yes
INXCURE LED OSF V.2 Process Cyan	0.11	Yes
INXCURE LED OSF V.2 Process Magenta	0.00	Yes
INXCURE LED OSF V.2 Process Yellow	0.11	Yes
INXCURE LED OSF Base Blue	0.01	Yes
INXCURE LED OSF Base Yellow	0.01	Yes
INXCURE LED OSF Base Green	0.01	Yes
Coating		
Waterbased Acrylic 1422 A, B, C, D, E	0.24	Yes
Fountain Solutions	% VOC by volume	
Saphira 203	0%	Yes
Saphira 303	1.81% - calculated below	Yes
Tower Products, Inc. AR-7500	2.4% (max) - calculated below	Yes

Saphira Fountain Solution

Per applicant, the mix ratio of the Saphira fountain solutions is 6 fl. oz. of Saphira 203 plus 3 fl. oz. of Saphira 303 with 1 gallon of water. Per SDSs, the VOC contents of Saphira 203 and Saphira 303 are 0 (lb/gal) and 6.45 (lb/gal), respectively.

The VOC content by volume of the Saphira 303 fountain solution is calculated as follows:

VOC content = {[(6/128 gal-203) x (0 lb-203/gal-203)] + [(3/128 gal-303) x (6.45 lb-303/gal-303)]} ÷ 8.345 lb/gal H₂O = 1.81%

Tower Products, Inc. Fountain Solution

Per provided TDS:

For general printing:

The maximum dosage is 4 fl. oz. of AR-7500 with 1 gallon of water. The VOC content of AR-7500 is 6.4 lb/gal.

The VOC content by volume of the AR-7500 fountain solution is calculated as follows:

VOC content = [(4/128 gal-AR-7500) x (6.4 lb-AR-7500/gal-AR-7500)] ÷ 8.345 lb/gal H₂O = 2.4%

For UV printing:

The recommended dosage is 1.5 fl. oz. of AR-7500 with 1 gallon of water. The VOC content of AR-7500 is 6.4 lb/gal.

The VOC content by volume of the AR-7500 fountain solution is calculated as follows:

VOC content = [(1.5/128 gal-AR-7500) x (6.4 lb-AR-7500/gal-AR-7500)] + 8.345 lb/gal H₂O = 0.9%

As shown above, the proposed inks, coatings and fountain solutions are compliant materials. The following condition is listed on the permit to ensure compliance:

VOC content of the materials shall not exceed any of the following limits: inks - less than 5% VOC by weight (less water and exempt compounds), or 2.5 lb/gallon (less water and exempt compounds, as applied); inks for high end graphics - less than 30% VOC by weight (less water and exempt compounds), or 2.5 lb/gallon (less water and exempt compounds, as applied); fountain solutions - less than 5.0% VOC by volume. [District Rules 2201 and 4607]

Section 5.7 states no operator shall apply coatings unless coatings are applied with equipment operated according to manufacturer's specifications, and only by the use of one of the following types of coating application equipment:

- Flow coater
- Roll coater
- Dip coater,
- Foam coater,
- Die coater.
- Hand application methods, or
- High-Volume, low-pressure (HVLP) spray for air dried coatings
- Other coating application methods which are demonstrated to the APCO to be capable of achieving at least 65% transfer efficiency

The coatings will be applied lithographically, which is a roller type method, and therefore compliance with the requirement of this rule. The following condition is listed on the permit to ensure compliance:

 Only flow coater, roll coater, dip coater, foam coater, die coater, hand application methods shall be used to apply coatings. HVLP spray equipment may be used for air dried coatings only. Application equipment shall be operated in accordance with the manufacturer's specifications. [District Rule 4607]

Section 5.8, requires that an operator shall not use organic solvents for cleaning operations that exceed the VOC content limits specified in Table 7 of this Section.

