



APR 09 2012

Feije Slauerhoff  
G-3 Enterprises  
2612 Crows Landing Road  
Modesto, CA 95358

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: N-1113445**

Dear Mr. Slauerhoff:

Enclosed for your review and comment is the District's analysis of G-3 Enterprise's application for an Authority to Construct for a printing plate manufacturing operation, at 2612 Crows Landing Road in Modesto, CA.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Mark Schonhoff of Permit Services at (209) 557-6448.

Sincerely,

David Warner  
Director of Permit Services

DW:MJS/st

Enclosures

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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**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  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



**San Joaquin Valley**  
AIR POLLUTION CONTROL DISTRICT



**HEALTHY AIR LIVING™**

APR 09 2012

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: N-1113445**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of G-3 Enterprise's application for an Authority to Construct for a printing plate manufacturing operation, at 2612 Crows Landing Road in Modesto, CA.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

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# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

APR 09 2012

Gerardo C. Rios (AIR 3)  
Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Authority to Construct**  
**Project Number: N-1113445**

Dear Mr. Rios:

Enclosed for your review and comment is the District's analysis of G-3 Enterprise's application for an Authority to Construct for a printing plate manufacturing operation, at 2612 Crows Landing Road in Modesto, CA.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Mark Schonhoff of Permit Services at (209) 557-6448.

Sincerely,

David Warner  
Director of Permit Services

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**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
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Modesto Bee  
Modesto Bee

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
AN AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to G-3 Enterprises for a printing plate manufacturing operation, at 2612 Crows Landing Road in Modesto, CA.

The analysis of the regulatory basis for this proposed action, Project #N-1113445, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, REGION'S ADDRESS.**

# Authority to Construct Application Review

Facility Name: G-3 Enterprises Date: March 26, 2012

Mailing Address: 2612 Crows Landing Road  
Modesto, CA 95358

Contact Person: Mr. Feije Slauerhoff  
Telephone: (209) 341-3082

Engineer: Mark Schonhoff  
Application #: N-3309-23-0  
Project #: N-1113445

Deemed Complete: January 30, 2012

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## I. Proposal

The applicant has proposed to receive an Authority to Construct Permit authorizing the installation of a printing plate manufacturing operation. The facility graphic arts equipment currently operates under a combined VOC emission limit, which they are proposing to retain. That emission limit may be referred to as a Specific Limiting Condition (SLC) elsewhere in this document.

## II. Applicable Rules

2201 New and Modified Stationary Source Review Rule (4/21/11)  
2520 Federally Mandated Operating Permits (6/21/01)  
4001 New Source Performance Standards (4/14/99)  
4002 National Emission Standards for Hazardous Air Pollutants (5/20/04)  
4101 Visible Emissions (2/17/05)  
4102 Nuisance (12/17/92)  
4607 Graphic Arts (12/18/08)  
4661 Organic Solvents (9/20/07)  
4663 Organic Solvent Cleaning, Storage and Disposal (9/20/07)  
California Environmental Quality Act (CEQA)  
CH&SC 41700  
CH&SC 42301.6

## III. Project Location

2612 Crows Landing Road  
Modesto, CA

The equipment will not be located within 1,000 feet of a K-12 school.

#### IV. Process Description

Printing plate material undergoes various imaging and exposure operations. The non-imaged area is then removed utilizing the solvent and rotating brushes. The finished plates are then dried in the electric dryer.

#### V. Equipment Listing

##### N-3309-23-0:

PRINTING PLATE MANUFACTURING OPERATION CONSISTING OF A DEGRAFF CONCEPTS 305P PLATE PROCESSOR AND A DEGRAFF CONCEPTS 305EDLF PLATE EXPOSURE LIGHT FINISHER AND DRYER

#### VI. Emission Control Technology Evaluation

The VOC content of the proposed solvent will meet the Achieved-in-Practice BACT level, and is therefore considered to be a low-VOC solvent.

#### VII. General Calculations

##### A. Assumptions

Assumptions will be stated as they are made.

##### B. Emission Factors

The emission factors are from data collected by Best Environmental on behalf of G-3.

##### Processor:

VOC Emission Rate: 0.28 lb/hr based on one small sheet every 20 minutes  
Small Sheet Dimensions: 610 mm x 762 mm (464,820 mm<sup>2</sup>)

$$EF_{\text{VOC}} = (0.28 \text{ lb/hr})(20 \text{ min/sheet})(\text{hr}/60 \text{ min})(\text{sheet}/464,820 \text{ mm}^2) \\ \times (25.4 \text{ mm/in})^2(144 \text{ in}^2/\text{ft}^2) = 0.019 \text{ lb VOC/ft}^2$$

##### Drier:

VOC Emission Rate: 0.17 lb/hr based on one small sheet every 45 minutes  
Small Sheet Dimensions: 610 mm x 762 mm (464,820 mm<sup>2</sup>)

$$EF_{\text{VOC}} = (0.17 \text{ lb/hr})(45 \text{ min/sheet})(\text{hr}/60 \text{ min})(\text{sheet}/464,820 \text{ mm}^2) \\ \times (25.4 \text{ mm/in})^2(144 \text{ in}^2/\text{ft}^2) = 0.025 \text{ lb VOC/ft}^2$$

## C. Potential to Emit (PE)

### 1. Daily PE

The applicant has requested that the throughput limit be in the terms of square feet and that it be limited to 360 square feet per day.

