

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	1
ENGINEERING AND COMPLIANCE DIVISION	APPL. NOS.	459677, 461287
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	JPV
	CHECKED BY	
	DATE	1/28/11

PERMIT TO OPERATE EVALUATION

Applicant's Name	MADISON-GRAHAM COLORGRAPHICS, INC.
Company ID	1379
Mailing Address	150 N. MYERS STREET, LOS ANGELES, CA 90033
Equipment Address	SAME AS ABOVE

EQUIPMENT DESCRIPTION:

A/N 459677 (P/O no P/C, New Construction):

INTERNAL COMBUSTION ENGINE, GENERAC, MODEL NO. GUARDIAN 5340, SERIAL NO. 4486451, 71 BHP, FOUR CYLINDERS, NATURALLY ASPIRATED, NATURAL GAS-FIRED, WITH A CATALYTIC CONVERTER AND AN AIR-FUEL RATIO CONTROLLER, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

A/N 461287 (To be Cancelled – duplicate of A/N 498414):

TITLE V PERMIT REVISION, DE MINIMIS SIGNIFICANT

A/N 498414:

TITLE V PERMIT REVISION, DE MINIMIS SIGNIFICANT

BACKGROUND:

Madison-Graham Colorgraphics (“applicant”) submitted two applications as follows:

<u>Appl.</u>	<u>Equipment</u>	<u>Fee Paid</u>	<u>Reason for Filing</u>
459677	Emergency ICE, natural gas	\$1695.47	P/C (to P/O, no P/C)
461287	Plan application	\$ 697.07	Title V Revision

The applicant operates a typical lithographic printing operation. This application to install this spark ignition, emergency internal combustion (IC) engine was filed with the District in August 2006. The facility began operating the equipment in September 2006 without first obtaining a written Permit to Construct/Operate from the District. As a result, this application is being processed as a Class III (PO, no PC), and the applicant will be billed an additional 50% fee (Schedule A, \$1695.47 x 0.5). This engine complies with BACT requirements.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	2
ENGINEERING AND COMPLIANCE DIVISION	APPL. NOS.	459677, 461287
APPLICATION PROCESSING AND CALCULATION	PROCESSED BY	JPV
	CHECKED BY	
	DATE	1/28/11

This facility currently has a VOC limit of 10,890 pounds of VOC per calendar month. This limit will be unaffected by the permitting of this emergency IC engine.

This facility is in the Title V program. The latest Title V facility permit renewal was issued on March 26, 2006. The above applications are part of the 2nd Title V permit revision since then. In addition, Madison-Graham submitted A/Ns 498415-498417 for the installation of three air-dried lithographic printing presses (P/O no P/C evaluation done separately). These are not vented to air pollution control equipment. A/N 461287 was submitted for de minimis significant permit revision to go along with this IC engine A/N 459677. However, A/N 459677 will be grouped with A/N 498414, which was submitted for a de minimis significant permit revision along with A/Ns 498415-498417. A/N 461287 will be cancelled, and the facility will receive a partial refund. A/N 511011 & 512895 were also filed for construction of two new lithographic printing presses (under separate evaluation). A/N 511014 was filed for a Title V de minimis significant permit revision, but will also be cancelled. A/N 511011 & 512895 will also be grouped with A/N 498414.

In addition, as part of an administrative permit revisions, A/N 444084 will be issued a permit to operate from a permit to construct for the modification to the regenerative thermal oxidizer (under separate evaluation). Likewise, A/N 465235 will be issued the permit to operate from a permit to construct for the lithographic printing press that replaced the one under P/C A/N 443118. As a result, A/N 443118 will be cancelled (under separate evaluation) and removed from section D of the facility permit. See Reg. XXX for summary of this revision.

A review of the Compliance database shows that the facility was most recently inspected in March 2010. The facility was operating in compliance at that time. In addition, there were two public complaints in the past two years, but the facility was found to be in compliance and no further compliance action was taken. Also, no Notices of Violation or Notices to Comply have been issued to this facility in the last two years.

PROCESS DESCRIPTION:

The applicant operates a typical commercial lithographic printing operation at this site. The printing equipment is used to print such items as brochures, annual reports, and advertising. The applicant installed this engine for emergency electrical generation. This emergency ICE generator will be operated (on average) approximately 5 hours per year for testing and maintenance purposes, and no more than 200 hours per year total. This equipment is located more than 500 feet from the nearest school.

EMISSIONS:

This engine was designed to operate at or below BACT emission rates for emergency, natural gas-fired, spark ignition engines. Aside from electrical generation in an emergency power outage, the engine will be operated an average of five hours per year for testing and maintenance operations. The equipment will be permitted to operate no more than 200 hours per year. Emission rates are determined using the following BACT emission rates and the maintenance operating schedule.