The applicant proposed to install a new offset lithographic printing press, and the following limits apply:

Table 7 VOC Content Limits for Solvent Cleaning		
Type of Solvent Cleaning Operation VOC content, less exempts compound		
Lithographic (Offset)		
- Roller Wash - Step 1	0.83	
- Roller Wash - Step 2	0.83	

The applicant proposed to use cleaning solvents with the following VOC contents for this new press:

Product Identification	VOC content, less water & exempts compounds (lb/gal)	Compliant with Rule 4607?
Saphira presswash 3706A	0.8	Yes
Bottcher California Hybrid 3	0.81	Yes

As shown above, the proposed cleaning solvents compliant with the requirements of this rule. The following conditions are listed on the permit to ensure compliance:

- Permittee shall utilize organic solvents for cleaning operations that complied with the VOC content limit specified in Table 7 of District Rule 4607. [District Rule 4607]
- For a permittee using any solvent containing more than 25 g/L of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: wipe cleaning; application of solvent using nonpropellant-induced, hand-held spray bottles; non-atomized solvent flow method, or solvent flushing method. [District Rule 4607]
- For a permittee using any solvent containing more than 25 g/L 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. [District Rule 4607]

• For a permittee using any solvent containing more than 25 g/L 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 component part(s) being cleaned 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]

Section 5.9 requires that an operator shall store or dispose of fresh or spent solvents, waste solvent cleaning materials, coatings, adhesives, catalysts, and ink in closed, non-absorbent and non-leaking containers. The container shall remain closed at all times except when depositing or removing the contents of the containers or when the container is empty. The following condition is listed on the permit to ensure compliance:

 Permittee shall store and dispose of fresh or spent solvents and waste solvent cleaning materials such as cloth, paper, etc. in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing material or when it is empty. [District Rules 4607 and 4663]

Section 5.10 requires that an operator shall properly use and properly operates all graphic arts printing technologies as directed and/or specified by the manufacturer of the printer or graphic arts materials. The following condition is listed on the permit to ensure compliance:

 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. The permittee shall properly use and properly 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 requires the operator subject to the requirement of this rule to keep all applicable records on-site for a minimum of five years, and make records available to the APCO, ARB, and EPA upon request.

Section 6.1.1 requires an operator to maintain a current file documenting coatings, inks, adhesives, fountain solutions, wash primers, and solvents in use and in storage. The file shall include a safety data sheet (SDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, specific mixing instructions, and density.

Section 6.1.2 specifies recordkeeping requirements for facility utilize only compliant materials. Sections 6.1.2.1, 6.1.2.2, and 6.1.2.3 requires the monthly records of the following: 1) the type and amount of all inks, 2) the type and amount of each coating, adhesive, wash primer, and solvent (including cleaning solvent) used; and 3) the type, amount, and percent VOC by volume of fountain solution used. The following conditions are listed on the permit to ensure compliance:

 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 safety data sheet (SDS) or product data sheet showing the material name, manufacturer's name, VOC content as applied, mixing instruction, and density. [District Rule 4607]

- Monthly records shall be maintained and contain the following information: (a) The name, type, quantity and VOC content (in lb/gal, less water and exempt compounds) of all inks, fountain solutions, wash primers, coatings, adhesives, solvents, and cleaning materials used or stored at the facility; (b) The combined total amount of VOC's emitted from the use of all VOC containing material (in pounds); (c) The dates of operation of this permit unit. [District Rules 2201 and 4607]
- All records shall be maintained for a period of at least five years and shall be made available to the District, ARB and EPA upon request. [District Rules 2201, 4607 and 4663]

Compliance with the applicable requirements of this rule is expected.

Rule 4663 Organic Solvent Cleaning, Storage, and Disposal

The purpose of this rule is to limit the emissions of volatile organic compounds (VOCs) from organic solvent cleaning and from the storage and disposal of solvents and waste solvent materials.