#### Processor:

EF<sub>VOC</sub>: 0.019 lb/ft<sup>2</sup>  
Throughput: 360 ft<sup>2</sup>/day (131,400 ft<sup>2</sup>/yr @ 365 days/yr)

$$PE_{\text{Daily}} = (360 \text{ ft}^2/\text{day})(0.019 \text{ lb/ft}^2) = 6.8 \text{ lb/day}$$
$$PE_{\text{Annual}} = (131,400 \text{ ft}^2/\text{yr})(0.019 \text{ lb/ft}^2) = 2,497 \text{ lb/yr}$$

#### Drier:

EF<sub>VOC</sub>: 0.025 lb/ft<sup>2</sup>  
Throughput: 360 ft<sup>2</sup>/day (131,400 ft<sup>2</sup>/yr @ 365 days/yr)

$$PE_{\text{Daily}} = (360 \text{ ft}^2/\text{day})(0.025 \text{ lb/ft}^2) = 9.0 \text{ lb/day}$$
$$PE_{\text{Annual}} = (131,400 \text{ ft}^2/\text{yr})(0.025 \text{ lb/ft}^2) = 3,285 \text{ lb/yr}$$

#### Total Emissions:

$$\text{Daily PE} = 6.8 \text{ lb/day} + 9.0 \text{ lb/day} = 15.8 \text{ lb/day}$$
$$\text{Annual PE} = 2,497 \text{ lb/yr} + 3,285 \text{ lb/yr} = 5,782 \text{ lb/yr}$$

## D. Increase in Permitted Emissions (IPE)

### 1. Quarterly IPE

Annual PE: 5,782 lb/yr (1,445.5 lb/qtr)

The emission profile will include the following:

	NOx (lb)	SOx (lb)	PM10 (lb)	CO(lb)	VOC (lb)
Annual PE	0	0	0	0	5,782
Daily PE	0	0	0	0	15.8
Δ PE (Qtr 1)	0	0	0	0	1,445
Δ PE (Qtr 2)	0	0	0	0	1,445
Δ PE (Qtr 3)	0	0	0	0	1,446
Δ PE (Qtr 4)	0	0	0	0	1,446

**2. Adjusted Increase in Permitted Emissions (AIPE)**

AIPE is used to determine whether or not Best Available Control Technology (BACT) is required for modified units. The units currently under consideration are new, therefore AIPE calculations are not necessary.

**E. Facility Emissions**

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

The VOC emissions from the graphic arts equipment (all permit units except for N-3309-17) are limited by an SLC to 35,933 lb/yr. The SSPE contribution of unit N-3309-17, which is an emergency engine is from the application review document for project N-1084505.

SSPE2 (lb/yr)					
	NOx	CO	VOC	SOx	PM10
N-3309-1-2	0	0	35,933	0	0
N-3309-14-0	0	0		0	0
N-3309-20-0	0	0		0	0
N-3309-21-0	0	0		0	0
N-3309-22-0	0	0		0	0
N-3309-17-0	862	186	70	10	61
ERC	0	0	0	0	0
Total	862	186	36,003	10	61

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

The plate making equipment currently under consideration will be included in the SLC for the graphic arts equipment.

SSPE2 (lb/yr)					
	NOx	CO	VOC	SOx	PM10
N-3309-1-2	0	0	35,933	0	0
N-3309-14-0	0	0		0	0
N-3309-20-0	0	0		0	0
N-3309-21-0	0	0		0	0
N-3309-22-0	0	0		0	0
N-3309-23-0	0	0	0	0	0
N-3309-17-0	862	186	70	10	61
ERC	0	0	0	0	0
Total	862	186	36,003	10	61



### 3. Stationary Source Increase in Permitted Emissions (SSIPE)

$$\text{SSIPE} = \text{SSPE2} - \text{SSPE1}$$

The SSPE1 and SSPE2 balances are from sections VII.E.1 and VII.E.2 of this document.

	SSPE2 (lb/yr)	SSPE1 (lb/yr)	SSIPE (lb/yr)
NOx	862	862	0
CO	186	186	0
VOC	36,003	36,003	0
SOx	10	10	0
PM10	61	61	0

### 4. Baseline Emissions

The proposed equipment will have only VOC emissions, therefore, it is necessary to determine the Baseline Emissions only for VOC.