Air Contaminant	Engine Emission Factor (g/bhp-hr)	BACT Limits (g/bhp-hr)
CO	2.0	2.0
NOx	1.5	1.5
PM/PM10	0.15	n/a
VOC	1.5	1.5

Operating Schedule = 1 hr/day, 5 wks/yr (avg); 200 hrs/yr (max)

BHP = 71 hp

1 lb = 454 g

Hourly CO = $(2.0 \text{ g/bhp-hr})(1 \text{ lb}/454 \text{ g})(71 \text{ bhp}) = 0.31 \text{ lb CO/hr}$

Daily CO = 0.31 lb CO/day

Annual CO = 0.31 lb CO/day (200 hrs/yr) = 62 lbs CO/yr

Hourly NOx = $(1.5 \text{ g/bhp-hr})(1 \text{ lb}/454 \text{ g})(71 \text{ bhp}) = 0.23 \text{ lb NOx/hr}$

Daily NOx = 0.23 lb NOx/day

Annual NOx = 0.23 lb NOx/day (200 hrs/yr) = 46 lbs NOx/yr

Hourly PM10 = $(0.15 \text{ g/bhp-hr})(1 \text{ lb}/454 \text{ g})(71 \text{ bhp}) = 0.024 \text{ lb PM10/hr}$

Daily PM10 = 0.024 lb PM10/day

Annual PM10 = 0.024 lb PM10/day (200 hrs/yr) = 4.8 lbs PM10/yr

Hourly VOC = $(1.5 \text{ g/bhp-hr})(1 \text{ lb}/454 \text{ g})(71 \text{ bhp}) = 0.23 \text{ lb VOC/hr}$

Daily VOC = 0.23 lb VOC/day

Annual VOC = 0.23 lb VOC/day (200 hrs/yr) = 46 lbs VOC/yr

RULES:

Rule 212 A public notice will be required only if one or more of the following criteria is met:

- (A) the equipment is located within 1000 feet of a school, or
- (B) the increase of emissions exceed the limits in subdivision (g), or
- (C) the toxic emissions result in an MICR of more than one in a million on a worst-case basis.

Since none of the criteria above are triggered, there will be no public notice requirements per this rule. However, since the two new printing presses under A/Ns 511011 & 512895 (separate evaluation) are part of this permit revision and project, and triggers Rule 212(g) public notice due the potential VOC emissions > 30 lb/day, this engine will be included in the public notice.

Rule 401 Visible emissions are not expected with proper operation of this equipment.

Rule 402 Operation of equipment is not expected to create a nuisance.

- Rule 1110.2 Exempt under (h)(2) from the requirements of subparagraph (d) – emergency IC engine for electrical generation. Conditions will be imposed limiting hours of operation to 200 hours per year and requiring an elapsed operating time meter.
- REG. XIII 1303(a): As indicated in the emissions analysis, the emissions from the operation of this engine are in compliance with the BACT requirements.
- 1303(b)(1): Emergency electrical power generating equipment are exempt from modeling requirements as per 1304(a)(4).
- 1303(b)(2): Emergency electrical power generating equipment are exempt from offset requirements as per 1304(a)(4).
- 1303(b)(4): The facility is expected to be in full compliance with all applicable rules and regulations of the District.
- Rule 1401 This equipment is exempt from the requirements of this rule as per Rule 1401 (g)(1)(F).
- Rule 1470 This rule does not apply since the equipment is operated using natural gas.

Regulation XXX:

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

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

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NOx	40
PM10	30
SOx	60
CO	220

To determine if a project is considered as a “de minimis significant permit revision” for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the Title V renewal permit shall be accumulated and compared to the above threshold levels. This proposed project is part of the 2nd permit revision to the Title V renewal permit issued to this facility on March 26, 2006. The table on the following page summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued:

Title V Permit Revisions Summary

	Revision	HAP	VOC	NO _x	PM ₁₀	SO _x	CO
1st	1 st Permit Revision: Installation of a heat-set lithographic printing press (A/N 465235)	0	0	0	0	0	0
2nd	P/C to P/O upgrade (administrative) for lithographic printing press (A/N 459677) and regenerative thermal oxidizer (A/N 444084)	0	0	0	0	0	0
	P/O no P/C, Installation of three air-dry lithographic printing presses (A/Ns 498415, 498416 and 498417)	0	0	0	0	0	0
	Remove two presses under A/N 432788 (PO #F72166) and A/N 402452 (PO #F57166) replaced by A/Ns 498415 and 498417.	0	0	0	0	0	0
	P/O no P/C, Addition of one emergency IC engine (A/N 459677)	0	0	0	0	0	0
	P/C, Installation of one IR-dry & one heat-set litho printing press (A/Ns 511011 and 512895)	0	0	0	0	0	0
	Remove Heidelberg M300 press under A/N 474113 (PO #F93206)	0	0	0	0	0	0
Cumulative Total		0	0	0	0	0	0
Maximum Daily		30	30	40	30	60	220

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

RECOMMENDATION:

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “de minimis significant permit revision”, it is exempt from the public participation requirements under Rule 3006(b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V permit will be issued to this facility with a P/O for this engine.