The applicant proposed to install a new offset lithographic printing press with the use of cleaning solvents, cleaning methods, storage and disposal of solvents and waste solvent materials, as well as the work practices that compliance with all applicable requirements of this rule. Therefore, the following conditions are listed on the permit to ensure compliance:

- Permittee shall store and dispose of fresh or spent solvents and waste solvent cleaning materials such as cloth, paper, etc. in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing material or when it is empty. [District Rules 4607 and 4663]
- Permittee shall maintain a current list of solvents that are in use at the stationary source. The list shall include the following information: (1) the name of the solvent and its manufacturer; (2) the VOC content of each solvent expressed in grams/liter or lb/gal; (3) when the solvent is a mixture of different materials that are blended by the operator, the mix ratio of the batch shall be recorded and the VOC content of the batch shall be calculated and recorded in order to determine compliance with the specified limits of VOC content, as applied; (4) the type of cleaning activity for each solvent that is being used at the stationary source in accordance with the applicable cleaning category specified in Table 1 of this rule; (5) the daily quantity of solvents used in solvent cleaning operations. [District Rule 4663]
- All records shall be maintained for a period of at least five years and shall be made available to the District, ARB and EPA upon request. [District Rules 2201, 4607 and 4663]

Compliance with the applicable requirements of the rule is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

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 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; and
- 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

District is a Lead Agency and Project not Covered Under Cap-and-Trade

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 or former use. Furthermore, the District determined that the activity will not have a significant effect on the environment. Therefore, the District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15301 (Existing Facilities), and finds that the project is exempt per the common sense exemption that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC N-3606-37-0 subject to the permit conditions on the attached draft ATC in **Appendix A**.

X. Billing Information

Annual Permit Fees				
Permit Number	Fee Schedule	Fee Description	Annual Fee	
N-3606-37-0	3020-01-G	1,098.1 hp, electric motors horsepower (total)	\$980	

Appendixes

- A: Draft ATC
- **B:** BACT Guideline
- C: BACT Analysis
- D: Compliance Certification
- E: HRA Summary
- F: Quarterly Net Emissions Change

APPENDIX A Draft ATC

San Joaquin Valley Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: N-3606-37-0

LEGAL OWNER OR OPERATOR: PACIFIC SOUTHWEST CONTAINER

MAILING ADDRESS:

ATTN: SR VICE PRESIDENT OF QUALITY & ENVIRONMEN

ISSU

4530 LECKRON RD MODESTO, CA 95357

LOCATION:

4530 LECKRON RD MODESTO, CA 95357

EQUIPMENT DESCRIPTION:

GRAPHIC ARTS PRINTING OPERATION CONSISTING OF A KOENIG & BAUER MODEL RA164-8+LTT+1 ALV3 OFFSET LITHOGRAPHIC PRINTING PRESS WITH A KOENIG & BAUER MODEL VARIDRY UV LED CURING SYSTEM

CONDITIONS

- {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
- {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
- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101] Federally Enforceable Through Title V Permit
- 5. 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. The permittee shall properly use and properly 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

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.