The facility is a Major Source for VOC. Section 3.8.1.4 of Rule 2201 states that for Major Source pollutants, the Baseline Emissions are equal to the premodification potential to emit if all units in the SLC are Clean Emission Units.

The following table shows the applicable BACT guideline number, the Achieved-in-Practice BACT requirement and whether or not Achieved-in-Practice BACT was met.

Permit	Description	BACT Guideline	Requirement	Achieved-in-Practice BACT Met
N-3309-1-2 N-3309-14-0	Non heatset lithographic printing (high-end)	4.7.2	Inks: ≤ 30% VOC by wt (less water and exempts)  Fountain Soln: ≤ 8% VOC by vol	Yes (condition 13 of PTO's)
N-3309-20 N-3309-21 N-3309-22	Flexographic Printing (UV cure)	4.7.14	Ink: ≤ 1% VOC by wt (less water and exempts)  Coatings: ≤ 8% VOC by wt (less water and exempts)  Evaporative loss minimization	Yes  Conditions 4 and 5 limit inks and coatings to 0.031 lb VOC/gal and 0.07 lb VOC/gal (less water and exempts) respectively – equivalent to 0.3451% by wt and 0.777% by wt respectively  Condition 9 requires evaporative loss minimization

All of the units included in the SLC for VOC are Clean Emission Units, therefore, the Baseline Emissions for VOC are equal to the SLC.

$$BE_{\text{VOC}} = 35,933 \text{ lb/yr}$$

## F. Major Source Determination

Per Section 3.24 of District rule 2201, the Major Source thresholds are as follows:

Pollutant	Threshold [lb/yr]
NOx	20,000
CO	200,000
VOC	20,000
SOx	140,000
PM10	140,000

### Post-modification Potential to Emit:

Since no emission reduction credits have been generated at this facility, the post-modification potential to emit is equivalent to the SSPE2.

Pollutant	Potential to Emit [lb/yr]	Major Source
NOx	862	No
CO	186	No
VOC	36,003	Yes
SOx	10	No
PM10	61	No

## G. Major Modification Determination

### SB-288 Major Modification:

The purpose of SB-288 Major Modification calculations is to determine the following:

If Best Available Control Technology (BACT) is required for a Major Source pollutant from a new or modified emission unit involved in a permitting action that is a Major Modification (District Rule 2201, §4.1.3); and

If a public notification is triggered (District Rule 2201, §5.4.1).

Per section 3.36 of Rule 2201 and the District's draft policy titled Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 Major Modifications and Federal Major Modifications, a permitting action is an SB-288 Major Modification if the Net Emission Increase (NEI) for the new and modified units involved in the project exceed the thresholds shown on the following table. The equipment currently under consideration will emit only VOC, therefore, only VOC will be addressed.

Pollutant	Threshold (lb/yr)
VOC	50,000

- As shown in section VII.C.1 of this document, the potential to emit of VOC is less than its SB-288 Major Modification threshold. Therefore, this permitting action is not an SB-288 Major Modification.

**Federal Major Modification:**

Per section 3.18 of Rule 2201 and the District's draft policy titled Implementation of Rule 2201 (as amended on 12/18/08 and effective on 6/10/10) for SB288 Major Modifications and Federal Major Modifications, a permitting action is a Federal Major Modification if the Net Emission Increase (NEI) for the new and modified units involved in the project exceed the thresholds shown on the following table. The equipment currently under consideration will emit only VOC, therefore, only VOC will be addressed.

Pollutant	Threshold (lb/yr)
VOC	0

$$NEI = PE - BAE$$

Where: PE is the potential to emit (5,782 lb/yr – section VII.C.1 of this document)  
BAE is zero for new units

$$NEI = 5,782 \text{ lb/yr} - 0 \text{ lb/yr} = 5,782 \text{ lb/yr}$$

As can be seen, the NEI of VOC is in excess of its Major Source threshold. Therefore, this permitting action is a Federal Major Modification.

## VIII. Compliance

### Rule 2201 New and Modified Stationary Source Review Rule

#### A. BACT

##### 1. BACT Applicability

###### New or Relocated Units:

Except for CO, BACT is required for each pollutant with a PE of greater than 2.0 pounds per day. For CO, BACT is triggered if the PE of CO is greater than 2.0 pounds per day and the SSPE2 of CO is 200,000 pounds per year or greater.

###### Modified Units:

Except for CO, BACT is required for each pollutant with an AIPE of greater than 2.0 pounds per day. For CO, BACT is triggered if the AIPE of CO is greater than 2.0 pounds per day and the SSPE2 of CO is 200,000 pounds or greater.

###### Major Modifications:

BACT is required for each Major Source Pollutant for which the permitting action is an SB-288 or Federal Major Modification.

###### Applicability:

The proposed units are new and as shown in section VII.C.1 of this document, the PE of VOC for each will be greater than 2.0 pounds per day. Additionally, the facility is a Major Source for VOC emissions and as shown in section VII.G of this document, this permitting action is a Federal Major Modification. Therefore, BACT is required for VOC.