Samir Sheikh, Executive Director

Arnaud Marjollel, Director of Permit Services

- 6. Only flow coater, roll coater, dip coater, foam coater, die coater, hand application methods shall be used to apply coatings. HVLP spray equipment may be used for air dried coatings only. Application equipment shall be operated in accordance with the manufacturer's specifications. [District Rule 4607] Federally Enforceable Through Title V Permit
- 7. VOC emissions from this unit shall not exceed 35.0 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
- 8. VOC emissions from this unit shall not exceed 8,750 pounds on a rolling 12-month basis. [District Rule 2201] Federally Enforceable Through Title V Permit
- 9. Total VOC emissions from all permitted graphic arts printing and corrugated board finishing operations in the facility shall not exceed 870 pounds in any one day. [District Rules 2201 and 4607] Federally Enforceable Through Title V Permit
- 10. Compliance with the daily VOC emissions limit shall be calculated as follows: Total daily VOC emissions = {[VOC Content (ink #1) x Daily usage (ink #1) x (1 0.95)] + ... + [VOC Content (ink #n) x Daily usage (ink #n) x (1 0.95)]} + {[VOC Content (fountain solution #1) x Daily usage (fountain solution #1)] + [VOC Content (wash primer #1) x Daily usage (wash primer #1)] + [VOC Content (cleanup solvent #1) x Daily usage (cleanup solvent #1)] + ... + [VOC Content (fountain solution #n) x Daily usage (fountain solution #n)] + [VOC Content (wash primer #n) x Daily usage (wash primer #n)] + [VOC Content (cleanup solvent #n) x Daily usage (cleanup solvent #n)]}. [District Rules 2201 and 4607] Federally Enforceable Through Title V Permit
- 11. Facility-wide VOC emissions shall not exceed 73,403 pounds on a rolling 12-month basis. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. VOC content of the materials shall not exceed any of the following limits: inks less than 5% VOC by weight (less water and exempt compounds), or 2.5 lb/gallon (less water and exempt compounds, as applied); coatings 2.5 lb/gallon (less water and exempt compounds, as applied); inks for high end graphics less than 30% VOC by weight (less water and exempt compounds), or 2.5 lb/gallon (less water and exempt compounds, as applied); fountain solutions less than 5.0% VOC by volume. [District Rules 2201 and 4607] Federally Enforceable Through Title V Permit
- 13. Permittee shall utilize organic solvents for cleaning operations that complied with the VOC content limit specified in Table 7 of District Rule 4607. [District Rule 4607] Federally Enforceable Through Title V Permit
- 14. For a permittee using any solvent containing more than 25 g/L of VOC for organic solvent cleaning, cleaning activities shall be by one of the following methods: wipe cleaning; application of solvent using nonpropellant-induced, handheld spray bottles; non-atomized solvent flow method, or solvent flushing method. [District Rule 4607] Federally Enforceable Through Title V Permit
- 15. For a permittee using any solvent containing more than 25 g/L 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. [District Rule 4607] Federally Enforceable Through Title V Permit
- 16. For a permittee using any solvent containing more than 25 g/L 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 component part(s) being cleaned 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
- 17. Permittee shall store and dispose of fresh or spent solvents and waste solvent cleaning materials such as cloth, paper, etc. in closed, non-absorbent and non-leaking containers. The containers shall remain closed at all times except when depositing or removing material or when it is empty. [District Rules 4607 and 4663] Federally Enforceable Through Title V Permit

- 18. 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 safety data sheet (SDS) 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
- 19. Monthly records shall be maintained and contain the following information: (a) The name, type, quantity and VOC content (in lb/gal, less water and exempt compounds) of all inks, fountain solutions, wash primers, coatings, adhesives, solvents, and cleaning materials used or stored at the facility; (b) The combined total amount of VOC's emitted from the use of all VOC containing material (in pounds); (c) The dates of operation of this permit unit. [District Rules 2201 and 4607] Federally Enforceable Through Title V Permit
- 20. Permittee shall maintain a current list of solvents that are in use at the stationary source. The list shall include the following information: (1) the name of the solvent and its manufacturer; (2) the VOC content of each solvent expressed in grams/liter or lb/gal; (3) when the solvent is a mixture of different materials that are blended by the operator, the mix ratio of the batch shall be recorded and the VOC content of the batch shall be calculated and recorded in order to determine compliance with the specified limits of VOC content, as applied; (4) the type of cleaning activity for each solvent that is being used at the stationary source in accordance with the applicable cleaning category specified in Table 1 of this rule; (5) the daily quantity of solvents used in solvent cleaning operations. [District Rule 4663] Federally Enforceable Through Title V Permit
- 21. Records of the daily VOC emissions from this unit shall be kept. Daily VOC emissions may be calculated from the monthly materials (inks, coatings, solvents, fountain solutions, wash primers, etc.) usage records and the number of days per calendar month this unit was operated. [District Rule 2201] Federally Enforceable Through Title V Permit
- 22. Record of the total daily VOC emissions from all permitted graphic arts printing and corrugated board finishing operations in the facility shall be kept. [District Rules 2201 and 4607] Federally Enforceable Through Title V Permit
- 23. Record of the VOC emissions from this unit, on a rolling 12-month basis, shall be kept. The record shall be updated at least monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
- 24. Record of the facility-wide VOC emissions, on a rolling 12-month basis, shall be kept. The record shall be updated at least monthly. [District Rule 2201] Federally Enforceable Through Title V Permit
- 25. All records shall be maintained for a period of at least five years and shall be made available to the District, ARB and EPA inspection upon request. [District Rules 2201, 4607 and 4663] Federally Enforceable Through Title V Permit



APPENDIX B BACT Guideline 4.7.2

San Joaquin Valley Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 4.7.2*

Last Update: 10/15/2010

Offset Lithographic Printing - Non-heat Set Press

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Using materials with the following VOC contents:	VOC capture and incineration; or	
	J	VOC capture and carbon adsorption and	
	Inks: less than 5% VOC by	using materials with the following VOC	
	weight (less water and exempt compounds) or less	contents:	
	than 30% VOC by weight	- Inks:less than 5% VOC by weight (less	
	(less water and exempt	water and exempt compounds) or less	
	compounds) for high end graphics	than 30% VOC by weight (less water and exempt compounds) for high end graphics	
	Fountain Solutions: less	• .	
	than 5% by volume for	 Fountain Solutions: less than 5% by 	
	coldset web offset	volume for coldset web offset	
	lithographic, less than 5% by	lithographics, less than 5% by volume for	
	volume for sheet-fed offset	sheet-fed offset lithographic with	
	lithographic with maximum	maximum sheet size greater than 11x17	
	sheet size greater than	inches, and less than 8% by volume for	
	11x17 inches, and less than 8% by volume for high end graphics	high end graphics	

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 s 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 C Top-Down BACT Analysis

Top-Down BACT Analysis for VOC emissions

The following VOC emission control technologies are listed in BACT guideline 4.7.2, Offset Lithographic Printing – Non-heat Set Press:

Step 1 - Identify all control technologies

Achieved in Practice or contained in the SIP:

Use materials with the following VOC contents:

o Inks: <5% VOC by weight (less water and exempt compounds) or <30% VOC by weight.

(less water and exempt compounds) for high end graphics

o Fountain Solutions: <5% VOC by volume for coldest web offset lithographic, <5% VOC by volume for sheet-fed offset lithographic with maximum sheet size greater than 11 x17 inches, and <8% VOC by volume for high end graphics

Technologically Feasible:

- VOC capture and incineration
- VOC capture and carbon absorption

Alternate Basic Equipment:

There is no alternate basic equipment listed in this guideline.

Step 2 - Eliminate technologically infeasible options

There is no technologically infeasible option.

Step 3 - Rank remaining options by control effectiveness

- 1. VOC capture and incineration (98% overall capture and control)
- 2. VOC capture and carbon absorption (95% overall capture and control)

3. Use materials with the following VOC contents:

o Inks: <5% VOC by weight (less water and exempt compounds) or <30% VOC by weight. (less water and exempt compounds) for high end graphics

o Fountain Solutions: <5% VOC by volume for coldest web offset lithographic, <5% VOC by volume for sheet-fed offset lithographic with maximum sheet size greater than 11 x17 inches, and <8% VOC by volume for high end graphics

Step 4 - Cost Effectiveness Analysis

A cost-effective analysis will now be performed for each control technology, since none of the control technologies have been eliminated.

Uncontrolled VOC emission from the operation:

The uncontrolled VOC emission from the proposed operation is 8,750 lb-VOC per year (equivalent to 4.4 ton-VOC per year).

For the 1st most effective control option, with VOC capture and incineration (98% overall capture & control)

Equipment Cost

The entire printing press must be enclosed to capture 100% of the VOC emissions, and a permanent total enclosure (PTE) would be required to be built around the unit to ensure 100% capture. Per applicant, the new press will be located in a room with dimension of 180.5 feet (L) x 42.6 feet (W) x 48 feet (H), equivalent to 369,086 cu ft. Therefore, installation of an additional PTE is not necessary.

Per EPA's Office of Air Quality Planning and Standards (OAQPS) document EPA/452/B-02-001, Section 2, Chapter 3, page 12, to ensure worker comfort and provide healthful working conditions, the recommended amount of ventilation in terms of room air changes per hour (RACs/hr) for an enclosed environmental is at least 10 to 15 RACs/hr, and therefore; 10 RACs/hr will be used to determine the minimum exhaust airflow rate for the printing room.

The minimum exhaust airflow rate of the printing room would be 61,514 cfm⁽¹⁾. The cost of the RTO is estimated to be \$1,009,673⁽²⁾. This price does not include sales tax, freight expenses, operational and maintenance costs, site preparation, etc.