##### 2. BACT Analysis

As shown in the Top-Down BACT analysis that is in appendix C of this document, BACT will be the use of processor solvents with VOC contents of 7.3 lb/gal (less water and exempt compounds) or less and evaporative loss minimization including keeping all solvents and solvent laden cloth/paper, not in active use, in closed containers.

## B. OFFSETS

### 1. Offset Applicability

Per Rule 2201, section 4.5.3, offsets are examined on a pollutant by pollutant basis and are triggered for any pollutant with an SSPE2 equal to or greater than the value on the following table:

Pollutant	SSPE2 (lb/yr)
NOx	20,000
CO (in CO attainment areas)	200,000
VOC	20,000
SOx	54,750
PM10	29,200

As shown in section VII.E.2 of this document, the SSPE2 of each pollutant is:

Pollutant	SSPE2 (lb/yr)	Offsets Triggered
NOx	862	No
CO	186	No
VOC	36,003	Yes
SOx	10	No
PM10	61	No

### 2. Quantity of Offsets Required

For pollutants with a pre-project SSPE (SSPE1) of greater than the offset thresholds of Rule 2201 offsets must be provided for all increases in Stationary Source emissions, calculated as the sum of the difference between the post-project Potential to Emit and the Baseline Emissions of all new and modified emission units. The units currently under consideration fall into this category. The Baseline Emissions are from section VII.E.4 of this document and the Potential to Emit of the new and modified units is equal to the SLC under which they operate (35,933 lb/yr).

BE (new & modified units): 35,933 lb/yr  
PE (new & modified units): 35,933 lb/yr

Offset = 35,933 lb/yr – 35,933 lb/yr = 0 lb/yr

## 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:

- a. New Major Sources

- b. Major Modifications
- c. New emission units with a PE > 100 lb/day of any one pollutant (IPE Notifications)
- d. Modifications with SSPE1 below an offset threshold and SSPE 2 above an offset threshold on a pollutant by pollutant basis (Existing Facility Offset Threshold Exceedence Notification)
- e. New stationary sources with SSPE2 exceeding offset thresholds (New Facility Offset Threshold Exceedence Notification)
- f. Any permitting action with a SSIPE exceeding 20,000 lb/yr for any one pollutant. (SSIPE Notice)

**a. New Major Source Notice Determination:**

The facility is not new, therefore, a New Major Source Determination notice is not required.

**b. Major Modification Notice:**

The facility is a Major Source for VOC and as shown in section VII.G of this document, this permitting action is a Federal Major Modification. Therefore, a Major Modification Notice is required.

**c. PE Notification:**

As shown in section VII.C.1 of this document, the PE of each pollutant will be less than 100 pounds per day. A notification is not required.

**d. Existing Facility Offset Threshold Exceedence Notification**

The SSPE of no pollutant will go from below to above an offset threshold. Therefore, a public notification is not required.

**e. New Facility Offset Threshold Exceedence 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 shown in section VII.E.3 of this document, the SSIPE of each pollutant will be less than 20,000 pounds per year. An SSIPE notification is not required.

**2. Public Notice**

As shown above, a public notification is required because the permitting action is a Federal Major Modification.

#### **D. DAILY EMISSION LIMITS**

The VOC emissions from the processor shall not exceed 0.019 lb per square foot of material throughput.

The VOC emissions from the dryer shall not exceed 0.025 lb per square foot of material throughput.

The material throughput shall not exceed 360 square feet during any one day.

#### **E. Ambient Air Quality Impact Analysis**

Section 4.14 of this rule requires that an ambient air quality analysis (AAQA) be conducted to determine whether the operation of the proposed equipment will cause or make worse a violation of an air quality standard. The only emissions from this operation will be VOC. Since there is not an air quality standard for VOC, an AAQA is not required.

#### **F. Alternative Siting Analysis**

Section 21002 of the Public Resources Code states that projects should not be approved as proposed if there are feasible alternatives or feasible mitigation measures that would substantially lessen the environmental impacts associated with that project. This section also states that in the event of specific economic, social or other conditions would make such a project infeasible then the project may be approved in spite of the significant effects. The proposed plate manufacturing equipment is being combined with an existing stationary source, therefore, requiring it to be located at an alternative location would require the relocation of the entire stationary source. Such a relocation would cause a significant financial hardship and per § 21002 of the Public Resources Code, locating the equipment at an alternative site will not be required.

#### **G. Compliance by Other Owned, Operated or Controlled Sources**

This section requires that the owner of a New Major Source or the owner of a facility undergoing a Federal Major Modification demonstrate, to the satisfaction of the District, that all Major Sources it owns, operates or controls, are located in California and are subject to emission limits be in compliance, or on schedule to be in compliance with all applicable emission limits or standards. The current modification is a Federal Major Modification so these requirements apply. G-3 Enterprises consists of a closure division (facility ID 2028) and the facility undergoing this modification (label division, facility ID N-3309). The closure division is not a Major Source for any pollutant and the label division is in compliance with all applicable emission limitations and standards.