The direct and indirect costs, shown in the following table, are taken from EPA's Air Pollution Control Manual, Section 3.2, Chapter 2 (Nov 2017), Table 2.10⁽³⁾. The numbers are presumed be reasonably conservative for the cost-effectiveness analysis.

Cost Item	Cost, \$	
Direct Costs		
Purchased equipment costs		
RTO cost, A	1,009,673	
Sales tax, Modesto, 7.625%A	76,988	
Freight, 0.05A	50,484	
Purchased equipment cost, B	\$1,137,144	
Direct installation costs		
Foundations & supports, 0.08B	90,972	

⁽¹⁾ The minimum exhaust airflow rate for the printing room is 61,514 cfm (10 RACs/hr x 369,086 ft³ + 60 min/hr). Therefore, RTO is presumed to be designed to handle at least 61,514 cfm.

⁽²⁾ In 2011, Rick Cooley of Oxidation Technology provided a cost quote for RTOs at various flow rates. Based on this information, the minimum cost of an RTO suitable for the proposed system is \$866,000 (2011 dollar). An overall inflation amount of 16.59%, which was taken from the United States Department of Labor, Bureau of Labor Statistics, Consumer Price Index (CPI) Inflation Calculator, applied to the RTO cost to determine the current 2019 prices: http://www.bls.gov/data/inflation_calculator.htm accessed October 23, 2019. Note that this cost does not include any taxes, freight or installation expenses.

⁽³⁾ EPA's Cost Control Manual, Section 3, Chapter 2 (Nov 2017) https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution-accessed October 25, 2019

Handling & erection, 0.14B Electrical, 0.04B	159,200 45,486
Piping, 0.02B	22,743
Insulation for duct work, 0.01B	11,371
Painting, 0.01B	11,371
Direct installation costs	\$341,143
Site preparation	••
Total Direct	\$1,478,287
In diagrat On the limetallation	
Indirect Costs (installation)	
Engineering, 0.1B	113,714
•	113,714 56,857
Engineering, 0.1B	56,857 113,714
Engineering, 0.1B Construction & field expenses, 0.05B	56,857
Engineering, 0.1B Construction & field expenses, 0.05B Contractor fees, 0.1B	56,857 113,714
Engineering, 0.1B Construction & field expenses, 0.05B Contractor fees, 0.1B Start-up, 0.02B	56,857 113,714
Engineering, 0.1B Construction & field expenses, 0.05B Contractor fees, 0.1B Start-up, 0.02B (4) Performance test, 0.01B	56,857 113,714 22,743
Engineering, 0.1B Construction & field expenses, 0.05B Contractor fees, 0.1B Start-up, 0.02B (4) Performance test, 0.01B Contingencies, 0.03B	56,857 113,714 22,743 34,114

The total capital investment is annualized over 10 years assuming 10% interest. The following formula is used to determine the annualized cost:

Annualized Capital Investment = Initial Capital Investment x Amortization Factor

Amortization Factor =
$$\left[\frac{0.1(1.1)^{10}}{(1.1)^{10}-1}\right]$$
 = 0.163 per District policy, amortizing over 10 years at 10%

Therefore.

Annualized Capital Investment = \$1,819,431 x 0.163 = \$296,567/year

Fuel Cost

Fuel Cost = $\{[Q \times Cp_{Air} \times \Delta T \times (1-HR) \times O] - (VOC \times HC)\} \times (Natural gas cost)$

Where.

Q: Airflow rate 61,514 CFM

CpAir: Specific heat of air (0.0194 Btu/scf - °F)

ΔT: Change in temperature required 1,342°F (1500°F - 158°F)

HR: Heat recovery (0.95)

O: Operational time, 360,000 min/yr (60 min/hr x 24 hr/day x 5 day/week x 50 week/yr)

VOC: Total amount of VOC 8,750 lb/yr

⁽⁴⁾ A performance test price is not included because it would have been required even if a company voluntarily proposes to install an RTO.

HC: Heat content of the VOCs in the contaminated air stream. The heat content of MEK, which is 13,729 Btu/lb, will be assumed.

Natural gas cost: \$7.085/MMBtu (average) for 7/2017 thru 7/2019 per U.S. Energy Information Administration⁽⁵⁾.

Fuel Cost = \$203,389/year

Electricity Cost:

Power fan = $(1.17 \times 10^{-4}) \times Q \times \Delta P$

€

Where,

 ΔP : Pressure drop across system = 4 in. H₂O

€: Efficiency for fan and motor = 0.6

Q: Exhaust flow rate = 61,514 cfm

Power fan = 48 kW

MID's electric rate schedule GS-3 (General Service industrial) for off-peak is \$0.0526/kWH⁽⁶⁾. Thus,

Electric cost = (\$0.0526/kWH)(48 kW)(24 hr/day)(5 day/week)(50 week/yr) = \$15,143/year

Total Cost = \$296,567/yr + \$203,389/yr + \$15,143/yr= \$515,099/yr

For VOC capture and incineration with overall VOC control efficiency 98%, the amount of VOC emissions controlled is calculated as follow:

Controlled VOC emissions = 8,750 lb-VOC/year x 1 tons-VOC/2,000 lb-VOC x 0.98 = 4.3 ton-VOC/year

Cost of VOC reduction is calculated as follow:

Cost of VOC reduction = \$515,099/year ÷ 4.3 ton-VOC/year
= \$119,790/ton-VOC

Since the calculated cost of VOC reduction exceeds the VOC cost effective threshold of \$17,500/ton. Therefore, this control technology of utilize a RTO is deemed not cost effective and will be removed from consideration at this time. Please note that the equipment cost catalytic oxidizer is comparable to that of the RTO. However, the RTO fuel cost are found to be 45% less with an assumed heat recovery rate of 95% as opposed to the 70% heat recovery of catalytic oxidizer. Therefore, cost analysis for RTO is considered to be representative of catalytic oxidizer technology.

⁽⁵⁾ https://www.eia.gov/dnav/ng/hist/n3035ca3m.htm , accessed 10/24/19.

⁽⁶⁾ https://www.mid.org/tariffs/rates/gs3_industrial.pdf_, accessed 10/24/19.

For the 2nd effective control option, with VOC capture and carbon adsorption (95% overall capture & control)

The carbon bed replacement cost normally exceeds the cost effectiveness threshold by itself, so the capital cost is not being included in this analysis.

Annual Operating Costs:

Assuming the carbon would be able to capture 20% of its weight in VOC, the annual carbon requirement would be 43,750 pounds (8,750/0.2).

Per information on EnviroSupply & Service Inc. website⁽⁷⁾, the cost of powdered activated carbon is \$5.95/lb-carbon. Therefore, the cost of carbon is calculated to:

The cost of carbon = 43,750 lb-carbon/year x \$5.95/lb-carbon = \$260,313/year

For carbon adsorption system with overall VOC control efficiency 95%, the amount of VOC emissions controlled is calculated as follow:

Controlled VOC emissions = 8,750 lb-VOC/yr x 1 tons-VOC/2,000 lb-VOC x 0.95 = 4.2 ton-VOC/yr

Cost of VOC reduction is calculated as follow:

Cost of VOC reduction = \$260,313/year ÷ 4.2 ton-VOC/year
= \$61,979/ton-VOC

As demonstrated above, the cost of disposing or replacing the carbon for the carbon adsorption system alone would exceed the VOC cost effectiveness threshold of \$17,500/ton. Therefore, this control technology of utilize a carbon adsorption system is deemed not cost effective and will be removed from consideration at this time.

For the 3rd effective control option, Use of inks with a VOC content of <5% VOC by weight (less water and exempt compounds) or <30% VOC by weight (less water and exempt compounds) for high end graphics; and use of fountain solutions with a VOC content of <5% VOC by volume for coldest web offset lithographic, <5% VOC by volume for sheet-fed offset lithographic with maximum sheet size greater than 11 x17 inches, and <8% VOC by volume for high end graphics

The applicant is proposing the use of this control option, therefore, a cost effectiveness analysis for this control option is not required.