## **H. Compliance Assurance**

### **1. Source Testing**

As they apply to the equipment currently under consideration, no District rule or policy requires source testing.

### **2. Monitoring**

As they apply to the equipment currently under consideration, no District rule or policy requires monitoring.

### **3. Record Keeping**

The throughput records necessary to verify compliance with the throughput limits of the Authorities to Construct and Permits to Operate will be required.

### **4. Reporting**

As they apply to the equipment currently under consideration, no District rule or policy requires reporting.

## **Rule 2520 Federally Mandated Operating Permits**

The facility does not yet have a Title V permit, therefore, no discussion of this rule is necessary.

## **Rule 4001 New Source Performance Standards**

No 40 CFR Part 60 subparts apply to the proposed equipment.

## **Rule 4002 National Emission Standards for Hazardous Air Pollutants**

No 40 CFR Part 63 subparts apply to the proposed equipment.

## **Rule 4101 Visible Emissions**

As long as the equipment is properly maintained and operated, the visible emissions are not expected to exceed 20% opacity for a period or periods aggregating more than 3 minutes in any one hour. Compliance with the provisions of this rule is expected.

## **Rule 4102 Nuisance**

### **A. California Health & Safety Code 41700 (Risk Management Review)**

A Risk Management Review (RMR) was conducted by the Technical Services Division of the SJVAPCD. As shown on the RMR summary that is included in appendix B of this



document, the prioritization score is zero. Such a score is indicative of emissions that will not pose a significant health risk and the project is therefore approvable.

## **B. Toxics BACT (T-BACT)**

As shown on the RMR summary that is included in Appendix B of this document, T-BACT is not required.

### **Rule 4607 Graphic Arts**

Per section 2.0, this rule is applicable to graphic arts printing operations, digital printing operations, paper, film, foil, or fabric coating operations and to the organic solvent cleaning materials and processes associated with such operations. The plate manufacturing operation does not meet the definition of any of the subject operations, therefore, this rule does not apply.

### **Rule 4661 Organic Solvents**

Per section 5.8 the combined VOC emissions from all equipment subject to this rule shall not exceed 833 pounds per calendar month. The equipment proposed under this application is the only equipment that is subject to this rule and its emissions will be limited to less than 833 lb/month. Therefore, compliance with this section is expected.

Per section 5.10, the facility shall comply with the requirements of Sections 5.0 and 6.0 of Rule 4663 (Organic Solvent Cleaning, Storage, and Disposal) when performing organic solvent cleaning, storage and disposal of organic solvents and waste solvent materials, coatings, adhesives, catalysts, and thinners. Those requirements are discussed in the rule 4663 compliance section.

Section 6.1.2 specifies the record keeping requirements in effect on and after March 21, 2008.

Section 6.1.2.1 requires the operator to maintain a list that includes the manufacturer's name and the VOC content of each solvent in use. To ensure, compliance, the following condition will be placed on the Authority-to-Construct and on the Permit-to-Operate.

*The operator shall maintain a list of each solvent in use, and of the VOC content of each solvent, in lb/gal.*

Section 6.1.2.2 requires the operator to maintain material usage records. To ensure compliance, the following condition will be placed on the Authority-to-Construct and on the Permit-to-Operate.

*The operator shall keep the following daily usage records: (1) Material name, (2) Volume of each material used, (3) The name and the volume of each solvent, catalyst or thinner added to the material (4) When the material 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 VOC emission limits.*

Section 6.1.3 applies to facilities that utilize VOC control devices. No control device will be used, therefore, this section does not apply.

Section 6.1.4 requires that all records be kept for a period of at least 5 years and that they be made available to the District, ARB and the EPA upon request. Such a condition will be placed on the Authority-to-Construct and on the Permit-to-Operate.

### **Rule 4663 Organic Solvent Cleaning, Storage and Disposal**

This rule applies to facilities that perform solvent cleaning and it applies to facilities that store and dispose of solvents (regardless of whether it is from cleaning operations). Although no solvent cleaning will be performed, storage and disposal of solvents will occur. Therefore, this rule applies.

Section 5.1 includes VOC content limits for solvents used in various types of operations. This section does not include a VOC content limit for printing plate manufacturing.

Section 5.2 specifies solvent cleaning methods. The proposed solvent will be utilized to remove plate material, not for cleaning. Therefore, this section does not apply.

Section 5.3 applies only to operations that utilize VOC control devices. No such device will be utilized, therefore, this section does not apply.

Section 5.4 specifies solvent storage and disposal requirements. To ensure compliance with this section, the following condition will be placed on the Authority-to-Construct and the Permit-to-Operate.

*The operator 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. [Rules 4661 and 4663].*

Section 5.5 applies only to emission control systems. An emission control system will not be utilized, therefore, this section does not apply.

Section 6.1 applies only to solvent manufacturers and therefore does not apply to the applicant.

Section 6.2 specifies record keeping requirements for operations that perform solvent cleaning. The proposed solvent will be utilized to remove material from printing plate material, not cleaning. Therefore, the record keeping requirements of this rule do not apply. Refer to the Rule 4661 compliance section for record keeping requirements.

### **California Environmental Quality Act (CEQA)**

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; 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**

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)).

### **California Health & Safety Code 42301.6 (School Notice)**

The equipment will not be located within 1,000 feet of a K-12 school, therefore, a school notice is not required.

### **IX. Recommendation**

Issue an Authority to Construct with the conditions on the attached draft Authority to Construct.

**X. Billing Information**

Permit #	Description	Fee Schedule
N-3309-23-0	16 kVA	3020-2-A

**Appendices**

Appendix A: Draft ATC's

Appendix B: RMR Summary

Appendix C: BACT Guideline and BACT Analysis

## **Appendix A**

### **Draft ATC**

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

**DRAFT**  
ISSUANCE DATE: DRAFT

**PERMIT NO:** N-3309-23-0

**LEGAL OWNER OR OPERATOR:** G-3 ENTERPRISES, LABEL DIVISION  
**MAILING ADDRESS:** 2612 CROWS LANDING RD  
MODESTO, CA 95358-9400

**LOCATION:** 2612 CROWS LANDING RD  
MODESTO, CA 95358-9400

**EQUIPMENT DESCRIPTION:**  
PRINTING PLATE MANUFACTURING OPERATION CONSISTING OF A DEGRAFF CONCEPTS 305P PLATE PROCESSOR AND A DEGRAFF CONCEPTS 305EDLF PLATE EXPOSURE LIGHT FINISHER AND DRYER

**CONDITIONS**

1. {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]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. The VOC content of the processor solvents used shall not exceed 7.3 lb/gal (less water and exempt compounds). [District Rule 2201]
4. The VOC emissions from the processor shall not exceed 0.019 lb per square foot of material throughput. [District Rule 2201]
5. The VOC emissions from the dryer shall not exceed 0.025 lb per square foot of material throughput. [District Rule 2201]
6. The material throughput shall not exceed 360 square feet during any one day. [District Rule 2201]
7. The facility-wide VOC emissions from the graphic arts equipment, including this unit, shall not exceed 35,933 pounds based on a 12 month rolling total. [District Rule 2201]
8. The operator 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 2201, 4661 and 4663]
9. The operator shall keep daily record of the number of square feet of material processed. [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-3309-23-0: Mar 28 2012 0:02AM - GCH:ONI:DM : Joint Inspection NOT Required

10. The operator shall maintain a list of each solvent in use, and of the VOC content of each solvent, in lb/gal. [District Rule 4661]
11. The operator shall keep the following daily usage records: (1) Material name, (2) Volume of each material used, (3) The name and the volume of each solvent, catalyst or thinner added to the material (4) When the material 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 VOC emission limits. [District Rule 4661]
12. The operator shall keep a record of the combined VOC emissions from the facility graphic arts equipment, including this unit. The record shall be kept on a 12 month rolling total basis and shall be updated at least monthly. [District Rule 2201]
13. All records shall be retained for a period of at least 5 years and shall be made available to APCO, ARB and EPA upon request. [District Rule 4661]

DRAFT

## **Appendix B RMR Summary**



## San Joaquin Valley Air Pollution Control District Risk Management Review

To: Mark Schonhoff – Permit Services  
 From: Cheryl Lawler – Technical Services  
 Date: February 7, 2012  
 Facility Name: G-3 Enterprises  
 Location: 2612 Crows Landing, Modesto  
 Application #(s): N-3309-23-0  
 Project #: N-1113445

### A. RMR SUMMARY

RMR Summary			
Categories	Washout Solution Emissions (Unit 23-0)	Project Totals	Facility Totals
Prioritization Score	0.00*	0.00*	0.00
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 Hazardous Air Pollutants (HAPs) are associated with this project. No further analysis was required.

#### I. Project Description

Technical Services received a request on January 30, 2012, to perform a Risk Management Review for a printing plate manufacturing operation with washout solution emissions.

#### II. Analysis

After reviewing the information provided in the Risk Management Review request along with MSDS sheets for the proposed solution product, Technical Services determined that there are no HAPs associated with this project. Therefore, no further analysis or prioritization was required for this project.