Step 5 - Select BACT

BACT requirement of VOC emissions are satisfied by utilize of inks with a VOC content of <5% VOC by weight (less water and exempt compounds) or <30% VOC by weight (less water and exempt compounds) for high end graphics; and use of fountain solutions with a VOC content of

⁽⁷⁾ https://envirosupply.net/products/4x8-virgin-coconut-shell-activated-carbon-charcoal-for-vapor-filtration-1-lb-bag/?variant=14036430913571, accessed October 24, 2019.

<5% VOC by volume for coldest web offset lithographic, <5% VOC by volume for sheet-fed offset lithographic with maximum sheet size greater than 11 x17 inches. Therefore, BACT requirement is satisfied.

APPENDIX D Compliance Certification

October 2, 2019

Mr. Nick Peirce San Joaquin Valley Air Pollution Control District 4800 Enterprise Way Modesto CA 95356-8718

Subject: Compliance Statement for Pacific Southwest Container LLC

Dear Mr. Peirce:

In accordance with Rule 2201, Section 4.15, "Additional Requirements for New Major Sources and Federal Major Modifications," Pacific Southwest Container L.L.C. is pleased to provide this compliance statement regarding its Koenig & Bauer Lithographic press at stationary source N-3606.

All major stationary sources in California owned or operated by Pacific Southwest Container L.L.C., or by any entity controlling, controlled by, or under common control with Pacific Southwest Container L.L.C., and which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include one or more of the following facilities:

Facility #1: Pacific Southwest Container L.L.C.- 4530 Leckron Road- Modesto, CA 95357

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Please contact me if you have any questions regarding this certification.

Sincerely.

Mac McCullough.

Senior Vice President Quality Engineering & Environmental Mgmt.

Pacific Southwest Container, L.L.C.

APPENDIX E HRA Summary

San Joaquin Valley Air Pollution Control District Risk Management Review

To:

Wai-Man So - Permit Services

From:

Kyle Melching - Technical Services

Date:

October 31, 2019

Facility Name:

Pacific Southwest Container LLC

Location:

4530 Leckron Rd., Modesto

Application #(s):

N-3606-37-0

Project #:

N-1193364

A. RMR SUMMARY

RMR Summary				
Categories	Printing Press (Unit 37-0)	Project Totals	Facility Totals	
Prioritization Score	N/A*	N/A*	<1	
Acute Hazard Index	N/A	N/A	N/A	
Chronic Hazard Index	N/A	N/A	N/A	
Maximum Individual Cancer Risk	N/A	N/A	N/A	
T-BACT Required?	No			
Special Permit Conditions?	No			

^{*}A prioritization was not performed after determining no Toxic Air Contaminants (TACs) with health risks are associated with this project. No further analysis was required.

Project Description

Technical Services received a request on October 24, 2019, to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the installation of a Koenig & Bauer model RA164 non-heatset offset lithographic sheet-fed printing press that equipped with a LED UV curing system. PSC proposes to establish the daily and annual VOC emissions limits of 35.0 pounds per day and 8,750 pounds per year, respectively for the new press.

II. Analysis

Technical Services reviewed the submitted SDS sheets for toxic air contaminants (TACs) with risk factors. After reviewing the SDS sheet, it was determined that there are TACs resulting from the project; however, none with risk factors present. Therefore, no further analysis or prioritization was required for this project.

This project triggers public notice; however, no AAQA was performed since there is no AAQA standard for VOCs.

III. Conclusion

The proposed project will not contribute to the facility's risk. 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.

IV. Attachments

- A. RMR request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Facility Summary

APPENDIX F Quarterly Net Emissions Change (QNEC)

Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The QNEC shall be calculated as follows:

NECsLc = PE2sLc - PE1sLc, where:

NECslc = Quarterly Net Emissions Change for units covered by the SLC.

PE2_{SLC} = PE2 for all units covered by the SLC. PE1_{SLC} = PE1 for all units covered by the SLC.

NEC_{SLC} = 73,403 lb-VOC/yr - 73,403 lb-VOC/yr

= 0 lb-VOC/qtr