#### 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).

## **Appendix C**

### **BACT Guideline and BACT Analysis**

Per » B A C T » Bact Guideline.asp?category Level1=4&category Level2=7&category Level3=10&last Update=6 » 21 :

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**Best Available Control Technology (BACT ) Guideline 4.7.10  
Last Update: 6/21/2000**

**Printing Plate Manufacturing**

<b>Pollutant</b>	<b>Achieved in Practice or in the SIP</b>	<b>Technologically Feasible</b>	<b>Alternate Basic Equipment</b>
VOC	Use of processor solvents with a VOC content, less water and exempt compounds, of 7.3 lb/gal, or lower, and Practicing evaporation minimization methods, which include keeping all solvents and solvent-laden cloths/papers, not in active use, in closed containers.	1. VOC Capture and thermal oxidation. 2. VOC Capture and catalytic oxidation. 3. VOC Capture and carbon adsorption	

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. For background information, see Permit Specific BACT Determinations on Details Page.**

As shown in section VIII (Rule 2201 Compliance) of this document, BACT is required for the VOC emissions from the proposed processor and the drier. District BACT guideline 4.7.10 applies to the proposed equipment.

**Step 1: List Practically Applicable Control Options**

1. VOC capture and thermal oxidation
2. VOC capture and catalytic oxidation
3. VOC capture and carbon adsorption
4. Use of processor solvents with VOC contents of 7.3 lb/gal (less water and exempt compounds) or less and evaporative loss minimization including keeping all solvents and solvent laden cloth/paper, not in active use, in closed containers

**Step 2: Eliminate Technologically Infeasible Control Options**

None of the emission control options listed in step 1 is technologically infeasible.

**Step 3: Rank Remaining Control Options**

Rank	Control Option	Category
1A	VOC Capture and thermal Oxidation	Technologically Feasible
1B	VOC capture and catalytic Oxidation	
2	VOC capture and carbon adsorption	Technologically Feasible
3	Use of processor solvents with VOC contents of 7.3 lb/gal (less water and exempt compounds) or less and evaporative loss minimization including keeping all solvents and solvent laden cloth/paper, not in active use, in closed containers	Achieved-in-Practice

#### Step 4: Cost Effectiveness Analysis

##### Option 1A: Thermal Oxidation

###### Initial Costs:

Purchase Cost:	\$250,800 (CMM Group)
Sales Tax (7.75%):	\$ 19,437
<u>Total</u>	<u>\$270,237</u>

$A = [P(i)(1+i)^n] / [(1+i)^n - 1]$  where:

- A: Equivalent annual capital cost of the control equipment
- P: Present value of the control equipment, including installation
- I: Interest rate (District policy is to use 10%)
- n: Equipment life (District policy is to use 10 years)

$$A = [\$270,237(0.1)(1+0.1)^{10}] / [(1+0.1)^{10} - 1] = \$43,980/\text{yr}$$

###### Annual Ongoing Costs:

The following costs were obtained from "Estimating Costs of Air Pollution Control, William M. Vatauk".

Assume a labor cost of \$25/hr

Operating Labor (2 hr/day, 365 days/yr):	\$18,250/yr
Maintenance (1 hr/day, 365 days/yr):	\$ 9,125/yr
Supervisory Labor (15% Operating Labor):	\$ 2,738/yr
<u>Maintenance Material (100% Maintenance Labor):</u>	<u>\$ 9,125/yr</u>
Total	\$39,238/yr

Total annual costs: \$43,980/yr + \$39,238/yr = \$83,218/yr

###### **Annual Control:**

Uncontrolled emissions: 5,782 lb/yr  
Control Efficiency: 98% (typical for thermal oxidation)

Control: (5,782 lb/yr)(0.98) = 5,666 lb/yr

**Cost per ton of reductions:**

$$(\$83,218/\text{yr}) / (5,666 \text{ lb}/\text{yr}) (1 \text{ ton}/2000 \text{ lb}) = \$29,375/\text{ton}$$

The cost of VOC control utilizing a thermal oxidation system that would achieve 98% capture and control would be in excess of the District's \$17,500 per ton cost effectiveness threshold even considering only a partial list of costs. Per the District BACT policy this control option is being removed from consideration at this time.

## Option 1B: Catalytic Oxidation

### Initial Costs:

Purchase Cost:	\$ 64,725 (CMM Group)
Start-Up Training:	\$ 6,500 (CMM Group)
Freight:	\$ 4,250 (CMM Group)
<u>Sales Tax on \$64,725 (7.75%):</u>	<u>\$ 5,016</u>
Total	\$ 80,491

$A = [P(i)(1+i)^n] / [(1+i)^n - 1]$  where:

- A: Equivalent annual capital cost of the control equipment
- P: Present value of the control equipment, including installation
- I: Interest rate (District policy is to use 10%)
- n: Equipment life (District policy is to use 10 years)

$$A = [\$80,491(0.1)(1+0.1)^{10}] / [(1+0.1)^{10} - 1] = \$13,099/\text{yr}$$

### Annual Ongoing Costs:

Unless otherwise noted, the following costs were obtained from "Estimating Costs of Air Pollution Control, William M. Vatauk

Assume a labor cost of \$25/hr:

Operating Labor (2 hr/day, 365 days/yr):	\$18,250/yr
Maintenance (1 hr/day, 365 days/yr):	\$ 9,125/yr
Supervisory Labor (15% Operating Labor):	\$ 2,738/yr
Maintenance Material (100% Maintenance Labor):	\$ 9,125/yr
<u>Natural Gas <sup>1</sup></u>	<u>\$31,956/yr</u>
Total	\$71,194/yr

Total annual costs: \$13,099/yr + \$71,194/yr = \$84,293/yr

<sup>1</sup> Per the supplier, the unit would be rated at 0.4 MMBtu/hr and the cost of natural gas is expected to \$9.12/MMBtu (Department of Energy fuel cost database). Per the applicant, to produce the proposed square footage of plate material, the processing equipment would have to operate 8,760 hr/yr. Therefore, the fuel cost will be based on 8,760 hr/yr of oxidizer operation.

Natural Gas Cost = (0.4 MMBtu/hr)(\$9.12/MMBtu)(8,760 hr/yr) = \$31,956/yr

**Annual Control:**

Uncontrolled emissions: 5,782 lb/yr  
Control Efficiency: 98% (typical for catalytic oxidation)

Control:  $(5,782 \text{ lb/yr})(0.98) = 5,666 \text{ lb/yr}$

**Cost per ton of reductions:**

$(\$84,293/\text{yr})/(5,666 \text{ lb/yr})(1 \text{ ton}/2000 \text{ lb}) = \$29,754/\text{ton}$

The cost of VOC control utilizing a catalytic oxidation system that would achieve 98% capture and control would be in excess of the District's \$17,500 per ton cost effectiveness threshold even considering only a partial list of costs. Per the District BACT policy this control option is being removed from consideration at this time.



## Option 2: Carbon Adsorption

### Initial Costs:

Purchase Cost - Vessels:	\$35,790 (Pure Effects)
Purchase Cost – Carbon Media:	\$16,200 (Pure Effects)
Installation (Concrete/Ducting/Blowers):	\$25,000 (G-3 Estimate)
Sales Tax (7.75% of the above):	\$ 5,967
Freight:	\$ 2,550 (G-3 Estimate)
Initial Source Test:	\$ 3,000 (Typical Cost)
<u>Start-up Training:</u>	<u>\$ 1,500 (G-3 Estimate)</u>
Total	\$ 90,007

$A = [P(i)(1+i)^n] / [(1+i)^n - 1]$  where:

- A: Equivalent annual capital cost of the control equipment
- P: Present value of the control equipment, including installation
- I: Interest rate (District policy is to use 10%)
- n: Equipment life (District policy is to use 10 years)

$$A = [\$90,007(0.1)(1+0.1)^{10}] / [(1+0.1)^{10} - 1] = \$14,648/\text{yr}$$

### Annual Ongoing Costs:

Unless otherwise noted, the following costs were obtained from "Estimating Costs of Air Pollution Control, William M. Vatauvuk".

Assume a labor cost of \$25/hr

Operating Labor (2 hr/day, 365 days/yr):	\$18,250/yr
Maintenance (1 hr/day, 365 days/yr):	\$ 9,125/yr
Supervisory Labor (15% Operating Labor):	\$ 2,738/yr
Maintenance Material (100% Maintenance Labor):	\$ 9,125/yr
Annual Source Test	\$3,000/yr (typical cost)
<u>Carbon Regeneration: (avg of 8.62/yr @ \$3,959 each)</u>	<u>\$34,127 (Pure Effects)</u>
Total	\$76,365/yr

Total annual costs: \$14,648/yr + \$76,365/yr = \$91,013/yr

### Annual Control:

Uncontrolled emissions: 5,782 lb/yr  
Control Efficiency: 95% (typical for carbon adsorption)

Control: (5,782 lb/yr)(0.95) = 5,493 lb/yr

**Cost per ton of reductions:**

$$(\$91,013/\text{yr})/(5,493 \text{ lb}/\text{yr})(1 \text{ ton}/2000 \text{ lb}) = \$33,138/\text{ton}$$

The cost of VOC control utilizing a carbon adsorption system that would achieve 95% capture and control would be in excess of the District's \$17,500 per ton cost effectiveness threshold even considering only a partial list of costs. Per the District BACT policy this control option is being removed from consideration at this time.

**Option 3: Use of processor solvents with VOC contents of 7.3 lb/gal (less water and exempt compounds) or less and evaporative loss minimization including keeping all solvents and solvent laden cloth/paper, not in active use, in closed containers**

This control option is categorized as Achieved-in-Practice. The Achieved-in-Practice option is the minimum control that can be accepted and is required regardless of cost. Therefore, a cost effectiveness analysis is not required.

**Step 5: Select BACT**

Only the Achieved-in-Practice option remains in under consideration. Therefore, BACT will be the use of processor solvents with VOC contents of 7.3 lb/gal (less water and exempt compounds) or less and evaporative loss minimization including keeping all solvents and solvent laden cloth/paper, not in active use, in closed containers